

# HP 8590 D/E Series Spectrum Analyzers

## Component-Level Information

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HP Part Number 5960-6570

### Table Of Contents

Reference Designator	Description	HP Part Number
N/A	General CLIP Information	5958-7060
A102	Demod/TV Line Trigger	5062-1982
A103	Demod/Quasi Peak Detector	5062-1983
A10	Tracking Generator Control	5062-6432
A101	20 MHz Fast ADC	5062-7079
A105	Gate Card	5062-7754
A3A1	Comb Generator	08569-60024/08569-60026
A10	Tracking Generator Control	5062-8231
A10	LODA Control	5062-8232
A14	Log Amplifier	5062-8261
A16	Processor	5062-8276
A111	Event Counter	5063-0214
A116	Cellular Demod/TV	5063-0234
A12	Amplitude Control	08590-60105
A17	Memory Card Reader	08590-60107
A20	HP-IB I/O	08590-60108
A21	RS-232 I/O	08590-60109
A5	Second Converter and Tripler	08590-60117/08590-60155
A10	Tracking Generator Control	08590-60196
A7	Analog Interface	08590-60197
A1A1	Keyboard	08590-60201
A11/A13	Bandwidth Filter	08590-60216
A22	10 MHz VCXO	08591-60048
A25	Counterlock	08591-60053
A15	IF Motherboard Driver	08591-60060/08590-60213
A7	Analog Interface	08592-60073
A9	3RD Converter	08593-60021
A7	Analog Interface	08594-60008
A7	Analog Interface	08595-60008

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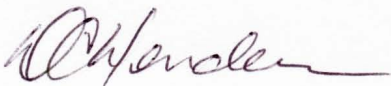
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# **Component-Level Information Packets**

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**Table 1. Reference Designations, Abbreviations, and Multipliers (1 of 4)**

REFERENCE DESIGNATIONS					
A	Assembly	F	Fuse	RT	Thermistor
AT	Attenuator, Isolator, Limiter, Termination	FL	Filter	S	Switch
B	Fan, Motor	HY	Circulator	T	Transformer
BT	Battery	J	Electrical Connector (Stationary Portion), Jack	TB	Terminal Board
C	Capacitor	K	Relay	TC	Thermocouple
CP	Coupler	L	Coil, Inductor	TP	Test Point
CR	Diode, Diode Thyristor, Step Recovery Diode, Varactor	M	Meter	U	Integrated Circuit, Microcircuit
DC	Directional Coupler	MP	Miscellaneous Mechanical Part	V	Electron Tube
DL	Delay Line	P	Electrical Connector (Movable Portion), Plug	VR	Breakdown Diode (Zener), Voltage Regulator
DS	Annunciator, Lamp, Light Emitting Diode (LED), Signaling Device (Visible)	Q	Silicon Controlled Rectifier (SCR), Transistor, Triode Thyristor	W	Cable, Wire, Jumper
E	Miscellaneous Electrical Part	R	Resistor	X	Socket
				Y	Crystal Unit (Piezoelectric, Quartz)
				Z	Tuned Cavity, Tuned Circuit
ABBREVIATIONS					
<b>A</b>		BSC	Basic	CNDCT	Conducting, Conductive, Conductivity, Conductor
A	Across Flats, Acrylic, Air (Dry Method), Ampere	BTN	Button		
ADJ	Adjust, Adjustment	<b>C</b>		CONT	Contact, Continuous, Control, Controller
ANSI	American National Standards Institute (formerly USASI-ASA)	C	Capacitance, Capacitor, Center Tapped, Cermet, Cold, Compression	CONV	Converter
ASSY	Assembly	CCP	Carbon Composition Plastic	CPRSN	Co mpression
AWG	American Wire Gage	CD	Cadmium, Card, Cord	CUP-PT	Cup Point
<b>B</b>		CER	Ceramic	CW	Clockwise, Continuous Wave
BCD	Binary Coded Decimal	CHAM	Chamfer		
BD	Board, Bundle	CHAR	Character, Characteristic, Charcoal	<b>D</b>	
BE-CU	Beryllium Copper	CMOS	Complementary Metal Oxide Semiconductor	D	Deep, Depletion, Depth, Diameter, Direct Current
BNC	Type of Connector			DA	Darlington
BRG	Bearing, Boring				
BRS	Brass				

## 2 General CLIP Information



**Table 1. Reference Designations, Abbreviations, and Multipliers (2 of 4)**

ABBREVIATIONS					
DAP-GL	Diallyl Phthalate Glass	FT	Current Gain Bandwidth Product (Transition Frequency), Feet, Foot	JFET	Junction Field Effect Transistor
DBL	Double				<b>K</b>
DCDR	Decoder				
DEG	Degree				
D-HOLE	D-Shaped Hole	FXD	Fixed	K	Kelvin, Key, Kilo, Potassium
DIA	Diameter		<b>G</b>	KNRLD	Knurled
DIP	Dual In-Line Package			KVDC	Kilovolts
DIP-SLDR	Dip Solder				Direct Current
D-MODE	Depletion Mode	GEN	General, Generator		
DO	Package Type Designation	GND	Ground		
DP	Deep, Depth, Dia- metric Pitch, Dip	GP	General Purpose, Group		<b>L</b>
DP3T	Double Pole Three Throw		<b>H</b>	LED	Light Emitting Diode
DPDT	Double Pole Double Throw	H	Henry, High	LG	Length, Long
DWL	Dowell	HDW	Hardware	LIN	Linear, Linearity
	<b>E</b>	HEX	Hexadecimal, Hexagon, Hexagonal	LK	Link, Lock
E-R	E-Ring	HLCL	Helical	LKG	Leakage, Locking
EXT	Extended, Extension, External, Extinguish	HP	Hewlett-Packard Company, High Pass	LUM	Luminous
	<b>F</b>		<b>I</b>		<b>M</b>
F	Fahrenheit, Farad, Female, Film (Resistor), Fixed, Flange, Frequency	IC	Collector Current, Integrated Circuit	M	Male, Maximum, Mega, Mil, Milli, Mode
FC	Carbon Film/ Composition, Edge of Cutoff Frequency, Face	ID	Identification, Inside Diameter	MA	Milliampere
FDTHRU	Feedthrough	IF	Forward Current, Intermediate Frequency	MACH	Machined
FEM	Female	IN	Inch	MAX	Maximum
FIL-HD	Fillister Head	INCL	Including	MC	Molded Carbon Composition
FL	Flash, Flat, Fluid	INT	Integral, Intensity, Internal	MET	Metal, Metallized
FLAT-PT	Flat Point		<b>J</b>	MHZ	Megahertz
FR	Front			MINTR	Miniature
FREQ	Frequency	J-FET	Junction Field Effect Transistor	MIT	Miter
				MLD	Mold, Molded
				MM	Magnetized Material, Millimeter
				MOM	Momentary
				MTG	Mounting
				MTLC	Metallic
				MW	Milliwatt

**Table 1. Reference Designations, Abbreviations, and Multipliers (3 of 4)**

ABBREVIATIONS					
	<b>N</b>	PLSTC	Plastic	SMA	Subminiature, A Type (Threaded Connector)
		PNL	Panel		
N	Nano, None	PNP	Positive Negative Positive (Transistor)	SMB	Subminiature, B Type (Slip-on Connector)
N-CHAN	N-Channel	POLYC	Polycarbonate		
NH	Nanohenry	POLYE	Polyester	SMC	Subminiature, C-Type (Threaded Connector)
NM	Nanometer, Nonmetallic	POT	Potentiometer		
NO	Normally Open, Number	POZI	Pozidriv Recess	SPCG	Spacing
NOM	Nominal	PREC	Precision	SPDT	Single Pole Double Throw
NPN	Negative Positive Negative (Transistor)	PRP	Purple, Purpose		
NS	Nanosecond, Non-Shorting, Nose	PSTN	Piston	SPST	Single Pole Single Throw
NUM	Numeric	PT	Part, Point, Pulse Time	SQ	Square
NYL	Nylon (Polyamide)	PW	Pulse Width	SST	Stainless Steel
				STL	Steel
	<b>O</b>		<b>Q</b>	SUBMIN	Subminiature
		Q	Figure of Merit	SZ	Size
OA	Over-All				
OD	Outside Diameter		<b>R</b>		
OP AMP	Operational Amplifier	R	Range, Red, Resistance, Resistor, Right, Ring		<b>T</b>
OPT	Optical, Option, Optional	REF	Reference	T	Teeth, Temperature, Thickness, Time, Timed, Tooth, Typical
	<b>P</b>	RES	Resistance, Resistor		
PA	Picoampere, Power Amplifier	RF	Radio Frequency	TA	Ambient Temperature, Tantalum
PAN-HD	Pan Head	RGD	Rigid		
PAR	Parallel, Parity	RND	Round	TC	Temperature Coefficient
PB	Lead (Metal), Pushbutton	RR	Rear		
PC	Printed Circuit	RVT	Rivet, Riveted	THD	Thread, Threaded
PCB	Printed Circuit Board		<b>S</b>	THK	Thick
P-CHAN	P-Channel	SAWR	Surface Acoustic Wave Resonator	TO	Package Type Designation
PD	Pad, Power Dissipation	SEG	Segment	TPG	Tapping
PF	Picofarad, Power Factor	SGL	Single	TR-HD	Truss Head
		SI	Silicon, Square Inch	TRMR	Trimmer
PKG	Package	SL	Slide, Slow	TRN	Turn, Turns
		SLT	Slot, Slotted	TRSN	Torsion

#### 4 General CLIP Information

**Table 1. Reference Designations, Abbreviations, and Multipliers (4 of 4)**

ABBREVIATIONS					
<b>U</b>		<b>VAR</b>	Variable	<b>Y</b>	
		<b>VDC</b>	Volts—Direct Current		
<b>UCD</b>	Microcandela			<b>YIG</b>	Yttrium-Iron-Garnet
<b>UF</b>	Microfarad				
<b>UH</b>	Microhenry	<b>W</b>			
<b>UL</b>	Microliter,				
	Underwriters'	<b>W</b>	Watt, Wattage,	<b>Z</b>	
	Laboratories, Inc.		White, Wide, Width		
<b>UNHDND</b>	Unhardened	<b>W/SW</b>	With Switch	<b>ZNR</b>	Zener
		<b>WW</b>	Wire Wound		
<b>V</b>		<b>X</b>			
<b>V</b>	Variable, Violet,				
	Volt, Voltage	<b>X</b>	By (Used with		
<b>VAC</b>	Vacuum, Volts—		Dimensions),		
	Alternating Current		Reactance		

MULTIPLIERS					
Abbreviation	Prefix	Multiple	Abbreviation	Prefix	Multiple
T	tera	$10^{12}$	m	milli	$10^{-3}$
G	giga	$10^9$	$\mu$	micro	$10^{-6}$
M	mega	$10^6$	n	nano	$10^{-9}$
k	kilo	$10^3$	p	pico	$10^{-12}$
da	deka	$10^2$	f	femto	$10^{-15}$
d	deci	$10^{-1}$	a	atto	$10^{-18}$
c	centi	$10^{-2}$			

**Table 2. Manufacturers Code List**

<b>Mfr Code</b>	<b>Manufacturer Name</b>	<b>Address</b>	<b>Country</b>	<b>ZIP Code</b>
00039	NEC ELECTRONICS INC	MTN VIEW, CA	US	94043
00046	UNITRODE CORP	LEXINGTON, MA	US	02173
00075	ARIZONA COIL INC	NOGALES, AZ	US	85621
00273	STILLWATER MFG CO	EAST FREEDOM, MA	US	02717
00278	MCCOY ELECTRONICS CO	HOLLY SPRINGS, PA	US	17065
00350	EXAR INTEGRATED SYSTEMS INC	SUNNYVALE, CA	US	94086
00466	NORELCO NORTH AMER PHILIPS LTG CORP	LOS ANGELES, CA	US	90021
00493	UNITED CHEMI-CON INC	COMPTON, CA	US	90220
00746	ROHM CORP	IRVINE, CA	US	92713
00779	NICHICON (AMERICA) CORP	SCHAUMBERG, IL	US	60195
00830	KYOCERA INTERNATIONAL INC	SAN DIEGO, CA	US	
00901	UNION CARBIDE CORP	DANBURY, CT	US	06810
01064	SCHAAL BROS INC	BERTHOUD, CO	US	80513
01074	HOLSWORTHY ELECTRONICS LTD	HOLSWORTHY	EG	
01128	RES-NET CORP	WHIPPANY, NJ	US	07981
01131	WESTERN THERMISTOR CORP	OCEANSIDE, CA	US	92054
01136	ELCO INDUSTRIES INC	ROCKFORD, IL	US	61125
01172	R C D COMPONENTS INC	BEDFORD, NH	US	03102
01185	MAGNET WIRE CORP	NEW YORK, NY	US	10013
01230	AEROVOX CORP	NEW BEDFORD, MA	US	02741
01250	GTE SYLVANIA ELEK COMPONENTS GROUP	WALTHAM, MA	US	02154
01339	GETTIG ENGRG & MFG CO INC	SPRING MILLS, PA	US	16875
01380	AMP INC	HARRISBURG, PA	US	17111
01409	CROVEN CRYSTALS	WHITBY	CN	L1N 5
01417	NEL FREQUENCY CONTROLS INC	BURLINGTON, WI	US	53105
01452	SANGAMO WESTON INC	NORCROSS, GA	US	30071
01461	GOE ENGINEERING CO INC	ONTARIO, CA	US	91761
01468	STETTNER & CO	LAUF	GM	D-856
01478	BOYD CORP	PLEASANTON, CA	US	94566
01542	HP DIV 01 SAN JOSE COMPONENTS	SAN JOSE, CA	US	95131
01590	PLESSEY SEMICONDUCTORS	SANTA ANA, CA	US	92705
01607	ALLEN-BRADLEY CO INC	EL PASO, TX	US	79935
01688	MURATA CORPORATION OF AMERICA	MARIETTA, GA	US	30067
01691	TRW INC SEMICONDUCTOR DIV	LAWNDALE, CA	US	90260
01698	TEXAS INSTRUMENTS INC	DALLAS, TX	US	75265
01708	JUBULATION	SANTA CRUZ, CA	US	95060
01736	ALLIED ELECTRONICS CORP	CHICAGO, IL	US	60612
01760	MATSUO ELECTRONICS OF AMERICA	HUNTINGTON BEACH, CA	US	90245
01795	SYNERTEK	SANTA CLARA, CA	US	95051
01850	AROMAT CORP	MOUNTAINSIDE, NJ	US	07092
01854	RCL ELECTRONICS INC	NORTHBROOK, IL	US	60062
01869	PULSE ENGINEERING INC	SAN DIEGO, CA	US	92111
01876	HR DIV 02 SCD IC'S	SANTA CLARA, CA	US	95050
01885	HAMILTON STANDARD CONTROLS INC	WINDWOR LOCKS, CT	US	06096
01886	COILCRAFT INC	CARY, IL	US	60013
01887	FERROXCUBE CORP	SAUGERTIES, NY	US	12477

**6 General CLIP Information**

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Table 2. Manufacturers Code List (continued)

Mfr Code	Manufacturer Name	Address	Country	ZIP Code
01898	HI-G CO INC	HARTFORD, CT	US	06114
01916	BUNKER RAMO CORP AMPHENOL CONN DIV	BROADVILLE, IL	US	60153
01921	RCA CORP	NEW YORK, NY	US	10112
01923	NYLOGRIP PRODUCTS	WALTHAM, MA	US	02154
01924	ITW FASTEX	DES PLAINES, IL	US	60016
01939	ELPAC INC COMPONENTS DIV	IRVINE, CA	US	92664
01943	HP DIV 04 SPD CABLES 64	PALO ALTO, CA	US	94304
01953	HP DIV 04 SPD MOLDING 91	PALO ALTO, CA	US	94304
01973	GE CO SEMICONDUCTOR PROD DEPT	AUBURN, NY	US	13201
01991	TRANSITRON ELECTRONIC CORP	WAKEFIELD, MA	US	01880
01992	KDI PYROFILM CORP	WHIPPANY, NJ	US	07981
01993	MARKEL CORP	NORRISTOWN, PA	US	19404
02010	AVX CORP	GREAT NECK, NY	US	11021
02030	NATIONAL WIRE & CABLE CO INC	LOS ANGELES, CA	US	90031
02037	MOTOROLA INC	ROSELLE, IL	US	60195
02038	UNICORP	ORANGE, NJ	US	07050
02062	HP DIV 05 MSD	SAN JOSE, CA	US	94304
02086	WESTINGHOUSE ELEC CORP SEMICON DEPT	YOUNGWOOD, PA	US	15697
02091	ULTRONIX INC	GRAND JUNCTION, CO	US	81501
02123	EG & G INC	WELLESLEY, MA	US	02181
02139	MEPCO/ELECTRA INC	MORRISTOWN, NJ	US	07960
02145	RAYCHEM CORP	MENLO PARK, CA	US	94025
02160	PANDUIT CORP	TINLEY PARK, IL	US	60477
02170	AMATOM ELEK HARDWARE DIV OF MITE	NEW ROCHELLE, NY	US	06515
02172	JEFFERS ELECTRONICS INC	NOGALES, AZ	US	85621
02180	PRECISION MONOLITHICS INC	SANTA CLARA, CA	US	95054
02191	CORNING COMPONENTS INC	CORNING, NY	US	14830
02194	ROBINSON NUGENT INC	NEW ALBANY, IN	US	47150
02210	MILTON ROSS CO	SOUTHAMPTON, PA	US	18966
02215	KELVIN ELECTRIC CO	VAN NUYS, CA	US	91401
02236	SILICON TRANSISTOR CORP	CHELMSFORD, MA	US	11530
02237	FAIRCHILD SEMICONDUCTOR CORP	CUPERTINO, CA	US	95014
02273	TRW INC BURLINGTON DIV	BURLINGTON, IA	US	52601
02290	RAYTHEON CO SEMICONDUCTOR DIV HQ	MOUNTAIN VIEW, CA	US	94040
02296	HP DIV 08 COLO SPRGS	COLORADO SPRGS, CO	US	80907
02344	GE CO MINIATURE LAMP PROD DEPT	CLEVELAND, OH	US	44112
02362	HP DIV 09 LID COMPONENTS	LOVELAND, CO	US	80537
02363	HP DIV C5 COLORADO IC	FT COLLINS, CO	US	80525
02366	KOA SPEER ELECTRONICS INC	BRADFORD, PA	US	16701
02367	CORNELL-DUBILIER/SANGAMO	WAYNE, NJ	US	07470
02379	TEXAS CAPACITOR CO INC	HOUSTON, TX	US	77036
02392	C & K COMPONENTS INC	NEWTON, MA	US	02158
02408	DIXON INDUSTRIES CORPORATION	BRISTOL, RI	US	02809
02414	BURNDY CORP	NORWALK, CT	US	06856
02415	DALE ELECTRONICS INC	YANKTON, SD	US	57078
02440	THOMPSON BREMER DIV VARE	CHICAGO, IL	US	60622

**Table 2. Manufacturers Code List (continued)**

<b>Mfr Code</b>	<b>Manufacturer Name</b>	<b>Address</b>	<b>Country</b>	<b>ZIP Code</b>
02465	ANILLO INDUSTRIES INC	ORANGE, CA	US	92667
02483	CTS CORP	ELKHART, IN	US	46514
02484	CTS CORP PASO ROBLES	PASO ROBLES, CA	US	93446
02499	IRC INC	BOONE, NC	US	28607
02501	TELEDYNE INDUSTRIES INC	LOS ANGELES, CA	US	90067
02556	MONTROSE PRODUCTS CO	AUBURN, MA	US	01501
02567	OMTRONICS MFG INC	OMAHA, NE	US	68105
02569	CRYSTALONICS, DIV TELEDYNE	CAMBRIDGE, MA	US	02140
02572	TELEDYNE THERMATICS	ELM CITY, NC	US	27822
02574	RLC ELECTRONICS INS	MT KISCO, NY	US	10549
02577	HAMLIN INC	LAKE MILLS, WI	US	53551
02582	CLAROSTAT MFG CO INC	DOVER, NH	US	03820
02598	UNITRODE CORP	WATERTOWN, MA	US	02172
02603	NATIONAL WIRE & STAMPING INC	ENGLEWOOD, CO	US	80110
02608	THERMALLOY INC	DALLAS, TX	US	75234
02619	SOLITRON DEVICES INC (DIODES)	TAPPAN, NY	US	10983
02634	SPRAGUE ELECTRIC SEMICON DIV	CONCORD, NH	US	03301
02664	SEMTECH CORP	NEWBURY PARK, CA	US	91320
02668	EDISON ELEK DIV MCGRAW-EDISON	MANCHESTER, NH	US	03130
02675	AMERICAN COMPONENTS INC	CONSHOHOCKEN, PA	US	19428
02682	ITT SEMICONDUCTORS DIV	TUSTIN, CA	US	92680
02685	LOBAUGH ROLLIN J	SOUTH SAN FRANC, CA	US	94080
02686	WATKINS-JOHNSON CO	PALO ALTO, CA	US	94304
02688	MICROSEMI CORP	SCOTSDALE, AZ	US	85252
02696	CORNING GLASS WORKS ELEK PROD DIV	CORNING, NY	US	14830
02706	WARD LEONARD HAGERSTOWN DIV	HAGERSTOWN, MD	US	21740
02713	GENERAL INSTRUMENT CORP (DIODE)	HICKSVILLE, NY	US	11802
02718	VALOR ELECTRONICS INC	SANTA ANA, CA	US	92705
02734	AMETEK INC RODAN DIV	ANAHEIM, CA	US	92806
02739	MINI-CIRCUITS LAB	BROOKLYN, NY	US	11235
02744	ELEC-TROL INC	SAUGUS, CA	US	91350
02761	FENWAL ELECTRONICS INC	SADDLE BROOK, NJ	US	07662
02763	TELEDYNE SEMICONDUCTOR	MOUNTAIN VIEW, CA	US	94043
02771	ANSLEY ELECTRIC	LOS ANGELES, CA	US	90032
02788	M/A-COM INC	BURLINGTON, MA	US	01803
02798	CORNING ELECTRONICS	RALEIGH, NC	US	27604
02803	CODI SEMICONDUCTOR	LINDEN, NJ	US	07410
02805	COOPER INDUSTRIES INC	HOUSTON, TX	US	77210
02813	U S CAPACITOR CORP	BURBANK, CA	US	91504
02826	DENNISON MFG CO	FRAMINGHAM, MA	US	01701
02856	MOHAWK SPRING CO INC	ARLINGTON HEIGH, IL	US	60008
02865	ALPHA INDUSTRIES INC	WOBURN, MA	US	01801
02877	ANGSTROHM PRECISION INC	VAN NUYS, CA	US	91405
02883	SILICONIX INC	SANTA CLARA, CA	US	95054
02910	SIGNETICS CORP	SUNNYVALE, CA	US	94086
02923	CHOMERICS INC	WOBURN, MA	US	01801

## 8 General CLIP Information



Table 2. Manufacturers Code List (continued)

Mfr Code	Manufacturer Name	Address	Country	ZIP Code
02928	VISHAY INTERTECHNOLOGY INC	MALVERN, PA	US	19355
02937	VOLTRONICS CORP	HANOVER, NJ	US	07936
02946	DUPONT E I DE NEMOURS & CO	WILMINGTON, DE	US	19801
02995	MEPCO/CENTRALAB INC	RIVIERA, FL	US	33404
03038	INTL RECTIFIER CORP	LOS ANGELES, CA	US	90069
03122	EMCON DIV ITW	SAN DIEGO, CA	US	92129
03123	MICRO-OHM CORP	EL TORO, CA	US	92630
03171	SOLITRON DEVICES INC	PALM BEACH, FL	US	33404
03172	TRW MICROWAVE	SUNNYVALE, CA	US	94086
03174	ANZAC ELEK DIV ADAMS-RUSSEL CO INC	WALTHAM, MA	US	02154
03206	DUPONT CONNECTOR SYSTEMS	CAMP HILL, PA	US	17011
03232	PRODUCT COMPONENT CORP	MT VERNON, NY	US	10553
03239	WAVETEK	SAN DIEGO, CA	US	92111
03257	M-TRON INDUSTRIES INC	YANKTON, SD	US	57078
03259	STANFORD APPLIED ENGINEERING	SANTA CLARA, CA	US	95054
03263	ELECTRONIZED CHEMICALS CORP	BURLINGTON, MA	US	01803
03273	GOWANDA ELECTRONICS CORP	GOWANDA, NY	US	14070
03282	GENERAL CABLE CORP	NEW YORK, NY	US	10017
03285	ANALOG DEVICES INC	NORWOOD, MA	US	02062
03291	AVANTEK INC	SANTA CLARA, CA	US	95054
03292	CORNING GLASS WORKS	CORNING, NY	US	14830
03297	EMC TECHNOLOGY INC	CHERRY HILL, NJ	US	08034
03316	SPECIALTY CONNECTOR CO	FRANKLIN, IN	US	46131
03317	AEG-TELEFUNKEN CORP	ENGLEWOOD, NJ	US	07632
03334	NV PHILIPS ELCOMA	EINDHOVEN	NE	02876
03352	SWISS AUTOMATICS INC	COLUMBUS, NE	US	68601
03371	USM CORP NYLOK FASTENER DIV	TORRANCE, CA	US	90501
03380	GRIES/DYNACAST CO DIV COATES-CLARK	NEW ROCHELLE, NY	US	10802
03389	VARADYNE INC	SANTA MONICA, CA	US	90404
03394	METHODE ELECTRONICS INC	CHICAGO, IL	US	60656
03395	MEPCO/CENTRALAB INC	WEST PALM BEACH, FL	US	33407
03406	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA, CA	US	95052
03412	CORNING GLASS WORKS (WILMINGTON)	WILMINGTON, NC	US	28401
03418	MOLEX INC	LISLE, IL	US	60532
03428	NONOTUCK MFG CO	HADLEY FALLS, MA	US	01075
03441	F-DYNE ELECTRONICS CO	BRIDGEPORT, CT	US	06605
03521	JOHANSON DIELECTRICS INC	BURBANK, CA	US	91510
03530	STACKPOLE COMPONENT CO	RALEIGH, NC	US	27620
03545	TELEDYNE PHILBRICK NEXUS	DEDHAM, MA	US	02026
03594	CARTER SEMICONDUCTORS	LOWELL, MA	US	01850
03621	M/A-COM CABLEWAVE MINI PROD	BURLINGTON, MA	US	01803
03627	SOLID STATE DEVICES INC	LA MIRADA, CA	US	90638
03647	INSTRUMENT SPECIALTIES CO INC	DEL WATER GAP, PA	US	07424
03651	MEPCO/ELECTRA CORP	SAN DIEGO, CA	US	92121
03658	ALPHA IND MICROELECTRONICS DIVISION	COLMAR, PA	US	18915
03706	WEST-CAP ARIZONA	SAN FERNANDO, CA	US	91340

**Table 2. Manufacturers Code List (continued)**

<b>Mfr Code</b>	<b>Manufacturer Name</b>	<b>Address</b>	<b>Country</b>	<b>ZIP Code</b>
03714	INTERSIL INC	CUPERTINO, CA	CA	95014
03724	BIVAR INC	SANTA ANA, CA	US	92705
03740	ERIE TECH PROD INC ERIE FREQ CONT	CARLISLE, PA	US	17013
03744	BOURNS INC	RIVERSIDE, CA	US	92507
03746	SPECTRUM CONTROL INC	ERIE, PA	US	16505
03747	COLORADO CRYSTAL CORP	LOVELAND, CO	US	80537
03762	TELE-TECH CORP	BOZEMAN, MT	US	59771
03793	SILICON GENERAL INC	SAN JOSE, CA	US	95134
03794	ADVANCED MICRO DEVICES INC	SUNNYVALE, CA	US	94086
03795	MOTOROLA INC	FRANKLIN PARK, IL	US	60131
03799	HARRIS CORP	MELBOURNE, FL	US	32901
03811	INTEL CORP	SANTA CLARA, CA	US	95054
03827	FAIR RITE PRODUCTS CORP	WALLKILL, NY	US	12589
03849	MICROSYSTEMS INTERNATIONAL LTD	OTTAWA	CN	
03910	GENERAL ELECTRIC CO	PHILADELPHIA, PA	US	19124
03923	SIEMENS CORP	ISELIN, NJ	US	08830
03938	MIDLAND-ROSS CORP	CLEVELAND, OH	US	44113
03972	OHMITE MFG CO	SKOKIE, IL	US	60076
03973	HP DIV 45 NMD	SANTA ROSA, CA	US	95401
04068	LABINAL COMPONENTS & SYSTEMS INC	ELK GROVE VILLA, IL	US	60007
04078	SGS-THOMSON MICROELECTRONICS INC	PHOENIX, AZ	US	85022
04092	MONOLITHIC MEMORIES INC	SANTA CLARA, CA	US	95054
04121	SEMICONDUCTOR CIRCUITS INC	HAVERHILL, MA	US	01830
04150	VICLAN INC	SAN DIEGO, CA	US	92138
04169	SANGAMO ELECTRIC CO	SPRINGFIELD, IL	US	62702
04181	AHAM-TOR	RANCHO, CA	US	91702
04182	SHALLCROSS INC	NORTHBROK, IL	US	60062
04200	SPRAGUE ELECTRIC CO	LEXINGTON, MA	US	02173
04204	SPS TECHNOLOGIES	NEWTOWN, PA	US	18940
04213	STIMPSON EDWIN B CO INC	BROOKLYN, NY	US	11705
04225	THOMAS & BETTS CORP	RARITAN, NJ	US	08869
04234	DELBERT BLINN CO	POMONA, CA	US	91766
04261	INSULECTRO CORP	BURLINGAME, CA	US	94010
04314	VLN CORP VICTOREEN INSTRUMENT DIV	CLEVELAND, OH	US	44103
04379	AMETEK INC	PAOLI, PA	US	19301
04393	CENTRE ENGINEERING INC	STATE COLLEGE, PA	US	16801
04418	ALLEN MFG CO	HARTFORD, CT	US	06101
04423	G.E. CERAMICS, INC.	CHATTANOOGA, TN	US	37405
04458	BLILEY ELECTRIC CO	ERIE, PA	US	16508
04464	BRAND REX CO	WILLIMANTIC, CT	US	06226
04475	CAMBRIDGE THERMIONIC CORP	CAMBRIDGE, MA	US	02138
04486	ITT CORP	NEW YORK, NY	US	10022
04492	CENTRALAB INC	MILWAUKEE, WI	US	53209
04504	GENERAL INSTRUMENT CORP	CLIFTON, NJ	US	07012
04507	TRW INC	CLEVELAND, OH	US	44124
04514	DOW CORNING CORP	MIDLAND, MI	US	48641

## 10 General CLIP Information

**Table 2. Manufacturers Code List (continued)**

<b>Mfr Code</b>	<b>Manufacturer Name</b>	<b>Address</b>	<b>Country</b>	<b>ZIP Code</b>
04522	ELECTRO MOTIVE CORP	FLORENCE, SC	US	06226
04550	GENERAL ELECTRIC CO	FAIRFIELD, CT	US	06430
04563	ERIE TECHNOLOGICAL PRODUCTS INC	ERIE, PA	US	16512
04564	ESSEX INTERNATIONAL INC	FORT WAYNE, IN	US	46804
04567	ITT HARPER DIV	CHICAGO, IL	US	60606
04568	BECKMAN INDUSTRIAL CORP	FULLERTON, CA	US	92635
04581	BARWOOD MFG CORP	EVERETT, MA	US	02149
04605	FISCHER SPECIAL MFG CO	CINCINNATI, OH	US	45206
04615	J F D ELECTRONICS CORP	BROOKLYN, NY	US	11219
04645	SIGNALITE DIV GENERAL INST CORP	NEPTUNE, NJ	US	07753
04648	PIEZO CRYSTAL CO	CARLSILE, PA	US	17013
04670	EF JOHNSON CO	WASECA, MN	US	56093
04672	TRW INC PHILADELPHIA DIV	PHILADELPHIA, PA	US	19108
04703	LITTELFUSE INC	DES PLAINES, IL	US	60016
04719	MARWEDEL C W	SAN FRANCISCO, CA	US	94103
04726	3M CO	ST PAUL, MN	US	55144
04733	BELL INDUSTRIES INC MILLER JW DIV	COMPTON, CA	US	90224
04757	OAK SWITCH SYSTEMS INC	CRYSTAL LAKE, IL	US	60014
04776	POTTER & BRUMFIELD INC	PRINCETON, IN	US	47671
04805	ILLINOIS TOOL WORKS INC SHAKEPROOF	ELGIN, IL	US	60126
04821	TILLEY MFG CO	MORGAN HILL, CA	US	94070
04822	STACKPOLE CARBON CO	ST MARYS, PA	US	15857
04828	TINNERMAN PRODUCTS INC	CLEVELAND, OH	US	44101
04830	STEWART STAMPING CORP	YONKERS, NY	US	10704
04853	VARFLEX CORP	ROME, NY	US	13440
04880	ZIERICK MFG CO	MT KISCO, NY	US	10549
04935	MEPCO ELECTRA CORP	MORRISTOWN, NJ	US	07960
04939	SCHNITZER ALLOY PRODUCTS CO	ELIZABETH, NJ	US	07206
04977	ITT CORP COMPONENTS DIV	NEW YORK, NY	US	10022
04990	GRAYHILL INC	LA GRANGE, IL	US	60525
05016	MONITOR PRODUCTS CO INC	OCEANSIDE, CA	US	92054
05065	TEXAS INSTRUMENTS INC	ATTLEBORO, MA	US	02703
05088	VARO INC	GARLAND, TX	US	75046
05098	VICTORY ENGINEERING CORP	SPRINGFIELD, NJ	US	07081
05108	KULKA-SMITH INC	MANASQUAN, NJ	US	08736
05131	ELECTRONIC DEVICES INC	YONKERS, NY	US	10710
05160	VRN INTERNATIONAL	ST PETERSBURG, FL	US	33710
05176	AMERICAN SHIZUKI CORP	CANOCA PARK, CA	US	91304
05232	BRADY W H CO	MILWAUKEE, WI	US	53209
05293	PRECISION METAL PRODUCT CO	STONEHAM, MA	US	02180
05347	UNIMICA	NEW YORK, NY	US	10013
05350	WILMINGTON FIBRE SPECIALTY CO	NEW CASTLE, DE	US	19720
05364	LITTON PRECISION PROD INC	VAN NUYS, CA	US	91409
05368	FCP INC	OLATHE, KS	US	66062
05400	REESE J RAMSEY INC	NEW YORK, NY	US	10007
05436	BURR-BROWN CORP	TUCSON, AZ	US	85706

**Table 2. Manufacturers Code List (continued)**

<b>Mfr Code</b>	<b>Manufacturer Name</b>	<b>Address</b>	<b>Country</b>	<b>ZIP Code</b>
05447	BERGQUIST CO	MINNEAPOLIS, MN	US	55420
05453	ICO-RALLY CORP	SUNNYVALE, CA	US	94303
05461	ITT HARPER INC	MORTON GROVE, IL	US	60053
05466	EMHART CORP	FARMINGTON, CT	US	06032
05507	MILLER DIAL & NAMEPLATE CO	EL MONTE, CA	US	91734
05518	AUGAT INC	MANSFIELD, MA	US	02048
05524	DALE ELECTRONICS INC	COLUMBUS, NE	US	68601
05535	KEYSTONE ELECTRONICS CORP	NEW YORK, NY	US	10012
05545	NATIONAL TEL TRONICS CORP	YONKERS, NY	US	10701
05559	ALPHA WIRE CORP	ELIZABETH, NJ	US	07207
05568	JACOBSON MFG CO INC	KENILWORTH, NJ	US	07033
05589	UNIFORM TUBES	COLLEGEVILLE, PA	US	19426
05623	CAMDEN WIRE CO INC	CAMDEN, NY	US	13316
05630	WESTON COMPONENTS	ARCHBALD, PA	US	18403
05648	MAGNECRAFT ELECTRIC CO	CHICAGO, IL	US	60630
05661	ALCO ELECTRONIC PRODUCTS INC	NORTH ANDOVER, MA	US	01845
05668	VITRAMON INC	MONROE, CT	US	06468
05683	WECKESSER CO INC	CHICAGO, IL	US	60641
05704	SAN FERNANDO ELECTRIC MFG CO	SAN FERNANDO, CA	US	91341
05742	P C A ELECTRONICS INC	SEPULVEDA, CA	US	91343
05768	MALCO-A MICRODOT CO	PASADENA, CA	US	91030
05769	ITT SEAELECTRO CORP	TRUMBULL, CT	US	06611
05792	INTL ELECTRONIC RESEARCH CORP	BURBANK, CA	US	91502
05809	MARSHALL IND CAPACITOR DIV	MONROVIA, CA	US	91016
05826	AMER PRCN IND INC DELEVAN DIV	AURORA, NY	US	14052
05879	AMPHENOL CORPORATION	DANBURY, CT	US	06810
05917	RIFA AB	STOCKHOLM	SW	S-163
05943	TEXAS INSTRUMENTS DEUTSCHLAND GMBH	FREISING	GM	8050
05946	VALVO GMBH	HAMBURG	GM	2000
05951	WICKMANN-WERKE A G	WITTEN-ANNEN	GM	5870
05959	MARQUARDT GMBH	RIETHEIM	GM	D-720
05967	VTM A/S	GLOSTRUP	DK	2080
05982	CELDUC CONSTR ELECTRIQUES DU CENTRE	SORBIERS	FR	42
05985	SESCOSEM	SAINT EGREVE	FR	75781
05992	EFCO COMPOSANTS	NANTERRE	FR	
05993	CORNING GLASS EUROPE SOVCOR	LE VESINET	FR	
06003	SESCOSEM (63)	PARIS	FR	75781
06032	STC/STANTEL	DEVON	EG	
06039	SEAELECTRO LTD	PORTSMOUTH	EG	
06058	BOURNS TRIMPOT LTD	MIDDLESEX	EG	
06118	ROEDERSTEIN/RESISTA GMBH	LANDSHUT	GM	8300
06121	SIEMENS AG	MUNICH	GM	8000
06127	WIMA	MANNHEIM	GM	6800
06252	AB ELEKTRONIK GMBH	SALZBURG	AU	A-501
06328	SCHURTER AG	LUZERN	SW	CH-60
06330	CONDENSATEURS FRIBOURG S A	FRIBOURG	SW	

## 12 General CLIP Information

**Table 2. Manufacturers Code List (continued)**

<b>Mfr Code</b>	<b>Manufacturer Name</b>	<b>Address</b>	<b>Country</b>	<b>ZIP Code</b>
06337	PHILLIPS GLOEILAMPENFABRIEKEN N V	EINDHOVEN	HL	
06344	FUJITSU MICROELECTRONICS INC	SANTA CLARA, CA	US	95054
06347	HITACHI AMERICA LTD	SUNNYVALE, CA	US	94086
06352	TDK CORPORATION OF AMERICA	SKOKIE, IL	US	60076
06354	TOSHIBA CORP	TOKYO	JP	
06424	E-SIL COMPONENTS LTD	SUNDERLAND	EG	SR4 6
06501	BARBER & COLEMAN LTD	SALE CHES	EG	
06563	SIEMENS CORP COMPONENTS GROUP	SCOTTSDALE, AZ	US	85252
06650	AEG-TELEFUNKEN	HEILBRONN	GM	7100
06665	SAMTEC	NEW ALBANY, IN	US	47150
06784	MIDWEST COMPONENTS	MUSKEGON, MI	US	49443
06857	TRAK MICROWAVE CORP	TAMPA, FL	US	33614
06860	HUBER & SUHNER AG	HERISAU	SW	
06900	JUDD WIRE	BURLINGTON, MA	US	01803
06916	SONY CORP	TOYKO	JP	141
06951	TRW RESISTIVE PRODUCTS DIV	CORPUS CHRISTI, TX	US	78411
07041	R.A.F. ELECTRONIC HARDWARE INC	STRATFORD, CT	US	06497
07050	MICRO POWER SYSTEMS	SANTA CLARA, CA	US	95050
07158	EATON CORP	CLEVELAND, OH	US	44144
07179	AAVID ENGINEERING INC	LACONIA, NH	US	03247
07221	SUPERTEX INC	SUNNYVALE, CA	US	94086
07284	PAKTRON DIV ITW	VIENNA, VA	US	22180
07338	J K L COMPONENTS CORP	LOS ANGELES, CA	US	90064
07379	SAN-O INDUSTRIAL CORP	BOHEMIA LI, NY	US	11716
07398	BEL FUSE INC	JERSEY CITY, NJ	US	07302
07477	AMERICAN OIL & SUPPLY CO	NEWARK, NJ	US	07105
07766	LA RADIOTECHNIQUE COMPELEC	VILLEVRBANNE	FR	
07798	REMTEK CORP	SUNNYVALE, CA	US	
08097	SPRAGUE-GOODMAN ELECTRONICS	NEW HYDE PARK, NY	US	11040
08113	KAHGAN ELECTRONICS CORP	HEMPSTEAD, NY	US	11550
08123	COIL-Q CORP	BRONXVILLE, NY	US	
08259	DALE ELECTRONICS INC	TEMPE, AZ	US	85252
08261	STAR MICRONICS INC	NEW YORK, NY	US	
08335	SOURIAU INC	SAUGUS, CA	US	95203
08369	FILECA	STE GENEVIEVE	FR	
08560	OXLEY DEV LTD	CUMBRIA	EG	
08666	PANEL COMPONENTS CORP	SANTA ROSA, CA	US	
08709	PANASONIC INDUSTRIAL CO	SECAUCUS, NJ	US	07094
08778	MADISON CABLE CORP	WORCHESTER, MA	US	01603
08779	MITSUBISHI ELECTRONICS AMERICA	SUNNYVALE, CA	US	94086
08781	CATALYST RESEARCH CORP	BALTIMORE, MD	US	
08810	ROCKWELL INTERNATIONAL	ANAHEIM, CA	US	
08838	AND (ALPHA NUMERIC DISPLAYS)	BURLINGAME, CA	US	
08852	METELICS CORP	SUNNYVALE, CA	US	
09043	GLOW-LITE DIV OF DUTCH BOY	PAULS VALLEY, OK	US	
09050	XENELL	WYNNEWOOD, OK	US	

**Table 2. Manufacturers Code List (continued)**

<b>Mfr Code</b>	<b>Manufacturer Name</b>	<b>Address</b>	<b>Country</b>	<b>ZIP Code</b>
09126	ASJ PTE LTD	JURONG TOWN	SG	
09171	RHOMBUS INDUSTRIES INC	HUNTINGTON BEACH, CA	US	92649
09226	NEC ELECTRONICS INC	SANTA CLARA, CA	US	
09235	FOX ELECTRONICS	FT MEYERS, FL	US	33910
09283	TOPAZ SEMICONDUCTOR	SAN JOSE, CA	US	95132
09441	APPLIED ENGINEERING PRODUCT CO	HAMDEN, CT	US	
09448	WAMCO INC	FOUNTAIN VALLEY, CA	US	
09454	PRECISION RESISTIVE PRODS INC	MEDIAPOLIS, IA	US	52637
09507	HP DIV 53 SAD	ROHNERT PARK, CA	US	94928
09538	TUSONIX	TUCSON, AZ	US	85740
09684	ELECTRONIC ESSENTIALS	WOODSIDE, NY	US	
09849	NDK AMERICA INC	CUPERTINO, CA	US	54014
09855	KOWASANGYO CORP	TOKYO	JP	
09859	CERA-MITE CORP	GRAFTON, WI	US	53024
09862	HITACHI CABLE LTD	TOKYO	JP	
09914	UNITRODE CORP	LEXINGTON, MA	US	
09939	MURATA ERIE NORTH AMERICA INC	SMYRNA, GA	US	30080
09955	BOYD CORP	DENVER, CO	US	
10183	TADIRAN	TEL-AVIV	IS	
10200	ELECTRONIC CONCEPTS INC	EATONTOWN, NJ	US	
10290	COMMODORE SEMICONDUCTOR GROUP	NORRISTOWN, PA	US	
10302	CENTENNIAL PLASTICS	YELLVIELLE, AR	US	
10358	VOGT AG	LOSTORF	GM	
10401	NEW SYSTEMS MOLDING CORP	LOVELAND, CO	US	80537
10407	LSI LOGIC CORP	MILPITAS, CA	US	95035
10421	EPSON	TORRENCE, CA	US	
10443	HP DIV 64 NID	CORVALLIS, OR	US	
10456	PLASTEC PRODUCTS INC	FORT COLLINS, CO	US	
10457	JERMYN INDUSTRIES LTD (63)	KENT SEVENOAKS	EG	
10481	DALE ELECTRONICS INC	NORFOLK, NE	US	68701
10549	SCI MANUFACTURING INC	HUNTSVILLE, AL	US	35805
10572	XICOR, INC	MILPITAS, CA	US	
10631	GASKET SPECIALTIES	BRISBANE, CA	US	
10784	SHINNITOKU ELECTRIC CO LTD	MINATO-KU TOKYO	JP	145
10795	STANDEX - PAUL SMITH DIVISION	CINCINNATI, OH	US	
10858	LINEAR TECHNOLOGY CORP	MILPITAS, CA	US	95035
10881	THOMSON-CSF	COURBEVOIE	FR	
10905	FIRA	LYON	FR	
11047	TEKA PRODUCTS INC	WOODSIDE, NY	US	
11111	SEEQ TECHNOLOGY INC	SAN JOSE, CA	US	
11171	SYNERGY MICROWAVE CORP	FAIRFIELD, NJ	US	
11187	VLSI TECHNOLOGY INC	SAN JOSE, CA	US	95131
11212	INDUCTOR SUPPLY, INC.	HUNTINGTON BEACH, CA	US	
11248	MICRON DIV OF R G ALLEN CO INC	NORTH HOLLYWOOD, CA	US	
11263	W GUNTHER GMBH	NURNBERG	GM	
11298	AVEL-LINDBURG	DANBURY	CT	

#### 14 General CLIP Information



**Table 2. Manufacturers Code List (continued)**

<b>Mfr Code</b>	<b>Manufacturer Name</b>	<b>Address</b>	<b>Country</b>	<b>ZIP Code</b>
11345	CYPRESS SEMICONDUCTOR CORP	SAN JOSE, CA	US	95134
11357	BRISTOL ROYAL WORKSHOP BLIND	BRISTOL	EG	
11412	ISOLANTITE MFG COMPANY INC	STIRLING, NJ	US	
11421	KYOCERA CORPORATION	KYOTO	JP	
11599	MICRO-COAX COMPONENTS, INC	COLLEGEVILLE, PA	US	19426
11677	SARONIX	PALO ALTO, CA	US	
11684	JOSLYN DEFENSE SYSTEMS INC	BURLINGTON, VT	US	05401
11686	KYUSHU DENTSU CO LTD	NAGASAKI	JP	
11699	CENTRAL SEMICONDUCTOR CORP	HAUPPAUGE, NY	US	11788
11703	POWER GENERAL	CANTON, MA	US	
11708	THOMSON SEMICONDUCTORS	VELIZY VILLACOU	FR	78140
11723	CTL COMPONENTS LTD	LONDON	EG	SW19
11781	MIDLAND-ROSS CORP	LIVINGSTON, NJ	US	07039
11844	ELECTREY S A	MONTERREY	MX	64000
11892	EVOX/RIFA INC	LINCOLNSHIRE, IL	US	60015
11920	MIYAMA DENSEN CO LTD	TOKYO	JP	
11946	BKC INTERNATIONAL ELECTRONICS	LAWRENCE, MA	US	01841
11961	ALEXCO ENGINEERING SUPPLIES	COWDENBEATH	EG	KY4 9
11981	POWEREX	YOUNGWOOD, PA	US	15697
12125	SAMSUNG SEMICONDUCTOR INC	SANTA CLARA, CA	US	95054
12127	RF MONOLITHICS INC	DALLAS, TX	US	75234
12131	PRESIDIO COMPONENTS INC	SAN DIEGO, CA	US	92121
12186	DALLAS SEMICONDUCTOR CORP	DALLAS, TX	US	75244
12213	STACKPOLE ELECTRONICS INC	RALEIGH, NC	US	27620
12261	ERIE SPECIALTY PRODUCTS INC	ERIE, PA	US	16512
12340	KEMET ELECTRONICS CORPORATION	GREENVILLE, SC	US	29606
12355	INTERCONNECTION PRODUCTS INC	SANTA ANA, CA	US	92707
12382	LATTICE SEMICONDUCTOR CORP	BEAVERTON, OR	US	97006
12395	FEI MICROWAVE, INC.	SUNNYVALE, CA	US	94086
12418	OWL WIRE AND CABLE	CANASTATA, NY	US	13032
12456	WIRE PRO INC	SALEM, NJ	US	08079
12465	INTERNATIONAL POWER DEVICES	BRIGHTON, MA	US	02135
12473	AVX-RALEIGH DIVISION	RALEIGH, NC	US	27604
12482	BRADFORD ELECTRONICS INC	BRADFORD, PA	US	16701
12513	BUNNELL PLASTICS, INC	MICKLETON, NJ	US	08056
12516	MICROTRONICS ASSOCIATES PTE LTD	SINGAPORE	SG	1334
12580	SOUTH AMERICAN DEVELOPMENT CO	HYDE PARK, NY	US	12538
12656	BEYSCHLAG GMBH	HEIDE	GM	
12703	CHAMPION TECHNOLOGIES INC	FRANKLIN PARK, IL	US	60131
12830	KETEMA	BENSALEM, PA	US	19020
12845	WARTH INTERNATIONAL LTD	EAST GRINSTEAD	EG	RH192
12896	DOWKEY MICROWAVE INC	VENTURA, CA	US	93003

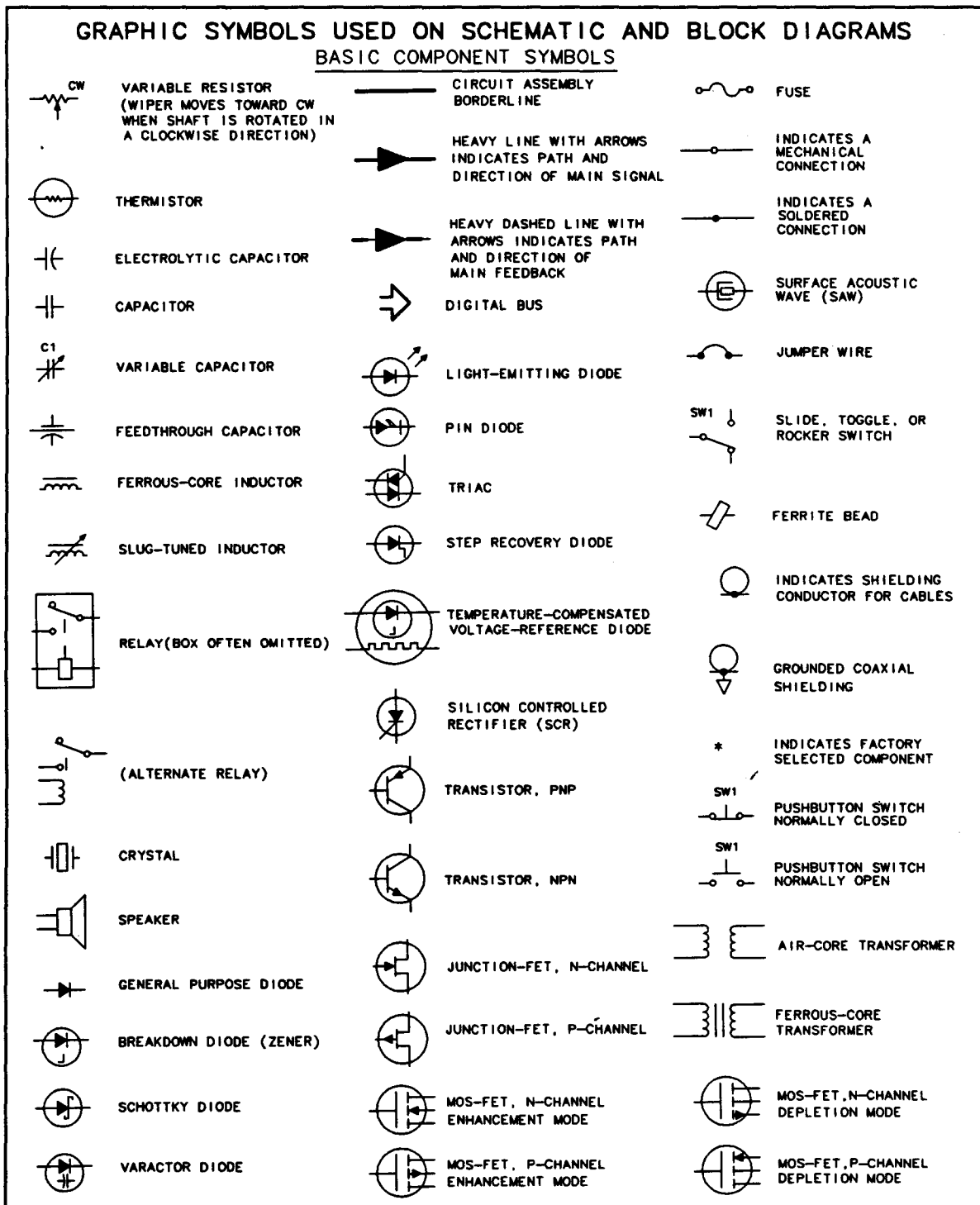


Figure 1. Graphics Symbols (1 of 2)

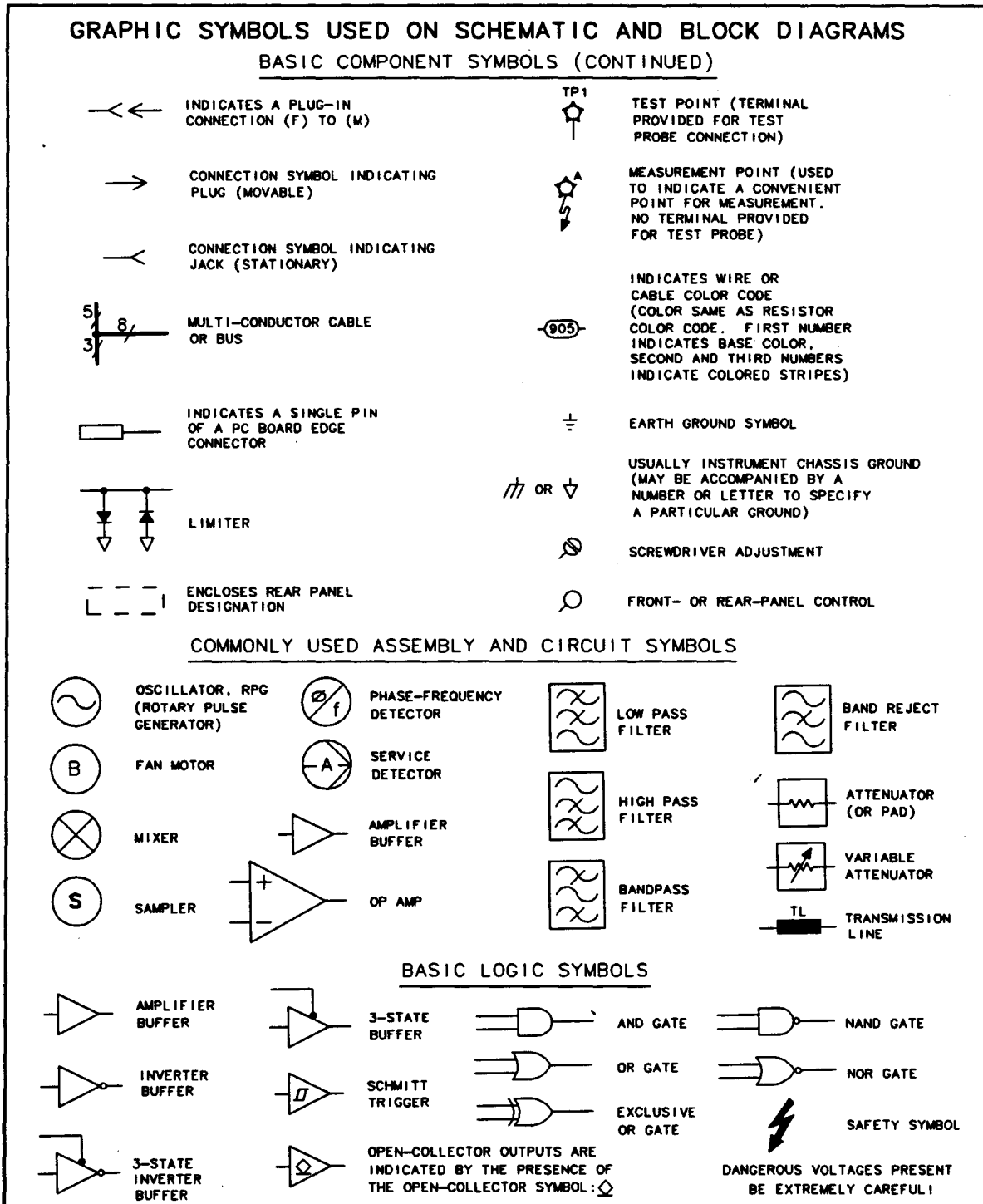


Figure 1. Graphics Symbols (2 of 2)

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**SCANS  
BY  
ARTEK-MANUALS**

# **Component-Level Information Packet for 5062-1982 Demod/TV Line Trigger**

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**HP Part Number 5062-1982**  
**Demod/TV Line Trigger**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4794	7	1	CAP-FXD 5.6pF +-8.92% 100 V CER COG	02010	SA102A5R6DAAH
C2	0160-4807	3	1	CAP-FXD 33pF +-5% 100 V CER COG	02010	SA102A330JAAH
C3	0160-4804	0	1	CAP-FXD 56pF +-5% 100 V CER COG	02010	SA102A560JAAH
C4	0160-4804	0	1	CAP-FXD 56pF +-5% 100 V CER COG	02010	SA102A560JAAH
C5	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C6	0160-5699	3	1	CAP-FXD 20pF 100 V	06352	DA12C062A200J
C7	0160-4825	5	1	CAP-FXD 560pF +-5% 100 V CER COG	02010	SA101A561JAAH
C8	0160-5699	3	1	CAP-FXD 20pF 100 V	06352	DA12C062A200J
C9	0160-4825	5	1	CAP-FXD 560pF +-5% 100 V CER COG	02010	SA101A561JAAH
C10	0160-4789	0	1	CAP-FXD 15pF +-5% 100 V CER COG	02010	SA102A150JAAH
C11	0160-4574	1	1	CAP-FXD 1000pF 100 V	02010	SA101C102KAAH
C12	0180-3850	6	1	CAP-FXD 68uF 10 V TA	04200	299D686X9010DB1
C13	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C14	0160-4788	9	1	CAP-FXD 18pF +-5% 100 V CER COG	02010	SA102A180JAAH
C15	0160-4802	8	1	CAP-FXD 82pF +-5% 100 V CER COG	02010	SA102A820JAAH
C16	0160-4788	9	1	CAP-FXD 18pF +-5% 100 V CER COG	02010	SA102A180JAAH
C17	0160-4802	8	1	CAP-FXD 82pF +-5% 100 V CER COG	02010	SA102A820JAAH
C18	0160-5405	9	1	CAP-FXD 130pF +-5% 100 V CER COG	02010	SA101A131JAAH
C19	0160-5404	8	1	CAP-FXD 360pF +-5% 100 V CER COG	02010	SA101A361JAAH
C20	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C21	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C22	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C23	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C24	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C25	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C26	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C27	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C28	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C29	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C30	0160-4385	2	1	CAP-FXD 15pF 200 V	02010	SR202A150JAA
C31	0180-3848	2	1	CAP-FXD 33uF +-10% 16 V TA	04200	299D336X9016DB1
C32	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C33	0180-4214	8	1		12340	T322F227K010AS
C35	0160-6588	1	1	CAP-FXD 0.033uF 100 V	02010	SA301C333KAAH
C36	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C37	0180-3848	2	1	CAP-FXD 33uF +-10% 16 V TA	04200	299D336X9016DB1
C38	0160-5098	6	1	CAP-FXD 0.22uF 50 V	02010	SA405C224KAAH
C39	0180-3850	6	1	CAP-FXD 68uF 10 V TA	04200	299D686X9010DB1
C40	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C41	0160-6146	7	1	CAP-FXD 910pF 100 V	02010	SA201A911JAAH
C42	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C43	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C44	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C45	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C46	0160-4811	9	1	CAP-FXD 270pF +-5% 100 V CER COG	02010	SA101A271JAAH
C47	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C48	0160-4810	8	1	CAP-FXD 330pF +-5% 100 V CER COG	02010	SA101A331JAAH
C49	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH

*\*Indicates factory-selected value*

5062-1982 Parts List  
Page 1 of 4



## HP Part Number 5062-1982

## Demod/TV Line Trigger

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C50	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C51	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C52	0160-4371	6	1	CAP-FXD 680pF +-5% 100 V CER COG	02010	SR201A681JAAH
C53	0160-4386	3	1	CAP-FXD 33pF 200 V	02010	SR152A330JAA
C54	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C100	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C101	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C103	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C104	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C105	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C109	0180-3850	6	1	CAP-FXD 68uF 10 V TA	04200	299D686X9010DB1
C110	0160-4835	7	1	CAP-FXD 0.1uF 50 V	02010	SA115C104KAAH
C111	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C112	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C113	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C114	0160-4574	1	1	CAP-FXD 1000pF 100 V	02010	SA101C102KAAH
C115	0160-4574	1	1	CAP-FXD 1000pF 100 V	02010	SA101C102KAAH
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	03334	BAV10 SELECTED
CR3	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	03334	BAV10 SELECTED
CR5	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	03334	BAV10 SELECTED
CR100	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	03334	BAV10 SELECTED
CR101	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	03334	BAV10 SELECTED
CR102	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	03334	BAV10 SELECTED
CR103	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	03334	BAV10 SELECTED
E1	9170-1380	1	1	CORE-MAGNETIC IMPD: 15 OHMS @ 25 MHZ, 25	03827	SAHP763
E2	9170-1380	1	1	CORE-MAGNETIC IMPD: 15 OHMS @ 25 MHZ, 25	03827	SAHP763
J1	1251-8912	3	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	01380	534204-5
J2	1250-0543	8	1	CONNECTOR-RF SM-SNP M PC 50-OHM	05769	51-053-0349-BE8
L1	9100-1640	9	1	INDUCTOR RF-CH-MLD 160UH +-5% .166D-INX.	03273	15M163J
L2	9100-1640	9	1	INDUCTOR RF-CH-MLD 160UH +-5% .166D-INX.	03273	15M163J
L3	9140-0237	2	1	INDUCTOR RF-CH-MLD 200UH +-5% .166D-INX.	03273	15M203J
L4	9100-2547	7	1	INDUCTOR RF-CH-MLD 5.6UH +-10% .161D-INX	03273	17S561K
L5	9100-2547	7	1	INDUCTOR RF-CH-MLD 5.6UH +-10% .161D-INX	03273	17S561K
L6	9100-2562	6	1	INDUCTOR RF-CH-MLD 100UH +-10% .161D-INX	03273	17S103K
L7	9100-2564	8	1	INDUCTOR RF-CH-MLD 150UH +-10% .161D-INX	03273	17/153
MP2	7100-1316	4	1	CAN SQ 1.0 INCH	01932	HU 4280-.437 + TABS
MP3	0403-0621	7	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
MP4	7100-1317	5	1	CAN SQ 1.6 INCH	01932	HU 4532-.437 + TABS
MP5	0403-0026	6	1	PLUG-HOLE BDR-HD FOR .19-D-HOLE NYL	01924	207-120241-03-0101
MP6	0403-0627	3	1	EXTR-PC BD RED NYL .062-IN-BD-THKNS	02123	91-2-RED-1
P3	1252-1882	4	1	CONN-POST TYPE .100-PIN-SPCG 3-CONT	02946	78208-103
P4	1252-2195	4	1	CONN-POST TYPE .100-PIN-SPCG 4-CONT	02946	78208-104
P5	1251-5285	7	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	68015-602
Q1	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW FT=300M	00746	2N3904
Q3	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE TO	02037	2N4391
Q4	1853-0036	2	1	TRANSISTOR PNP SI PD=310MW FT=250MHZ	02037	2N3906(SEL)
Q100	1855-0655	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	02883	VN0300L

# **HP Part Number 5062-1982** **Demod/TV Line Trigger**

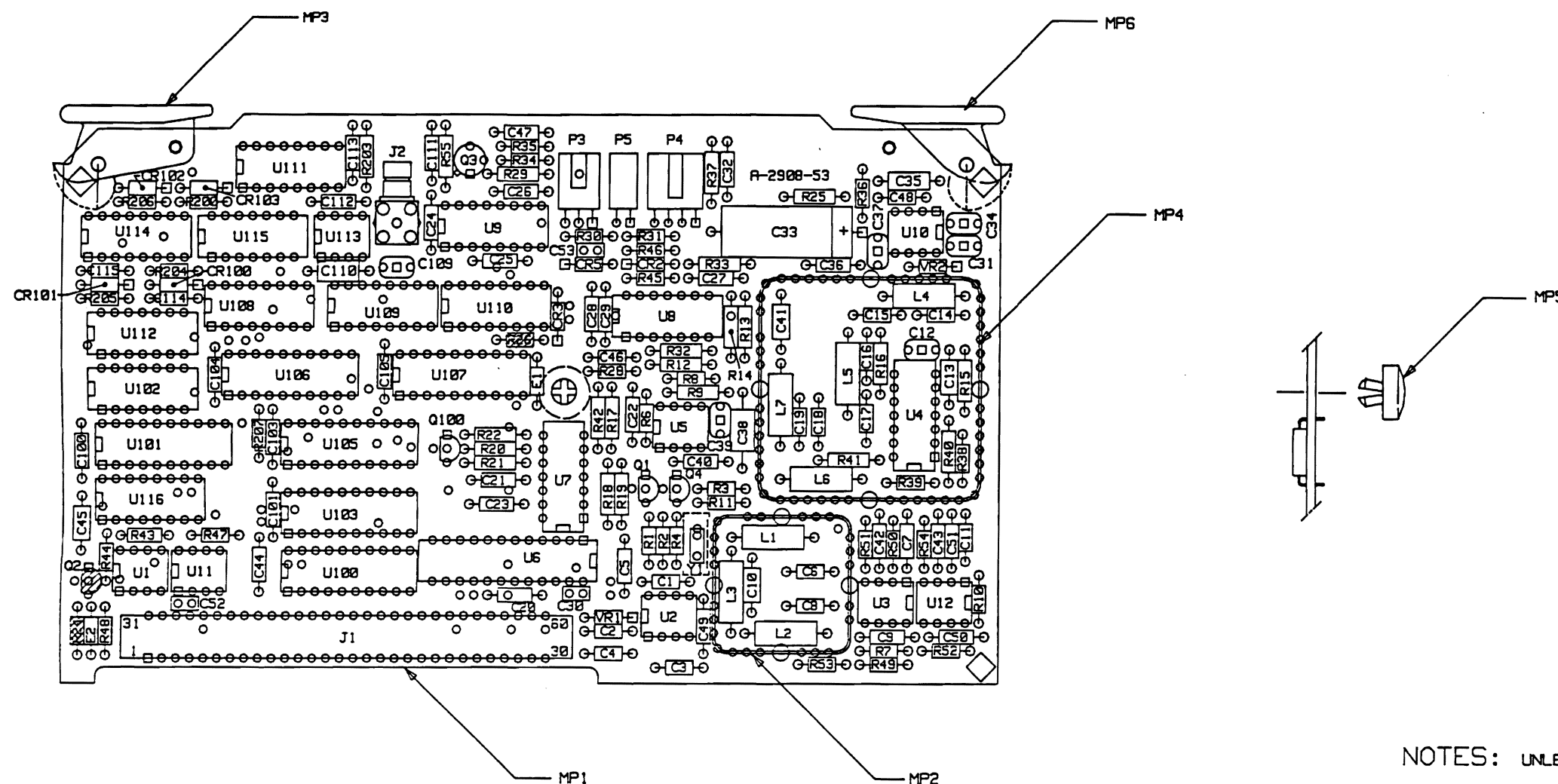
Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R1	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	00746	CRB20
R2	0698-7247	0	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	00746	CRB20
R3	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R4	0698-7241	4	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	00746	CRB20
R6	0698-7241	4	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	00746	CRB20
R7	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R8	0698-7204	9	1	RESISTOR 46.4 +-1% .05W TF TC=0+-100	00746	CRB20
R9	0698-6320	8	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R10	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R11	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R12	0698-8820	7	1	RESISTOR 4.64 +-1% .125W TF TC=0+-100	01074	H8
R13	0698-6320	8	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R14	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R15	0698-3444	1	1	RESISTOR 316 1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R16	0698-3444	1	1	RESISTOR 316 1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R17	0699-2124	4	1	RESISTOR 619 +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R18	0699-0692	7	1	RESISTOR 1.4K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R19	0698-6963	5	1	RESISTOR 5.55K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R20	0698-6533	5	1	RESISTOR 12.5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R21	0698-6631	4	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R22	0698-6631	4	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R25	0698-7270	9	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	00746	CRB20
R27	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
R28	0698-7270	9	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	00746	CRB20
R29	0698-6631	4	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R30	0698-7229	8	1	RESISTOR 511 +-1% .05W TF TC=0+-100	00746	CRB20
R31	0698-7247	0	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	00746	CRB20
R32	0699-0073	8	1	RESISTOR 10M +-1% .125W TF TC=0+-100	02995	5053YD10M00F
R33	0699-0073	8	1	RESISTOR 10M +-1% .125W TF TC=0+-100	02995	5053YD10M00F
R34	0698-7284	5	1	RESISTOR 100K +-1% .05W TF TC=0+-100	00746	CRB20
R35	0698-7270	9	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	00746	CRB20
R36	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
R37	0698-8816	1	1	RESISTOR 2.15 +-1% .125W TF TC=0+-100	02995	SFR25H
R38	0698-7286	7	1	RESISTOR 121K +-1% .05W TF TC=0+-100	00746	CRB20
R39	0698-7288	9	1	RESISTOR 147K +-1% .05W TF TC=0+-100	00746	CRB20
R40	0698-8826	3	1	RESISTOR 825K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R41	0699-2124	4	1	RESISTOR 619 +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R42	0699-0400	5	1	RESISTOR 3.6K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R43	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
R44	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
R45	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
R46	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
R47	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
R48	0698-7229	8	1	RESISTOR 511 +-1% .05W TF TC=0+-100	00746	CRB20
R49	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	00746	CRB20
R50	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R51	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R52	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20

*\*Indicates factory-selected value*

5062-1982 Parts List  
Page 3 of 4

**HP Part Number 5062-1982****Demod/TV Line Trigger**

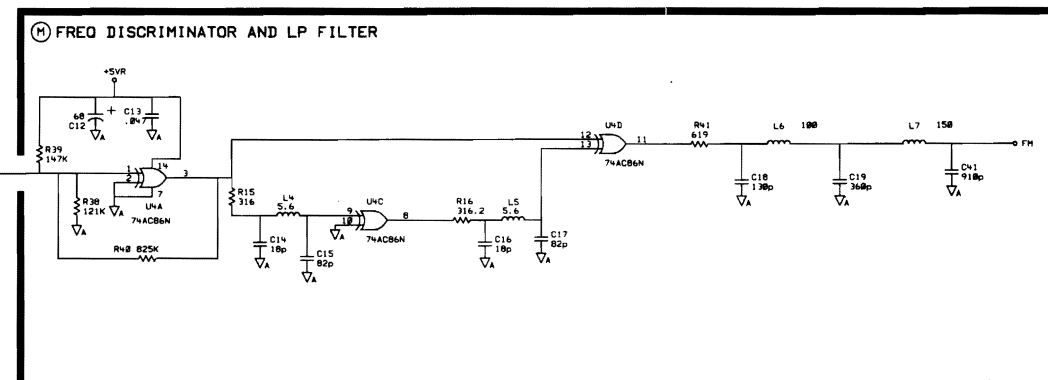
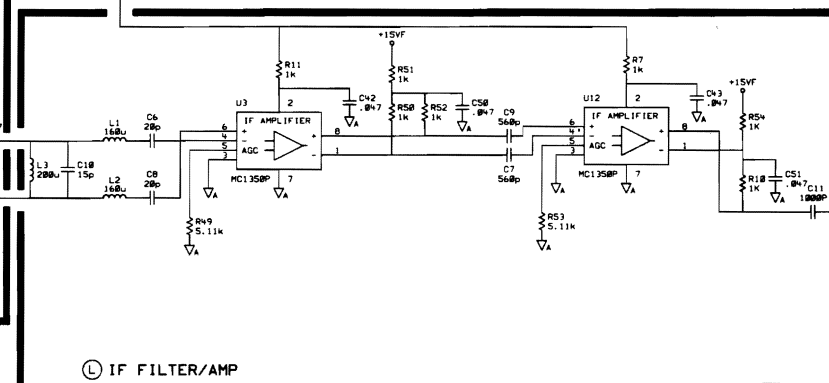
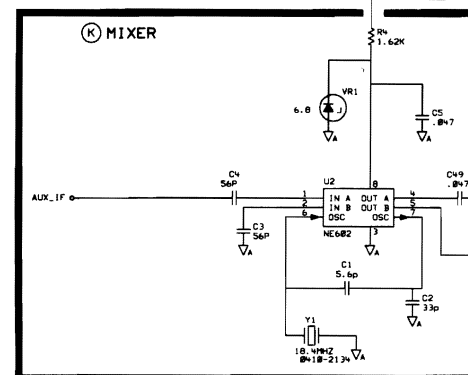
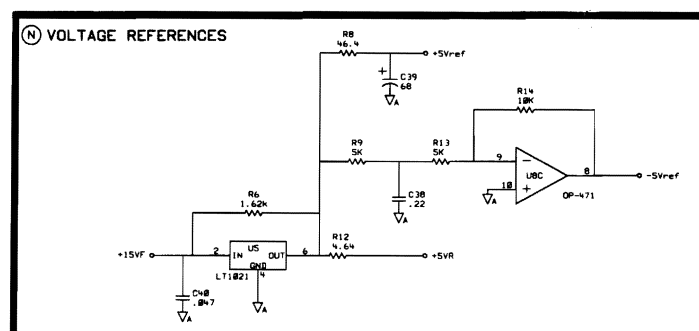
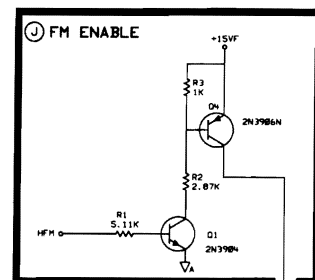
Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R53	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	00746	CRB20
R54	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R55	0698-3458	7	1	RESISTOR 348K 1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R200	0698-7244	7	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	00746	CRB20
R203	0698-8825	2	1	RESISTOR 681K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R204	0698-7244	7	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	00746	CRB20
R205	0698-7244	7	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	00746	CRB20
R206	0698-7244	7	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	00746	CRB20
R207	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
U1	1826-0785	1	1	IC OP AMP LOW-BIAS-H-IMP DUAL 8-DIP-C	01698	TL072ACJG
U2	1826-1913	9	1	IC MISC 8-DIP-P PKG	02910	NE602N
U3	1826-0159	3	1	IC RF/IF AMPL IF 8-DIP-P PKG	02037	MC1350P
U4	1820-6408	5	1	IC GATE CMOS/74AC EXCL-OR QUAD 2-INP	03406	74AC86PC
U5	1826-1431	6	1	IC V RGLTR-V-REF-FXD 4.9975/5.0025V 8-DI	10858	LT1021CCN8-5
U6	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	03285	AD7547KN
U7	1826-1943	5	1	IC OP AMP HS QUAD 14-DIP-C PKG	02180	OP-471FY
U8	1826-1943	5	1	IC OP AMP HS QUAD 14-DIP-C PKG	02180	OP-471FY
U9	1820-1934	2	1	D/A 8-BIT 16-CERDIP BPLR	02180	DAC-08EQ
U10	1826-0682	7	1	IC AUDIO AMPL PWR 8-DIP-P PKG	03406	LM386N-1
U11	1826-2026	7	1	ANALOG SWITCH SPST 8 -DIP-P	02883	DG417DJ
U12	1826-0159	3	1	IC RF/IF AMPL IF 8-DIP-P PKG	02037	MC1350P
U100	1820-4152	2	1	IC FF CMOS/74HCT D-TYPE POS-EDGE-TRIG CO	01698	SN74HCT574N
U101	08590-80105	9	1		28480	08590-80105
U102	1820-3298	5	1	IC GATE CMOS/74HC OR QUAD 2-INP	02037	MC74HC32N
U103	1820-4152	2	1	IC FF CMOS/74HCT D-TYPE POS-EDGE-TRIG CO	01698	SN74HCT574N
U105	1820-4152	2	1	IC FF CMOS/74HCT D-TYPE POS-EDGE-TRIG CO	01698	SN74HCT574N
U106	1820-4152	2	1	IC FF CMOS/74HCT D-TYPE POS-EDGE-TRIG CO	01698	SN74HCT574N
U107	1820-4152	2	1	IC FF CMOS/74HCT D-TYPE POS-EDGE-TRIG CO	01698	SN74HCT574N
U108	1820-3205	4	1	IC CNTR CMOS/74HC BIN UP/DOWN SYNCHRO PO	03406	MM74HC193N
U109	1820-3205	4	1	IC CNTR CMOS/74HC BIN UP/DOWN SYNCHRO PO	03406	MM74HC193N
U110	1820-3205	4	1	IC CNTR CMOS/74HC BIN UP/DOWN SYNCHRO PO	03406	MM74HC193N
U111	1820-3672	9	1	IC MUXR/DATA-SEL CMOS/74HC 4-TO-1-LINE D	02037	MC74HC253N
U112	1820-3185	9	1	IC SCHMITT-TRIG CMOS/74HC INV HEX	02037	MC74HC14N
U113	1826-1942	4	1	IC MISC 8-DIP-P PKG	03406	LM1881N
U114	1820-3173	5	1	IC FF CMOS/74HC J-K NEG-EDGE-TRIG PRESET	02037	MC74HC112N
U115	1820-3183	7	1	IC GATE CMOS/74HC NAND QUAD 2-INP	02037	MC74HC03N
U116	1826-0609	8	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	02180	MUX-08FQ
VR1	1902-0048	1	1	DIODE-ZNR 6.81V 5% DO-35 PD=.4W	02037	
VR2	1902-0579	3	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	02037	
Y1	0410-2134	6	1	CRYSTAL-QUARTZ F=18.416 MHZ +- .017 MHZ R	09620	



NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. MAXIMUM COMPONENT HEIGHT .450.
3. MAXIMUM LEAD TRIM LENGTH .065.
4. DO NOT LOAD Q2, R24, AND R26.
5. CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-5062-A102.

SEE 5062-1982 MATERIAL LIST  
RAW BOARD NUMBER 5021-8673



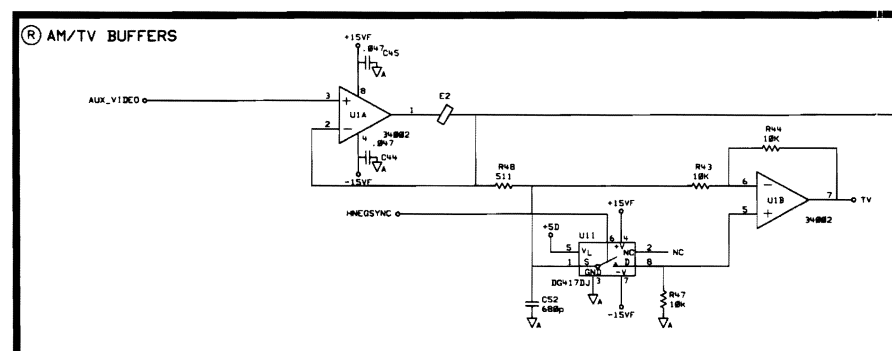
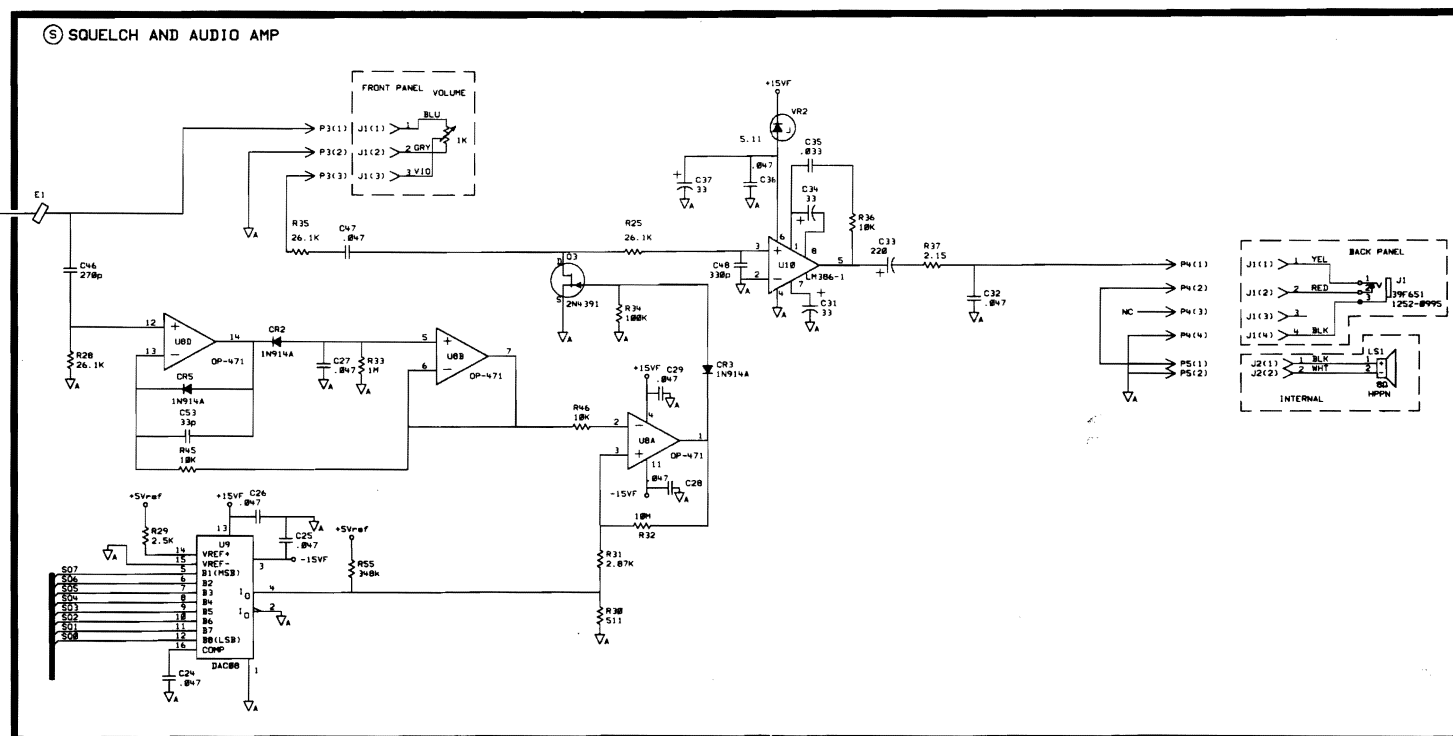
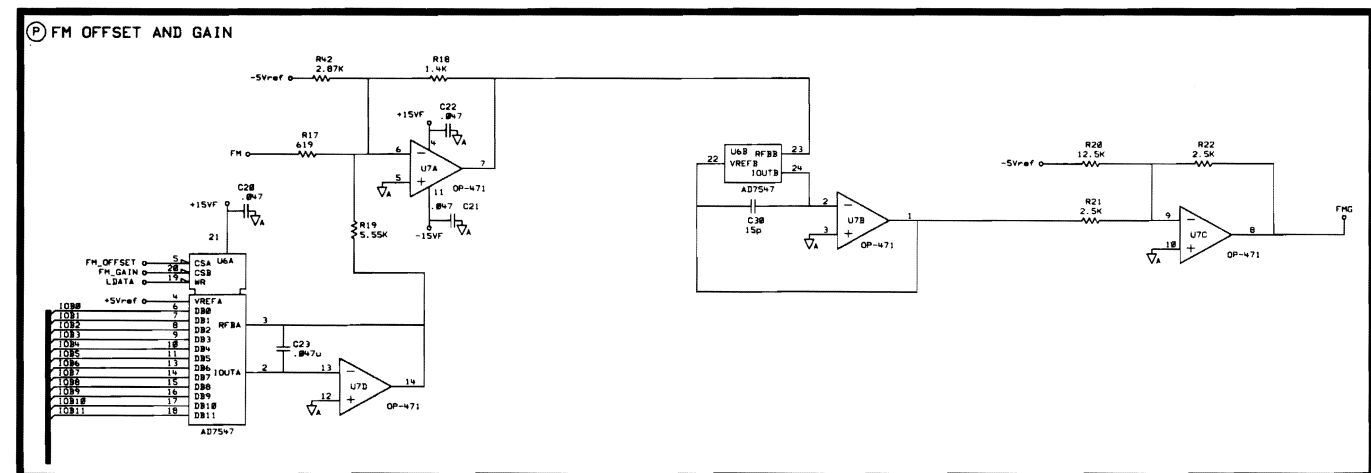
NOTES:

1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.

2. UNLESS OTHERWISE INDICATED:  
RESISTANCE IN OHMS ( $\Omega$ )  
CAPACITANCE IN MICROFARADS ( $\mu F$ )  
INDUCTANCE IN MICROHENRIES ( $\mu H$ )

3. MNEMONIC TABLE

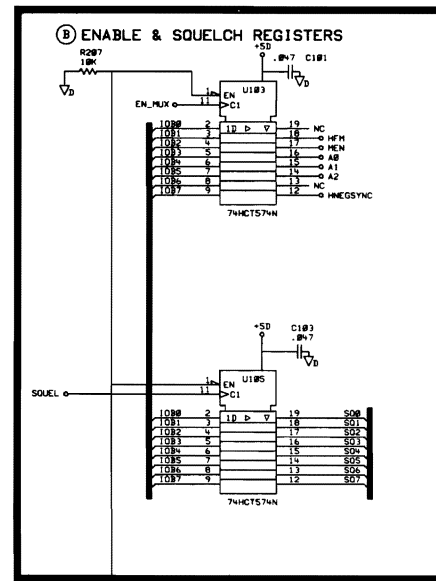
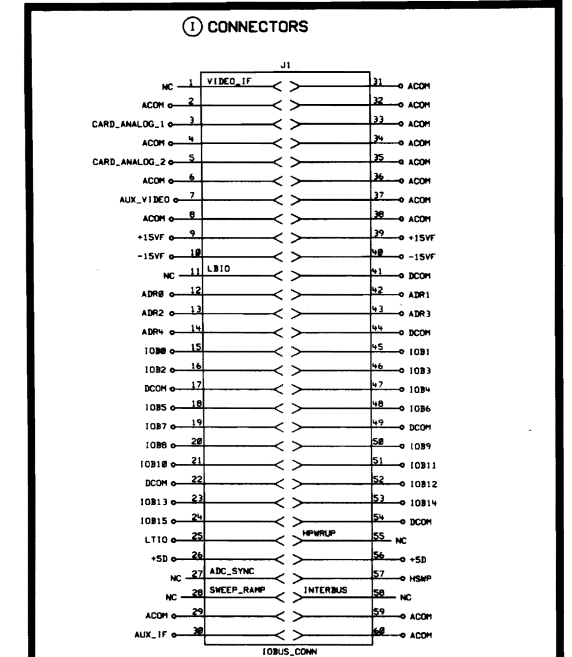
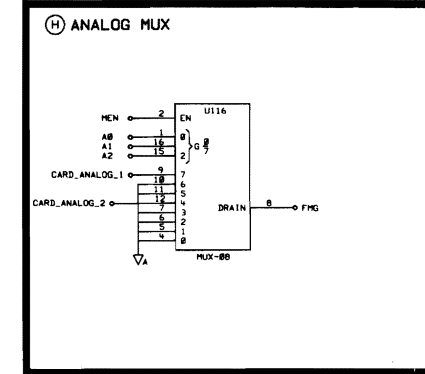
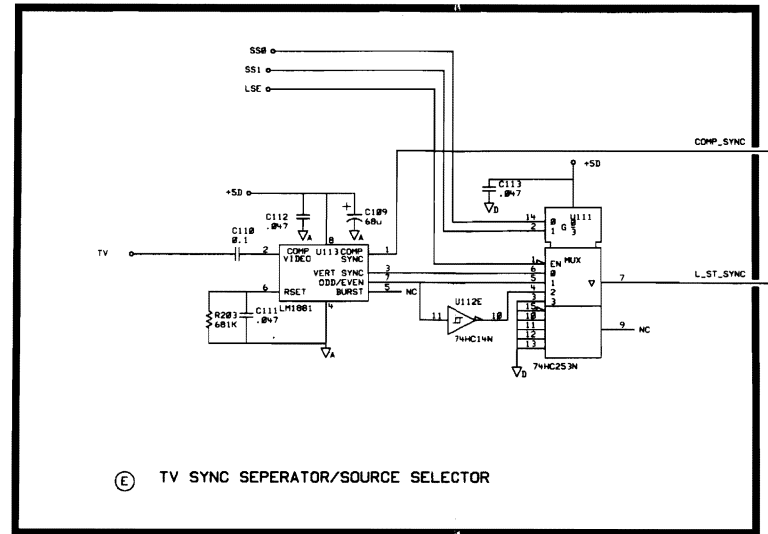
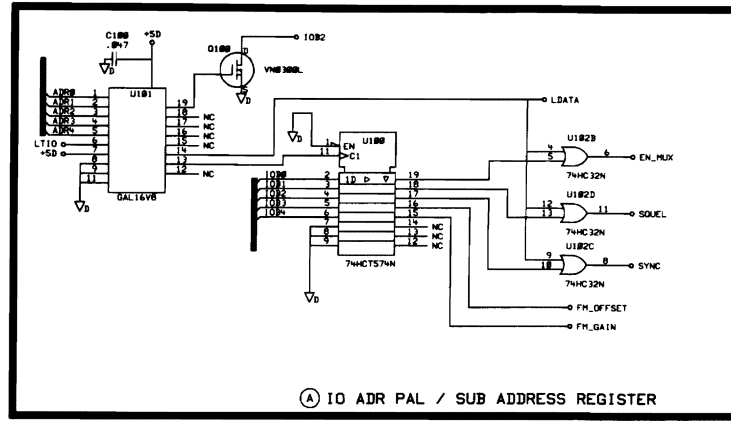
MNEMONIC	DESCRIPTION



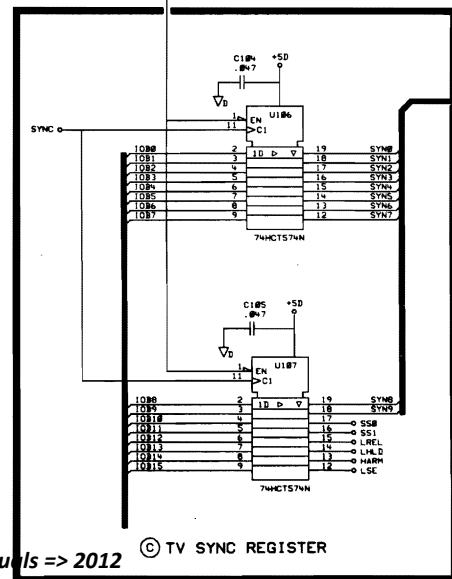
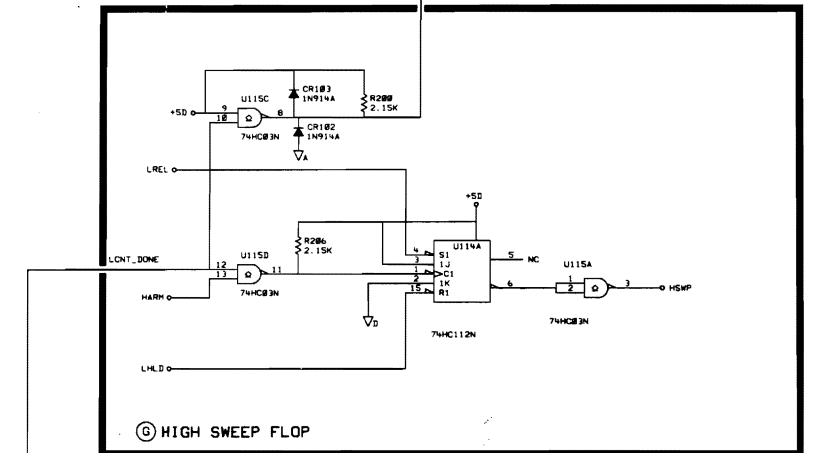
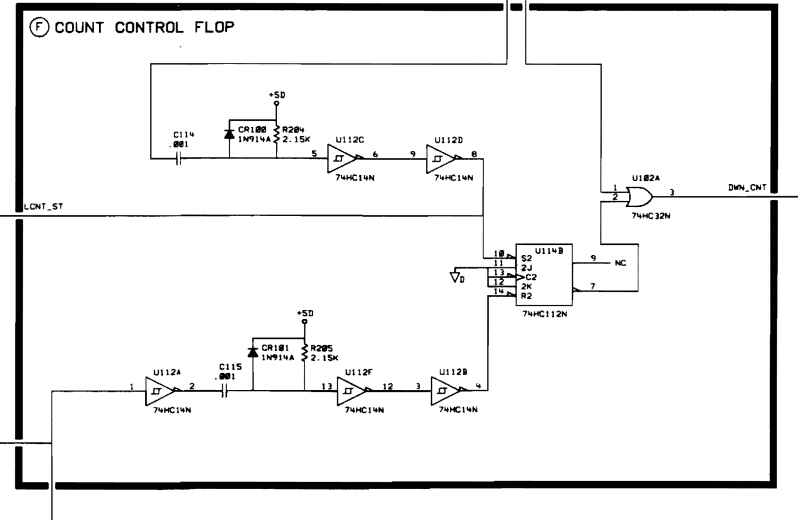
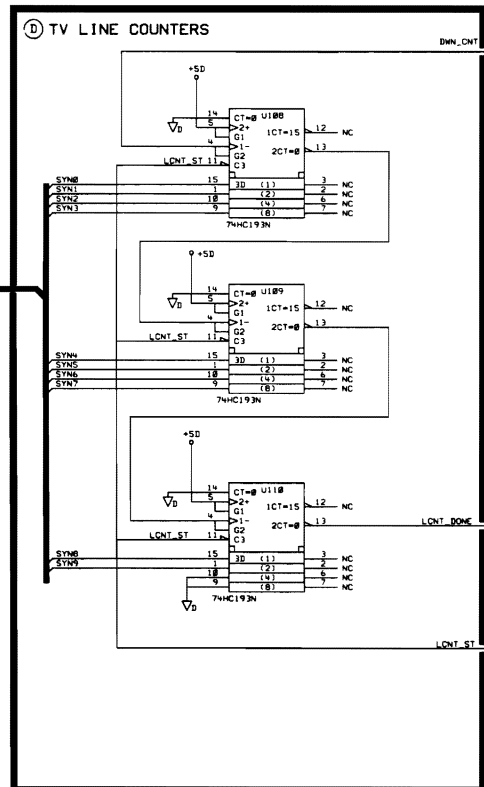
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R5, R23, R24, R26, R27  
CR1, CR2, Q2

LAST USED  
C53 U12  
R55 CR5  
L7 VR2

LAST USED	
CS3	U12
R55	DR5
L7	VR2



TV LINE TRIGGER





# **Component-Level Information Packet for 5062-1983 Demod/Quasi Peak Detector**

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**SCANS  
BY  
ARTEK-MANUALS**

**HP Part Number 5062-1983****Demod/Quasi Peak Detector**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4794	7	1	CAP-FXD 5.6pF 100 V	02010	SA102A5R6DAAH
C2	0160-4807	3	1	CAP-FXD 33pF 100 V	02010	SA102A330JAAH
C3	0160-4804	0	1	CAP-FXD 56pF 100 V	02010	SA102A560JAAH
C4	0160-4804	0	1	CAP-FXD 56pF 100 V	02010	SA102A560JAAH
C5	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C6	0160-5699	3	1	CAP-FXD 20pF 100 V	06352	DA12C0G2A200J
C7	0160-4825	5	1	CAP-FXD 560pF 100 V	02010	SA101A561JAAH
C8	0160-5699	3	1	CAP-FXD 20pF 100 V	06352	DA12C0G2A200J
C9	0160-4825	5	1	CAP-FXD 560pF 100 V	02010	SA101A561JAAH
C10	0160-4789	0	1	CAP-FXD 15pF 100 V	02010	SA102A150JAAH
C11	0160-4574	1	1	CAP-FXD 1000pF 100 V	02010	SA101C102KAAH
C12	0180-3850	6	1	CAP-FXD 68uF 10 V TA	04200	Z99D686X9010DB1
C13	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C14	0160-4788	9	1	CAP-FXD 18pF 100 V	02010	SA102A180JAAH
C15	0160-4802	8	1	CAP-FXD 82pF 100 V	02010	SA102A820JAAH
C16	0160-4788	9	1	CAP-FXD 18pF 100 V	02010	SA102A180JAAH
C17	0160-4802	8	1	CAP-FXD 82pF 100 V	02010	SA102A820JAAH
C18	0160-5405	9	1	CAP-FXD 130pF 100 V	02010	SA101A131JAAH
C19	0160-5404	8	1	CAP-FXD 360pF 100 V	02010	SA101A361JAAH
C20	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C21	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C22	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C23	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C24	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C25	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C26	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C27	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C28	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C29	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C30	0160-4385	2	1	CAP-FXD 15pF 200 V	02010	SR202A150JAA
C31	0180-3848	2	1	CAP-FXD 33uF 16 V TA	04200	Z99D336X9016DB1
C32	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C33	0180-4214	8	1		12340	T322F227K010AS
C35	0160-6588	1	1	CAP-FXD 0.033uF 100 V	02010	SA301C333KAAH
C36	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C37	0180-3848	2	1	CAP-FXD 33uF 16 V TA	04200	Z99D336X9016DB1
C38	0160-5098	6	1	CAP-FXD 0.22uF 50 V	02010	SA405C224KAAH
C39	0180-3850	6	1	CAP-FXD 68uF 10 V TA	04200	Z99D686X9010DB1
C40	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C41	0160-6146	7	1	CAP-FXD 910pF 100 V	02010	SA201A911JAAH
C42	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C43	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C44	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C45	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C46	0160-4811	9	1	CAP-FXD 270pF 100 V	02010	SA101A271JAAH
C47	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C48	0160-4810	8	1	CAP-FXD 330pF 100 V	02010	SA101A331JAAH
C49	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH

\*Indicates factory-selected value

**HP Part Number 5062-1983**  
**Demod/Quasi Peak Detector**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C50	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C51	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C53	0160-4807	3	1	CAP-FXD 33pF 100 V	02010	SA102A330JAAH
C54	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C55	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C56	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C100	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C101	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C102	1901-0376	6	1	DIODE-GEN PRP 35V 50MA DO-35	00046	1N3595
C104	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C105	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C106	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C107	0160-4805	1	1	CAP-FXD 47pF 100 V	02010	SA102A470JAAH
C108	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C109	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C110	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C111	0180-4132	9	1	CAP-FXD 6.8uF 35 V TA	04200	173D685X9035X
C116	0180-3769	6	1	CAP-FXD 6.8uF 35 V TA	04200	299D685X9035DB1
C117	0180-3769	6	1	CAP-FXD 6.8uF 35 V TA	04200	299D685X9035DB1
C118	0180-3769	6	1	CAP-FXD 6.8uF 35 V TA	04200	299D685X9035DB1
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	03334	BAV10 SELECTED
CR3	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	03334	BAV10 SELECTED
CR5	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	03334	BAV10 SELECTED
CR101	1901-1098	1	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	00746	
J1	1251-8912	3	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	01380	534204-5
L1	9100-1640	9	1	INDUCTOR RF-CH-MLD 160UH +-5% .166D-INX.	03273	15M163J
L2	9100-1640	9	1	INDUCTOR RF-CH-MLD 160UH +-5% .166D-INX.	03273	15M163J
L3	9140-0237	2	1	INDUCTOR RF-CH-MLD 200UH +-5% .166D-INX.	03273	15M203J
L4	9100-2547	7	1	INDUCTOR RF-CH-MLD 5.6UH +-10% .161D-INX	03273	17S561K
L5	9100-2547	7	1	INDUCTOR RF-CH-MLD 5.6UH +-10% .161D-INX	03273	17S561K
L6	9100-2562	6	1	INDUCTOR RF-CH-MLD 100UH +-10% .161D-INX	03273	17S103K
L7	9100-2564	8	1	INDUCTOR RF-CH-MLD 150UH +-10% .161D-INX	03273	17/153
L100	85650-80004	2	1	INDUCTOR RM-5 8.25MH	28480	85650-80004
L101	9100-2574	0	1	INDUCTOR RF-CH-MLD 1.2MH +-10% .161D-INX	03273	17S124K
MP2	7100-1316	4	1	CAN SQUARE	01932	HU 4280-.437 + TABS
MP3	0403-0621	7	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
MP4	7100-1317	5	1	CAN SQUARE	01932	HU 4532-.437 + TABS
MP5	0403-0026	6	1	PLUG-HOLE BDR-HD FOR .19-D-HOLE NYL	01924	207-120241-03-0101
MP6	0403-0628	4	1	EXTR-PC BD ORN NYL .062-IN-BD-THKNS	02123	91-2-ORANGE-6
MP7	7121-4611	2		LABEL-INFORMATION .15-IN-WD .6-IN-LG	09002	
P3	1252-1882	4	1	CONN-POST TYPE .100-PIN-SPCG 3-CONT	02946	78208-103
P4	1252-2195	4	1	CONN-POST TYPE .100-PIN-SPCG 4-CONT	02946	78208-104
P5	1251-5285	7	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	68015-602
Q1	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW FT=300M	00746	2N3904
Q3	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE TO	02037	2N4391
Q4	1853-0036	2	1	TRANSISTOR PNP SI PD=310MW FT=250MHZ	02037	2N3906(SEL)
Q100	1855-0565	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	02883	VN0300L

## HP Part Number 5062-1983

## Demod/Quasi Peak Detector

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
Q101	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	02883	VN0300L
R1	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	00746	CRB20
R2	0698-7247	0	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	00746	CRB20
R3	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R4	0698-7241	4	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	00746	CRB20
R6	0698-7241	4	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	00746	CRB20
R7	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R8	0698-7204	9	1	RESISTOR 46.4 +-1% .05W TF TC=0+-100	00746	CRB20
R9	0698-6320	8	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R10	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R11	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R12	0698-8820	7	1	RESISTOR 4.64 +-1% .125W TF TC=0+-100	01074	H8
R13	0698-6320	8	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R14	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R15	0698-3444	1	1	RESISTOR 316 1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R16	0698-3444	1	1	RESISTOR 316 1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R17	0699-2124	4	1	RESISTOR 619 +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R18	0699-0692	7	1	RESISTOR 1.4K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R19	0698-6963	5	1	RESISTOR 5.55K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R20	0698-6533	5	1	RESISTOR 12.5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R21	0698-6631	4	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R22	0698-6631	4	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R25	0698-7270	9	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	00746	CRB20
R27	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R28	0698-7270	9	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	00746	CRB20
R29	0698-6631	4	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R30	0698-7229	8	1	RESISTOR 511 +-1% .05W TF TC=0+-100	00746	CRB20
R31	0698-7247	0	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	00746	CRB20
R32	0699-0073	8	1	RESISTOR 10M +-1% .125W TF TC=0+-100	02995	5053YD10M00F
R33	0698-8827	4	1	RESISTOR 1M +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R34	0698-7284	5	1	RESISTOR 100K +-1% .05W TF TC=0+-100	00746	CRB20
R35	0698-7270	9	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	00746	CRB20
R36	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
R37	0698-8816	1	1	RESISTOR 2.15 +-1% .125W TF TC=0+-100	02995	SFR25H
R38	0698-7286	7	1	RESISTOR 121K +-1% .05W TF TC=0+-100	00746	CRB20
R39	0698-7288	9	1	RESISTOR 147K +-1% .05W TF TC=0+-100	00746	CRB20
R40	0698-8826	3	1	RESISTOR 825K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R41	0699-2124	4	1	RESISTOR 619 +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R42	0699-0400	5	1	RESISTOR 3.6K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R45	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
R46	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
R49	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	00746	CRB20
R50	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R51	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R52	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R53	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	00746	CRB20
R54	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	00746	CRB20
R55	0698-3458	7	1	RESISTOR 348K 1% .125W TF TC=0+-100	00746	CRB14 OR CRB25

\*Indicates factory-selected value

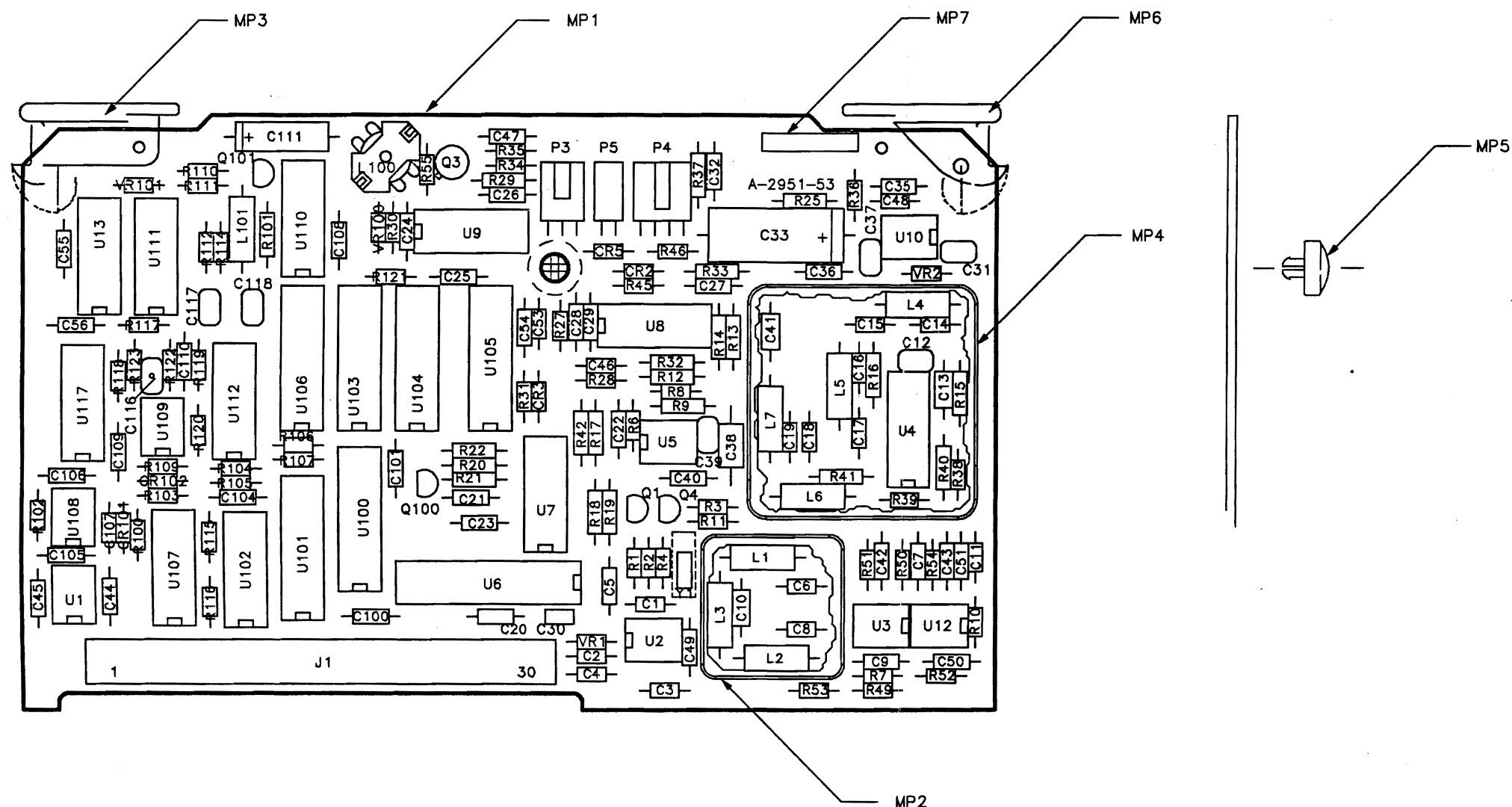
# HP Part Number 5062-1983

## Demod/Quasi Peak Detector

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R100	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	00746	CRB20
R101	0698-6631	4	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R102	0698-7209	4	1	RESISTOR 75 +-1% .05W TF TC=0+-100	00746	CRB20
R103	0698-7268	5	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	00746	CRB20
R104	0698-7241	4	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	00746	CRB20
R105	0698-7275	4	1	RESISTOR 42.2K +-1% .05W TF TC=0+-100	00746	CRB20
R106	0698-7250	5	1	RESISTOR 3.83K +-1% .05W TF TC=0+-100	00746	CRB20
R107	0699-0981	7	1	RESISTOR 20.5K +-1% .05W TF TC=0+-100	00746	CRB20
R109	0698-7277	6	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	00746	CRB20
R110	0698-7213	0	1	RESISTOR 110 +-1% .05W TF TC=0+-100	00746	CRB20
R111	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	00746	CRB20
R112	0698-8711	5	1	RESISTOR 6.601K +-0.1% .125W TF TC=0+-25	01074	H8
R114	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	00746	CRB20
R115	0698-7237	8	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	00746	CRB20
R116	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
R117	0698-7259	4	1	RESISTOR 9.09K +-1% .05W TF TC=0+-100	00746	CRB20
R118	0698-7262	9	1	RESISTOR 12.1K +-1% .05W TF TC=0+-100	00746	CRB20
R119	0698-7272	1	1	RESISTOR 31.6K +-1% .05W TF TC=0+-100	00746	CRB20
R120	0698-7278	7	1	RESISTOR 56.2K +-1% .05W TF TC=0+-100	00746	CRB20
R121	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
R122	0698-7206	1	1	RESISTOR 56.2 +-1% .05W TF TC=0+-100	00746	CRB20
R123	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	00746	CRB20
U1	1826-0785	1	1	IC OP AMP LOW-BIAS-H-IMPED DUAL 8-DIP-C	01698	TL072ACJG
U2	1826-1913	9	1	IC MISC 8-DIP-P PKG	02910	NE602N
U3	1826-0159	3	1	IC RF/IF AMPL IF 8-DIP-P PKG	02037	MC1350P
U4	1820-6408	5	1	IC GATE CMOS/74AC EXCL-OR QUAD 2-INP	03406	74AC86PC
U5	1826-1431	6	1	IC V RGLTR-V-REF-FXD 4.9975/5.0025V 8-DI	10858	LT1021CCN8-5
U6	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	03285	AD7547KN
U7	1826-1943	5	1	IC OP AMP HS QUAD 14-DIP-C PKG	02180	OP-471FY
U8	1826-1943	5	1	IC OP AMP HS QUAD 14-DIP-C PKG	02180	OP-471FY
U9	1820-1934	2	1	D/A 8-BIT 16-CERDIP BPLR	02180	DAC-08EQ
U10	1826-0682	7	1	IC AUDIO AMPL PWR 8-DIP-P PKG	03406	LM386N-1
U12	1826-0159	3	1	IC RF/IF AMPL IF 8-DIP-P PKG	02037	MC1350P
U13	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	02180	MUX-24FQ
U100	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG COM	02037	MC74HC574N
U101	08590-80105	9	1		28480	08590-80105
U102	1820-3298	5	1	IC GATE CMOS/74HC OR QUAD 2-INP	02037	MC74HC32N
U103	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG COM	02037	MC74HC574N
U104	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG COM	02037	MC74HC574N
U105	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG COM	02037	MC74HC574N
U106	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG COM	02037	MC74HC574N
U107	1826-1186	8	1	ANALOG SWITCH 4 SPST 16 -CERDIP	02180	SW-06GQ
U108	1826-1845	6	1	IC OP AMP PRCN DUAL 8-DIP-P PKG	10858	LT1057CN8
U109	1826-1969	5	1	IC OP AMP LOW-DRIFT DUAL 8-DIP-C PKG	03285	AD708AQ
U110	1820-1934	2	1	D/A 8-BIT 16-CERDIP BPLR	02180	DAC-08EQ
U111	1826-0720	4	1	ANALOG SWITCH 4 SPST 16 -CERDIP	02180	SW-02FQ
U112	1826-0720	4	1	ANALOG SWITCH 4 SPST 16 -CERDIP	02180	SW-02FQ



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# NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. MAXIMUM COMPONENT HEIGHT .450
3. MAXIMUM LEAD TRIM LENGTH .065

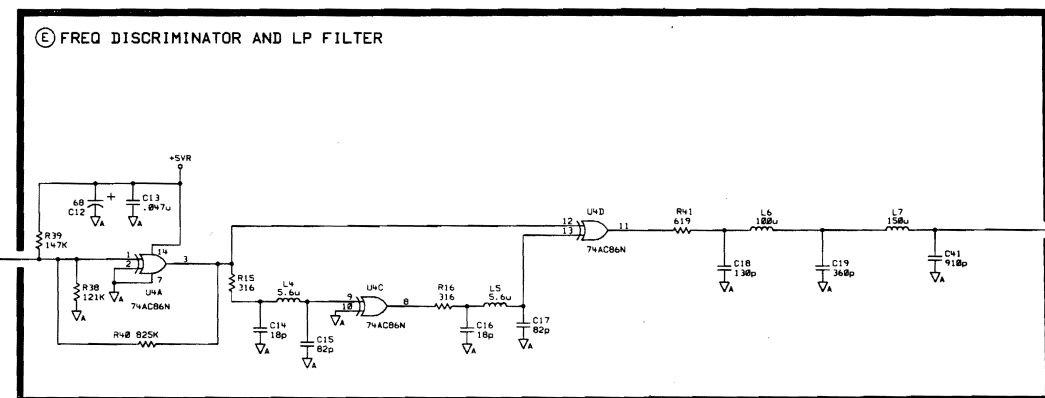
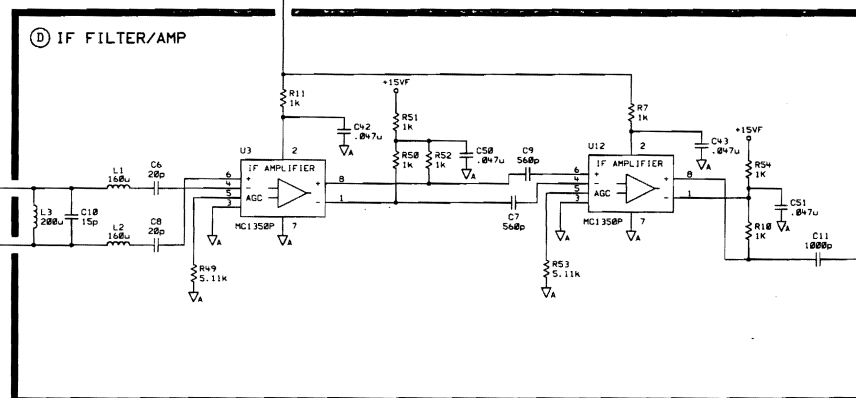
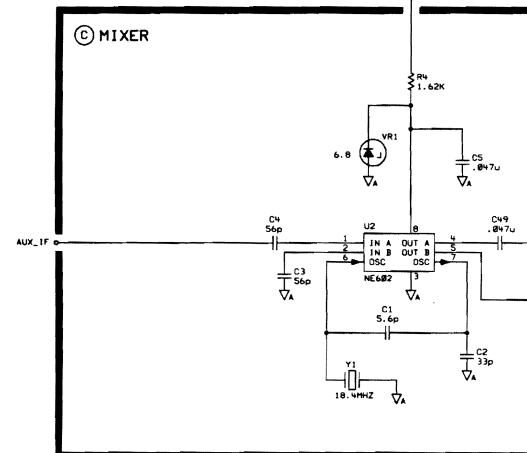
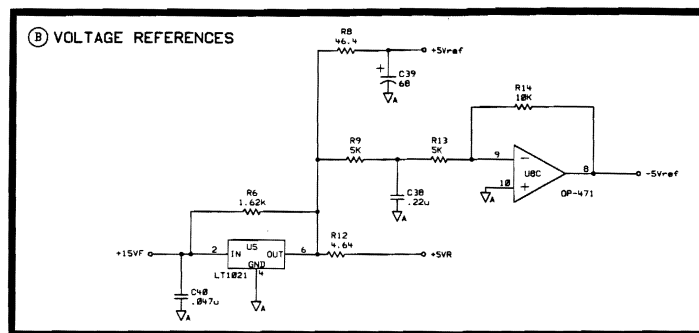
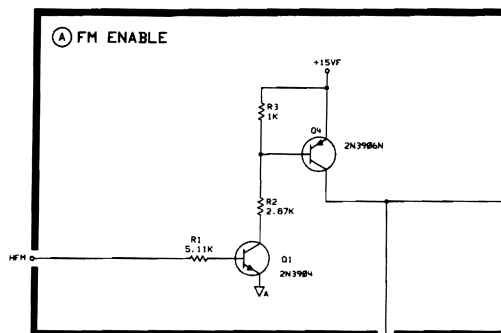
SEE 5062-1983 MATERIAL LIST  
RAW BOARD NUMBER 5021-8691

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UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		DRAWN BY		DATE	
TOLERANCES: XX.XXX (0.015)		ENGINEER/CHECKER		RELEASED TO PROD.	
SEE CORP. STD. 808		SUPERSEDES DWG.		TITLE	
				NONE	
				SCALE	
				SHEET 1 OF 1	
				BOARD ASSEMBLY- QUASI PEAK DETECTOR	
				PART NUMBER 5062-1983	
				D-5062-1983-2	



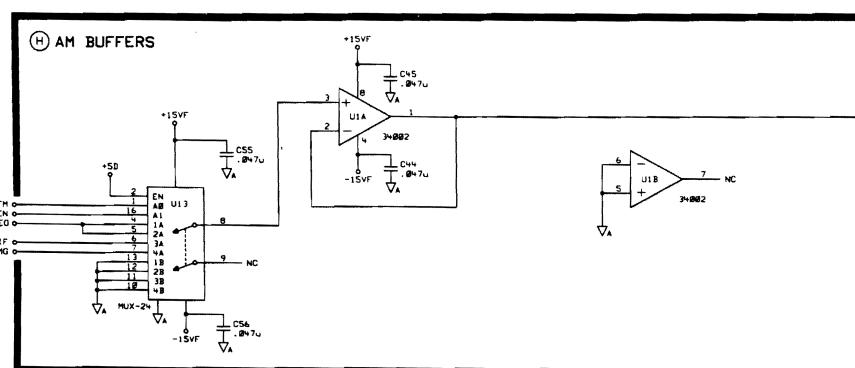
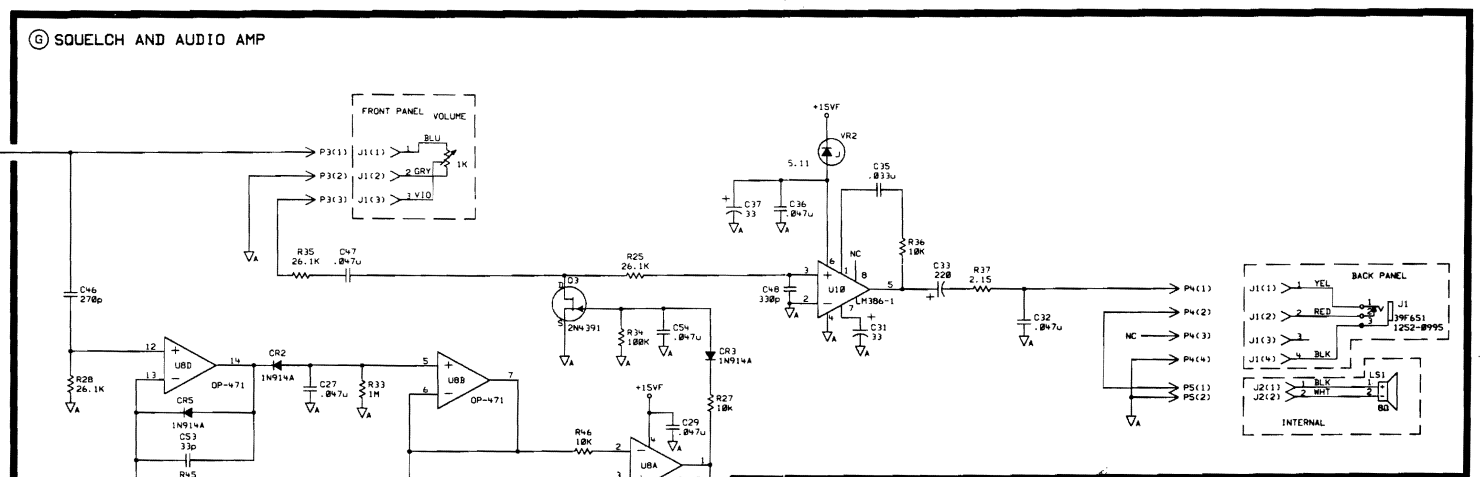
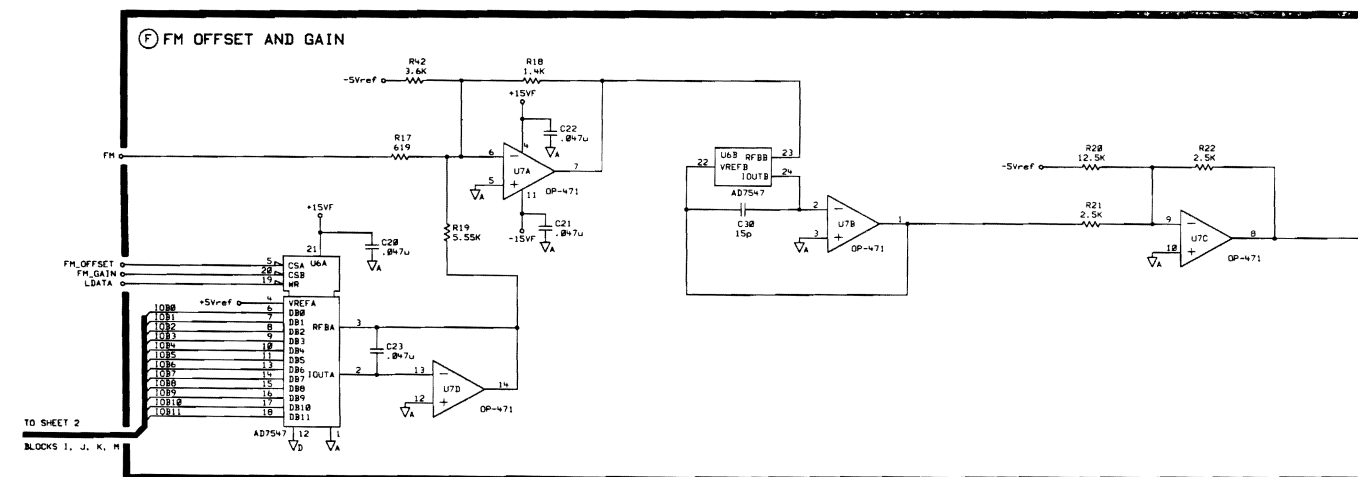
SYM	REVISIONS	APPROVED	DATE
A			



- NOTES:
1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.
  2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN MICROFARADS (μF) INDUCTANCE IN MICROHENRIES (μH)
  3. MNEMONIC TABLE

BLOCK	MNEMONIC	DESCRIPTION
J.L	AB.1	OUT MUX ADDR 1
J.L	A1.1	OUT MUX ADDR 2
J.L	A2.1	AMPLIFIED OPD LEVEL
L.O	AUX.1F	AUXILIARY IF
H.M	AUX.VIDEO	AUXILIARY VIDEO
L.M	CRD. ANAL.1	CARD ANALOG 1
I.J	EN. MUX	OUT MUX REG STROBE
E.F	FM	FM SIGNAL
F.H.L	FMG	FM kHz/VOLT
F.I	FM. GAIN	FM GAIN DAC STROBE
F.O	FM. OFFSET	FM OFFSET DAC STROBE
K.M	FM1	FREQ BW 1
K.M	FM2	FREQ BW 2
K.N.P	FM3	FREQ BW 3
K.N	HOLDING	DISCHARGE OPD, HIGH
A.H.J	FMH	FM ENABLE, HIGH
K.O	HOPDEN	OPD GAIN ENABLE, HIGH
H.K.N	HOPDEN	OPD GAIN ENABLE, HIGH
L.O	LDATA	DATA STROBE, LOW
I.M	LTIO	IO STROBE
J.L	MEAN.1	OUT MUX ENABLE
L.N	PEAK	OPD LEVEL
I.J	OPD	OPD REG STROBE
L.P	OPDOUT	OPD LEVEL OUT
I.J	SOUL	SOULON REG STROBE
H.M.N	VIDEO. IF	VIDEO IF

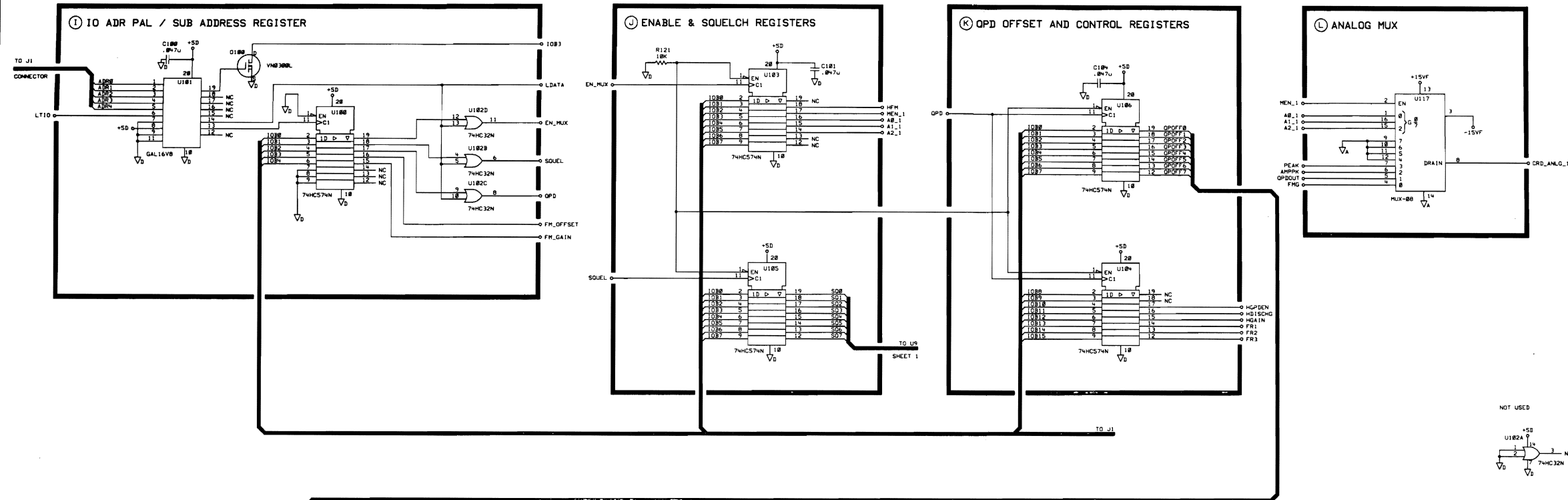
B.E +5V REG  
B.F.G.M +5V REF  
B.F -5V REF



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ITEM	QTY.	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
RAWBD		5021-8691			
DRAWN BY		DATE			
ENGINEER/CHECKER					
RELEASE TO PROD.					
SUPERSEDES DWG.					
PROJECT-GENERAL	FILENAME=5061A951				
SCALE NONE	SHEET 1 OF 2				
BOARD ASSEMBLY- QUASI PEAK DETECTOR					
TITLE (SCHEMATIC)					
PART NUMBER	5062-1983				
D-5062-1983-1					

SYM	REVISIONS	APPROVED	DATE
A			



# **Component-Level Information Packet for 5062-6432 Tracking Generator Control**

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# **HP Part Number 5062-6432** **Tracking Generator Control**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C2	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C3	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C4	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C5	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C6	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C7	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C8	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C9	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C10	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C11	0180-3831	3	1	CAP-FXD 10uF 35 V TA	04200	299D106X9035DB1
C12	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C13	0160-4832	4	1	CAP-FXD 0.01uF 100 V	02010	SA101C103KAAH
C14	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C15	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C16	0160-4574	1	1	CAP-FXD 1000pF 100 V	02010	SA101C102KAAH
C17	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C18	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C19	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C20	0160-4832	4	1	CAP-FXD 0.01uF 100 V	02010	SA101C103KAAH
C21	0180-3831	3	1	CAP-FXD 10uF 35 V TA	04200	299D106X9035DB1
C22	0180-3831	3	1	CAP-FXD 10uF 35 V TA	04200	299D106X9035DB1
C23	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C24	0180-3849	3	1	CAP-FXD 47uF 10 V TA	04200	299D476X9010DB1
C25	0180-3831	3	1	CAP-FXD 10uF 35 V TA	04200	299D106X9035DB1
C26	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C27	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C28	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C29	0160-4819	7	1	CAP-FXD 2200pF 100 V	02010	SA301A222JAAH
C30	0180-3848	2	1	CAP-FXD 33uF 16 V TA	04200	299D336X9016DB1
C31	0160-4832	4	1	CAP-FXD 0.01uF 100 V	02010	SA101C103KAAH
C32	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C33	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
CR1	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	00046	1N4150
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	00046	1N4150
CR3	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	00046	1N4150
CR4	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	00046	1N4150
J1	1252-2009	9	1	CONN-POST TYPE .100-PIN-SPCG 9-CONT	02946	68451-126
J2	1252-2260	4	1	CONN-POST TYPE .100-PIN-SPCG 8-CONT	02946	78207-108
L1	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH +-5% .166D-INX.	03273	15M103J
L2	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH +-5% .166D-INX.	03273	15M103J
L3	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH +-5% .166D-INX.	03273	15M103J
L4	9100-1629	4	1	INDUCTOR RF-CH-MLD 47UH +-5% .166D-INX.3	03273	15M472J
L5	9140-0738	8	1	INDUCTOR 100UH .7D-INX.6LG-IN	01869	
MP2	0403-0630	8	1	EXTR-PC BD BRN NYL .062-IN-BD-THKNS	02123	91-2-BROWN-9
MP3	0403-0621	7	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
MP4	0403-0026	6	1	GLIDE, NYLON	28480	0403-0026

\*Indicates factory-selected value

# HP Part Number 5062-6432

## Tracking Generator Control

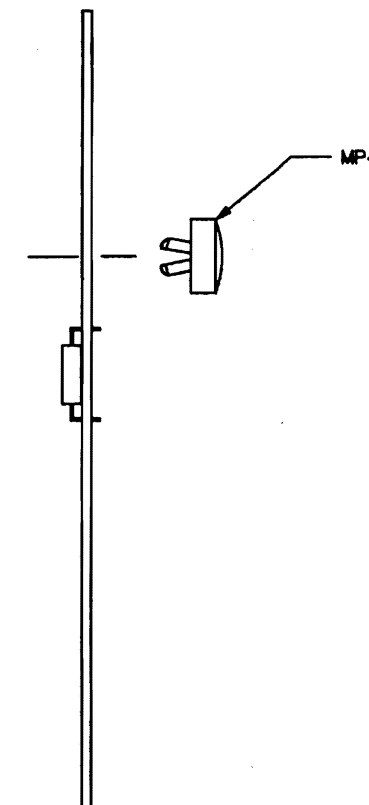
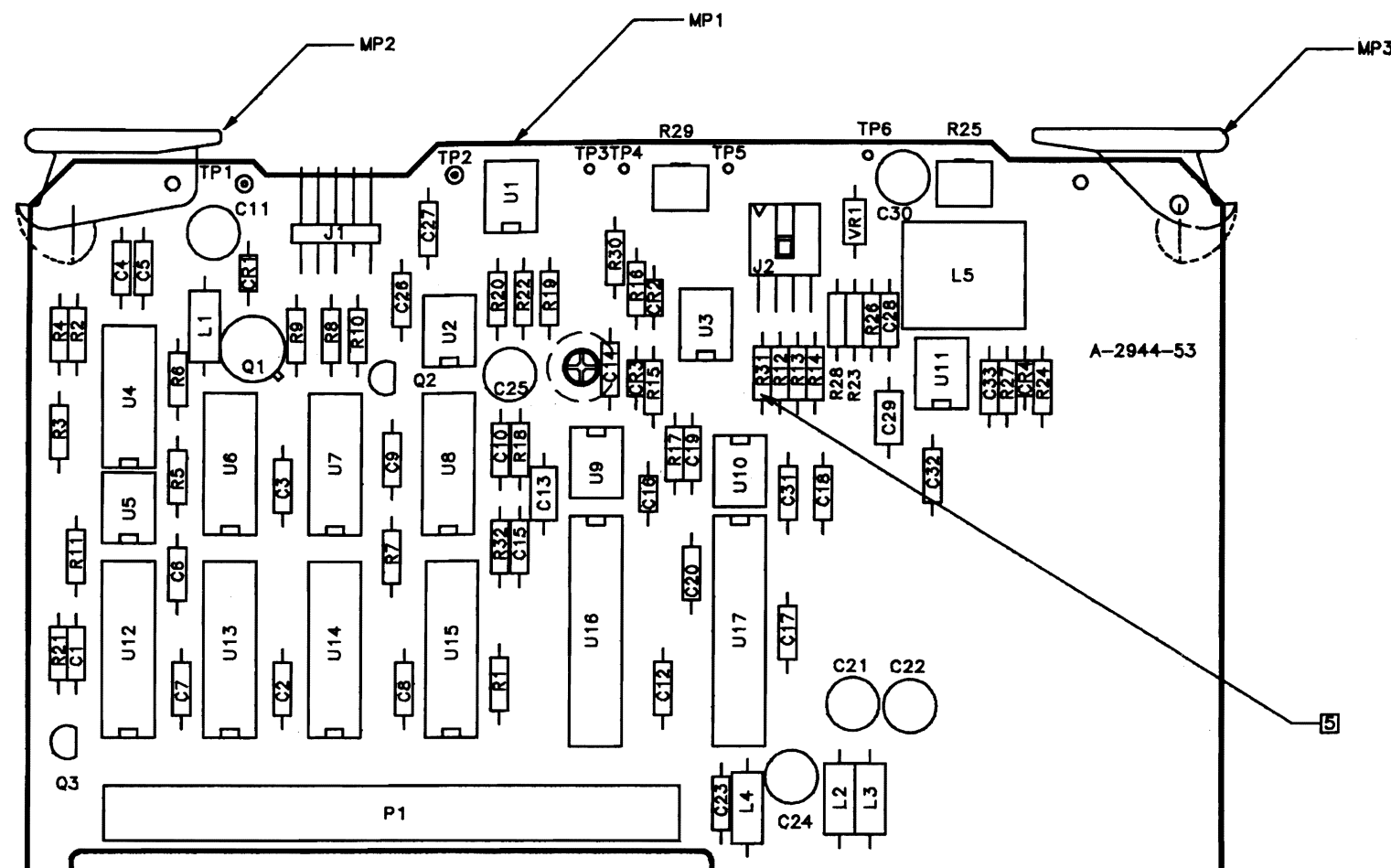
Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
P1	1251-8912	3	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	01380	534204-5
Q1	1853-0213	7	1	TRANSISTOR PNP 2N4236 SI TO-5 PD=1W	02037	2N4236
Q2	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=350MW	00746	2N3904
Q3	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	02883	VN0300L
R1	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R2	0698-6343	5	1	RESISTOR 9K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R3	0757-0424	7	1	RESISTOR 1.1K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R4	0698-6321	9	1	RESISTOR 9.9K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R5	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R6	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R7	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R8	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R9	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R10	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R11	0698-6317	3	1	RESISTOR 500 +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R12	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R13	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R14	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R15	0698-6358	2	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R16	0698-6358	2	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R17	0698-3151	7	1	RESISTOR 2.87K 1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R18	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R19	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R20	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R21	0698-3432	7	1	RESISTOR 26.1 1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R22	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R23	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R24	0757-0416	7	1	RESISTOR 511 +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R25	2100-3274	2	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ 1-TRN	03744	3386X-Y46-103
R26	0757-0317	7	1	RESISTOR 1.33K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R27	0757-0416	7	1	RESISTOR 511 +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R28	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R29	2100-3273	1	1	RESISTOR-TRMR 2K 10% TKF SIDE-ADJ 1-TRN	03744	3386X-Y46-202
R30	0757-0441	8	1	RESISTOR 8.25K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R32	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
TP1	0360-0077	5	1	TERMINAL-STUD SGL-TUR SWGFRM-MTG	01461	1601-HP
TP2	0360-0077	5	1	TERMINAL-STUD SGL-TUR SWGFRM-MTG	01461	1601-HP
TP3	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP4	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP5	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP6	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1826-1514	6	1	IC V RGLTR-V-REF-FXD 9.95/10.05V 8-DIP-P	10858	LT1021BCN8-10
U2	1826-1436	1	1	IC OP AMP PRCN DUAL 8-DIP-C PKG	10858	LT1013ACJ8
U3	1826-1436	1	1	IC OP AMP PRCN DUAL 8-DIP-C PKG	10858	LT1013ACJ8
U4	1826-0141	3	1	IC COMPARATOR GP DUAL 14-DIP-C PKG	03406	LM319J
U5	1826-2026	7	1	ANALOG SWITCH SPST 8 -DIP-P	02883	DG417DJ
U6	1820-3173	5	1	IC FF CMOS/74HC J-K NEG-EDGE-TRIG PRESET	02037	MC74HC112N
U7	1820-3079	0	1	IC DCDR CMOS/74HC BIN 3-TO-8-LINE	02037	MC74HC138N

**HP Part Number 5062-6432****Tracking Generator Control**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U8	1826-2128	0	1	ANALOG SWITCH 8 CHNL 16 -DIP-P	02883	DG408DJ
U9	1826-1436	1	1	IC OP AMP PRCN DUAL 8-DIP-C PKG	10858	LT1013ACJ8
U10	1826-1436	1	1	IC OP AMP PRCN DUAL 8-DIP-C PKG	10858	LT1013ACJ8
U11	1826-1048	1	1	IC OP AMP PRCN 8-DIP-C PKG	02180	OP-07CZ
U12	08590-80105	9	1	PAL, PROGRAMMED	28480	08590-80105
U13	1820-3790	2	1	IC LCH CMOS/74HC D-TYPE OCTL	02037	MC74HC573N
U14	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG COM	02037	MC74HC574N
U15	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG COM	02037	MC74HC574N
U16	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	03285	AD7547KN
U17	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	03285	AD7547KN
VR1	1902-0551	1	1	DIODE-ZNR 6.2V 5% PD=1W IR=10UA	02037	

*\*Indicates factory-selected value*

D-5062-6432-2			
SYM	REVISIONS	APPROVED	DATE
A			



# NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.

2. REMOVE TABS AFTER WAVE SOLDER.

3. MAXIMUM COMPONENT HEIGHT .118.

4. MAXIMUM LEAD TRIM LENGTH .0118.

5. DO NOT LOAD R31.

SEE MATERIAL LIST 5062-6432

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UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		DATE	BD ASSEMBLY- TRACKING GEN CONTROL		 5062-6432
TOLERANCES: XX.XXX ±.015		ENGINEER/CHECKER			
SEE CORP. STD. 608		RELEASED TO PROD.			
		SUPERSEDES DWG.			
SCALE			NONE	SHEET 1 OF 1	D-5062-6432-2



SYM	REVISIONS	APPROVED	DATE
A			

J1 TG CONNECTOR

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	+5V		
2	ACOM		
3	+15V		
4	OSC_PWR		
5	LO		
6	ALC_PON		
7	OSC_VL		
8	+5V		
9	ALC_EXT		

J2 LODA CONNECTOR

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	+5V		
2	LO_SENSE		
3	LODA_COM		
4	NC		
5	STR		
6	PIN_ATTEN		
7	+5V		
8	+5V		

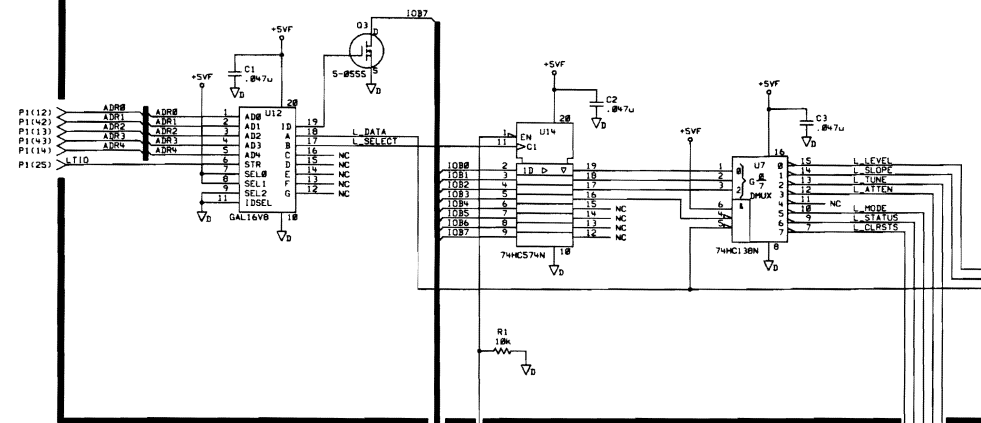
P1

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NC		
2	ACOM		
3	NC		
4	ACOM		
5	CARD_ANALOG_2		
6	ACOM		
7	NC		
8	ACOM		
9	+15V		
10	+15V		
11	ACOM		
12	ACOM		
13	ACOM		
14	ACOM		
15	LODA		
16	LODA		
17	LODA		
18	LODA		
19	LODA		
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100	LODA		

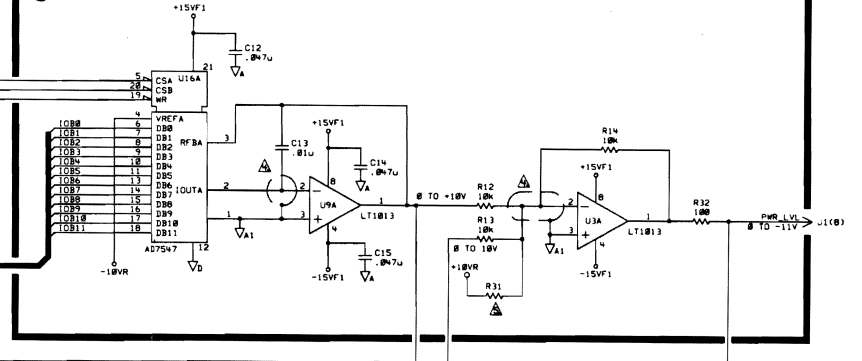
P1 CONT.

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
31	ACOM		
32	ACOM		
33	ACOM		
34	ACOM		
35	ACOM		
36	ACOM		
37	ACOM		
38	ACOM		
39	ACOM		
40	ACOM		
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98	ACOM		
99	ACOM		
100	ACOM		

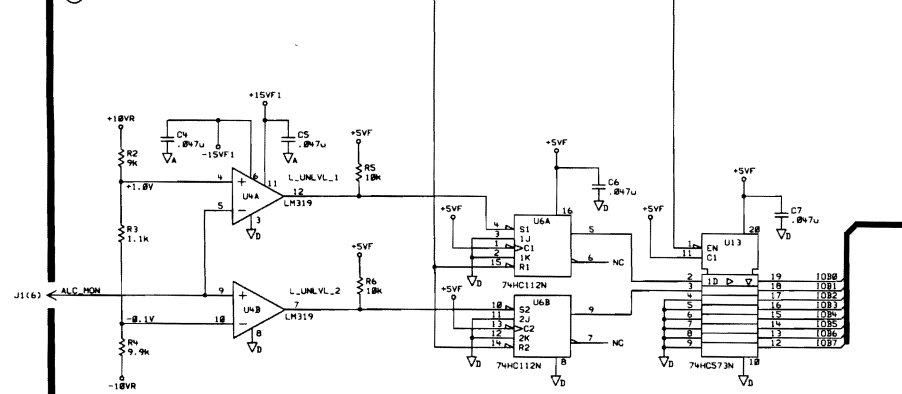
A ADDRESS DECODE AND SUB ADDRESS LATCH



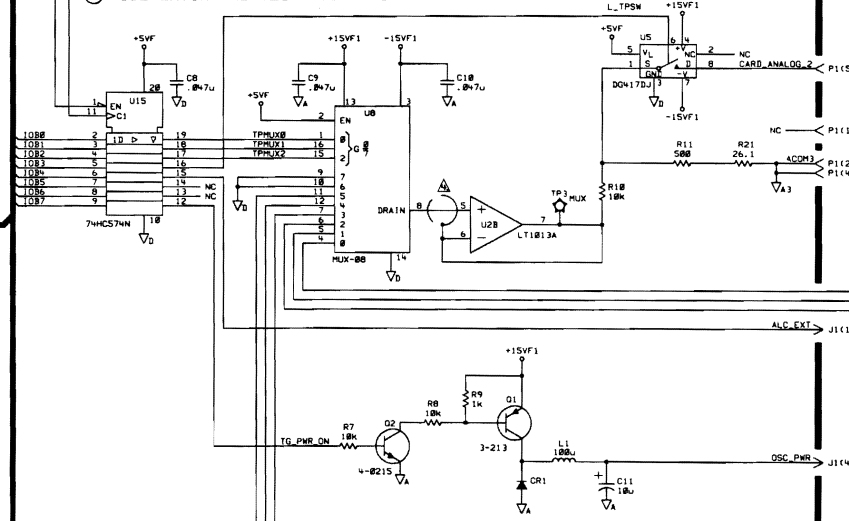
D LEVEL REFERENCE



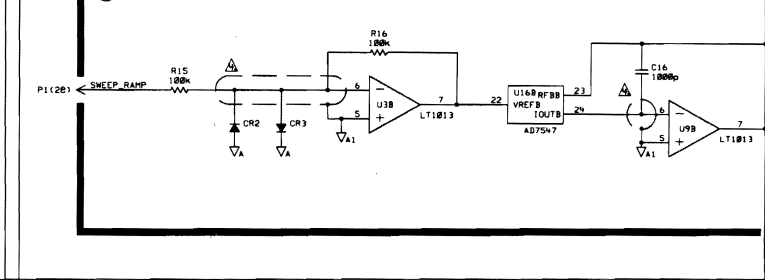
B ALC STATUS



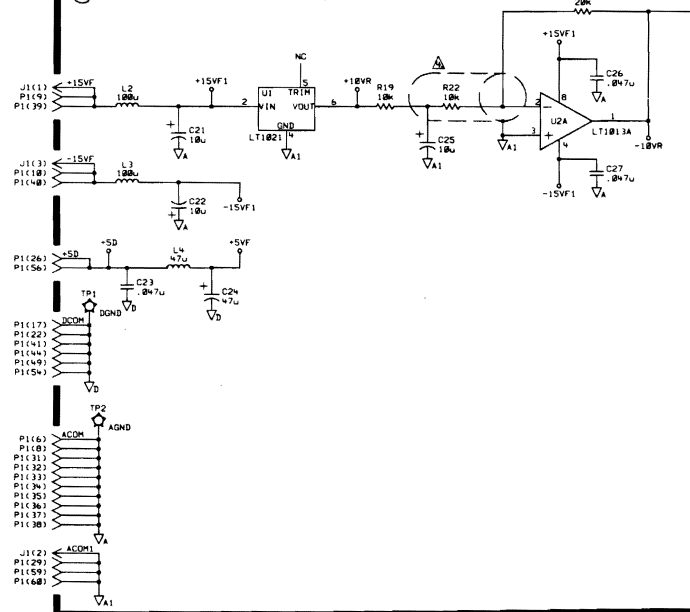
C MODE LATCH AND TEST POINT MUX



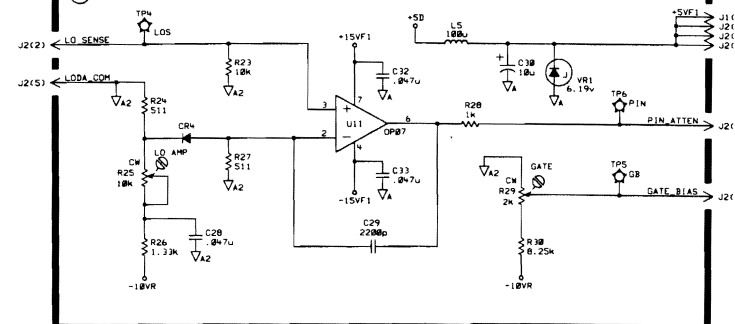
E POWER SWEEP (SLOPE CORRECTION)



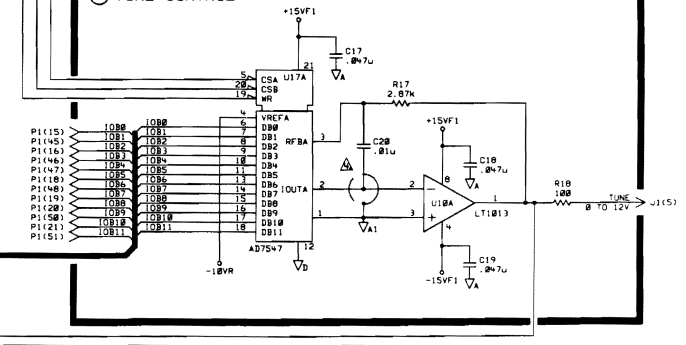
G POWER SUPPLY AND VOLTAGE REFERENCE



H LODA DRIVE



F TUNE CONTROL



# **Component-Level Information Packet for 5062-7079**

## **20 MHz Fast ADC**



**HP Part No. 5958-7174  
Printed in USA October 1992**

**HP Part Number 5062-7079**  
**20 MHz Fast ADC**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C2	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C3	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C4	0180-3769	6	1	CAP-FXD 6.8uF +10% 35 V TA	04200	299D685X9035DB1
C5	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C6	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C7	0180-3769	6	1	CAP-FXD 6.8uF +10% 35 V TA	04200	299D685X9035DB1
C8	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C9	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C10	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C11	0180-3831	3	1	CAP-FXD 10uF +-10% 35 V TA	04200	299D106X9035DB1
C12	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C13	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C14	0180-3831	3	1	CAP-FXD 10uF +-10% 35 V TA	04200	299D106X9035DB1
C15	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C16	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C17	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C18	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C19	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C20	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C21	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C22	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C23	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C24	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C25	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C26	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C27	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C28	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C29	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C30	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C31	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C32	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C33	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C34	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C35	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C36	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V

\*Indicates factory-selected value

CLIP 5958-7174 1

**HP Part Number 5062-7079  
20 MHz Fast ADC (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C37	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C38	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C39	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C40	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C41	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C42	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C43	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C44	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C45	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C46	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C47	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C48	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C49	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C50	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C51	0180-3831	3	1	CAP-FXD 10uF +-10% 35 V TA	04200	299D106X9035DB1
C52	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C53	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C54	0180-3831	3	1	CAP-FXD 10uF +-10% 35 V TA	04200	299D106X9035DB1
C56	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C58	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C59	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C60	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
E1	9100-1788	6	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	11212	LB2/2.5ZB
E2	9100-1788	6	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	11212	LB2/2.5ZB
E3	9170-1419	7	1	CORE-SHIELDING BEAD	28480	9170-1419
J1	1251-8912	3	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8912
L1	9100-1629	4	1	INDUCTOR RF-CH-MLD 47UH +-5%	05826	1537-60
L2	9100-1629	4	1	INDUCTOR RF-CH-MLD 47UH +-5%	05826	1537-60
MP2	0403-0630	8	1	EXTR-PC BD BRN NYL .062-IN-BD-THKNS	02123	91-2-BROWN-9
MP3	0403-0621	7	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
MP4	5002-0644	9	1	SHIELD	28480	5002-0644
Q1	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
R1	0698-7222	1	1	RESISTOR 261 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R2	0698-7234	5	1	RESISTOR 825 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R3	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2

**HP Part Number 5062-7079**  
**20 MHz Fast ADC (continued)**

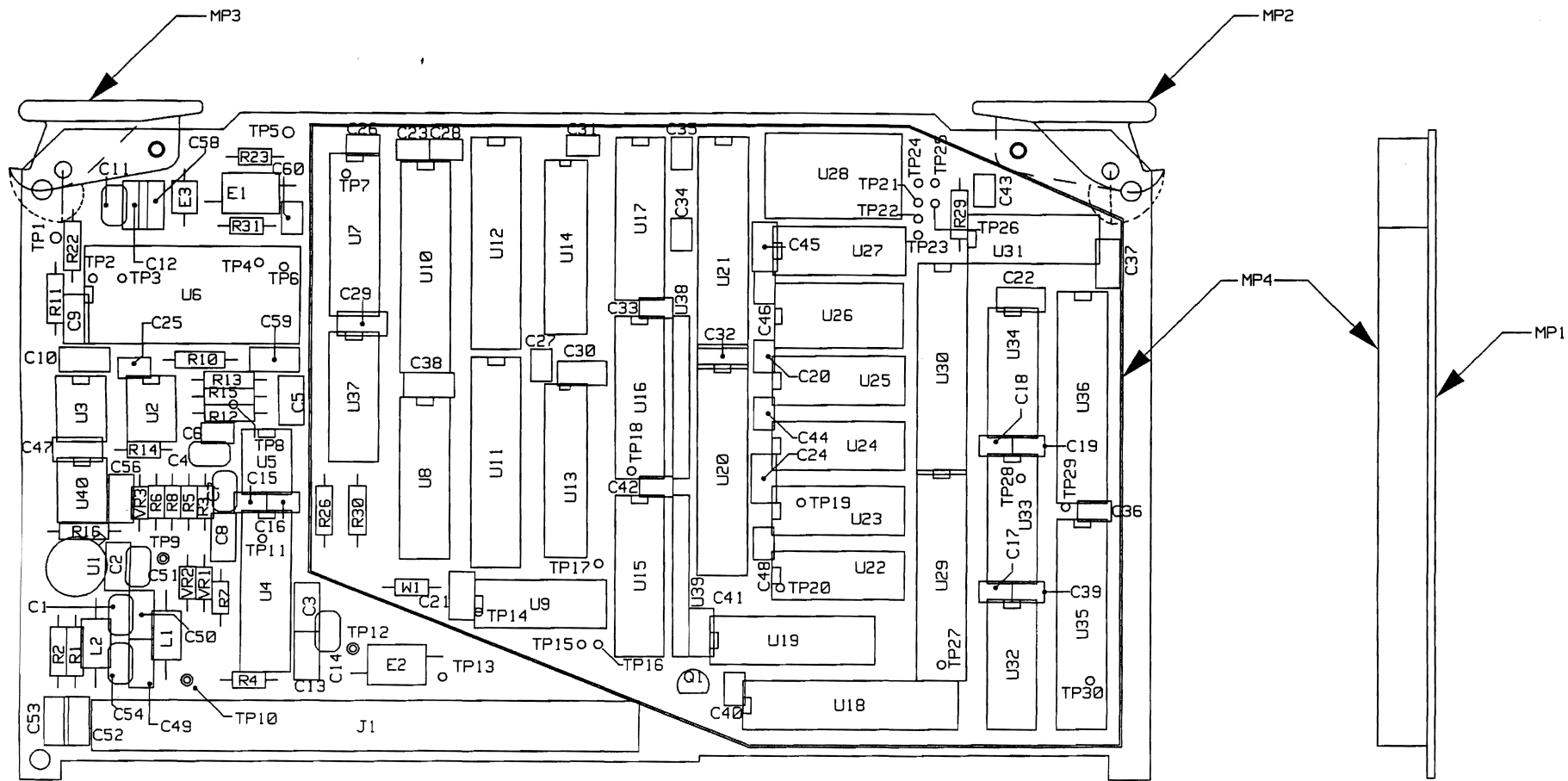
Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R4	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R5	0698-7222	1	1	RESISTOR 261 +1% .05W TF TC=0+-100	05524	CMF-50-2
R6	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R7	0698-7212	9	1	RESISTOR 100 +1% .05W TF TC=0+-100	05524	CMF-50-2
R8	0698-7198	0	1	RESISTOR 26.1 +1% .05W TF TC=0+-100	05524	CMF-50-2
R10	0698-6320	8	1	RESISTOR 5K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R11	0698-3445	2	1	RESISTOR 348 +1% .125W TF TC=0+-100	05524	CMF-55-1
R12	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R13	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R14	0698-6377	5	1	RESISTOR 200 +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R15	0699-0154	6	1	RESISTOR 7.2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1
R16	0698-3445	2	1	RESISTOR 348 +1% .125W TF TC=0+-100	05524	CMF-55-1
R22	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R23	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R26	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R29	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R30	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R31	0698-7225	4	1	RESISTOR 348 +1% .05W TF TC=0+-100	05524	CMF-50-2
TP1	1251-0600	0	1	CONNECTOR-SGL CONT PIN 1.14-MM-BSC-SZ SQ	03418	16-06-0034
TP5	1251-0600	0	1	CONNECTOR-SGL CONT PIN 1.14-MM-BSC-SZ SQ	03418	16-06-0034
U1	1826-0558	6	1	IC V RGLTR-ADJ-NEG 1.2/37V TO-39 PKG	28480	1826-0558
U2	1826-1431	6	1	IC V RGLTR-V-REF-FXD 4.9975/5.0025V	28480	1826-1431
U3	1826-1135	7	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1135
U4	1826-1998	0	1	ANALOG MULTIPLEXER 4 CHNL 18 -DIP-P	28480	1826-1998
U5	1826-2011	0	1	IC OP AMP WB 8 PIN DIP-P	11604	CLC400AJP
U6	1826-1731	9	1	A/D 8-BIT 24-CERDIP BPLR	28480	1826-1731
U7	1820-3695	6	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG COM	28480	1820-3695
U8	1820-3456	7	1	IC DRVR CMOS/HCT BUS OCTL	28480	1820-3456
U9	1820-3590	0	1	IC GATE TTL/AS OR QUAD 2-INP	28480	1820-3590
U10	1820-2899	0	1	IC COMPTR TTL/AS MAGTD 8-BIT	28480	1820-2899
U11	1820-4652	7	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG COM	28480	1820-4652
U12	1820-2899	0	1	IC COMPTR TTL/AS MAGTD 8-BIT	28480	1820-2899
U13	1818-4130	1	1	IC 64K SRAM 22-NS CMOS	28480	1818-4130
U14	1818-4130	1	1	IC 64K SRAM 22-NS CMOS	28480	1818-4130
U15	5181-5016	7	1		28480	5181-5016

\*Indicates factory-selected value

**HP Part Number 5062-7079  
20 MHz Fast ADC (continued)**

Reference Designator	HP Part Number	C	Qty	Description	Mfr Code	Mfr Part Number
U16	1820-3695	6	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG COM	28480	1820-3695
U17	1820-3695	6	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG COM	28480	1820-3695
U18	1820-4450	3	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG COM	28480	1820-4450
U19	1820-3695	6	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG COM	28480	1820-3695
U20	1820-4125	9	1	IC CNTR TTL/F BIN UP/DOWN SYNCHRO	28480	1820-4125
U21	1820-4125	9	1	IC CNTR TTL/F BIN UP/DOWN SYNCHRO	28480	1820-4125
U22	1820-3735	5	1	IC FF TTL/AS J-K BAR POS-EDGE-TRIG	28480	1820-3735
U23	1820-3591	1	1	IC GATE TTL/AS NAND QUAD 2-INP	28480	1820-3591
U24	1820-2696	5	1	IC FF TTL/F D-TYPE POS-EDGE-TRIG COM CLK	02037	MC74F175N
U25	1820-3732	2	1	IC GATE TTL/AS AND TPL 3-INP	28480	1820-3732
U26	1810-0960	1	1	DELAY LINE ACTIVE DEVICE W/DUAL IN-LINE	09171	AIDM-25
U27	1820-3747	9	1	IC MUXR/DATA-SEL TTL/AS 4-TO-1-LINE DUAL	28480	1820-3747
U28	1813-0119	8	1	CLK-OSC-XTAL STD 40.0-MHZ 0.01%	28480	1813-0119
U29	1820-4535	5	1	IC LCH TTL/ALS TRANSPARENT 10-BIT	28480	1820-4535
U30	1820-4125	9	1	IC CNTR TTL/F BIN UP/DOWN SYNCHRO	28480	1820-4125
U31	1820-3493	2	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG	28480	1820-3493
U32	1820-3335	1	1	IC GATE TTL/ALS NAND QUAD 2-INP	28480	1820-3335
U33	1820-3729	7	1	IC GATE TTL/AS NOR QUAD 2-INP	28480	1820-3729
U34	1820-2696	5	1	IC FF TTL/F D-TYPE POS-EDGE-TRIG COM CLK	02037	MC74F175N
U35	1820-4125	9	1	IC CNTR TTL/F BIN UP/DOWN SYNCHRO	28480	1820-4125
U36	1820-4125	9	1	IC CNTR TTL/F BIN UP/DOWN SYNCHRO	28480	1820-4125
U37	1820-3732	2	1	IC GATE TTL/AS AND TPL 3-INP	28480	1820-3732
U38	1810-0279	5	1	NETWORK-RES 10-SIP 4.7K OHM X 9	06252	750-101
U39	1810-0270	6	1	NETWORK-RES 10-SIP 680.0 OHM X 9	06252	750-101
U40	1826-1135	7	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1135
VR1	1902-0950	4	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	28480	1902-0950
VR2	1902-0554	4	1	DIODE-ZNR 10V 5% PD=1W IR=10UA	02688	
VR3	1902-0950	4	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	28480	1902-0950
W1	8159-0005	0	1	RESISTOR 0 CWM	01339	L-2007-1

		D -5062-7079-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PCO# 5300-06456 HS		




NOTES: UNLESS OTHERWISE SPECIFIED

- 1. DIMENSIONS ARE IN INCHES.
- 2. REMOVE TABS AFTER WAVE SOLDER.
- 3. MAXIMUM COMPONENT HEIGHT .500.
- 4. MAXIMUM LEAD TRIM LENGTH .118.
- 5. CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-5062-A101.

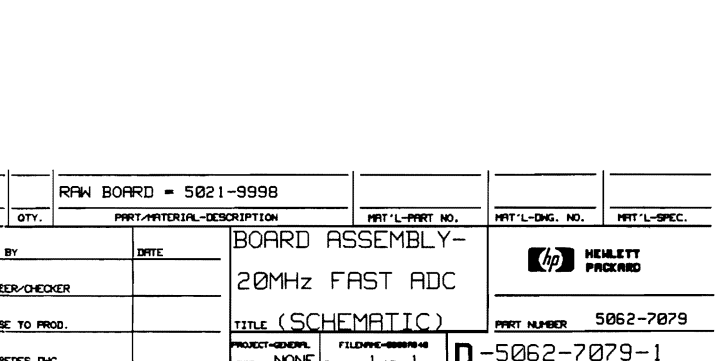
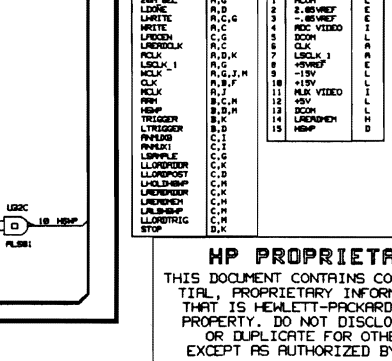
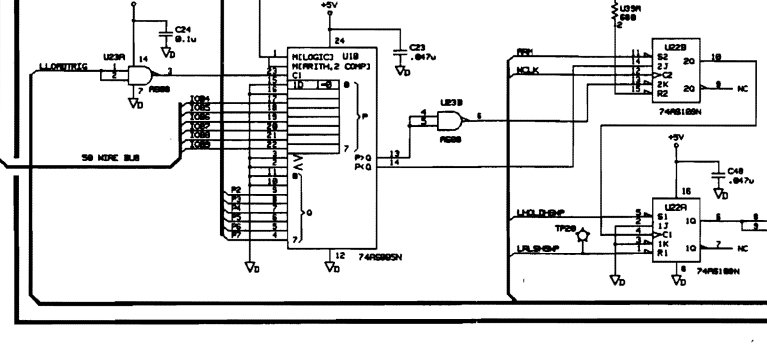
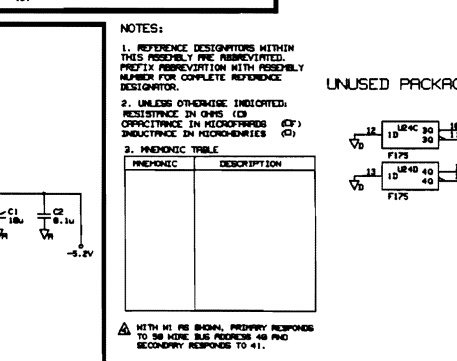
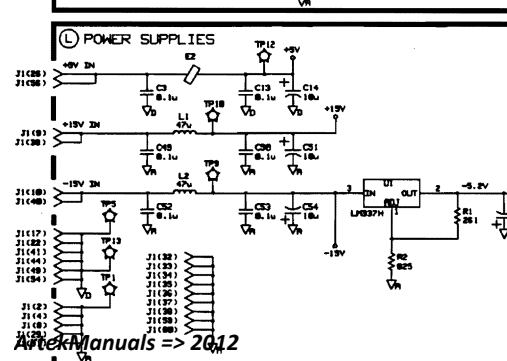
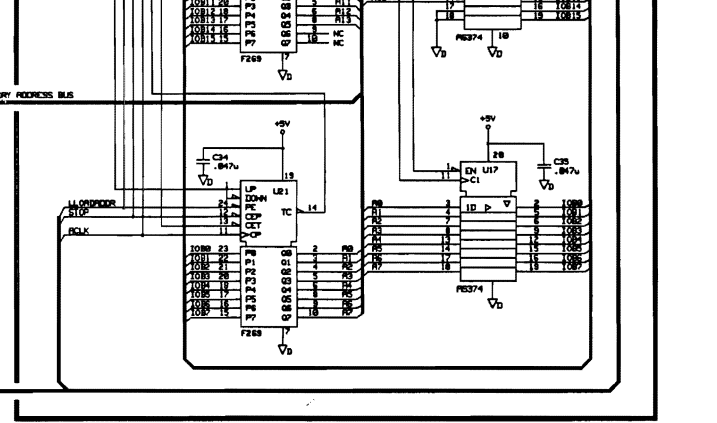
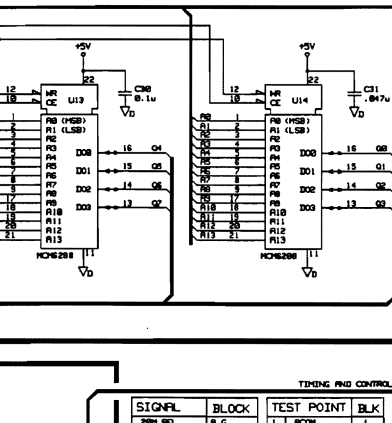
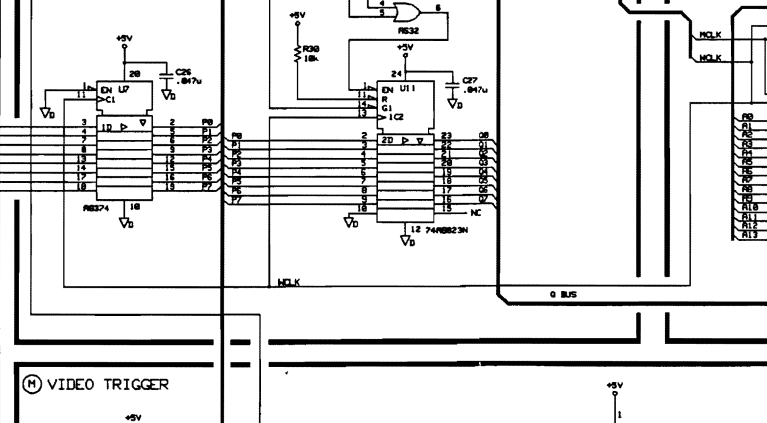
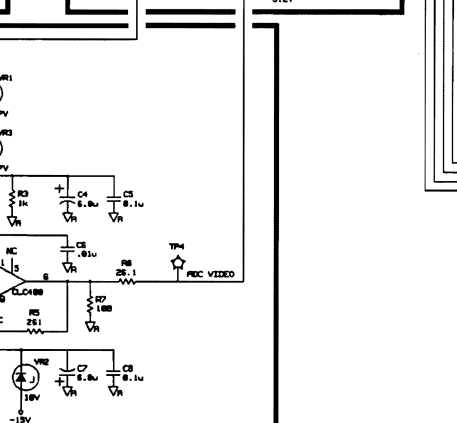
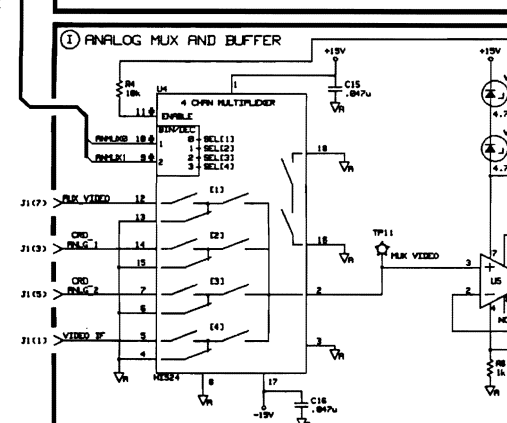
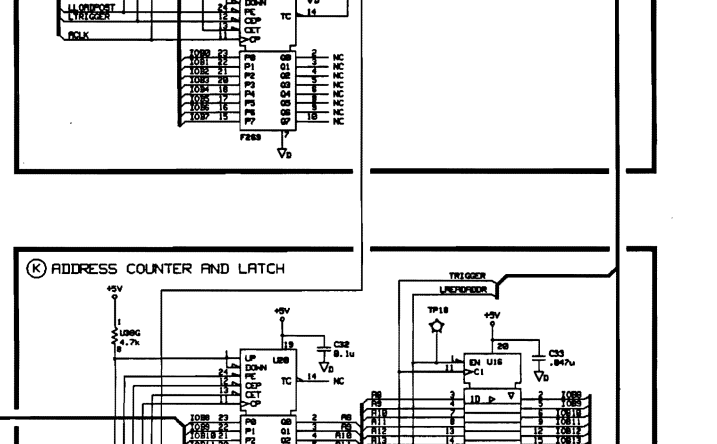
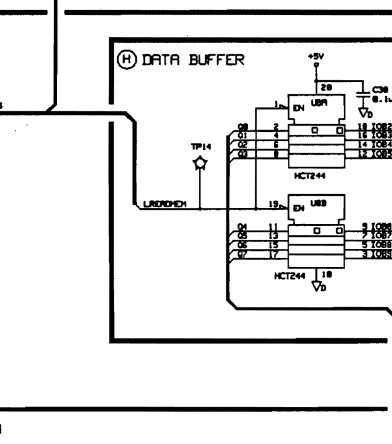
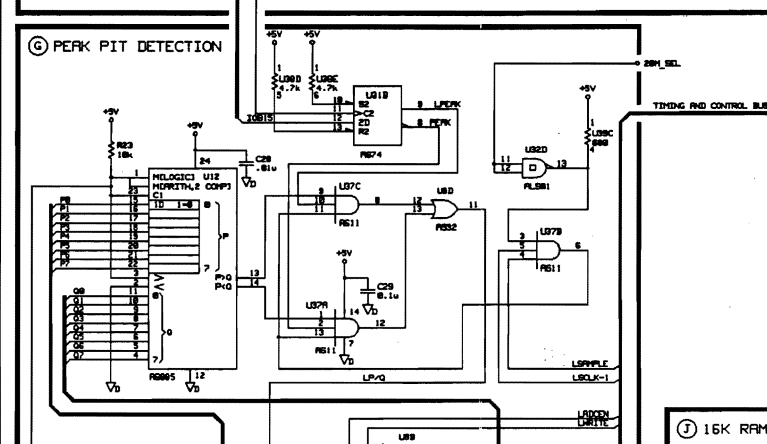
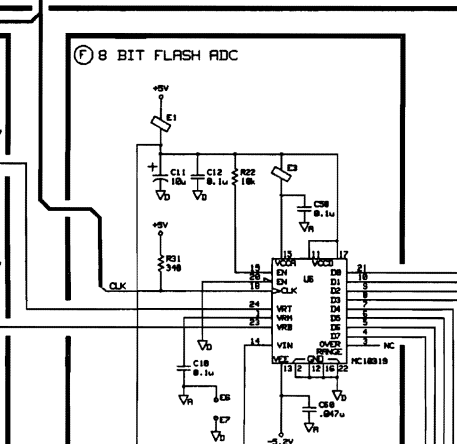
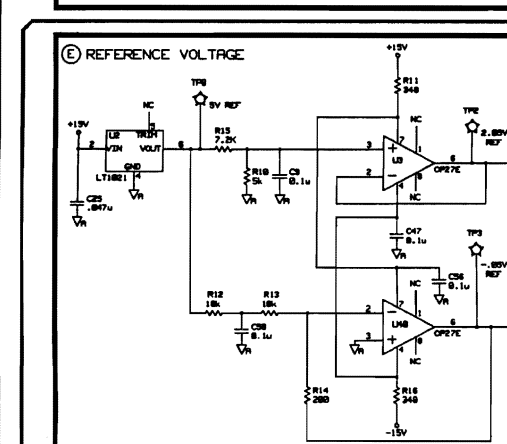
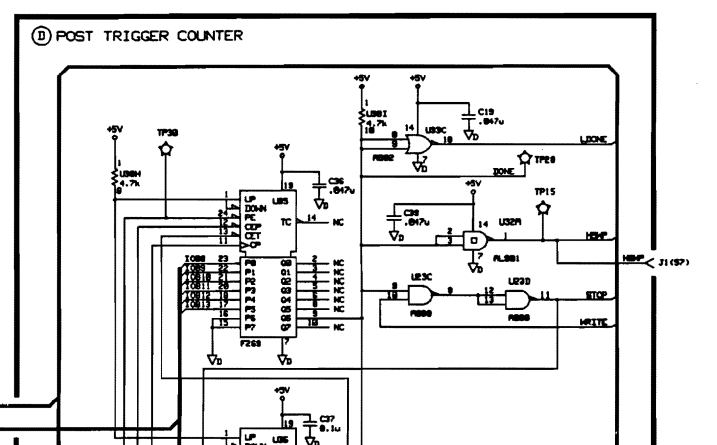
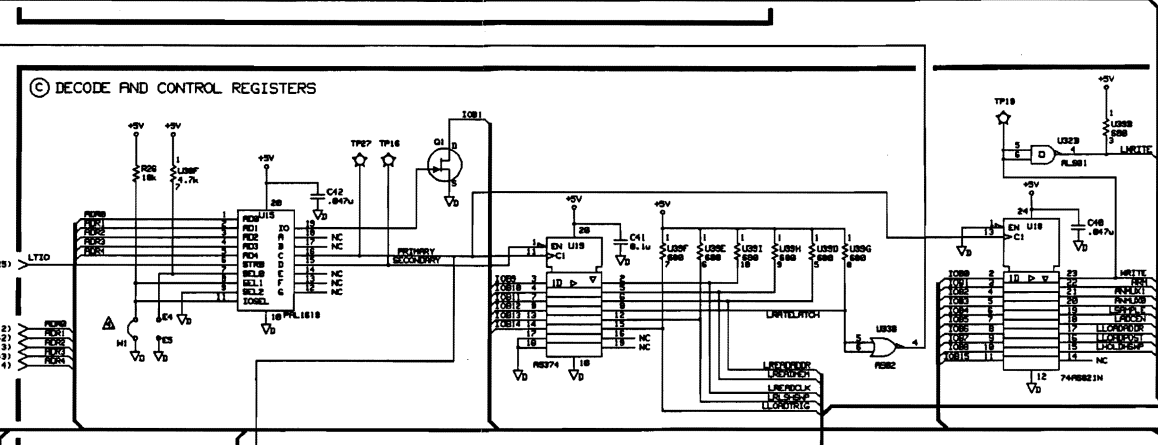
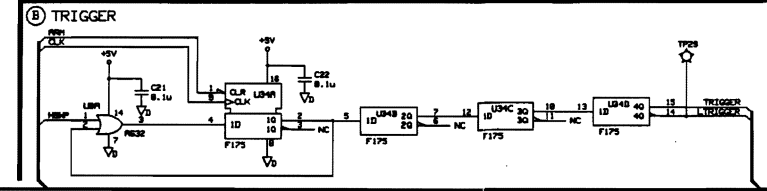
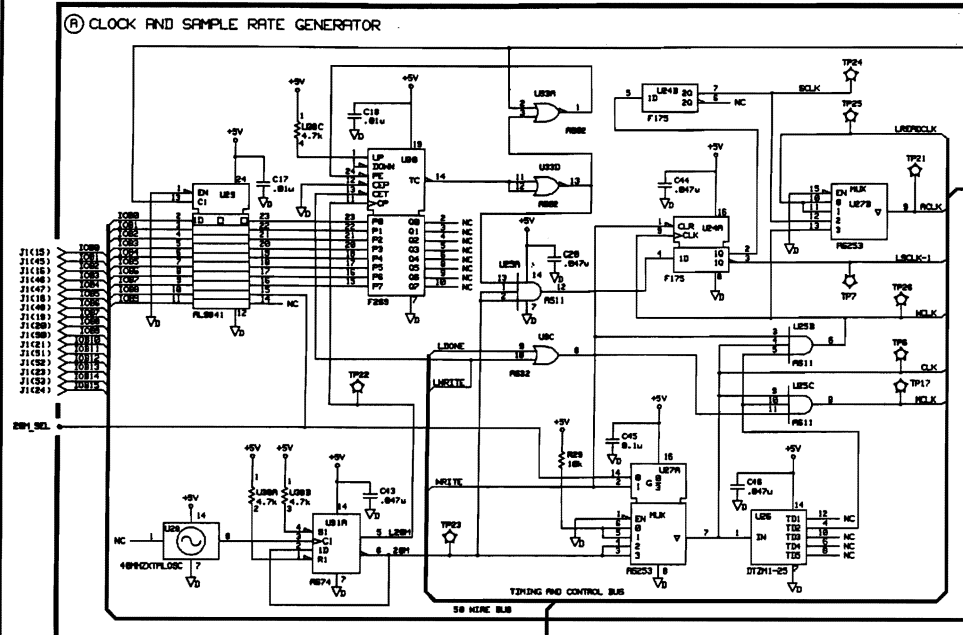
SEE 5062-7079 MATERIAL LIST

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<div>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.</div> <div>TOLERANCES: XX.XXX ±.015</div> <div>SEE CORP. STD. 600</div>	DRAWN BY	1-30-91	BOARD ASSEMBLY- 20MHZ FAST ADC		 <b>HEWLETT PACKARD</b>
	DATE	1-30-91			
	ENGINEER/CHECKER		TITLE	PART NUMBER 5062-7079	
	RELEASED TO PROD.		NONE	-5062-7079-2	
SUPERSEDES DWG.		SCALE	SHEET 1 of 1	D	



SYN	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 5300-06456		



SIGNAL	BLOCK	TEST POINT	BLK	TEST POINT	BLK
20MHz	1	1	1	1	1
20MHz	2	2	2	2	2
20MHz	3	3	3	3	3
20MHz	4	4	4	4	4
20MHz	5	5	5	5	5
20MHz	6	6	6	6	6
20MHz	7	7	7	7	7
20MHz	8	8	8	8	8
20MHz	9	9	9	9	9
20MHz	10	10	10	10	10
20MHz	11	11	11	11	11
20MHz	12	12	12	12	12
20MHz	13	13	13	13	13
20MHz	14	14	14	14	14
20MHz	15	15	15	15	15
20MHz	16	16	16	16	16
20MHz	17	17	17	17	17
20MHz	18	18	18	18	18
20MHz	19	19	19	19	19
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20MHz	21	21	21	21	21
20MHz	22	22	22	22	22
20MHz	23	23	23	23	23
20MHz	24	24	24	24	24
20MHz	25	25	25	25	25
20MHz	26	26	26	26	26
20MHz	27	27	27	27	27
20MHz	28	28	28	28	28
20MHz	29	29	29	29	29
20MHz	30	30	30	30	30
20MHz	31	31	31	31	31
20MHz	32	32	32	32	32
20MHz	33	33	33	33	33
20MHz	34	34	34	34	34
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20MHz	41	41	41	41	41
20MHz	42	42	42	42	42
20MHz	43	43	43	43	43
20MHz	44	44	44	44	44
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20MHz	99	99	99	99	99
20MHz	100	100	100	100	100

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RAW BOARD = 5021-9998	BOARD ASSEMBLY-20MHz FAST ADC	5062-7079
ITEM	QTY.	DATE
ENGINEER/CHECKER		
RELEASE TO PROD.		
SUPERSEDES Dwg.		
PROJECT-NO.	5062-7079	SCALE NONE
SHEET	1 OF 1	D-5062-7079-1



# **Component-Level Information Packet**

## **for 5062-7754**

### **Gate Card**

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**HP Document Part Number 5960-2568**

**Printed December 1990  
Printed in USA**

The information contained in this document is subject to change  
without notice.



**HP Part Number 5062-7754**  
**Gate Card**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A105	5062-7754	2	1	BD AY-GATE CARD	28480	5062-7754
U18	1820-2922	0	1	IC GATE CMOS/74HC NAND QUAD 2 INP	03406	74HC00N
U23	1820-3298	5	1	IC GATE CMOS/74HC OR QUAD 2 INP	03406	74HC32N
U20	1820-2921	9	1	IC INV CMOS/74HC HEX	03406	74HC04N
U21	1820-3081	4	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG	03406	74HC74AN
U17	1820-3081	4	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG	03406	74HC74AN
U2	1820-3205	4	1	IC CNTR CMOS/74HC BIN UP/DOWN SYNC	03406	74HC193N
U3	1820-3205	4	1	IC CNTR CMOS/74HC BIN UP/DOWN SYNC	03406	74HC193N
U6	1820-3205	4	1	IC CNTR CMOS/74HC BIN UP/DOWN SYNC	03406	74HC193N
U7	1820-3205	4	1	IC CNTR CMOS/74HC BIN UP/DOWN SYNC	03406	74HC193N
U9	1820-3205	4	1	IC CNTR CMOS/74HC BIN UP/DOWN SYNC	03406	74HC193N
U10	1820-3205	4	1	IC CNTR CMOS/74HC BIN UP/DOWN SYNC	03406	74HC193N
U13	1820-3205	4	1	IC CNTR CMOS/74HC BIN UP/DOWN SYNC	03406	74HC193N
U14	1820-3205	4	1	IC CNTR CMOS/74HC BIN UP/DOWN SYNC	03406	74HC193N
U1	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG	03406	74HC574N
U4	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG	03406	74HC574N
U5	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG	03406	74HC574N
U22	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG	03406	74HC574N
U24	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG	03406	74HC574N
U16	5181-5072	5	1	CONTROL IC	28480	5181-5072
U19	08590-80105	9	1	ADDRESS DECODER	28480	08590-80105
U11	1820-3693	4	1	IC SW CMOS/74HC ANALOG OCTL	03406	74HC4066D
U12	1820-3097	2	1	IC GATE CMOS/74HC AND QUAD 2 INP	03406	74HC08N
U15	1813-0758	1	1	CLOCK-OSCILLATOR-XTAL 1.0MHZ 0.01%	28480	1813-0758
Q1	1855-0555	4	1	TR MOSFET N-CHAN E-MODE SI	02883	VN0300L
CR1	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	1N4150
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	1N4150
CR3	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	1N4150
CR4	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	1N4150
C12	0160-6889	5	1	CAP-FXD 100pF 50V CER 20%	28480	0160-6889
C1	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C2	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C3	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C5	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C6	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C7	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C8	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C9	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C10	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C11	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C13	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C14	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C15	0160-3237	1	1	CAP-FXD 0.1uF 50V CER 20%	09939	RPE122Z5U104
C4	0180-0229	7	1	CAP-FXD 33uF 16V AXIAL type AL ELECT	28480	0180-0229
J2	1250-0543	8	1	CONN-RF SMB M-PC 500HM	05769	51-053-0000-226
J3	1250-0543	8	1	CONN-RF SMB M-PC 500HM	05769	51-053-0000-226
J1	1251-8912	3	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	02946	67273-030
TP1-6	0360-2359	0	6	TERMINAL TEST-POINT .230 IN	28480	0360-2359
R1-3	0757-0442	9	3	RES 10K 1% 0.125W	05524	
R6	0757-0442	9	1	RES 10K 1% 0.125W	05524	

*\*Indicates factory-selected value*

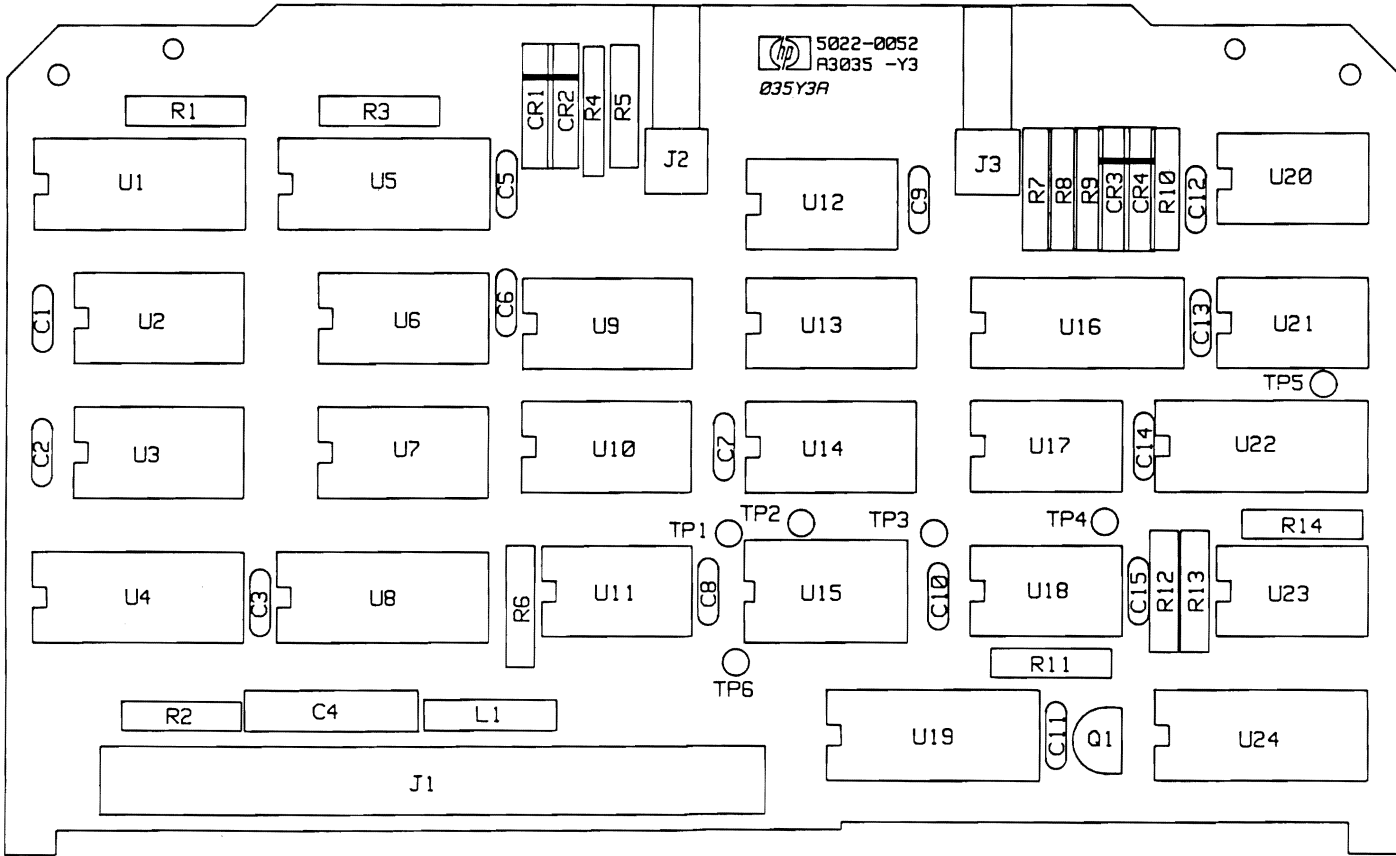
**5062-7754 Parts L**

Page 1 of

**HP Part Number 5062-7754**  
**Gate Card**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R11-14	0757-0442	9	4	RES 10K 1% 0.125W	05524	
R5	0757-0346	2	1	RES 10 1% 0.125W	05524	
R7	0757-0346	2	1	RES 10 1% 0.125W	05524	
R10	0683-4705	8	1	RES 47 5% 0.25W	05524	
R9	0757-1094	9	1	RES 1.47K 1% 0.125W	05524	
R4	0686-1015	3	1	RES 100 5% 0.5W	05524	
R8	0698-8913	0	1	RES 1.5M 1% 0.125W	05524	
L1	9100-0539	3	1	INDUCTOR RF-CH-MLD 10uH +-5%	05524	

C - 5022 - 0052 - 1			
SYM	REVISIONS	APPROVED	DATE
A			
B			



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	ENGINEER/CHECKER				
	RELEASE TO PROD.		TITLE		PART NUMBER
	SUPERSEDES ENG.		SCALE	SHEET 1 of 1	
					C-5022-0052-1

(I) CONNECTORS

J1

VIDEO_IF	1		ACOM	31	NC
NC	2	ACOM	ACOM	32	NC
NC	3		ACOM	33	NC
Card_Analog_1	4	ACOM	ACOM	34	NC
NC	5	Card_Analog_2	ACOM	35	NC
NC	6	ACOM	ACOM	36	NC
NC	7	FLUX_VIDEO	ACOM	37	NC
NC	8	ACOM	ACOM	38	NC
NC	9	+15VF	+15VF	39	NC
NC	10	-15VF	-15VF	40	NC
NC	11	LBIO		41	DCOM
IORDR(8)	12			42	IORDR
IORDR(12)	13			43	IORDR
IORDR(14)	14			44	DCOM
IOB(8)	15			45	IOB(1
IOB(2)	16			46	IOB(3
DCOM	17			47	IOB(4
IOB(5)	18			48	IOB(6
IOB(7)	19			49	DCOM
IOB(8)	20			50	IOB(9
IOB(10)	21			51	IOB(11
DCOM	22			52	IOB(12
IOB(13)	23			53	IOB(14
IOB(15)	24			54	DCOM
LTIO	25			55	HPARF
+5D	26			56	+5D
NC	27	ADC_SYNC		57	HSMP
NC	28	SLEEP_RAMP	INTERBUS	58	NC
NC	29	ACOM	ACOM	59	NC
NC	30	FLUX_IF	ACOM	60	NC

J3

DIPEBPCON

EXT INPUT

SMB SHPP-ON

R7 10

EXT\_IN

DCND

J2

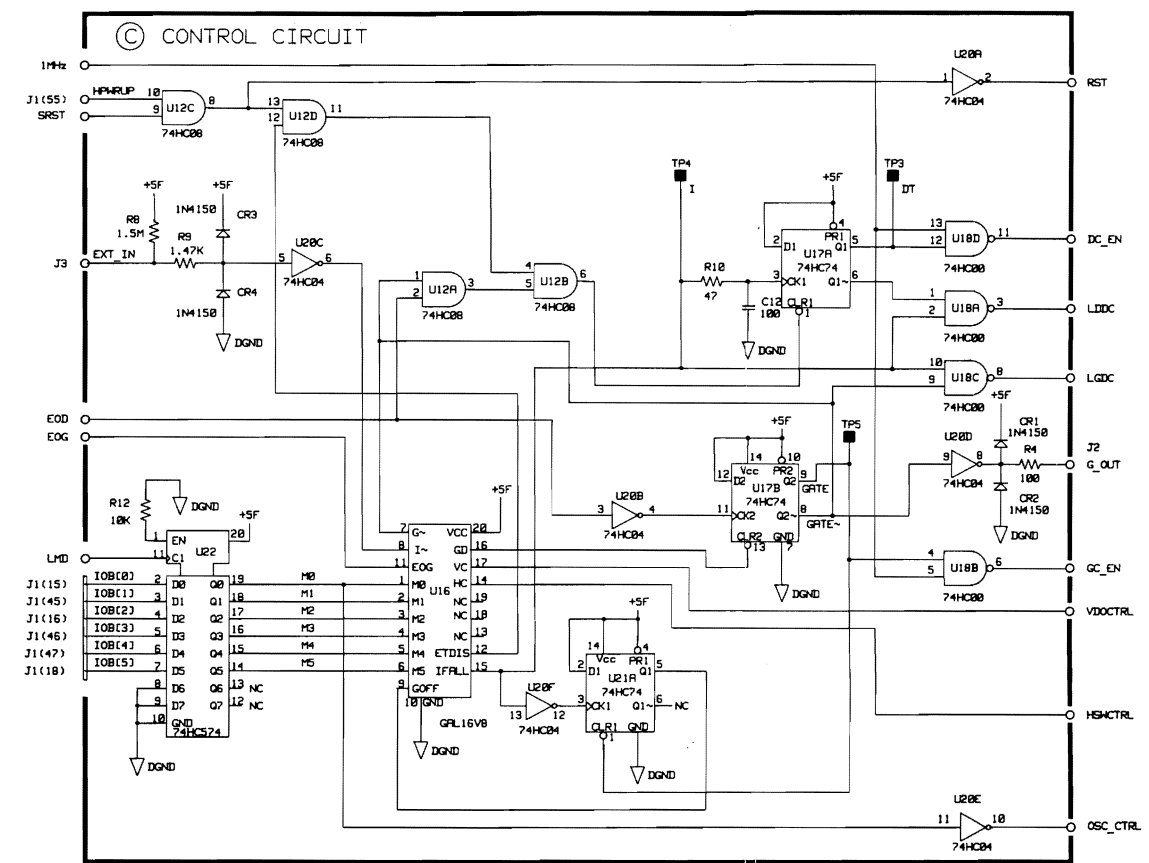
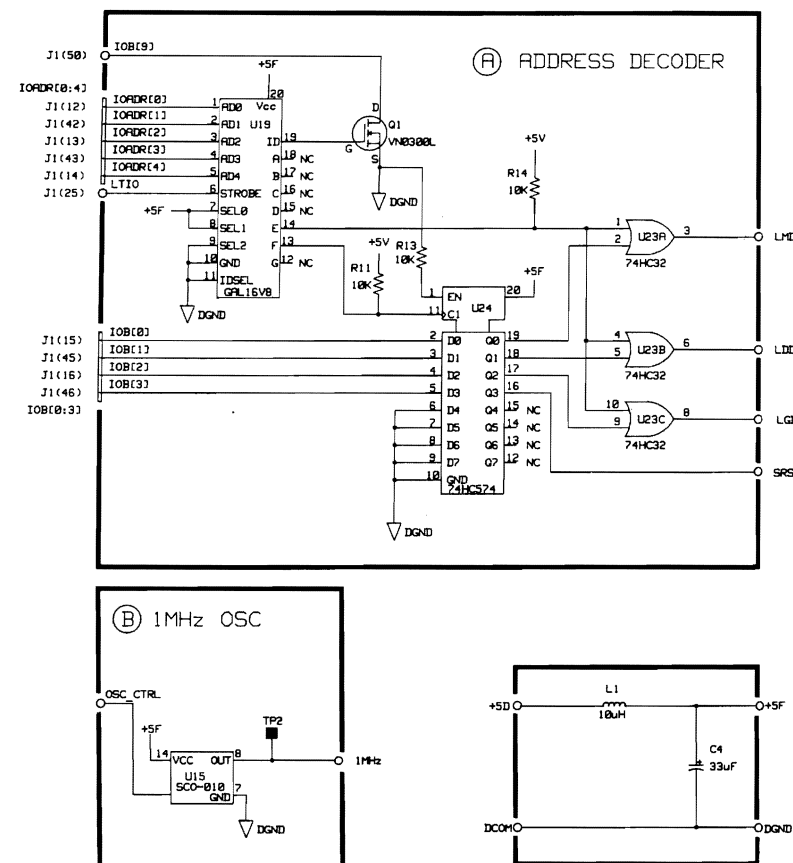
GATE OUT

SMB SHPP-ON

R5 10

G\_OUT

DCND



	MINEMONIC	DISCRPTION
TP1	VC	TIMING IS SAME TO TPS.
TP2	1MHz	1MHz, DUTY 50%, SQUARE WAVE.
TP3	DT	ON DURATION IS DELAY TIME.
TP4	I	(-)EAGE, LEVEL MODE : SAME AS EXTERNAL TRIG. (-)EAGE, LEVEL MODE : INVERTED FROM OF EXTERNAL TRIG.
TP5	GATE	TIMING IS SAME TO TP1.
TP6	HC	FOR FUTURE FUNCTION EXPANSION.

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# TGSA SCHEMATIC DIAGRAM

SCALE

SHEET 1 OF 2

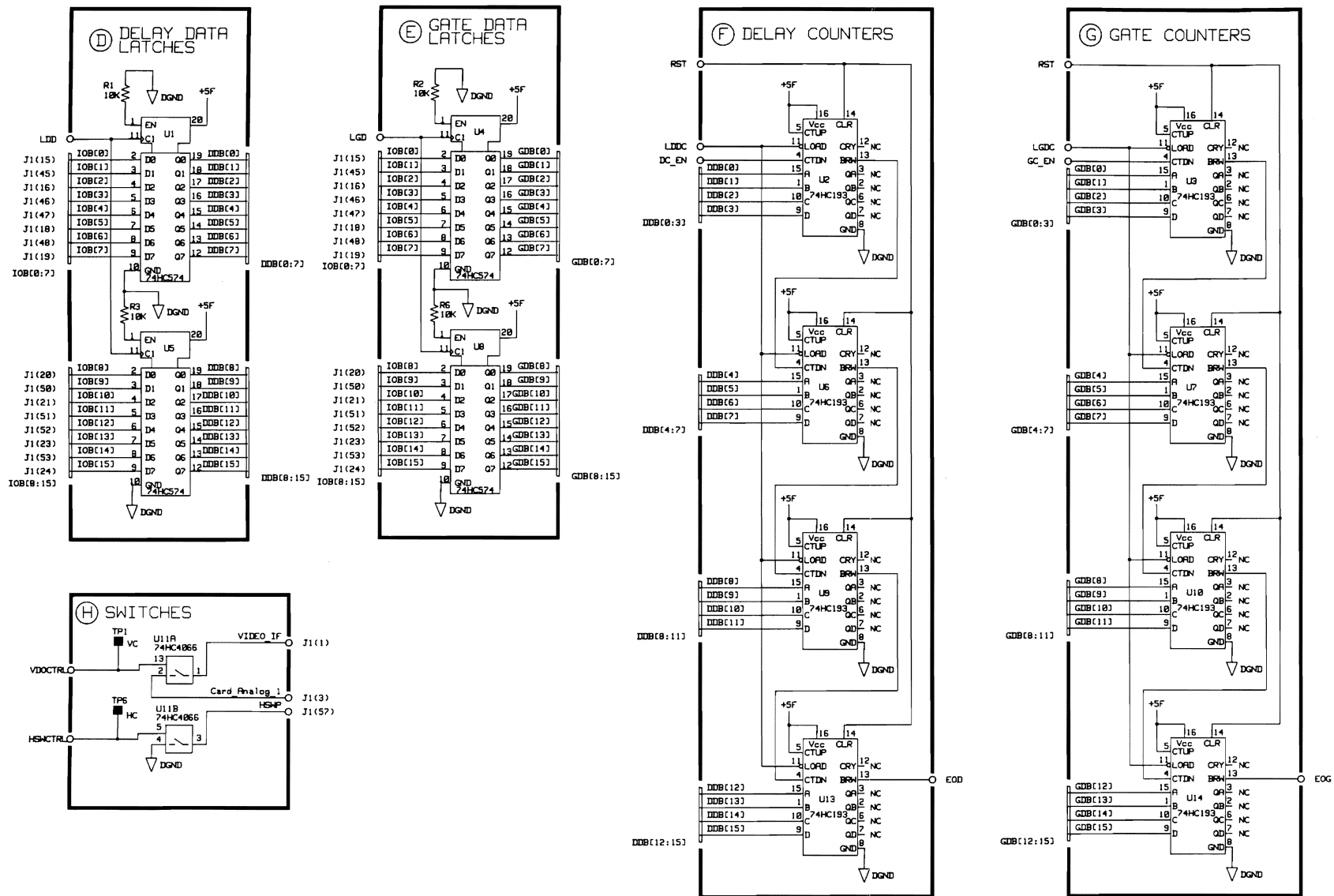


HEWLETT  
PACKARD

PART NUMBER

D-5062-7754-1

SYM	REVISIONS	APPROVED	DATE
A			

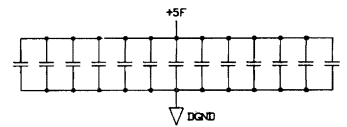


NOTES :

1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.
2. UNLESS OTHERWISE SPECIFIED, ALL RESISTOR VALUES ARE IN OHM, ALL CAPACITOR VALUES ARE IN MICROFARADS, ALL INDUCTOR VALUES ARE IN MICROHENRIES.

MNEMONICS	BLOCK	MNEMONICS	BLOCK
SAST	A,C	EOD	C,F
RST	C,F,G	EOG	C,G
LMD	A,C	1MHz	B,C
LDD	A,D	VDOCTRL	C,H
LGD	A,E	HSNPCTRL	C,H
LDDC	C,F	OSC_CTRL	B,C
LGDC	C,G	GATE_OUT	I
DC_EN	C,F	EXT_IN	C,I
GC_EN	C,G	EXT_INPUT	C
OSC_CTRL	I	G_OUT	C,I
IT	C	HPWRUP	C
VC	H	HC	H

0.1u x 13 (C1 THRU C3, C5 THRU C11, C13 THRU C15)



REF	PIN NO
DESIG	Vcc GND
U12	14 ?
U16	14 ?
U19	14 ?
U22	14 ?
U24	14 ?

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DATE

TGSA SCHEMATIC  
DIAGRAM  
TITLE  
SCALE

HEWLETT  
PACKARD

PART NUMBER

D-5062-7754-2

SHEET 2 OF 2

# **Component-Level Information Packet**

## **for 08569-60024/ 08569-60026**

### **Comb Generator**

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**HP Document Part Number 08569-90132**

**Printed December 1990  
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**HP Part Number 08569-60024**  
**Comb Generator**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-2437	1	1	CAP-FXD 5000pF 0 V	03746	54-713-033-X5V-502Z
C2	0160-2437	1	1	CAP-FXD 5000pF 0 V	03746	54-713-033-X5V-502Z
C3	0180-0094	4	1	CAP-FXD 100uF 25 V AL-ELCTLT	00493	25T101U8X18M
J1	1250-1157	2	1	CONNECTOR-RF SMA FEM THD-HOLE 50-OHM	02788	2058-5029-00
MP1	2200-0105	4	16	SCREW-MACH 4-40 .312-IN-LG PAN-HD-POZI	01125	
MP4	08569-60026	4	1	BD AY, COMB GEN	28480	08569-60026
MP5	2360-0331	6	1	SCREW-MACH 6-32 .25-IN-LG PAN-HD-POZI	01125	
MP6	0360-0268	6	1	TERMINAL-SLDR LUG LK-MTG FOR-#6-SCR	04880	804-.138
MP7	0470-0013	2		SEALANT LOCTITE 88 GRADE A METHACRYLATE	02136	88 GRADE A
MP13	0890-0324	8		TUBING-FLEX .032-ID TFE .012-WALL	02408	II-TW,FR-1

*\*Indicates factory-selected value*

08569-60024 Parts List  
Page 1 of 1



## HP Part Number 08569-60026

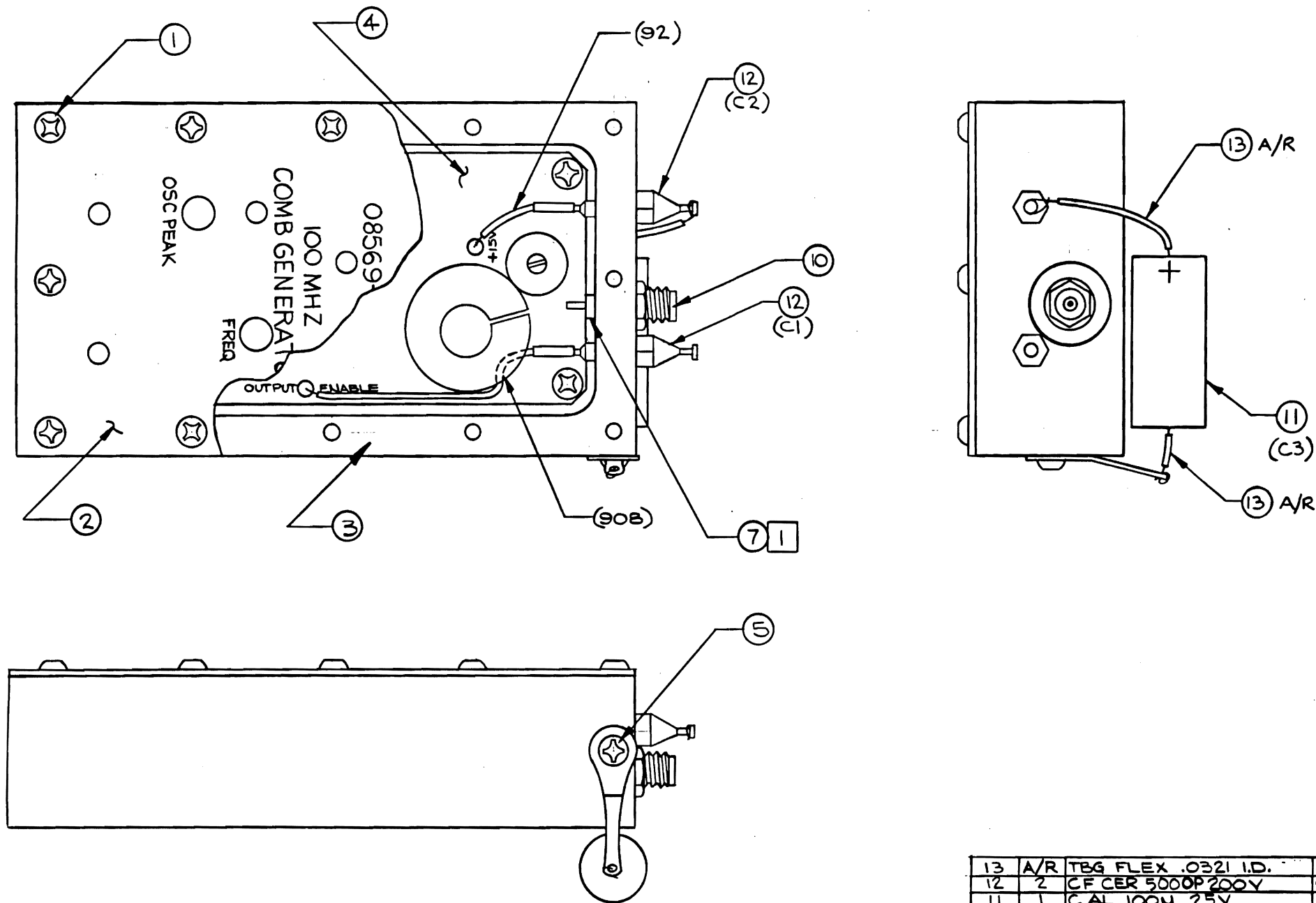
## Comb Generator

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-0127	2	1	CAP-FXD 1uF 50 V	02010	SR835E105MAAH
C2	0160-0127	2	1	CAP-FXD 1uF 50 V	02010	SR835E105MAAH
C3	0121-0451	3	1	CAP-VAR 11pF 1.7pF 175 V AIR	04670	187-0106-028
C4	0160-4793	6	1	CAP-FXD 6.8pF +-7.35% 100 V CER COG	02010	SA102A6R8DAAH
C5	0121-0451	3	1	CAP-VAR 11pF 1.7pF 175 V AIR	04670	187-0106-028
C6	0160-4814	2	1	CAP-FXD 150pF +-5% 100 V CER COG	02010	SA101A151JAAH
C7	0160-4802	8	1	CAP-FXD 82pF +-5% 100 V CER COG	02010	SA102A820JAAH
C8	0160-4786	7	1	CAP-FXD 27pF +-5% 100 V CER COG	02010	SA102A270JAAH
C10	0160-4790	3	1	CAP-FXD 12pF +-5% 100 V CER COG	02010	SA102A120JAAH
C11	0160-4574	1	1	CAP-FXD 1000pF 100 V	02010	SA101C102KAAH
C12	0160-4521	8	1	CAP-FXD 12pF +-5% 200 V CER COG	06352	FD12C0G2D120J
C13	0160-0127	2	1	CAP-FXD 1uF 50 V	02010	SR835E105MAAH
C14	0180-3888	0	1	CAP-FXD 15uF 25 V TA	04200	173D156X9025X
C15	0121-0046	2	1	CAP-VAR 35pF 9pF 200 V	01468	304-322-573
C17	0160-0127	2	1	CAP-FXD 1uF 50 V	02010	SR835E105MAAH
CR1	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	03334	BAV10 SELECTED
CR2	1901-0539	3	1	DIODE-SCHOTTKY SM SIG	02062	
CR3	1901-0539	3	1	DIODE-SCHOTTKY SM SIG	02062	
CR4	1901-0539	3	1	DIODE-SCHOTTKY SM SIG	02062	
CR5	1901-0539	3	1	DIODE-SCHOTTKY SM SIG	02062	
E1	9170-0847	3	1	CORE-SHIELDING BEAD	01887	56-590-65/38MCD
L1	9100-2249	6	1	INDUCTOR RF-CH-MLD 150NH +-10% .105D-INX	03273	10M150K
L2	9140-0141	7	1	INDUCTOR RF-CH-MLD 680NH +-10% .105D-INX	03273	10M680K
L3	9100-2254	3	1	INDUCTOR RF-CH-MLD 390NH +-10% .105D-INX	03273	10M390K
L4	9100-2249	6	1	INDUCTOR RF-CH-MLD 150NH +-10% .105D-INX	03273	10M150K
L5	9100-2891	4	1	INDUCTOR RF-CH-MLD 50NH +-10% .105D-INX.	03273	10M050K-1
L6	9100-2247	4	1	INDUCTOR RF-CH-MLD 100NH +-10% .105D-INX	03273	10M100K
MP1	1200-0173	5	2	INSULATOR-XSTR DAP-GL	02210	A-10001 DAP
MP2	1205-0095	0	1	HEAT SINK SGL TO-5/TO-39-CS	02608	2225B
Q1	1854-0247	9	1	TRANSISTOR NPN SI TO-39 PD=1W FT=800MHZ	02037	
Q2	1854-0247	9	1	TRANSISTOR NPN SI TO-39 PD=1W FT=800MHZ	02037	
Q3	1854-0784	9	1	TRANSISTOR NPN 2N3866A SI TO-39 PD=5W FT	02037	2N3866A
R1	0757-0279	0	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R2	0698-7229	8	1	RESISTOR 511 +-1% .05W TF TC=0+-100	00746	CRB20
R3	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	00746	CRB20
R4	0698-7219	6	1	RESISTOR 196 +-1% .05W TF TC=0+-100	00746	CRB20
R5	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	00746	CRB20
R6	0698-7196	8	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	00746	CRB20
R7	0757-0274	5	1	RESISTOR 1.21K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R8	0698-7222	1	1	RESISTOR 261 +-1% .05W TF TC=0+-100	00746	CRB20
R9	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	00746	CRB20
R10	0698-7208	3	1	RESISTOR 68.1 +-1% .05W TF TC=0+-100	00746	CRB20
R11	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	00746	CRB20
R12	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	00746	CRB20
R13	0698-3429	2	1	RESISTOR 19.6 1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R14	0698-3429	2	1	RESISTOR 19.6 1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R15	0698-7281	2	1	RESISTOR 75K +-2% .05W TF TC=0+-100	02995	5023R

\*Indicates factory-selected value

08569-60026 Parts List

Page 1 of 2



NOTES:  
 1. PLASTIC INSERT TO BE FLUSH WITH EDGE OF BOARD.  
 COAT THREADS WITH LOCTITE ON INSERTION.

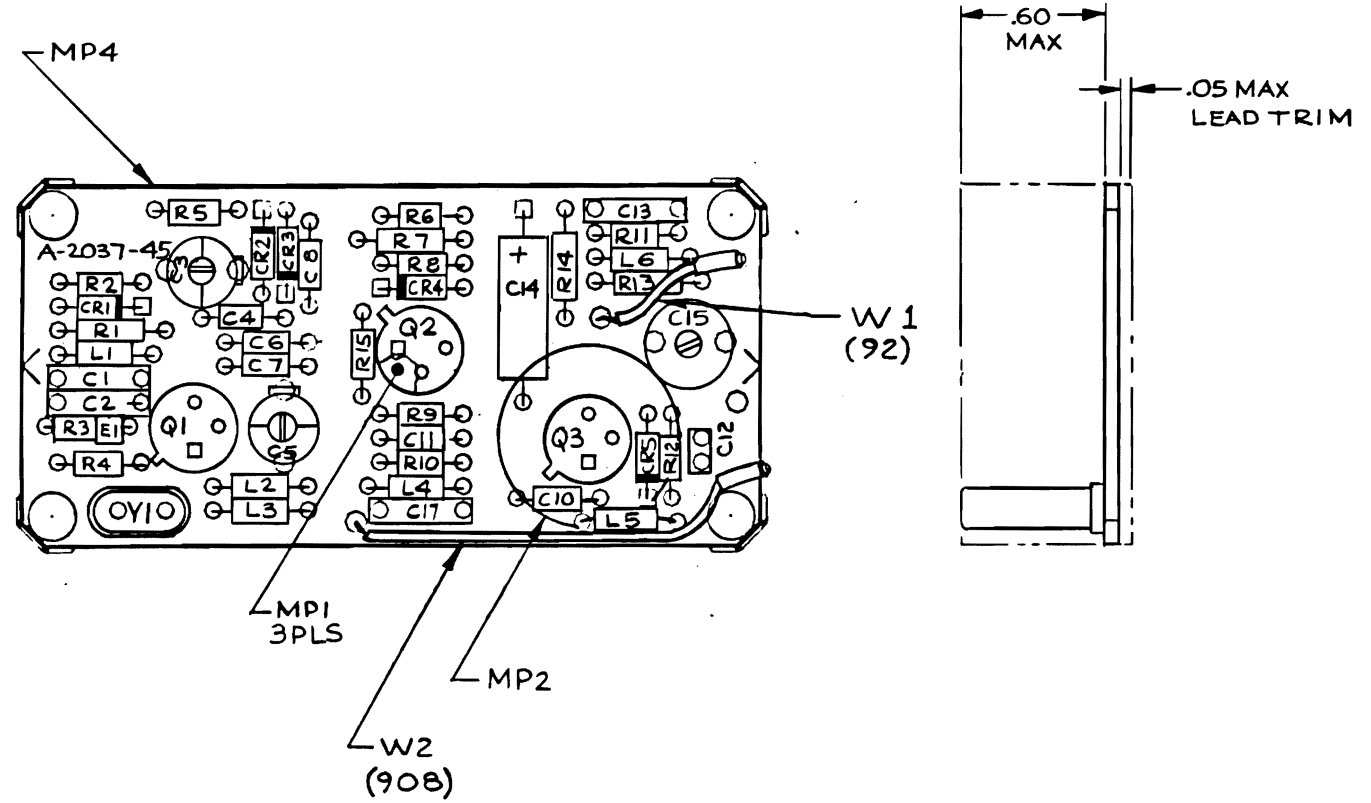
13	A/R	TBG FLEX .0321 I.D.	0890-0324		
12	2	CF CER 5000P 200V	0160-2437		
11	1	CAL 100M 25V	0180-0094		
10	1	CONN RF F SMA	1250-1157		
7	A/R	ADH LOCT-88 POL	0470-0013		
6	1	TML SLD R LG 6	0360-0268		
5	1	SM 632 .250 PNP	2360-0331		
4	1	BD ASSY-COMB GEN	08569-60026		
3	1	HOUSING-COMB GEN	08569-20024		
2	1	COVER-COMB GEN	08569-00023		
1	16	SM 440 .312 PNP	2200-0105		
ITEM	QTY	MATERIAL-DESCRIPTION	MAT'L-PART NO	MAT'L-DWG NO	MAT'L-SPEC

DO NOT SCALE THIS DRAWING		DRAWN BY _____ DATE _____		COMB GENERATOR ASSEMBLY		HEWLETT  PACKARD	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		ENGINEER _____		TITLE _____		PART NUMBER 08569-60024	
TOLERANCES .XX ± .02 .XXX ± .005		RELEASE TO PROD _____		NEXT ASSEMBLY 8569A		C-08569-60024-1	
SEE CORP. STD. 808		SUPERSEDES DWG _____		FINISH _____ SCALE 2x		SHEET 1 OF 1	


ENGINEERING RESPONSIBILITY										SEP 14									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60

SYM		REVISIONS		APPROVED		DATE	
A	AS ISSUED						
B	SHRINK TUBE & MOLEX COWM ADDED TO W1 & W2						

C-08569-60026-1



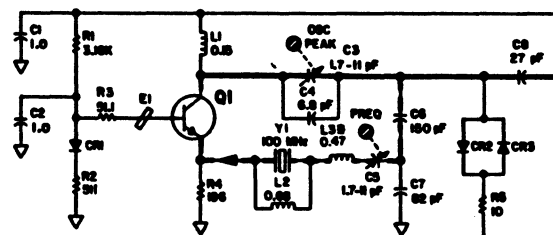
SEE 08569-60026 MATERIAL LIST

ITEM	QTY	MATERIAL DESCRIPTION				MAT'L PART NO		MAT'L DWG NO		MAT'L SPEC	
DO NOT SCALE THIS DRAWING		DRAWN BY				DATE				BOARD ASSY COMB GEN	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		ENGINEER								HEWLETT  PACKARD	
TOLERANCES .XX ± .02 .XXX ± .005										SEE KARDEX	
SEE CORP. STD. 808		SUPERSEDES DWG				FINISH				SCALE X2	
										08569-60026	
										PART NUMBER	
										C-08569-60026-1	

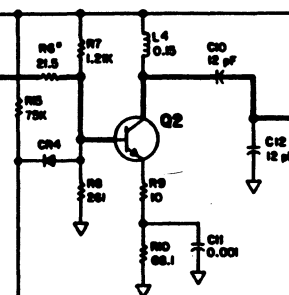
**COMB GENERATOR**  
**08569-60024**

**08569-60026**

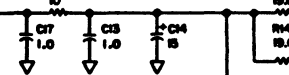
**Ⓐ CRYSTAL OSCILLATOR**



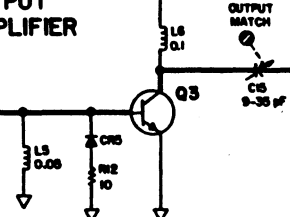
**Ⓑ DRIVER**



**Ⓒ POWER SUPPLY FILTER**



**Ⓓ OUTPUT AMPLIFIER**



# **Component-Level Information Packet for 5062-8231**

## **Tracking Generator Control**



HP Part No. 5961-0480  
Printed in USA October 1992

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**HP Part Number 5062-8231**  
**Tracking Generator Control**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C2	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C3	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C4	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C5	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C6	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C7	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C8	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C9	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C10	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C11	0180-3831	3	1	CAP-FXD 10uF +-10% 35 V TA	04200	299D106X9035DB1
C12	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C13	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C14	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C15	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C16	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C17	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C18	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C19	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C20	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C21	0180-3831	3	1	CAP-FXD 10uF +-10% 35 V TA	04200	299D106X9035DB1
C22	0180-3831	3	1	CAP-FXD 10uF +-10% 35 V TA	04200	299D106X9035DB1
C23	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C24	0180-3849	3	1	CAP-FXD 47uF +-10% 10 V TA	04200	299D476X9010DB1
C25	0180-3831	3	1	CAP-FXD 10uF +-10% 35 V TA	04200	299D106X9035DB1
C26	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C27	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C28	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C29	0160-4819	7	1	CAP-FXD 2200pF +-5% 100 V CER C0G	09939	RPA30C0G222J100VPT
C30	0180-3775	4	1	CAP-FXD 68uF +-10% 10 V TA	04200	299D686X9010DB1
C31	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C32	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C33	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C34	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C35	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V

\*Indicates factory-selected value

**HP Part Number 5062-8231**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	C	Qty	Description	Mfr Code	Mfr Part Number
C36	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C37	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C40	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C41	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
CR1	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR3	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR4	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
J1	1252-2009	9	1	CONN-POST TYPE .100-PIN-SPCG 9-CONT	02946	68451-126
J2	1252-2260	4	1	CONN-POST TYPE .100-PIN-SPCG 8-CONT	02946	78207-108
J3	1252-0501	2	1	CONN-POST TYPE .100-PIN-SPCG 4-CONT	01380	103361-2
L1	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH +-5%	05826	1537-76
L2	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH +-5%	05826	1537-76
L3	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH +-5%	05826	1537-76
L4	9100-1629	4	1	INDUCTOR RF-CH-MLD 47UH +-5%	05826	1537-60
L5	9140-0738	8	1	INDUCTOR 100UH .6W-INX.7LG-IN	01869	52405
L6	9140-0238	3	1	INDUCTOR RF-CH-MLD 82UH +-5%	05826	1537-72
MP3	0403-0621	7	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
MP5	1200-0173	5	1	INSULATOR-XSTR DAP-GL	02210	A-10001 DAP
MP6	0403-0630	8	1	EXTR-PC BD BRN NYL .062-IN-BD-THKNS	02123	91-2-BROWN-9
P1	1251-8912	3	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8912
Q1	1853-0213	7	1	TRANSISTOR PNP 2N4236 SI TO-5 PD=1W	28480	1853-0213
Q2	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q3	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
R1	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R2	0698-6343	5	1	RESISTOR 9K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R3	0757-0424	7	1	RESISTOR 1.1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R4	0698-6321	9	1	RESISTOR 9.9K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R5	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R6	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R7	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R8	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R9	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R10	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R11	0698-6317	3	1	RESISTOR 500 +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9



**HP Part Number 5062-8231**  
**Tracking Generator Control (continued)**

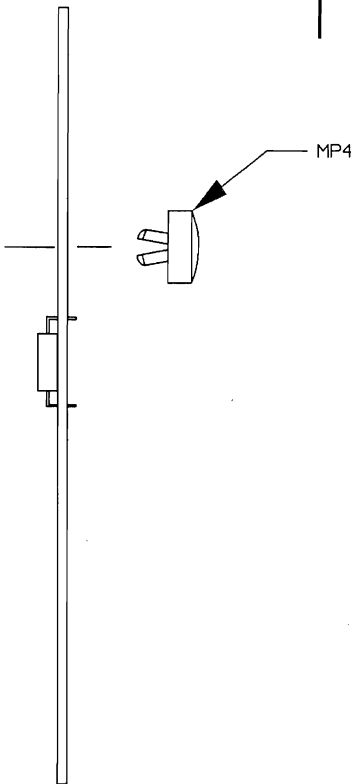
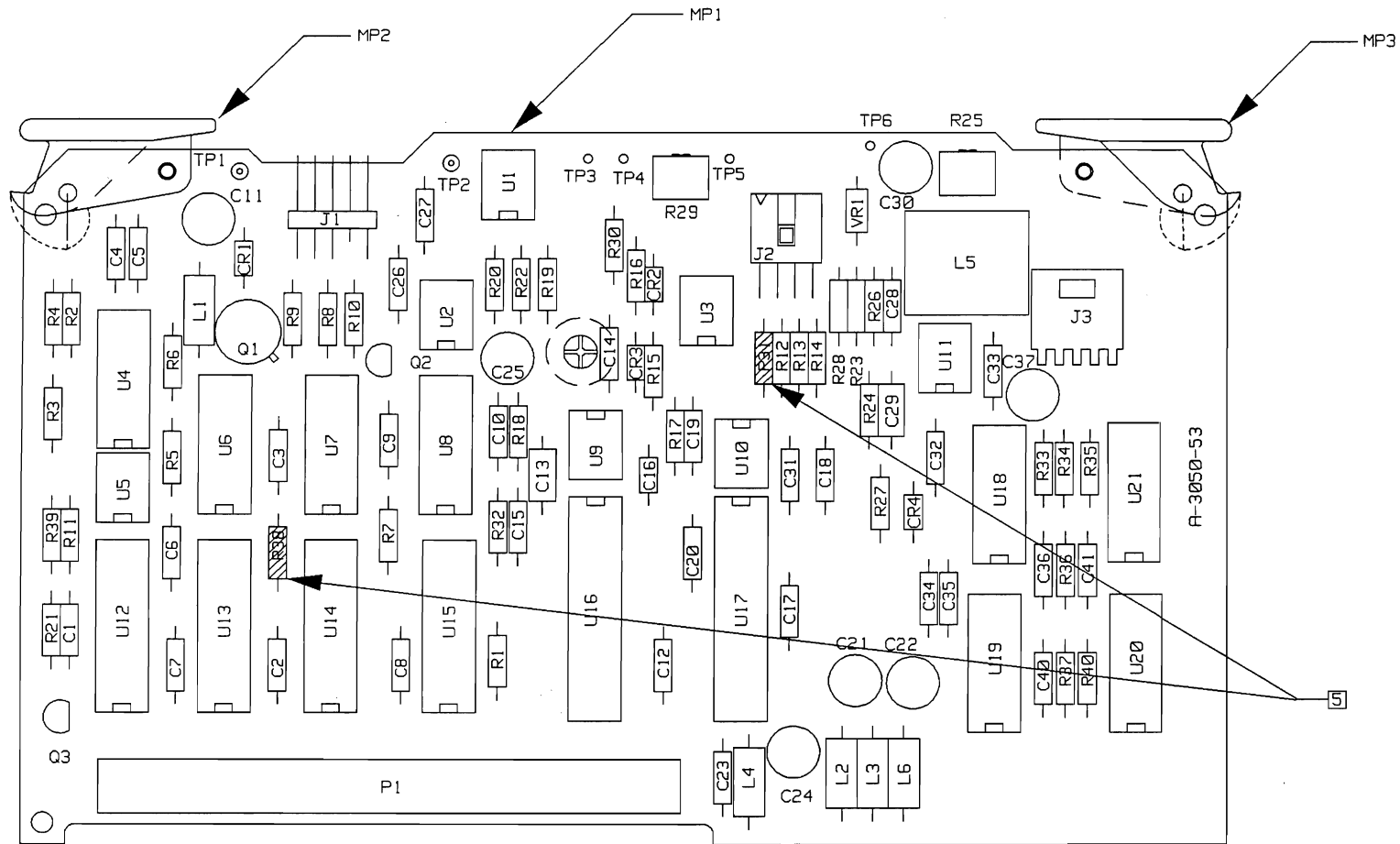
Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R12	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R13	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R14	0698-8859	2	1	RESISTOR 12K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1
R15	0698-6358	2	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R16	0698-6358	2	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R17	0698-3151	7	1	RESISTOR 2.87K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R18	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R19	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R20	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R21	0698-3432	7	1	RESISTOR 26.1 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R22	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R23	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R24	0757-0416	7	1	RESISTOR 511 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R25	2100-3274	2	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ 1-TRN	03744	3386X-Y46-103
R26	0757-0317	7	1	RESISTOR 1.33K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R27	0757-0416	7	1	RESISTOR 511 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R28	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R29	2100-3273	1	1	RESISTOR-TRMR 2K 10% TKF SIDE-ADJ 1-TRN	03744	3386X-Y46-202
R30	0757-0441	8	1	RESISTOR 8.25K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R32	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R33	0698-3157	3	1	RESISTOR 19.6K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R34	0698-3157	3	1	RESISTOR 19.6K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R35	0757-0421	4	1	RESISTOR 825 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R36	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R37	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R39	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R40	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
TP1	0360-0077	5	1	TERMINAL-STUD SGL-TUR SWGFRM-MTG	01461	1601-HP
TP2	0360-0077	5	1	TERMINAL-STUD SGL-TUR SWGFRM-MTG	01461	1601-HP
TP3	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP4	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP5	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP6	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1826-1514	6	1	IC V RGLTR-V-REF-FXD 9.95/10.05V 8-DIP-P	28480	1826-1514
U2	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436

\*Indicates factory-selected value

**HP Part Number 5062-8231**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U3	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U4	1826-0141	3	1	IC COMPARATOR GP DUAL 14 PIN DIP-C	28480	1826-0141
U5	1826-2026	7	1	ANALOG SWITCH SPST 8 -DIP-P	28480	1826-2026
U6	1820-3173	5	1	IC FF CMOS/HC J-K NEG-EDGE-TRIG	28480	1820-3173
U7	1820-3079	0	1	IC DCDR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U8	1826-2128	0	1	ANALOG SWITCH 8 CHNL 16 -DIP-P	28480	1826-2128
U9	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U10	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U11	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U12	08590-80105	9	1		28480	08590-80105
U13	1820-3790	2	1	IC LCH CMOS/HC D-TYPE OCTL	28480	1820-3790
U14	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U15	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U16	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U17	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U18	1826-0141	3	1	IC COMPARATOR GP DUAL 14 PIN DIP-C	28480	1826-0141
U19	1820-3173	5	1	IC FF CMOS/HC J-K NEG-EDGE-TRIG	28480	1820-3173
U20	1820-3146	2	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3146
U21	1858-0047	5	1	TRANSISTOR ARRAY 16-PIN PLSTC DIP	28480	1858-0047
VR1	1902-0551	1	1	DIODE-ZNR 6.2V 5% PD=1W IR=10UA	02688	1N4735AD041

		D-5062-8231-2	
SYM	REVISIONS	APPROVED	DATE
A			



NOTES: UNLESS OTHERWISE SPECIFIED



- 1. DIMENSIONS ARE IN INCHES.
- 2. REMOVE TABS AFTER WAVE SOLDER.
- 3. MAXIMUM COMPONENT HEIGHT \_\_\_\_\_.
- 4. MAXIMUM LEAD TRIM LENGTH 0.118.
- 5. DO NOT LOAD SHADED PARTS.

SEE MATERIAL LIST 5062-8231

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OTHERS EXCEPT AS AUTHORIZED BY HP.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.  TOLERANCES: XX.XXX ±.015  SEE CORP. STD. 600	DRAWN BY	DATE	BD ASSEMBLY- TRACKING GEN CONTROL  TITLE NONE SCALE	SHEET 1 OF 1	D-5062-8231-2		
	ENGINEER/CHECKER						
	RELEASED TO PROD.						
	SUPERSEDES DWG.						
			PART NUMBER 5062-8231				
			HP HEWLETT PACKARD				

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED BC		

THIS DRAWING ALSO USED FOR THE FOLLOWING ASSEMBLIES:			
TRACKING GEN CONTROL	5062-8231	5062-8231	 DO NOT LOSE RE1,38
LOAR CONTROL	5062-8232	5062-8232	 DO NOT LOSE C4,5,6,8-208,31,37,46,41,CR1-3,21,2,4,1,01,2, RE-18,21,31,32,39,49,UD-8,8-10,15-17,20,21
TITLE	PART NO.	MATERIAL LIST	
TABLE 1			

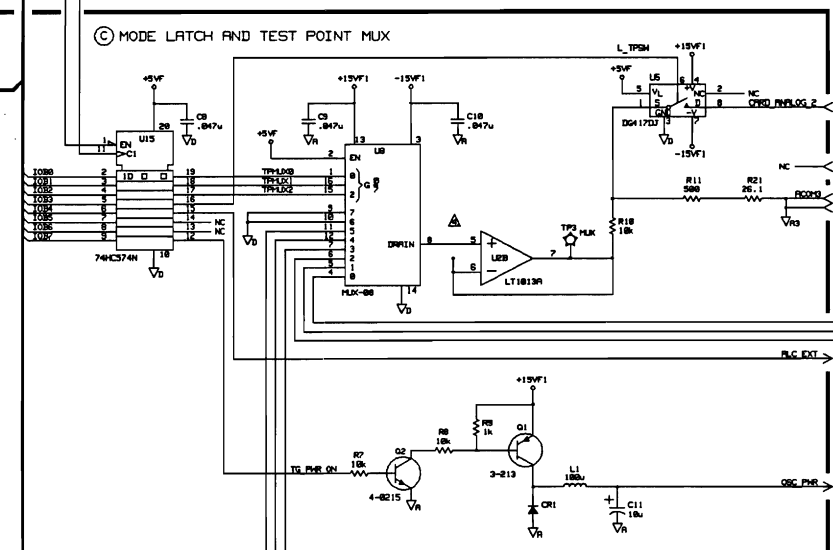
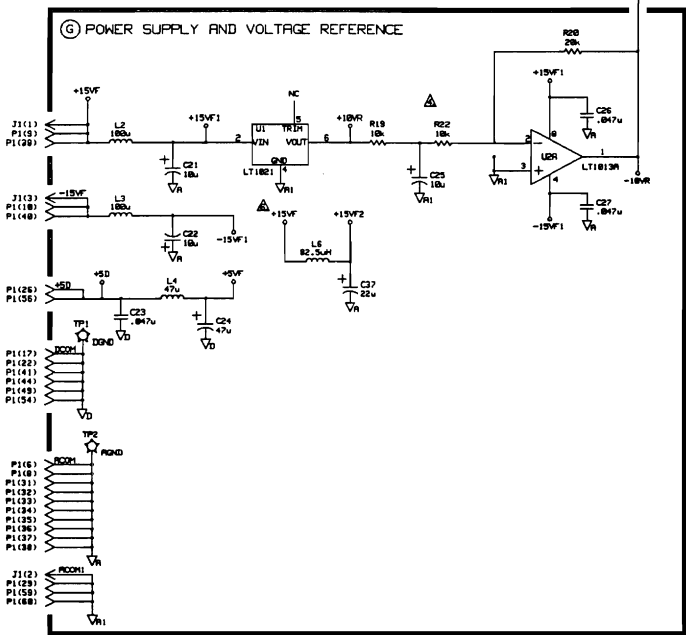
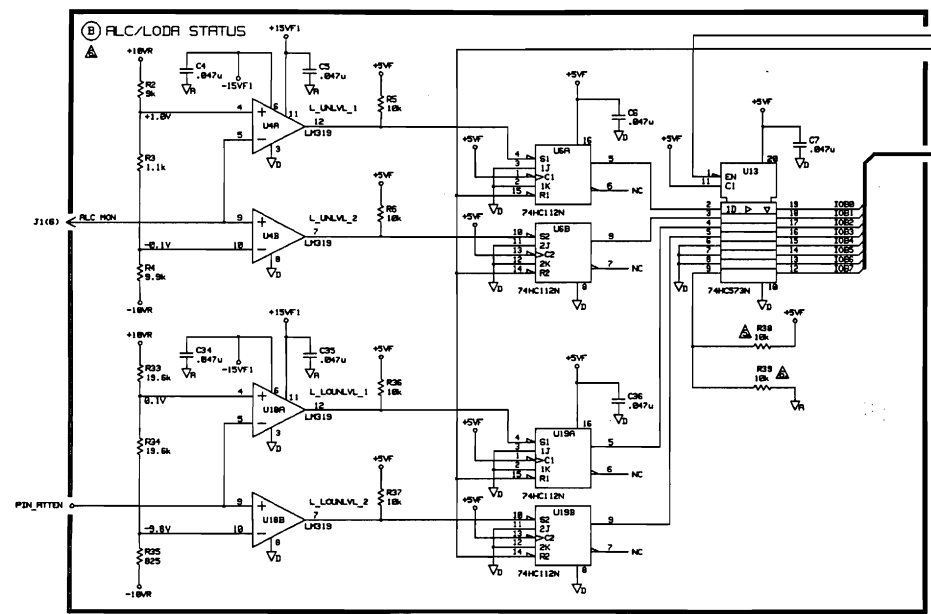
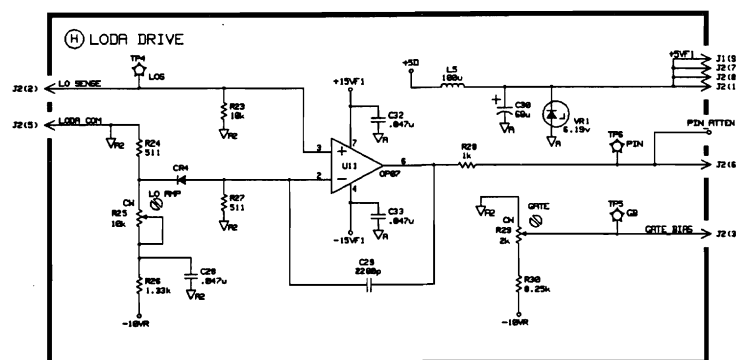
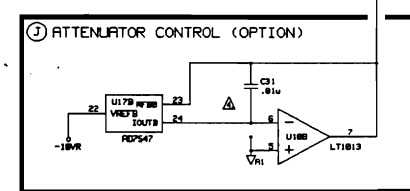
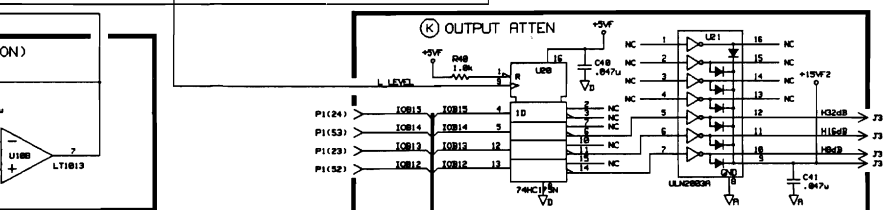
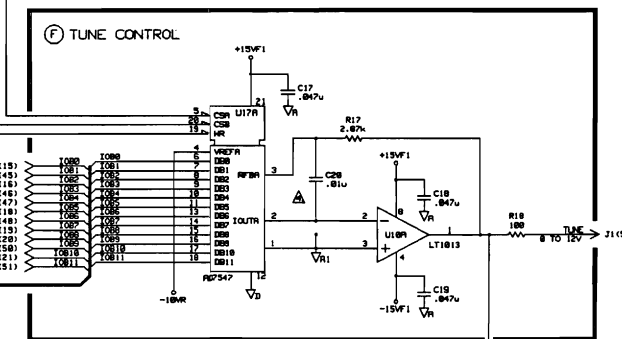
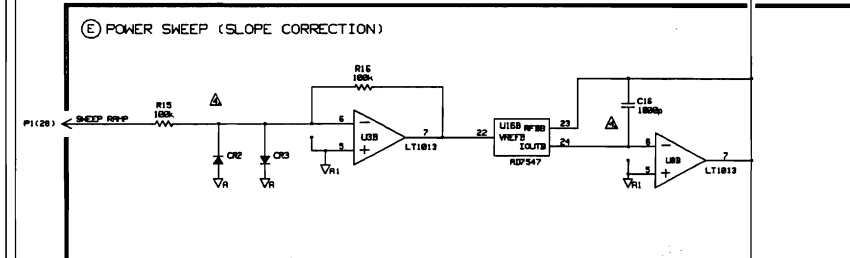
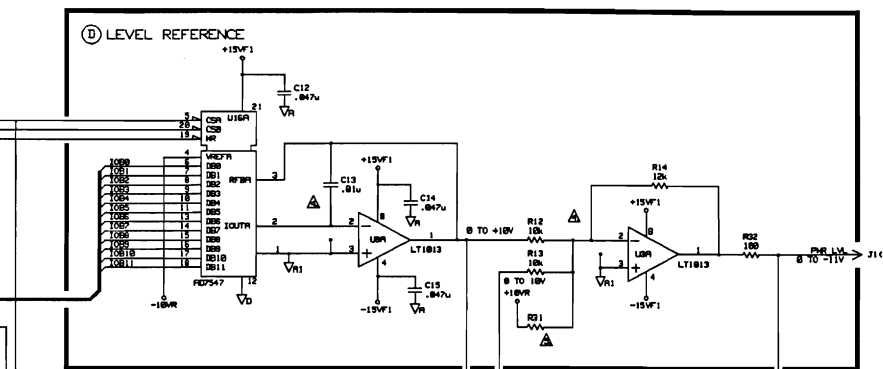
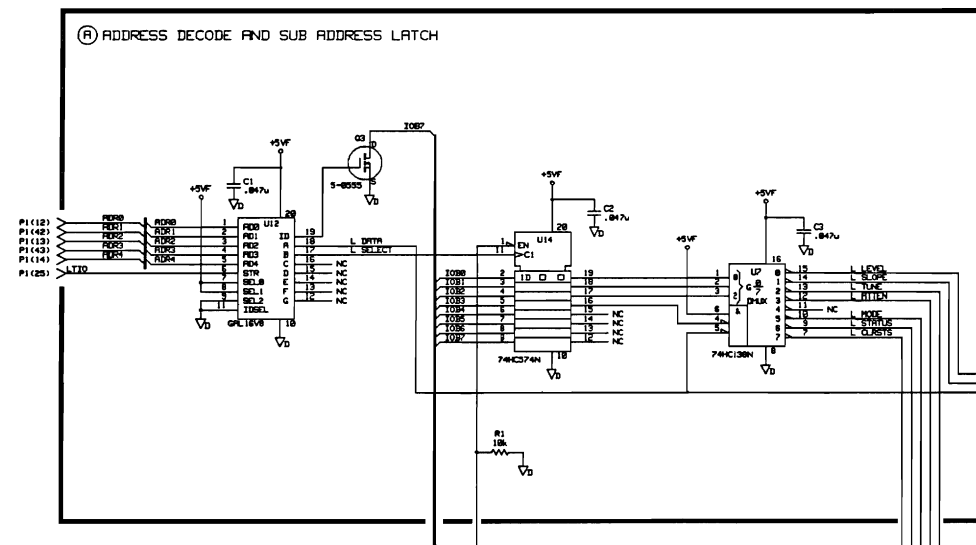
PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	+15V		G
2	ALOH		G
3	-15V		G
4	OSC PWR		F
5	V <sub>REF</sub>		F
6	ALC FDN		B
7	(REV)		
8	PWR LVL		D
9	+5V		H
10	ALC EXT		C

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	+5VFI		H
2	LO SENSE		H
3	GATE IN/PS		H
4	NC		
5	LOBA COM		H
6	PIN ATTEN		H
7	+5VFI		H
8	+5VFI		H

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	H0dB		K
2	H16dB		K
3	H32dB		K
4	+15V <sub>F3</sub>		K

PIN	SIGNAL	TO FROM	FUNCTION BLOCK
1	NC		
2	NC		K
3	NC		
4	NC		C
5	0VDD, PWR, LOG, 2		
6	NC		C
7	NC		C
8	0VDD		C
9	0VDD		C
10	0VDD		C
11	0VDD		R
12	0VDD		R
13	0VDD		F
14	0VDD		F
15	0VDD		G
16	0VDD		G
17	0VDD		F
18	0VDD		F
19	0VDD		G
20	0VDD		G
21	0VDD		F
22	0VDD		F
23	0VDD		G
24	0VDD		R
25	0VDD		G
26	0VDD		G
27	0VDD		R
28	0VDD		G
29	0VDD		G
30	0VDD		G

P1 CONT.			FUNCTION BLOCK
PIN	SIGNAL	TO/FROM	
21	BD00H		G
33	BD00H		G
34	BD00H		G
35	BD00H		G
36	BD00H		G
37	BD00H		G
38	BD00H		G
39	BD00H		G
40	BD00H		G
41	BD00H		G
42	BD00H		G
43	BD00H		H
44	BD00H		H
45	BD00H		H
46	BD00H		H
47	BD00H		F
48	BD00H		F
49	BD00H		F
50	BD00H		F
51	BD00H		F
52	BD00H		F
53	BD00H		F
54	BD00H		G
55	BD00H		G
56	BD00H		G
57	BD00H		G
58	BD00H		G
59	BD00H		G
60	BD00H		G
61	BD00H		G
62	BD00H		G
63	BD00H		G
64	BD00H		G
65	BD00H		G
66	BD00H		G
67	BD00H		G
68	BD00H		G
69	BD00H		G
70	BD00H		G
71	BD00H		G
72	BD00H		G
73	BD00H		G
74	BD00H		G
75	BD00H		G
76	BD00H		G
77	BD00H		G
78	BD00H		G
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91	BD00H		G
92	BD00H		G
93	BD00H		G
94	BD00H		G
95	BD00H		G
96	BD00H		G
97	BD00H		G
98	BD00H		G
99	BD00H		G



**NOTES:**


1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE PRESENTED WITHOUT PREFIX PRESERVATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.
2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN MICROFARADS (μF) INDUCTANCE IN MICROHENRIES (μH)
3. MECHANICAL TABLE

MECHANICAL	DESCRIPTION

▲ GATED TRACES

▲ DO NOT LOAD ON 50Ω-2-6231

▲ DO NOT LOAD ON 50Ω-3-6233

ITEM	QTY.	PART/MATERIAL-DESCRIPTION			MAT'L-PART NO.		MAT'L-ENG. NO.		MAT'L-SPEC.
DRAWN BY		DATE		BOARD ASSEMBLY- TRACKING GEN/ LODA CONTROL (SCHEMATIC)				 HEWLETT PACKARD	
ENGINEER-CHECKER									
RELEASE TO PROD.									
SUPERSEDES DWG.				TITLE		PART NUMBER		SEE TABLE	
				SCALF NONE FILED-821A SHEET 1 OF 1		D-5062-8231-1			

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# **Component-Level Information Packet for 5062-8232**

## **LODA Control**



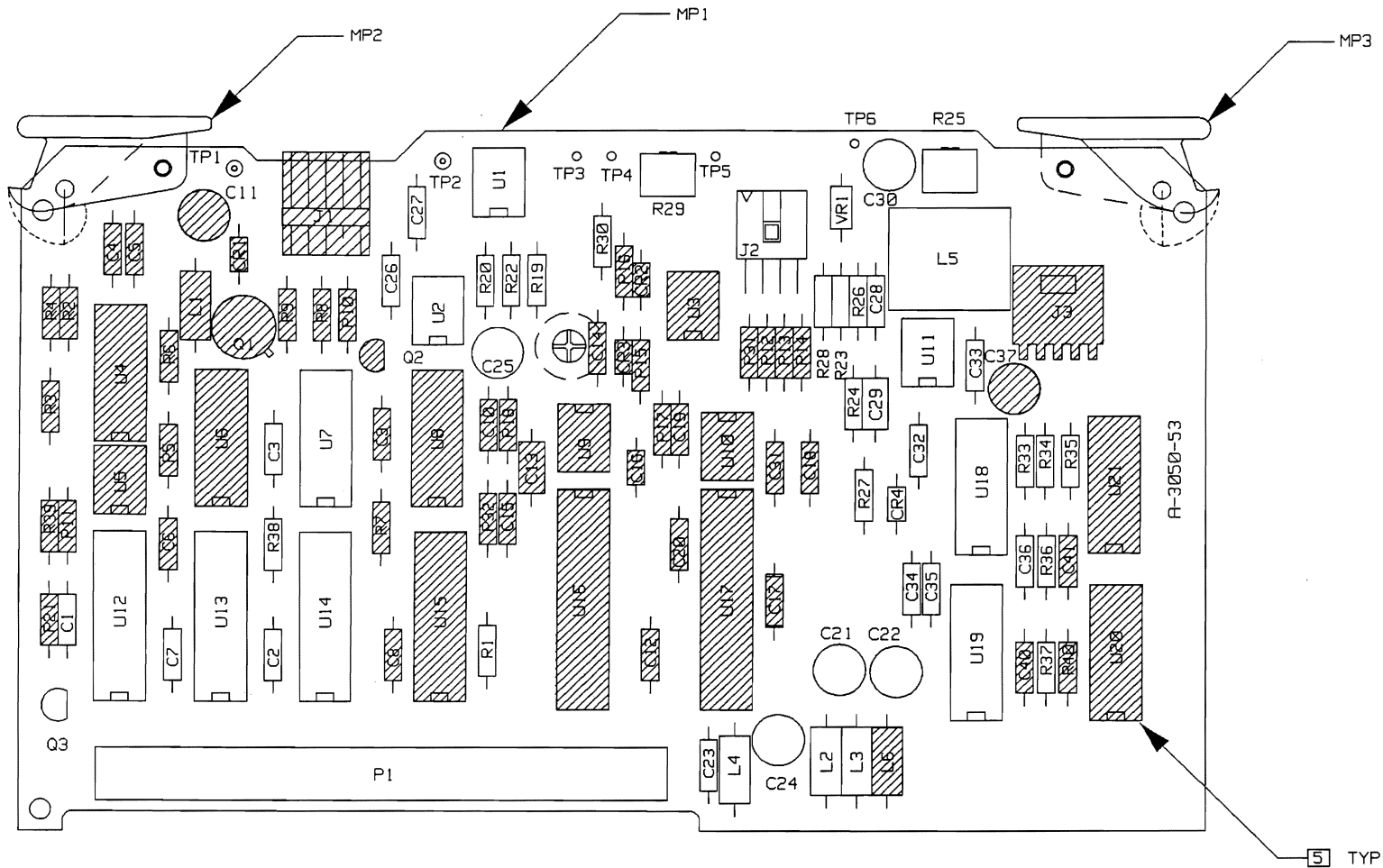
HP Part No. 5961-0482  
Printed in USA October 1992

**HP Part Number 5062-8232**  
**LODA Control**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
J2	1252-2043	1	1	CONN-POST TYPE .100-PIN-SPCG 4-CONT	01380	644221-2
J3	1251-7678	6	1	CONN-POST TYPE .100-PIN-SPCG 5-CONT	01380	641212-5

*\*Indicates factory-selected value*

**CLIP 5961-0482 1**



- NOTES: UNLESS OTHERWISE SPECIFIED
- 1. DIMENSIONS ARE IN INCHES.
  - [2] REMOVE TABS AFTER WAVE SOLDER.
  - 3. MAXIMUM COMPONENT HEIGHT \_\_\_\_\_.
  - 4. MAXIMUM LEAD TRIM LENGTH 0.118.
  - [5] DO NOT LOAD ALL SHADED PARTS.

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SEE MATERIAL LIST 5062-8232

SYN		REVISIONS		D -5062-8232-2	
A		AS ISSUED		APPROVED	DATE
		BC			

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		DRAWN BY		DATE	
TOLERANCES: XX.XXX ±.015		ENGINEER/CHECKER			
SEE CORP. STD. 608		RELEASED TO PROD.			
		SUPERSEDES Dwg.			

BD ASSEMBLY- LODA CONTROL		HP HEWLETT PACKARD	
TITLE		PART NUMBER 5062-8232	
SCALE NONE		SHEET 1 OF 1	
		D-5062-8232-2	





# **Component-Level Information Packet for 5062-8261**

## **Log Amplifier**



**HP Part No. 5961-0483  
Printed in USA December 1992**

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**HP Part Number 5062-8261**  
**Log Amplifier**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C2	0180-4130	7	1	CAP-FXD 2.2uF +-10% 20 V TA	28480	0180-4130
C3	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C4	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C5	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C6	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C7	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C8	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C9	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C10	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C11	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C12	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C14	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C15	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C16	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C17	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C18	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C19	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C20	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C21	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C22	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C23	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C24	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C25	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C26	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C27	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C28	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C29	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C30	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C31	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C32	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C33	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C34	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C36	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C37	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V

\*Indicates factory-selected value

**HP Part Number 5062-8261**  
**Log Amplifier (continued)**

Reference Designator	HP Part Number	C	D	Qty	Description	Mfr Code	Mfr Part Number
C38	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C39	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C40	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C41	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C42	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C43	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C44	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C45	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C46	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C47	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C48	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C49	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C50	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C51	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C52	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C53	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C54	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C55	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C56	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C57	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C58	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C59	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C60	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C61	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C62	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C63	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C64	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C65	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C66	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C67	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C68	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C69	0160-4554	7		1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C70	0160-4382	9		1	CAP-FXD 3.3pF +7.58% 200 V CER C0G	09939	RPE121-105C0G3R3C200V
C71	0160-4788	9		1	CAP-FXD 18pF +5% 100 V CER C0G	09939	RPA10C0G180J100
C72	0160-3875	3		1	CAP-FXD 22pF +5% 200 V CER C0G	09939	RPE121-105C0G220J200V

**HP Part Number 5062-8261**  
**Log Amplifier (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C73	0160-4387	4	1	CAP-FXD 47pF +-5% 200 V CER C0G	09939	RPE121-105COG470J200V
C74	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C77	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
CR1	1910-0016	0	1	DIODE-GE 60V 60MA 1US DO-7	11946	G718
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR4	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR6	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR7	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR8	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR9	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR10	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR11	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR12	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
CR13	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR14	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR15	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
CR16	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
CR17	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR18	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR19	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
CR20	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR21	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR22	1901-0040	1	1	DIODE-SWITCHING 30V 50MA 2NS DO-35	04486	
CR23	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR24	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR25	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
CR26	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR27	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR28	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
CR29	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
CR30	1901-1085	6	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
E1	9170-0029	3	1	CORE-SHIELDING BEAD	04822	57-3452
J1	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
L1	9100-1618	1	1	INDUCTOR RF-CH-MLD 5.6UH +-10%	05826	1537-30
L2	9140-0144	0	1	INDUCTOR RF-CH-MLD 4.7UH +-10%	05826	1025-36

\*Indicates factory-selected value

**HP Part Number 5062-8261**  
**Log Amplifier (continued)**

Reference Designator	HP Part Number	C	Qty	Description	Mfr Code	Mfr Part Number
L3	9140-0105	3	1	INDUCTOR RF-CH-MLD 8.2UH +-10%	05826	1537-34
L4	9100-1619	2	1	INDUCTOR RF-CH-MLD 6.8UH +-10%	05826	1537-32
L5	9100-1619	2	1	INDUCTOR RF-CH-MLD 6.8UH +-10%	05826	1537-32
L6	9140-0114	4	1	INDUCTOR RF-CH-MLD 10UH +-10%	05826	1537-36
L7	9140-0114	4	1	INDUCTOR RF-CH-MLD 10UH +-10%	05826	1537-36
L8	9140-0114	4	1	INDUCTOR RF-CH-MLD 10UH +-10%	05826	1537-36
L9	9140-0112	2	1	INDUCTOR RF-CH-MLD 4.7UH +-10%	05826	1537-28
L10	9140-0105	3	1	INDUCTOR RF-CH-MLD 8.2UH +-10%	05826	1537-34
L11	9100-3912	2	1	INDUCTOR RF-CH-MLD 15UH +-5%	03706	21501M-5%
L12	9140-0454	5	1	INDUCTOR RF-CH-MLD 18UH +-5%	03706	21801M-5%
L13	9100-3313	7	1	INDUCTOR RF-CH-MLD 22UH +-5%	03706	22201M-5%
L14	9100-2257	6	1	INDUCTOR RF-CH-MLD 820NH +-10%	03706	1A 8203M +-10%
MP3	0360-0124	3	1	CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND	13309	
P1	1252-3997	6	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	68022-502
Q1	1854-0637	1	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	28480	1854-0637
Q2	1853-0281	9	1	TRANSISTOR PNP 2N2907A SI TO-18 PD=400MW	28480	1853-0281
Q3	1853-0281	9	1	TRANSISTOR PNP 2N2907A SI TO-18 PD=400MW	28480	1853-0281
Q4	1853-0015	7	1	TRANSISTOR PNP SI PD=200MW FT=500MHZ	28480	1853-0015
Q5	1853-0015	7	1	TRANSISTOR PNP SI PD=200MW FT=500MHZ	28480	1853-0015
Q6	1853-0007	7	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q7	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	02037	SS2188
Q8	1853-0015	7	1	TRANSISTOR PNP SI PD=200MW FT=500MHZ	28480	1853-0015
Q9	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	02037	SS2188
Q10	1853-0015	7	1	TRANSISTOR PNP SI PD=200MW FT=500MHZ	28480	1853-0015
Q11	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	02037	SS2188
Q12	1853-0015	7	1	TRANSISTOR PNP SI PD=200MW FT=500MHZ	28480	1853-0015
Q13	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	02037	SS2188
Q14	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	02037	SS2188
Q15	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	02037	SS2188
Q16	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	02037	SS2188
Q17	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	02037	SS2188
Q18	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	02037	SS2188
Q19	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	02037	SS2188
Q20	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	02037	SS2188
Q21	1854-1030	0	1	TRANSISTOR-DUAL NPN TO-78 PD=750MW	28480	1854-1030

**HP Part Number 5062-8261**  
**Log Amplifier (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
Q22	1854-0404	0	1	TRANSISTOR NPN SI TO-18 PD=360MW	28480	1854-0404
Q24	1854-0404	0	1	TRANSISTOR NPN SI TO-18 PD=360MW	28480	1854-0404
Q25	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	02037	SS2188
R1	0698-7239	0	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R2	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R3	0698-0084	9	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R4	0698-3430	5	1	RESISTOR 21.5 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R5	0757-0443	0	1	RESISTOR 11K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R6	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R7	0757-0465	6	1	RESISTOR 100K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R8	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R9	0698-3450	9	1	RESISTOR 42.2K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R10	2100-2633	5	1	RESISTOR-TRMR 1K 10% TKF SIDE-ADJ 1-TRN	04568	82PAR1K
R11	0698-3153	9	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R12	0757-0458	7	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R13	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R14	0757-0460	1	1	RESISTOR 61.9K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R15	0757-0458	7	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R16	0757-0180	2	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R17	0757-0464	5	1	RESISTOR 90.9K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R18	0698-3136	8	1	RESISTOR 17.8K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R19	0757-0123	3	1	RESISTOR 34.8K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R20	0698-0083	8	1	RESISTOR 1.96K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R21	2100-2489	9	1	RESISTOR-TRMR 5K 10% TKF SIDE-ADJ 1-TRN	04568	82PAR5K
R22	0698-3453	2	1	RESISTOR 196K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R23	2100-2514	1	1	RESISTOR-TRMR 20K 10% TKF SIDE-ADJ 1-TRN	04568	82PAR20K
R24	0757-0274	5	1	RESISTOR 1.21K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R25	0757-0274	5	1	RESISTOR 1.21K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R26	0757-0274	5	1	RESISTOR 1.21K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R27	2100-2489	9	1	RESISTOR-TRMR 5K 10% TKF SIDE-ADJ 1-TRN	04568	82PAR5K
R28	0757-0346	2	1	RESISTOR 10 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R29	0757-0346	2	1	RESISTOR 10 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R30	2100-2522	1	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ 1-TRN	04568	82PAR10K
R31	0757-0346	2	1	RESISTOR 10 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R32	0757-0346	2	1	RESISTOR 10 +-1% .125W TF TC=0+-100	05524	CMF-55-1

\*Indicates factory-selected value

**HP Part Number 5062-8261**  
**Log Amplifier (continued)**

Reference Designator	HP Part Number	C	Qty	Description	Mfr Code	Mfr Part Number
R33	2100-2522	1	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ 1-TRN	04568	82PAR10K
R34	2100-2521	0	1	RESISTOR-TRMR 2K 10% TKF SIDE-ADJ 1-TRN	04568	82PAR2K
R35	0757-0346	2	1	RESISTOR 10 +1% .125W TF TC=0+-100	05524	CMF-55-1
R36	0757-0346	2	1	RESISTOR 10 +1% .125W TF TC=0+-100	05524	CMF-55-1
R37	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R38	0698-3151	7	1	RESISTOR 2.87K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R39	2100-2520	9	1	RESISTOR-TRMR 50 20% TKF SIDE-ADJ 1-TRN	04568	82PAR50
R40	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R41	0757-0290	5	1	RESISTOR 6.19K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R42	0757-0200	7	1	RESISTOR 5.62K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R43	0757-0447	4	1	RESISTOR 16.2K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R44	0757-0420	3	1	RESISTOR 750 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R45	0698-3444	1	1	RESISTOR 316 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R46	0698-3156	2	1	RESISTOR 14.7K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R47	0757-0346	2	1	RESISTOR 10 +1% .125W TF TC=0+-100	05524	CMF-55-1
R48	0698-3150	6	1	RESISTOR 2.37K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R49	0698-3132	4	1	RESISTOR 261 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R50	0757-0279	0	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R51	0757-0346	2	1	RESISTOR 10 +1% .125W TF TC=0+-100	05524	CMF-55-1
R52	0698-3444	1	1	RESISTOR 316 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R53	0757-0444	1	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R54	0757-0444	1	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R55	0757-0440	7	1	RESISTOR 7.5K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R56	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R57	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R58	0757-0346	2	1	RESISTOR 10 +1% .125W TF TC=0+-100	05524	CMF-55-1
R59	0698-3150	6	1	RESISTOR 2.37K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R60	0698-3444	1	1	RESISTOR 316 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R61	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R62	0757-0444	1	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R63	0757-0444	1	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R64	0757-0440	7	1	RESISTOR 7.5K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R65	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R66	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R67	0757-0346	2	1	RESISTOR 10 +1% .125W TF TC=0+-100	05524	CMF-55-1



**HP Part Number 5062-8261**  
**Log Amplifier (continued)**

Reference Designator	HP Part Number	C	Qty	Description	Mfr Code	Mfr Part Number
R68	0698-8958	2	1	RESISTOR 511K +1% .125W TF TC=0+-100	01074	H8
R69	2100-2692	6	1	RESISTOR-TRMR 1M 20% TKF SIDE-ADJ 1-TRN	04568	82PAR1M
R70	0698-3444	1	1	RESISTOR 316 +1% .125W TF TC=0+-100	05524	CMF-55-1
R71	0757-0279	0	1	RESISTOR 3.16K +1% .125W TF TC=0+-100	05524	CMF-55-1
R72	0757-0444	1	1	RESISTOR 12.1K +1% .125W TF TC=0+-100	05524	CMF-55-1
R73	0757-0444	1	1	RESISTOR 12.1K +1% .125W TF TC=0+-100	05524	CMF-55-1
R74	0757-0440	7	1	RESISTOR 7.5K +1% .125W TF TC=0+-100	05524	CMF-55-1
R75	0757-0401	0	1	RESISTOR 100 +1% .125W TF TC=0+-100	05524	CMF-55-1
R76	0757-0280	3	1	RESISTOR 1K +1% .125W TF TC=0+-100	05524	CMF-55-1
R77	0757-0346	2	1	RESISTOR 10 +1% .125W TF TC=0+-100	05524	CMF-55-1
R78	0698-3150	6	1	RESISTOR 2.37K +1% .125W TF TC=0+-100	05524	CMF-55-1
R79	0698-3444	1	1	RESISTOR 316 +1% .125W TF TC=0+-100	05524	CMF-55-1
R80	0757-0289	2	1	RESISTOR 13.3K +1% .125W TF TC=0+-100	05524	CMF-55-1
R81	0757-0289	2	1	RESISTOR 13.3K +1% .125W TF TC=0+-100	05524	CMF-55-1
R82	0757-0440	7	1	RESISTOR 7.5K +1% .125W TF TC=0+-100	05524	CMF-55-1
R83	0757-0401	0	1	RESISTOR 100 +1% .125W TF TC=0+-100	05524	CMF-55-1
R84	0757-0280	3	1	RESISTOR 1K +1% .125W TF TC=0+-100	05524	CMF-55-1
R85	0757-0279	0	1	RESISTOR 3.16K +1% .125W TF TC=0+-100	05524	CMF-55-1
R86	0757-0346	2	1	RESISTOR 10 +1% .125W TF TC=0+-100	05524	CMF-55-1
R87	0698-3444	1	1	RESISTOR 316 +1% .125W TF TC=0+-100	05524	CMF-55-1
R88	2100-2522	1	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ 1-TRN	04568	82PAR10K
R89	0757-0440	7	1	RESISTOR 7.5K +1% .125W TF TC=0+-100	05524	CMF-55-1
R90	0757-0403	2	1	RESISTOR 121 +1% .125W TF TC=0+-100	05524	CMF-55-1
R91	0757-0289	2	1	RESISTOR 13.3K +1% .125W TF TC=0+-100	05524	CMF-55-1
R92	0757-0289	2	1	RESISTOR 13.3K +1% .125W TF TC=0+-100	05524	CMF-55-1
R93	0757-0200	7	1	RESISTOR 5.62K +1% .125W TF TC=0+-100	05524	CMF-55-1
R94	0698-3150	6	1	RESISTOR 2.37K +1% .125W TF TC=0+-100	05524	CMF-55-1
R95	0757-0346	2	1	RESISTOR 10 +1% .125W TF TC=0+-100	05524	CMF-55-1
R96	0698-3444	1	1	RESISTOR 316 +1% .125W TF TC=0+-100	05524	CMF-55-1
R97	0757-0289	2	1	RESISTOR 13.3K +1% .125W TF TC=0+-100	05524	CMF-55-1
R98	0757-0289	2	1	RESISTOR 13.3K +1% .125W TF TC=0+-100	05524	CMF-55-1
R99	0757-0440	7	1	RESISTOR 7.5K +1% .125W TF TC=0+-100	05524	CMF-55-1
R100	0757-0403	2	1	RESISTOR 121 +1% .125W TF TC=0+-100	05524	CMF-55-1
R101	0757-0200	7	1	RESISTOR 5.62K +1% .125W TF TC=0+-100	05524	CMF-55-1
R102	0757-0346	2	1	RESISTOR 10 +1% .125W TF TC=0+-100	05524	CMF-55-1

\*Indicates factory-selected value

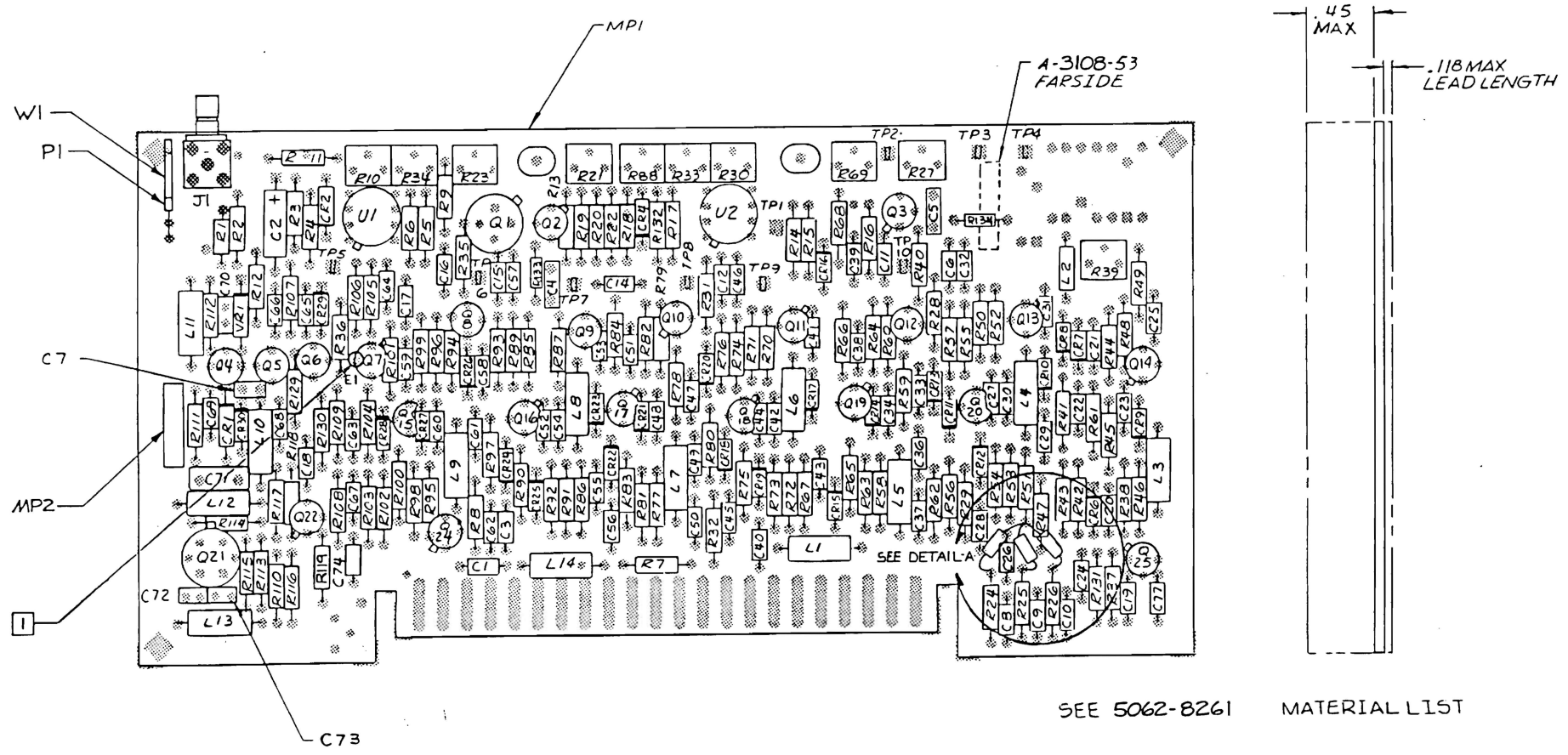
**HP Part Number 5062-8261**  
**Log Amplifier (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R103	0757-0401	0	1	RESISTOR 100 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R104	0757-0401	0	1	RESISTOR 100 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R105	0698-3444	1	1	RESISTOR 316 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R106	0757-0417	8	1	RESISTOR 562 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R107	0757-0199	3	1	RESISTOR 21.5K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R108	0698-3434	9	1	RESISTOR 34.8 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R109	0757-0400	9	1	RESISTOR 90.9 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R110	0698-3442	9	1	RESISTOR 237 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R111	0698-3440	7	1	RESISTOR 196 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R112	0757-0280	3	1	RESISTOR 1K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R113	0757-0280	3	1	RESISTOR 1K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R114	0757-0288	1	1	RESISTOR 9.09K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R115	0757-0401	0	1	RESISTOR 100 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R116	0757-0280	3	1	RESISTOR 1K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R117	0698-3152	8	1	RESISTOR 3.48K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R118	0698-0085	0	1	RESISTOR 2.61K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R119	0698-3438	3	1	RESISTOR 147 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R129	0698-0083	8	1	RESISTOR 1.96K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R130	0757-0279	0	1	RESISTOR 3.16K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R131	0757-0402	1	1	RESISTOR 110 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R132	0757-0290	5	1	RESISTOR 6.19K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R133	0698-7212	9	1	RESISTOR 100 $\pm 1\%$ .05W TF TC=0 $\pm$ 100	05524	CMF-50-2
R134	0698-7212	9	1	RESISTOR 100 $\pm 1\%$ .05W TF TC=0 $\pm$ 100	05524	CMF-50-2
R135	0757-0458	7	1	RESISTOR 51.1K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R136	0757-0458	7	1	RESISTOR 51.1K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R137	0757-0458	7	1	RESISTOR 51.1K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
TP1	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
TP2	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
TP3	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
TP4	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
TP5	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
TP6	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
TP7	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
TP8	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
TP9	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	

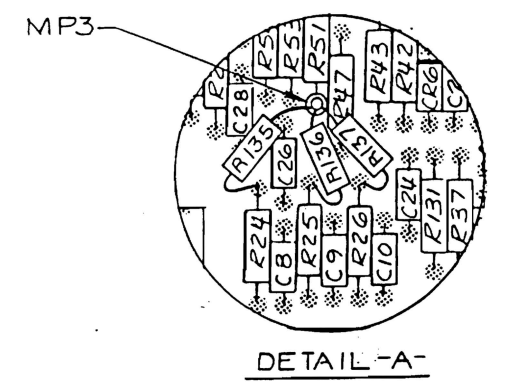
**HP Part Number 5062-8261**  
**Log Amplifier (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
TP10	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
U1	1826-0092	3	1	IC OP AMP GP DUAL 8 PIN TO-99	28480	1826-0092
U2	1826-0092	3	1	IC OP AMP GP DUAL 8 PIN TO-99	28480	1826-0092
VR1	1902-0901	5	1	DIODE-ZNR 5.4V 1% DO-35 PD=.4W TC=+.046%	28480	1902-0901
W1	1258-0225	9	1	JUMPER 2 CONTACTS; PHOSPOR BRONZE OR	02946	65474-001

REV	REVISIONS	APPROVED	DATE
A			



- NOTES: UNLESS OTHERWISE SPECIFIED
1. ON E1 USE ADHESIVE D-C-3145 SIL (0470-0357).
  2. DIMENSIONS ARE IN INCHES.
  3. MAXIMUM COMPONENT HEIGHT .450.
  4. MAXIMUM LEAD TRIM .118.

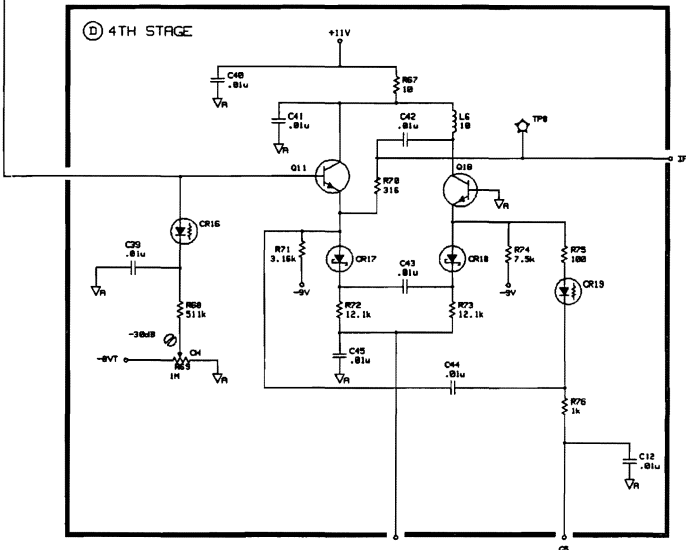
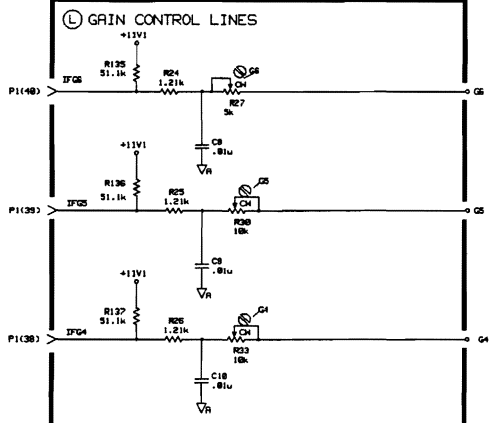
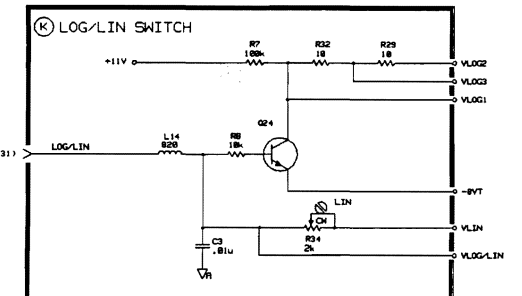
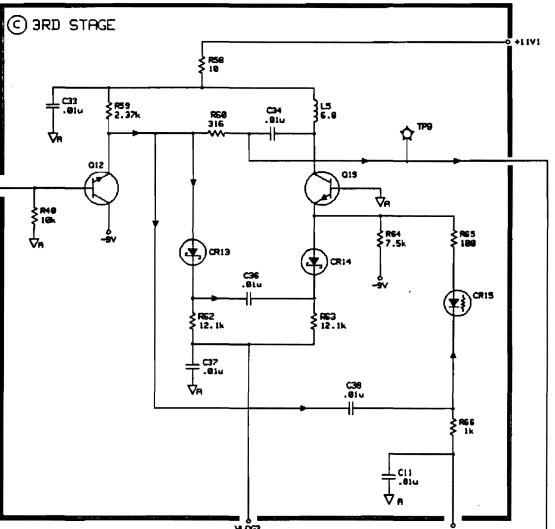
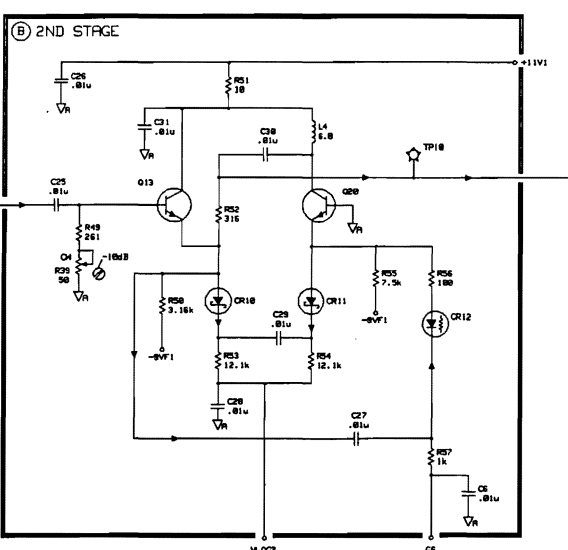
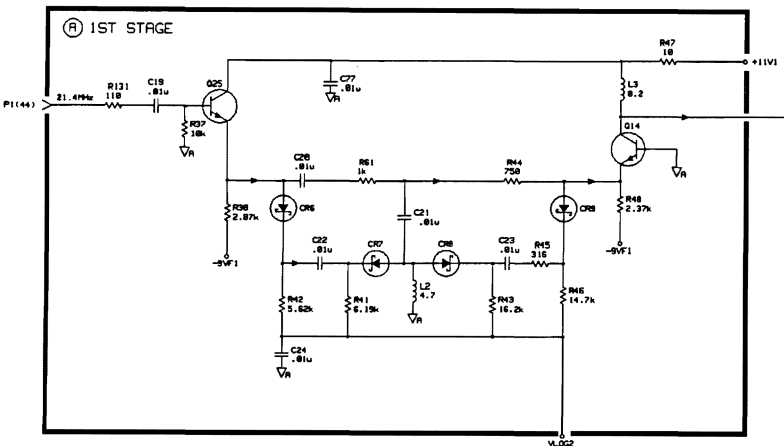


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DO NOT SCALE THIS DRAWING  
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.  
TOLERANCES: .XX ± .02, .XXX ± .005  
SEE CORP. STD. 808

ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO	MAT'L QTY NO	MAT'L SPEC
BD ASSEMBLY LOG AMPLIFIER					
PART NUMBER 5062-8261					
D-5062-8261-2					

SYM	REVISIONS		APPROVED	DATE
	AS ISSUED	EW		



**P1**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	VIDEO	ALL	H
2	VIDEO	ALL	H
3	VIDEO	ALL	H
4	VIDEO	ALL	H
5	VIDEO	ALL	H
6	VIDEO	ALL	H
7	VIDEO	ALL	H
8	VIDEO	ALL	H
9	VIDEO	ALL	H
10	VIDEO	ALL	H
11	VIDEO	ALL	H
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41	VIDEO	ALL	H
42	VIDEO	ALL	H
43	VIDEO	ALL	H
44	VIDEO	ALL	H
45	VIDEO	ALL	H
46	VIDEO	ALL	H
47	VIDEO	ALL	H
48	VIDEO	ALL	H
49	VIDEO	ALL	H
50	VIDEO	ALL	H

**NOTES:**

1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.

2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN MICROFARADS (μF) INDUCTANCE IN MICROHENRIES (μH)

3. MNEMONIC TABLE

MNEMONIC	DESCRIPTION	FUNCTION BLOCK	SHEET 1	SHEET 2
VLOG1	LOG DIODE BIAS	A,K	E,F,G	
VLOG2	LOG DIODE BIAS	A,K	E,F,G	
VLOG3	LOG DIODE BIAS	A,K	E,F,G	
VLOG4	LOG DIODE BIAS	A,K	E,F,G	
VLOG5	LOG DIODE BIAS	A,K	E,F,G	
VLOG6	LOG DIODE BIAS	A,K	E,F,G	
VLOG7	LOG DIODE BIAS	A,K	E,F,G	
VLOG8	LOG DIODE BIAS	A,K	E,F,G	
VLOG9	LOG DIODE BIAS	A,K	E,F,G	
VLOG10	LOG DIODE BIAS	A,K	E,F,G	
VLOG11	LOG DIODE BIAS	A,K	E,F,G	
VLOG12	LOG DIODE BIAS	A,K	E,F,G	
VLOG13	LOG DIODE BIAS	A,K	E,F,G	
VLOG14	LOG DIODE BIAS	A,K	E,F,G	
VLOG15	LOG DIODE BIAS	A,K	E,F,G	
VLOG16	LOG DIODE BIAS	A,K	E,F,G	
VLOG17	LOG DIODE BIAS	A,K	E,F,G	
VLOG18	LOG DIODE BIAS	A,K	E,F,G	
VLOG19	LOG DIODE BIAS	A,K	E,F,G	
VLOG20	LOG DIODE BIAS	A,K	E,F,G	
VLOG21	LOG DIODE BIAS	A,K	E,F,G	
VLOG22	LOG DIODE BIAS	A,K	E,F,G	
VLOG23	LOG DIODE BIAS	A,K	E,F,G	
VLOG24	LOG DIODE BIAS	A,K	E,F,G	
VLOG25	LOG DIODE BIAS	A,K	E,F,G	
VLOG26	LOG DIODE BIAS	A,K	E,F,G	
VLOG27	LOG DIODE BIAS	A,K	E,F,G	
VLOG28	LOG DIODE BIAS	A,K	E,F,G	
VLOG29	LOG DIODE BIAS	A,K	E,F,G	
VLOG30	LOG DIODE BIAS	A,K	E,F,G	
VLOG31	LOG DIODE BIAS	A,K	E,F,G	
VLOG32	LOG DIODE BIAS	A,K	E,F,G	
VLOG33	LOG DIODE BIAS	A,K	E,F,G	
VLOG34	LOG DIODE BIAS	A,K	E,F,G	
VLOG35	LOG DIODE BIAS	A,K	E,F,G	
VLOG36	LOG DIODE BIAS	A,K	E,F,G	
VLOG37	LOG DIODE BIAS	A,K	E,F,G	
VLOG38	LOG DIODE BIAS	A,K	E,F,G	
VLOG39	LOG DIODE BIAS	A,K	E,F,G	
VLOG40	LOG DIODE BIAS	A,K	E,F,G	
VLOG41	LOG DIODE BIAS	A,K	E,F,G	
VLOG42	LOG DIODE BIAS	A,K	E,F,G	
VLOG43	LOG DIODE BIAS	A,K	E,F,G	
VLOG44	LOG DIODE BIAS	A,K	E,F,G	
VLOG45	LOG DIODE BIAS	A,K	E,F,G	
VLOG46	LOG DIODE BIAS	A,K	E,F,G	
VLOG47	LOG DIODE BIAS	A,K	E,F,G	
VLOG48	LOG DIODE BIAS	A,K	E,F,G	
VLOG49	LOG DIODE BIAS	A,K	E,F,G	
VLOG50	LOG DIODE BIAS	A,K	E,F,G	

4. \*HETERISK DENOTES FACTORY SELECTED COMPONENT. NOMINAL VALUE SHOWN.

5. R21 TO R28 1V7 FACTORY ADJUSTABLE ONLY.

6. TRANSISTOR PIN CONFIGURATIONS: (BOTTOM VIEW)

**MNEMONIC**

SHEET	1	2
Q1	D	E
Q2	D	E
Q3	D	E
Q4	D	E
Q5	D	E
Q6	D	E
Q7	D	E
Q8	D	E
Q9	D	E
Q10	D	E
Q11	D	E
Q12	D	E
Q13	D	E
Q14	D	E
Q15	D	E
Q16	D	E
Q17	D	E
Q18	D	E
Q19	D	E
Q20	D	E
Q21	D	E
Q22	D	E
Q23	D	E
Q24	D	E
Q25	D	E
Q26	D	E
Q27	D	E
Q28	D	E
Q29	D	E
Q30	D	E
Q31	D	E
Q32	D	E
Q33	D	E
Q34	D	E
Q35	D	E
Q36	D	E
Q37	D	E
Q38	D	E
Q39	D	E
Q40	D	E
Q41	D	E
Q42	D	E
Q43	D	E
Q44	D	E
Q45	D	E
Q46	D	E
Q47	D	E
Q48	D	E
Q49	D	E
Q50	D	E

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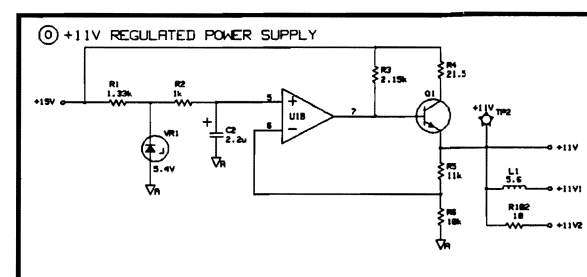
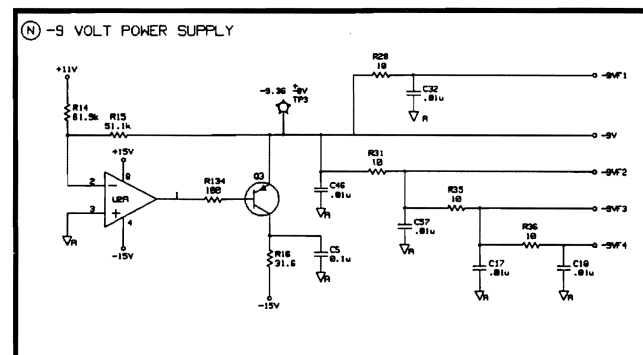
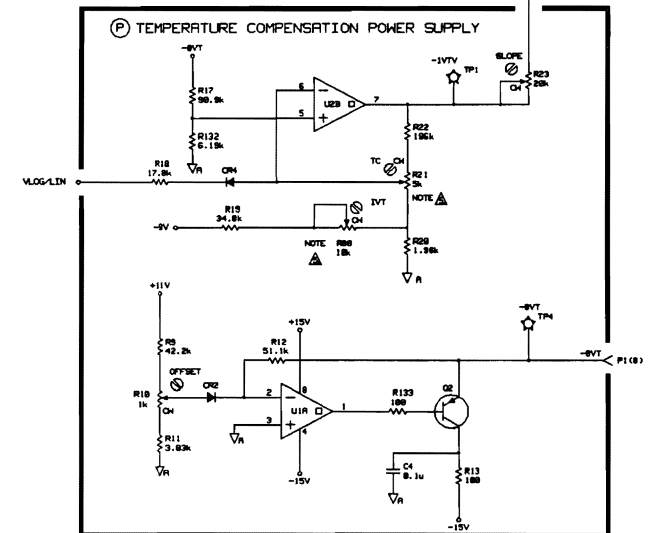
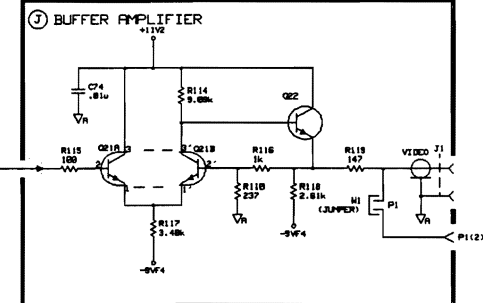
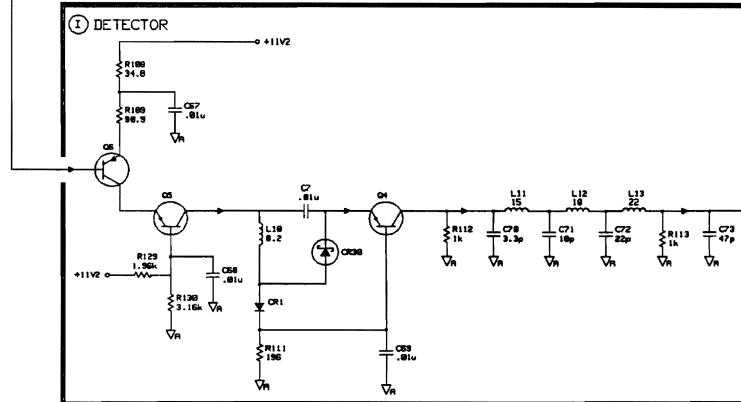
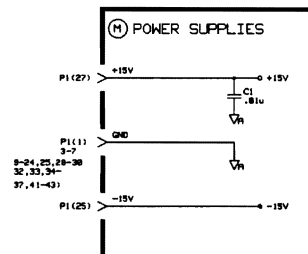
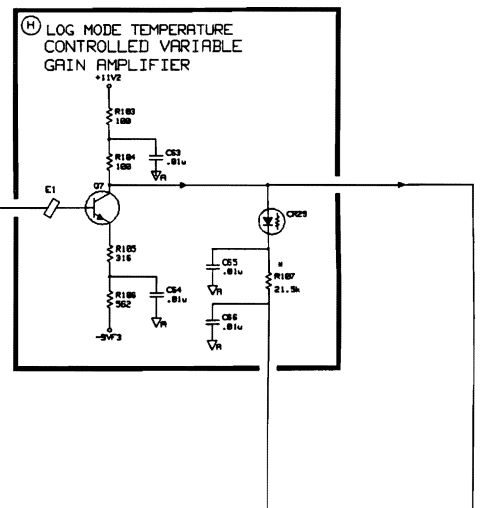
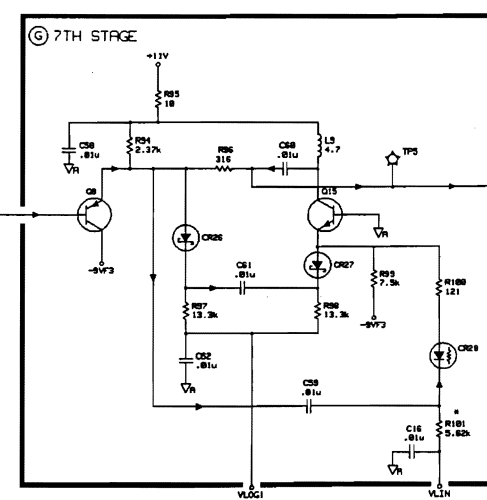
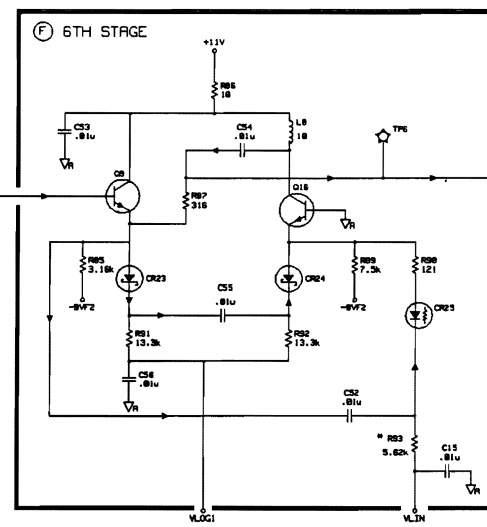
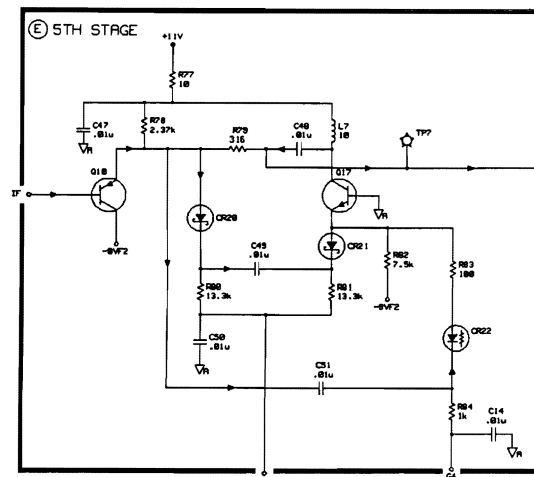
ITEM	QTY.	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-ENG. NO.	MAT'L-SPEC.
DRAWN BY: _____ DATE: _____					
ENGINEER/CHECKER: _____					
RELEASE TO PROD.: _____					
SUPERSEDES DNG.: _____					
BOARD ASSEMBLY-LOG AMPLIFIER (SCHEMATIC)					
TITLE: _____					
FILE NAME: 5062-8261-1					
SCALE: _____					
SHEET 1 OF 2					
D-5062-8261-1					



5062-8261

PART NUMBER

SYN	REVISIONS	APPROVED	DATE
A	AS ISSUED	EW	



MNEMONIC	SHEET
Q1	1
Q2	2
Q3	3
Q4	4
Q5	5
Q6	6
Q7	7
Q8	8
Q9	9
Q10	10
Q11	11
Q12	12
Q13	13
Q14	14
Q15	15
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Q18	18
Q19	19
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Q90	90
Q91	91
Q92	92
Q93	93
Q94	94
Q95	95
Q96	96
Q97	97
Q98	98
Q99	99
Q100	100

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ITEM	QTY.	PART-MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-ENG. NO.	MAT'L-SPEC.
DRAWN BY		DATE			
ENGINEER-CHECKER					
RELEASE TO PROD.					
SUPPLIES ENG.					
BOARD ASSEMBLY-LOG AMPLIFIER (SCHEMATIC)		5062-8261-1			
TITLE		FILED: 10-10-11			
SCALE NONE		SHEET 2 OF 2			
		D-5062-8261-1			

# **Component-Level Information Packet for 5062-8276**

## **Processor**



HP Part No. 5961-0494  
Printed in USA October 1992

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**HP Part Number 5062-8276**  
**Processor**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
BT1	1420-0331	3	1	BATTERY 3.68V 1.75A-HR LITHIUM THIONYL	10183	15-51-04-410-000
C1	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C2	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C4	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C5	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C6	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C10	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C12	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C13	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C14	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C16	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C17	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C20	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C22	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C23	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C24	0160-6588	1	1	CAP-FXD 0.033uF +-10% 100 V CER X7R	28480	0160-6588
C25	0160-5099	7	1	CAP-FXD 3300pF +-5% 100 V CER C0G	09939	RPA30C0G332J100V
C26	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C27	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C28	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C29	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C30	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C31	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C32	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C33	0160-4807	3	1	CAP-FXD 33pF +-5% 100 V CER C0G	09939	RPA10COG330J100
C34	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C35	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C36	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C37	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C38	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C39	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C40	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C41	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C43	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C44	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT

**HP Part Number 5062-8276**  
**Processor (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C45	0160-4790	3	1	CAP-FXD 12pF +5% 100 V CER C0G	09939	RPA10C0G120J100
C46	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C47	0160-4682	2	1	CAP-FXD 1000pF +-2.5% 160 V POLYP-FL	06121	B33062-A1102-H
C48	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C50	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C51	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C52	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C54	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C55	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C56	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C57	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C58	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C59	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C60	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C61	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C62	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C63	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C64	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C65	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C66	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C67	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C101	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C102	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C103	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C104	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C105	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C106	0180-3740	3	1	CAP-FXD 0.22F +80% -20% 5 V CARB	00039	FS0H224Z
C107	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C108	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C109	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C111	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C113	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C114	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C201	0160-4802	8	1	CAP-FXD 82pF +5% 100 V CER C0G	09939	RPA10C0G820J100V
C202	0160-4789	0	1	CAP-FXD 15pF +5% 100 V CER C0G	09939	RPA10C0G150J100

**HP Part Number 5062-8276**  
**Processor (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C203	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C204	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C205	0160-4801	7	1	CAP-FXD 100pF +-5% 100 V CER C0G	09939	RPA10C0G101J100V
C206	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C207	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C208	0160-4805	1	1	CAP-FXD 47pF +-5% 100 V CER C0G	09939	RPA10C0G470J100V
C209	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C301	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C302	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C303	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C304	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C305	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C306	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C307	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C308	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C309	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C310	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C311	0160-4805	1	1	CAP-FXD 47pF +-5% 100 V CER C0G	09939	RPA10C0G470J100V
C312	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C313	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C314	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C315	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C316	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C317	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C318	0180-4132	9	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	173D685X9035X
C380	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C401	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C402	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C403	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
CR4	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR5	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR6	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR7	1901-0539	3	1	DIODE-SCHOTTKY SM SIG	12395	A2X355
CR8	1901-1131	3	1	DIODE-SCHOTTKY SM SIG	28480	1901-1131
CR101	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050

\*Indicates factory-selected value

**HP Part Number 5062-8276**  
**Processor (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
CR102	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR103	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR104	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR105	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR106	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR107	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR108	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR109	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR110	1901-0734	0	1	DIODE-PWR RECT 1N5818 30V 1A	28480	1901-0734
CR111	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR112	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR201	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR202	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR203	1901-0539	3	1	DIODE-SCHOTTKY SM SIG	12395	A2X355
CR301	1901-0539	3	1	DIODE-SCHOTTKY SM SIG	12395	A2X355
CR401	1901-0743	1	1	DIODE-PWR RECT 1N4004 400V 1A DO-41	28480	1901-0743
CR402	1901-0743	1	1	DIODE-PWR RECT 1N4004 400V 1A DO-41	28480	1901-0743
CR403	1901-0743	1	1	DIODE-PWR RECT 1N4004 400V 1A DO-41	28480	1901-0743
DS1	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS2	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS3	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS4	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS5	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS6	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS7	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS8	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS9	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS10	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS11	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS12	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS13	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS14	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS15	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS16	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS101	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15

**HP Part Number 5062-8276**  
**Processor (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
FB201	9100-1788	6	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	11212	LB2/2.5ZB
FB301	9100-1788	6	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	11212	LB2/2.5ZB
FB401	9100-1788	6	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	11212	LB2/2.5ZB
FB402	9100-1788	6	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	11212	LB2/2.5ZB
J1	1252-2907	6	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	02946	65781-102
J2	1252-1284	0	1	CONN-POST TYPE .100-PIN-SPCG 40-CONT	02946	66963-085
J3	1252-2152	3	1	CONN-POST TYPE .100-PIN-SPCG 3-CONT	02946	69167-103
J4	1252-1470	6	1	CONN-POST TYPE .100-PIN-SPCG 40-CONT	01380	103922-1
J5	1250-1846	6	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J6	1252-1327	2	1	CONN-RECT D-SUBMIN 9-CKT 9-CONT	01380	748915-1
J7	1250-1846	6	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J8	1252-2162	5	1	CONN-POST TYPE .100-PIN-SPCG 5-CONT	02946	78208-105
J9	1252-1882	4	1	CONN-POST TYPE .100-PIN-SPCG 3-CONT	02946	78208-103
J10	1252-1065	5	1	CONN-POST TYPE .100-PIN-SPCG 24-CONT	01380	746878-5
J11	1252-3156	9	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	79275-103
L1	9100-1631	8	1	INDUCTOR RF-CH-MLD 56UH +5%	05826	1537-64
L201	9100-1631	8	1	INDUCTOR RF-CH-MLD 56UH +5%	05826	1537-64
L301	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
MP4	1200-1208	9	1	SOCKET-IC-DIP 24-CONT DIP DIP-SLDR	28480	1200-1208
MP100	1200-1274	9	1	SOCKET-IC-CHP-CARR 68-CONT SQUARE	01380	821574-1
MP101	1200-1274	9	1	SOCKET-IC-CHP-CARR 68-CONT SQUARE	01380	821574-1
MP102	1200-1314	8	1	SOCKET-IC-DIP 32-CONT DIP DIP-SLDR	28480	1200-1314
MP103	1200-1314	8	1	SOCKET-IC-DIP 32-CONT DIP DIP-SLDR	28480	1200-1314
MP104	1200-1314	8	1	SOCKET-IC-DIP 32-CONT DIP DIP-SLDR	28480	1200-1314
MP105	1200-1314	8	1	SOCKET-IC-DIP 32-CONT DIP DIP-SLDR	28480	1200-1314
MP106	1200-1426	3	1	SOCKET-IC-CHP-CARR 28-CONT CHIP CAR	01380	821581-1
MP107	1400-1267	4	1	HOLDER-BAT .531-.656-DIA FOR AA CELLS	05535	91
MP113	0515-0169	5	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 10MM-LG	01125	
MP114	0515-0169	5	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 10MM-LG	01125	
MP115	0535-0025	4	1	NUT-HEX DBL-CHAM M3 X 0.5 2.4MM-THK	06691	
MP116	0535-0025	4	1	NUT-HEX DBL-CHAM M3 X 0.5 2.4MM-THK	06691	
MP117	5021-9910	0	1		28480	5021-9910
Q3	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q4	1853-0007	7	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q5	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420

\*Indicates factory-selected value

**HP Part Number 5062-8276**  
**Processor (continued)**

Reference Designator	HP Part Number	C	Qty	Description	Mfr Code	Mfr Part Number
Q6	1855-0276	6	1	TRANSISTOR J-FET 2N4416A N-CHAN D-MODE	28480	1855-0276
Q7	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q8	1855-0675	9	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0675
Q201	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q301	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q302	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q303	1854-0477	7	1	TRANSISTOR NPN 2N2222A SI TO-18 PD=500MW	28480	1854-0477
R5	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R6	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R8	0698-7231	2	1	RESISTOR 619 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R9	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R10	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R11	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R19	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R20	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R21	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R23	0698-7196	8	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R27	0698-7248	1	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R28	0698-7214	1	1	RESISTOR 121 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R29	0698-7284	5	1	RESISTOR 100K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R30	0698-7277	6	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R31	0698-7225	4	1	RESISTOR 348 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R32	0698-7258	3	1	RESISTOR 8.25K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R33	0698-7255	0	1	RESISTOR 6.19K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R34	0698-7248	1	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R35	0698-7220	9	1	RESISTOR 215 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R36	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R37	0698-6320	8	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R38	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R39	0698-7247	0	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R40	0698-7221	0	1	RESISTOR 237 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R41	0698-6317	3	1	RESISTOR 500 +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R42	0698-6317	3	1	RESISTOR 500 +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R43	0698-6362	8	1	RESISTOR 1K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R44	0698-6317	3	1	RESISTOR 500 +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9

**HP Part Number 5062-8276**  
**Processor (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R45	0698-7202	7	1	RESISTOR 38.3 +1% .05W TF TC=0+-100	05524	CMF-50-2
R46	0698-7202	7	1	RESISTOR 38.3 +1% .05W TF TC=0+-100	05524	CMF-50-2
R47	0698-7218	5	1	RESISTOR 178 +1% .05W TF TC=0+-100	05524	CMF-50-2
R48	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R49	0698-7250	5	1	RESISTOR 3.83K +1% .05W TF TC=0+-100	05524	CMF-50-2
R51	0698-7277	6	1	RESISTOR 51.1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R52	0698-6362	8	1	RESISTOR 1K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R53	0698-6347	9	1	RESISTOR 1.5K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R54	0698-7284	5	1	RESISTOR 100K +1% .05W TF TC=0+-100	05524	CMF-50-2
R55	0698-7212	9	1	RESISTOR 100 +1% .05W TF TC=0+-100	05524	CMF-50-2
R56	0698-7248	1	1	RESISTOR 3.16K +1% .05W TF TC=0+-100	05524	CMF-50-2
R57	0698-7248	1	1	RESISTOR 3.16K +1% .05W TF TC=0+-100	05524	CMF-50-2
R58	0698-7248	1	1	RESISTOR 3.16K +1% .05W TF TC=0+-100	05524	CMF-50-2
R60	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R61	0698-7284	5	1	RESISTOR 100K +1% .05W TF TC=0+-100	05524	CMF-50-2
R62	0698-7277	6	1	RESISTOR 51.1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R63	0698-7284	5	1	RESISTOR 100K +1% .05W TF TC=0+-100	05524	CMF-50-2
R64	0698-6317	3	1	RESISTOR 500 +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R65	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R66	0698-7205	0	1	RESISTOR 51.1 +1% .05W TF TC=0+-100	05524	CMF-50-2
R67	0698-6631	4	1	RESISTOR 2.5K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R68	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R69	0698-7205	0	1	RESISTOR 51.1 +1% .05W TF TC=0+-100	05524	CMF-50-2
R70	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R71	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R72	0698-7221	0	1	RESISTOR 237 +1% .05W TF TC=0+-100	05524	CMF-50-2
R78	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R101	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R102	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R103	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R105	0698-7245	8	1	RESISTOR 2.37K +1% .05W TF TC=0+-100	05524	CMF-50-2
R106	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R107	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R108	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R109	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2

\*Indicates factory-selected value

**HP Part Number 5062-8276**  
**Processor (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R110	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R111	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R201	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R202	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R203	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R204	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R205	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R206	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R207	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R208	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R209	0698-7277	6	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R210	0698-7277	6	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R301	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R302	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R303	0698-7221	0	1	RESISTOR 237 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R304	0698-7242	5	1	RESISTOR 1.78K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R305	0698-7224	3	1	RESISTOR 316 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R306	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R307	0698-7208	3	1	RESISTOR 68.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R308	0698-7234	5	1	RESISTOR 825 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R309	0698-7201	6	1	RESISTOR 34.8 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R310	0757-0402	1	1	RESISTOR 110 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R311	0698-7230	1	1	RESISTOR 562 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R312	0698-7224	3	1	RESISTOR 316 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R313	0698-7209	4	1	RESISTOR 75 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R314	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R315	0698-7245	8	1	RESISTOR 2.37K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R316	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R317	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R318	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R380	0698-3438	3	1	RESISTOR 147 +-1% .125W TF TC=0+-100	05524	CMF-55-1
TP1	1251-5596	3	1	CONN-POST TYPE .100-PIN-SPCG 7-CONT	02946	68001-607
U2	1820-6218	5	1	IC TRANSCEIVER CMOS/HC BUS OCTL	28480	1820-6218
U3	1820-6218	5	1	IC TRANSCEIVER CMOS/HC BUS OCTL	28480	1820-6218
U5	1818-4953	6	1	IC 1M SRAM 85-NS CMOS	28480	1818-4953



**HP Part Number 5062-8276**  
**Processor (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U6	SEE MANUAL	0	1	PROGRAMMED EPROM (SEE SRVC MAN)	28480	08590-80190
U7	SEE MANUAL	0	1	PROGRAMMED EPROM (SEE SRVC MAN)	28480	08590-80191
U9	1820-5655	2	1	IC GATE CMOS/AC OR QUAD 2-INP	28480	1820-5655
U10	1820-3097	2	1	IC GATE CMOS/HC AND QUAD 2-INP	28480	1820-3097
U11	1810-0286	4	1	NETWORK-RES 16-DIP 10.0K OHM X 15	02483	761-1-R10K
U12	1820-6245	8	1	IC-16-BIT MPU W/COUNTER, PLCC 16MHZ	28480	1820-6245
U13	1820-3173	5	1	IC FF CMOS/HC J-K NEG-EDGE-TRIG	28480	1820-3173
U16	1820-3183	7	1	IC GATE CMOS/HC NAND QUAD 2-INP	28480	1820-3183
U18	1820-2998	0	1	IC LCH CMOS/HC TRANSPARENT OCTL	28480	1820-2998
U19	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U20	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U22	1818-4953	6	1	IC 1M SRAM 85-NS CMOS	28480	1818-4953
U23	SEE MANUAL	0	1	PROGRAMMED EPROM (SEE SRVC MAN)	28480	08590-80192
U24	SEE MANUAL	0	1	PROGRAMMED EPROM (SEE SRVC MAN)	28480	08590-80193
U25	1251-4787	2	1	SHUNT-DIP 8 POSITION; DUAL INLINE PKG	01380	435704-8
U26	1820-3080	3	1	IC GATE CMOS/HC NAND DUAL 4-INP	28480	1820-3080
U32	1820-2922	0	1	IC GATE CMOS/HC NAND QUAD 2-INP	28480	1820-2922
U33	1858-0077	1	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0077
U34	1810-0037	3	1	NETWORK-RES 16-DIP 1.0K OHM X 8	02483	761-3-R1K
U35	1826-0759	9	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U36	1820-3205	4	1	IC CNTR CMOS/HC BIN UP/DOWN SYNCHRO	28480	1820-3205
U37	1820-3081	4	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG	28480	1820-3081
U38	1810-0206	8	1	NETWORK-RES 8-SIP 10.0K OHM X 7	06252	750-81
U39	1820-3664	9	1	IC GATE CMOS/HCT NAND QUAD 2-INP	28480	1820-3664
U40	1820-5108	0	1	IC-PROGRAMMABLE INTERVAL TIMER 8MHZ CMOS	03811	N82C54
U41	1820-3298	5	1	IC GATE CMOS/HC OR QUAD 2-INP	28480	1820-3298
U42	1820-3298	5	1	IC GATE CMOS/HC OR QUAD 2-INP	28480	1820-3298
U44	1858-0077	1	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0077
U45	1826-1045	8	1	IC OP AMP H-SLEW-RATE 8 PIN DIP-C	28480	1826-1045
U46	1826-1178	8	1	SAMPLE AND HOLD 14 -CERDIP	28480	1826-1178
U47	1826-1522	6	1	A/D 12-DGT 28-CERDIP HYB	28480	1826-1522
U48	1810-0286	4	1	NETWORK-RES 16-DIP 10.0K OHM X 15	02483	761-1-R10K
U49	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U52	1820-3079	0	1	IC DCDR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U53	1810-0286	4	1	NETWORK-RES 16-DIP 10.0K OHM X 15	02483	761-1-R10K

\*Indicates factory-selected value

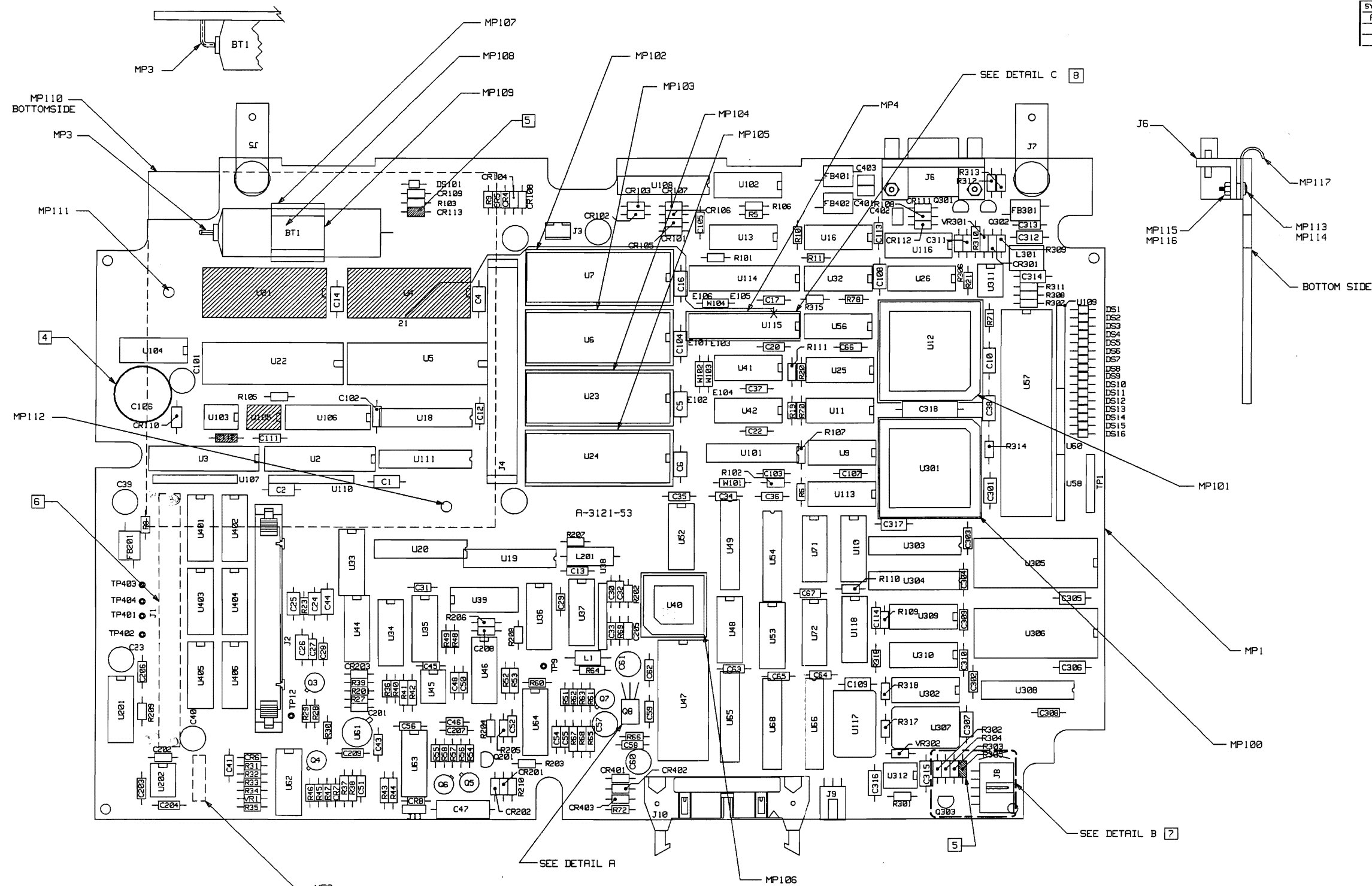
**HP Part Number 5062-8276**  
**Processor (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U54	1820-3297	4	1	IC DRVR CMOS/HC BUS OCTL	28480	1820-3297
U56	1820-4675	4	1	IC ENCDR CMOS/HC PRIORITY 8-TO-3-LINE	28480	1820-4675
U57	1820-3832	3	1	IC-PARALLEL INTERFACE/TIMER/8MHZ/MC68000	28480	1820-3832
U58	1810-0205	7	1	NETWORK-RES 8-SIP 4.7K OHM X 7	06252	750-81
U60	1810-0203	5	1	NETWORK-RES 8-SIP 470.0 OHM X 7	06252	750-81
U61	1826-1939	9	1	IC OP AMP WB 8 PIN TO-99	28480	1826-1939
U62	1858-0032	8	1	TRANSISTOR ARRAY 14-PIN PLSTC DIP	28480	1858-0032
U63	1858-0077	1	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0077
U64	1826-0609	8	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
U65	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U66	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U68	1820-3297	4	1	IC DRVR CMOS/HC BUS OCTL	28480	1820-3297
U71	1820-3081	4	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG	28480	1820-3081
U72	1820-3185	9	1	IC SCHMITT-TRIG CMOS/HC INV HEX	28480	1820-3185
U101	08590-80093	4	1	PAL, PROGRAMMED	28480	08590-80093
U102	1820-3174	6	1	IC SCHMITT-TRIG CMOS/HC NAND QUAD 2-INP	28480	1820-3174
U103	1820-5497	0	1	IC-NONVOLATILE MEMORY CONTROLLER	12186	DS1210
U104	1826-1858	1	1	IC MISC 16 PIN DIP-P	12186	DS1259N
U106	1820-5384	4	1	IC-INTERFACE CMOS -888-BIT	12768	RTC-72421B
U107	1810-0280	8	1	NETWORK-RES 10-SIP 10.0K OHM X 9	06252	750-101
U108	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U109	1810-0273	9	1	NETWORK-RES 10-SIP 470.0 OHM X 9	06252	750-101
U110	1810-0280	8	1	NETWORK-RES 10-SIP 10.0K OHM X 9	06252	750-101
U111	1820-3297	4	1	IC DRVR CMOS/HC BUS OCTL	28480	1820-3297
U113	1820-3183	7	1	IC GATE CMOS/HC NAND QUAD 2-INP	28480	1820-3183
U114	08590-80175	3	1	PAL, PROGRAMMED	28480	08590-80175
U115	08590-80176	4	1	PAL, PROGRAMMED	28480	08590-80176
U116	1820-3298	5	1	IC GATE CMOS/HC OR QUAD 2-INP	28480	1820-3298
U117	1813-0129	0	1	CLK-OSC-XTAL STD 14.7456-MHZ 0.01%	01417	HS-100(14.7456MHZ)
U118	1820-6935	3	1	IC FF CMOS/ACT D-TYPE POS-EDGE-TRIG	28480	1820-6935
U201	1826-0609	8	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
U202	1826-1220	1	1	IC OP AMP WB 8 PIN DIP-C	28480	1826-1220
U301	1820-6351	7	1	IC-CRT CONTROLLER 68-PLCC 8MHZ	06347	HD63484UCP8
U302	1820-2656	7	1	IC GATE TTL/ALS NAND QUAD 2-INP	28480	1820-2656
U303	1820-2102	8	1	IC LCH TTL/LS TRANSPARENT OCTL	28480	1820-2102

**HP Part Number 5062-8276**  
**Processor (continued)**

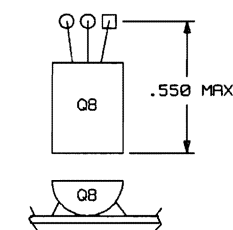
Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U304	1820-2102	8	1	IC LCH TTL/LS TRANSPARENT OCTL	28480	1820-2102
U305	1818-4017	3	1	IC 256K SRAM 100-NS CMOS	28480	1818-4017
U306	1818-4017	3	1	IC 256K SRAM 100-NS CMOS	28480	1818-4017
U307	1813-0870	8	1	CLK-OSC-XTAL STD 21.0-MHZ 0.05%	01417	HS-102-21.0MHZ
U308	08590-80096	7	1	PAL, PROGRAMMED	28480	08590-80096
U309	1820-1922	8	1	IC SHF-RGTR TTL/LS SYNC/ASYN	28480	1820-1922
U310	1820-1922	8	1	IC SHF-RGTR TTL/LS SYNC/ASYN	28480	1820-1922
U311	1820-0535	7	1	IC-INTERFACE DRVR BIPOLAR AND DUAL	06003	
U312	1820-0535	7	1	IC-INTERFACE DRVR BIPOLAR AND DUAL	06003	
U401	1810-0301	4	1	NETWORK-RES 16-DIP 51.0 OHM X 8	02483	761-3-R51
U402	1810-0301	4	1	NETWORK-RES 16-DIP 51.0 OHM X 8	02483	761-3-R51
U403	1810-0301	4	1	NETWORK-RES 16-DIP 51.0 OHM X 8	02483	761-3-R51
U404	1810-0301	4	1	NETWORK-RES 16-DIP 51.0 OHM X 8	02483	761-3-R51
U405	1810-0301	4	1	NETWORK-RES 16-DIP 51.0 OHM X 8	02483	761-3-R51
U406	1810-0301	4	1	NETWORK-RES 16-DIP 51.0 OHM X 8	02483	761-3-R51
VR1	1902-0952	6	1	DIODE-ZNR 5.6V 5% DO-35 PD=.4W TC=+.046%	02688	1N752AD035
VR301	1902-0949	1	1	DIODE-ZNR 4.3V 5% DO-35 PD=.4W TC=+.017%	28480	1902-0949
VR302	1902-0949	1	1	DIODE-ZNR 4.3V 5% DO-35 PD=.4W TC=+.017%	28480	1902-0949
W101	8159-0005	0	1	RESISTOR 0 CWM	01339	L-2007-1
W102	8159-0005	0	1	RESISTOR 0 CWM	01339	L-2007-1
W103	8159-0005	0	1	RESISTOR 0 CWM	01339	L-2007-1
W104	8159-0005	0	1	RESISTOR 0 CWM	01339	L-2007-1

SYM	REVISIONS	APPROVED	DATE
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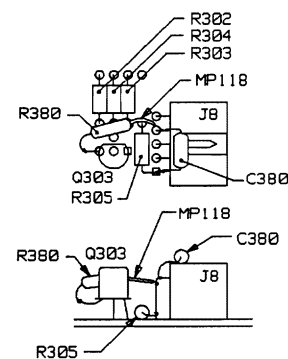


## NOTES: UNLESS OTHERWISE SPECIFIED

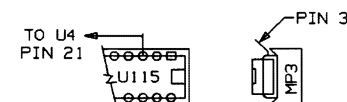
1. DIMENSIONS ARE IN INCHES.
2. MAXIMUM COMPONENT HEIGHT .400
3. MAXIMUM LEAD TRIM LENGTH .118
4. MAXIMUM COMPONENT HEIGHT .500
5. PARTS SHOWN WITH SHADED AREA ARE NOT TO BE LOADED FOR THIS ASSEMBLY.
6. J1 TO BE LOADED ON BOTTOM SIDE OF BOARD.
7. DO NOT AUTO-INSERT R305. ADD C380, R380 AND CONNECT PER DETAIL B.
8. ROLL PIN 3 OF U115 UP BEFORE INSERTING INTO SOCKET, MP4. MAKE SURE THAT PIN 3 DOES NOT TOUCH METAL INSERTS IN SOCKET. WRAP WIRE CAREFULLY INSURING THAT WIRE AND SOLDER DO NOT SHORT TO OTHER PINS OF U115. CONNECT PIN 3 OF U115 TO PIN 21 OF U4.



DETAIL A  
SCALE: NONE



DETAIL B [7]  
SCALE: NONE



DETAIL C [8]  
SCALE: NONE

SEE MATERIAL LIST 5062-8276

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OTHERS EXCEPT AS AUTHORIZED BY HP.

UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX 0.010  
XX.XX 0.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

DESIGNED BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES ING.	

ASSEMBLY, PWB  
PROCESSOR

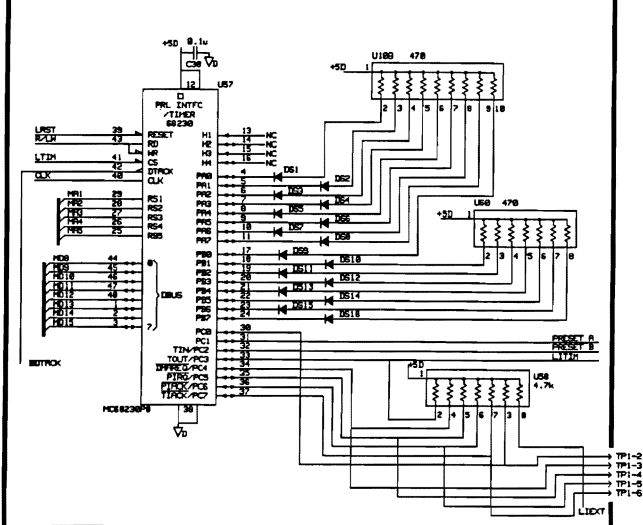
TITLE

FILENAME	5062-8276
SCALE	NONE
SHEET 1 OF 1	PART NUMBER
D-5062-8276-2	

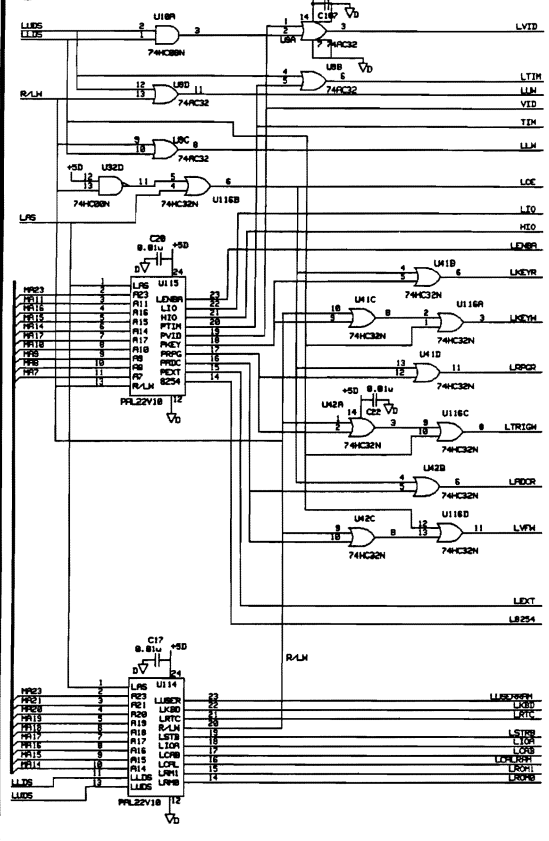
HEWLETT  
PACKARD

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED	EW	
B	PER PCO 53-07490	DC	
C	PER PCO 53-07540	BC	

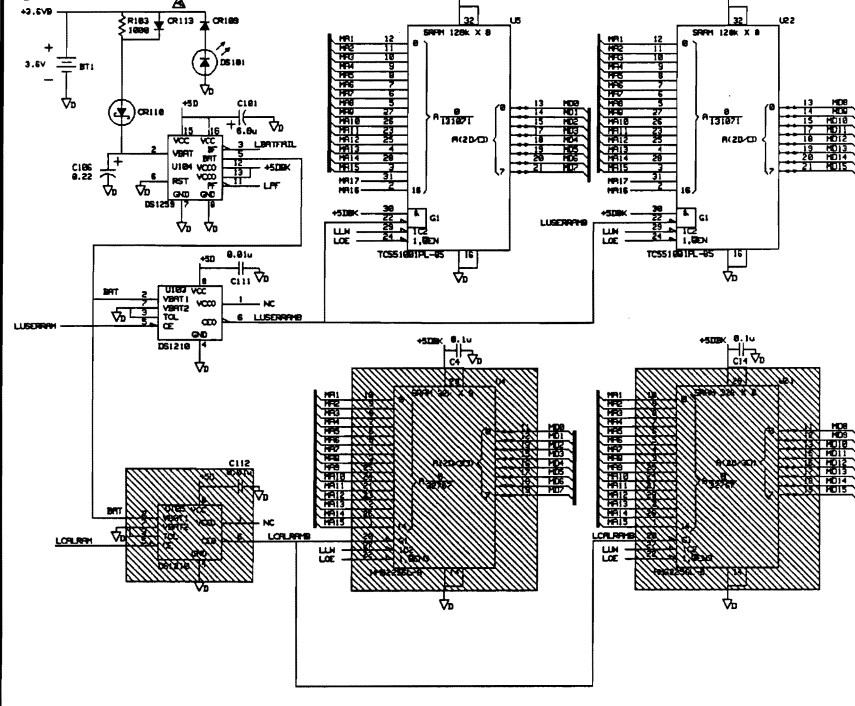
(A) TIMER AND LEDS



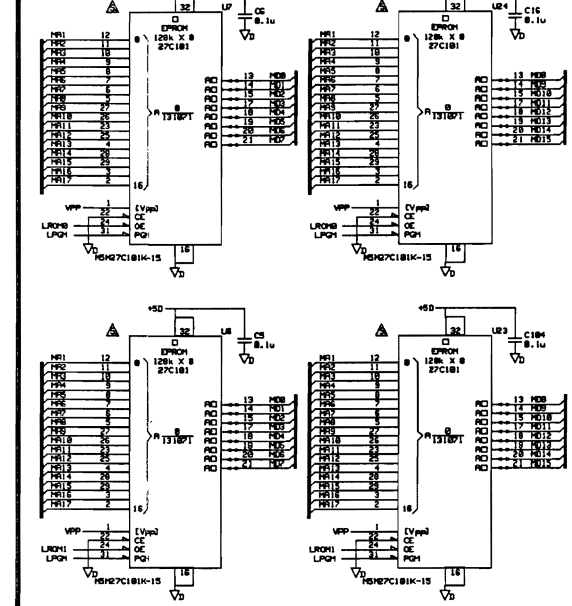
(B) ADDRESS DECODING



(C) RAM



(D) ROM



## NOTES:

1. REFERENCE DESIGNATORS WITHIN THIS SCHEMATIC ARE PRESENTED IN THE ORDER OF THEIR OCCURRENCE IN THE SCHEMATIC.
2. UNLESS OTHERWISE INDICATED, RESISTANCE IN OHMS (Ω), CAPACITANCE IN MICROFARADS (μF), INDUCTANCE IN MICROHENRIES (μH).
3. MNEMONIC TABLE

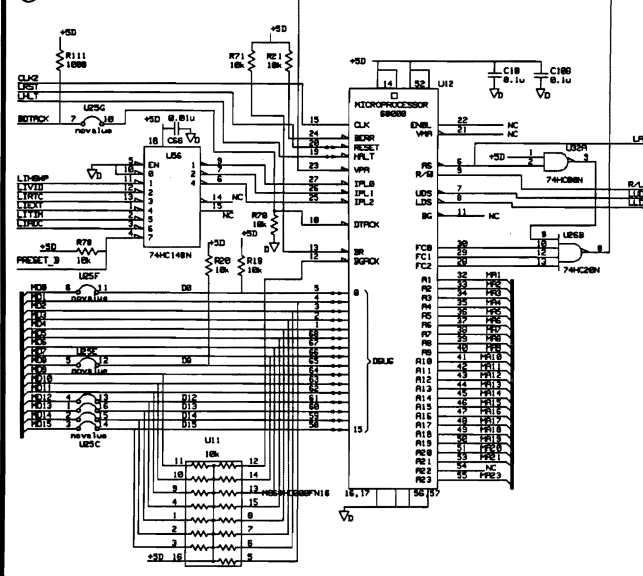
MNEMONIC	DESCRIPTION

△ CR113 IS NOT LOADED.

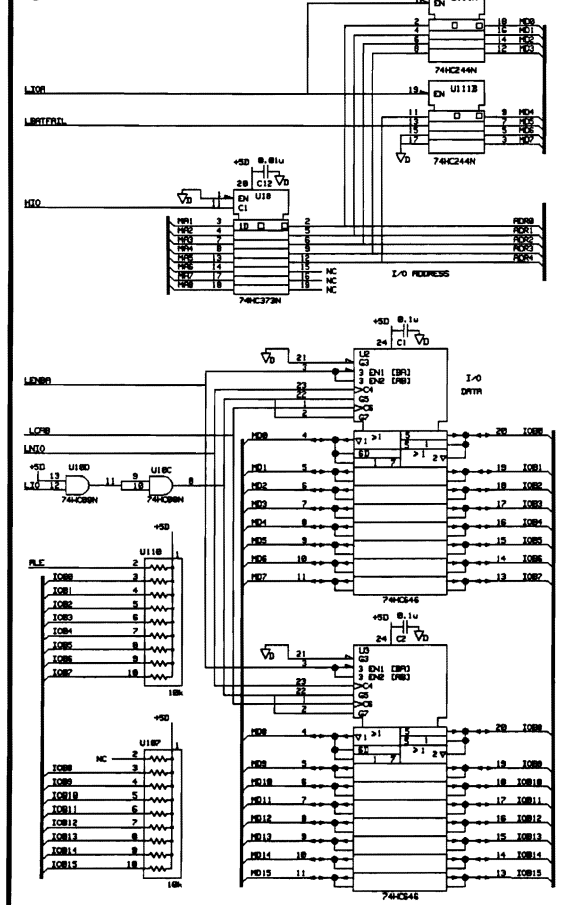
□ JUMPER TO HANDLE LARGER ROM SIZES

□ JUMPER TO HANDLE LARGER ROM SIZES

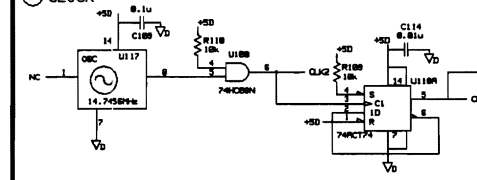
(E) CPU &amp; INTERRUPTS



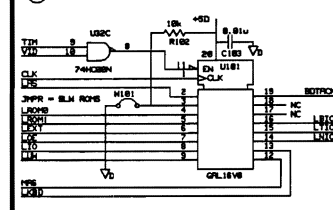
(H) I/O BUS



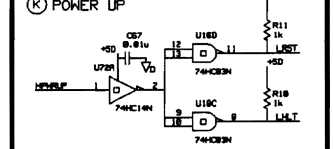
(F) CLOCK



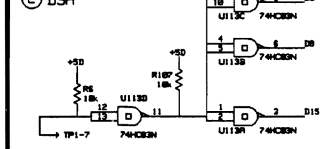
(I) DTACK &amp; I/O BUS STROBE



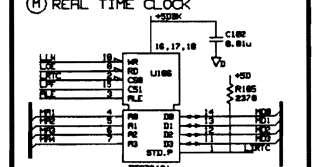
(K) POWER UP



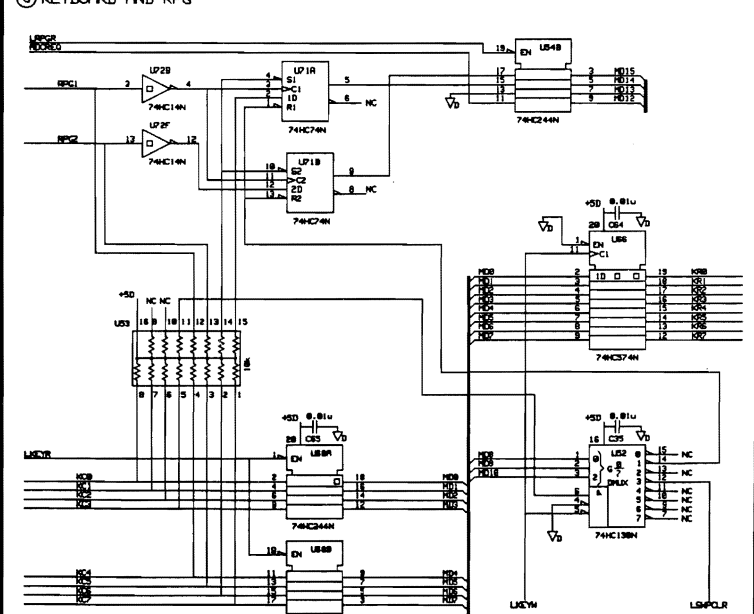
(L) DSA



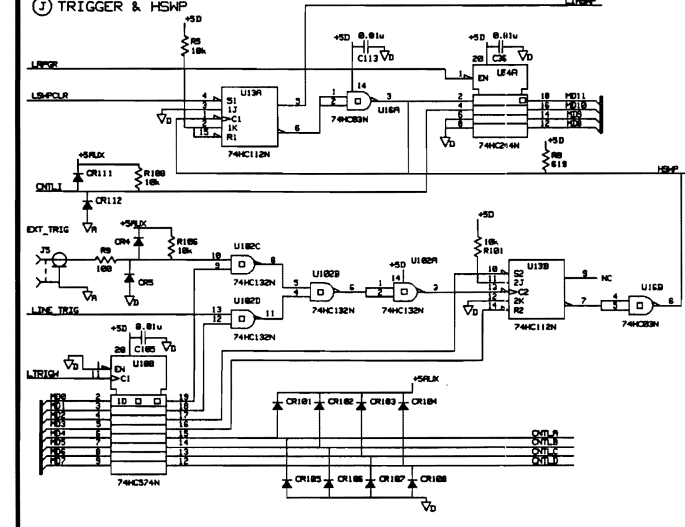
(M) REAL TIME CLOCK



(G) KEYBOARD AND RPG



(J) TRIGGER &amp; HSWP



MNEMONIC	1	2	3	4
ADDRESS	A	B	C	D
DATA	E	F	G	H
CONTROL	I	J	K	L
STATUS	M	N	O	P
POWER	Q	R	S	T
RESET	U	V	W	X
SELECT	Y	Z	AA	AB
TEST	AC	AD	AE	AF
TRIGGER	AG	AH	AI	AJ
UNLOCK	AK	AL	AM	AN
WRITE	AO	AP	AQ	AR
YIELD	AS	AT	AU	AV
ZERO	AW	AX	AY	AZ
...	...	...	...	...

RAM BD = 5022-0168

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DESIGNED BY  
ENGINEER/CHECKER  
RELEASE TO PROD.  
SUPERSEDES Dwg.

DATE  
DATE  
DATE  
DATE

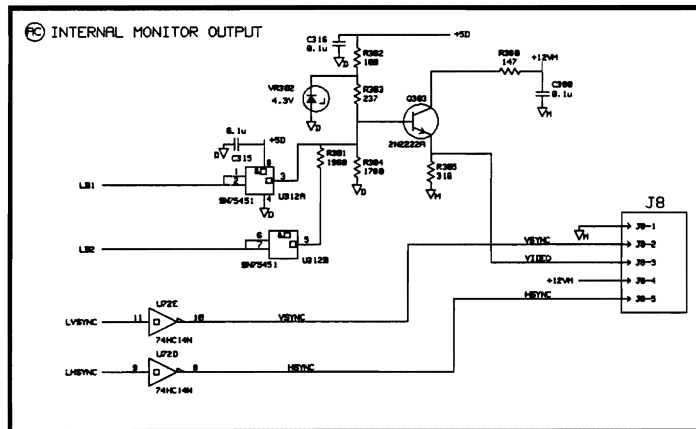
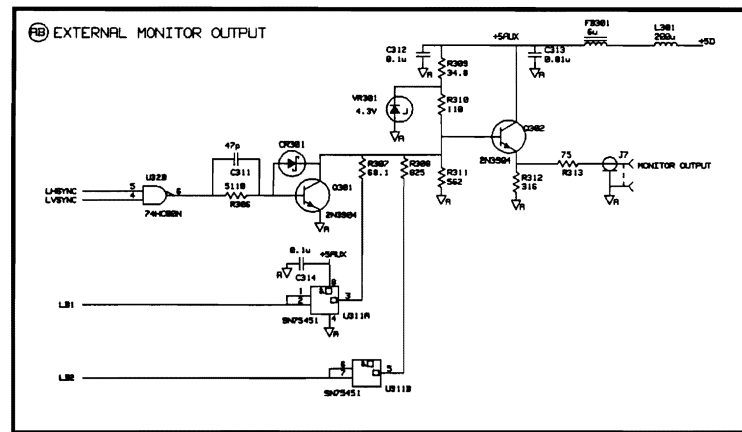
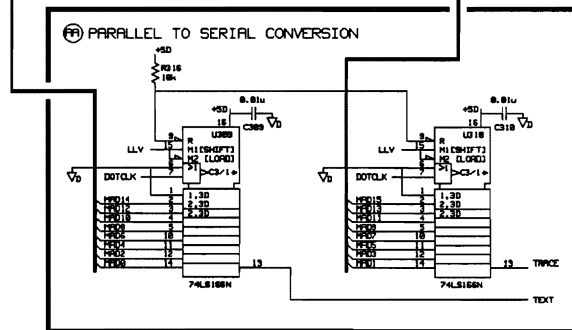
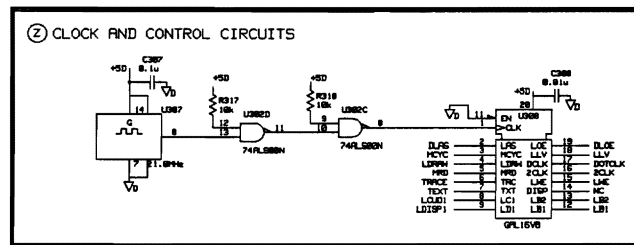
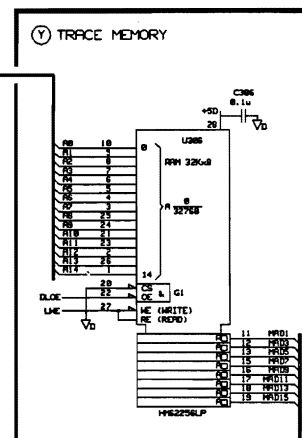
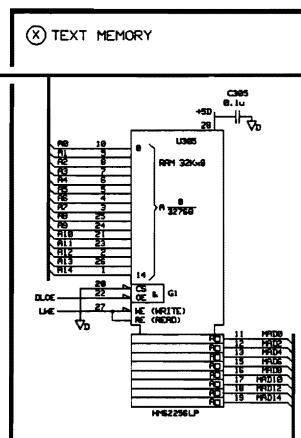
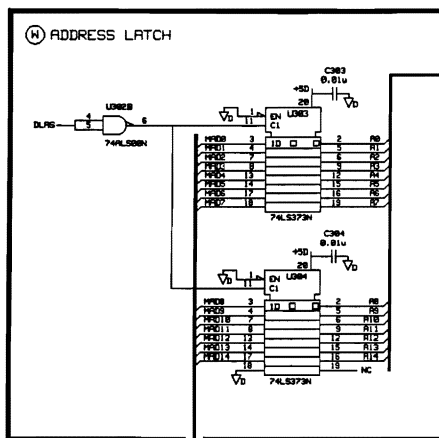
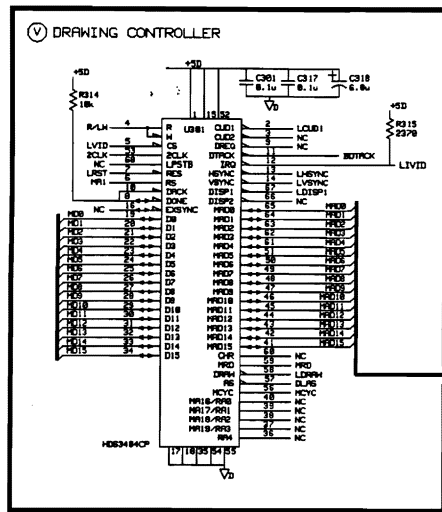
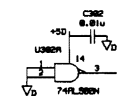
SCHEMATIC, PWA  
PROCESSOR

slab276  
FILENAME  
SCALE NONE  
SHEET 1 of 4  
PART NUMBER  
D-5062-8276-1





SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED EW		
B	PER PCO 53-07490 DC		
C	PER PCO 53-07540 BC		


[illegible]

RPM 80 - 5022-9100

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DESIGNED BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHEMATIC, PWA PROCESSOR
-----------------------------

s3aab276		 HEWLETT PACKARD	
FILENAME			
SCALE NONE		5062-8276 PART NUMBER	
SHEET 3 OF 4			
D- 5062-8276-1			





# **Component-Level Information Packet for 5063-0214**

## **Event Counter**



HP Part No. 5961-0487  
Printed in USA    October 1992

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**HP Part Number 5063-0214**  
**Event Counter**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C2	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C3	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C4	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C5	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C6	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C7	0160-5348	9	1	CAP-FXD 51pF +-5% 100 V CER C0G	09939	RPA10COG510J100
C8	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C9	0160-5348	9	1	CAP-FXD 51pF +-5% 100 V CER C0G	09939	RPA10COG510J100
C10	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C11	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C12	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C13	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C14	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C15	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C16	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C17	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C18	0180-3849	3	1	CAP-FXD 47uF +-10% 10 V TA	04200	299D476X9010DB1
C19	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C20	0180-3844	8	1	CAP-FXD 3.3uF +-10% 35 V TA	04200	299D335X9035BB1
C21	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C22	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C23	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C24	0160-4801	7	1	CAP-FXD 100pF +-5% 100 V CER C0G	09939	RPA10C0G101J100V
C25	0160-4801	7	1	CAP-FXD 100pF +-5% 100 V CER C0G	09939	RPA10C0G101J100V
C26	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C27	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C28	0160-4808	4	1	CAP-FXD 470pF +-5% 100 V CER C0G	09939	RPA10C0G471J100V
C29	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C30	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C31	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C32	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C33	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C34	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C35	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V

\*Indicates factory-selected value

**HP Part Number 5063-0214**  
**Event Counter (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C36	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C37	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C38	0180-3831	3	1	CAP-FXD 10uF +-10% 35 V TA	04200	299D106X9035DB1
C39	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C40	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C41	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
CR1	1901-0539	3	1	DIODE-SCHOTTKY SM SIG	12395	A2X355
CR2	1901-0539	3	1	DIODE-SCHOTTKY SM SIG	12395	A2X355
CR3	1901-0539	3	1	DIODE-SCHOTTKY SM SIG	12395	A2X355
CR4	1901-0539	3	1	DIODE-SCHOTTKY SM SIG	12395	A2X355
CR5	1901-0539	3	1	DIODE-SCHOTTKY SM SIG	12395	A2X355
CR8	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR9	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR10	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR11	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR12	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR13	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
J1	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J2	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J3	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
L1	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L2	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L3	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
L4	9100-3553	7	1	INDUCTOR RF-CH-MLD 3.9UH +-5%	03706	23902M-5%
MP2	0403-0630	8	2	EXTR-PC BD BRN NYL .062-IN-BD-THKNS	02123	91-2-BROWN-9
Q1	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q2	1854-0295	7	1	TRANSISTOR-DUAL NPN TO-78 PD=400MW	28480	1854-0295
R1	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R2	0698-0083	8	1	RESISTOR 1.96K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R3	0757-0399	5	1	RESISTOR 82.5 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R4	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R5	0757-1094	9	1	RESISTOR 1.47K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R6	0698-0083	8	1	RESISTOR 1.96K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R7	0757-0399	5	1	RESISTOR 82.5 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R8	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1

**HP Part Number 5063-0214**  
**Event Counter (continued)**

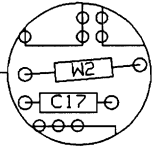
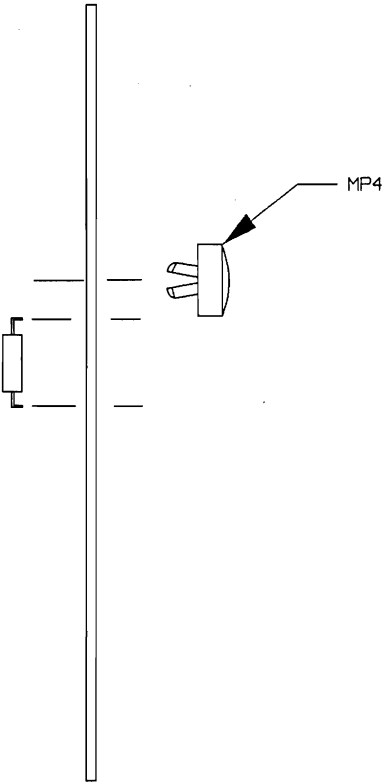
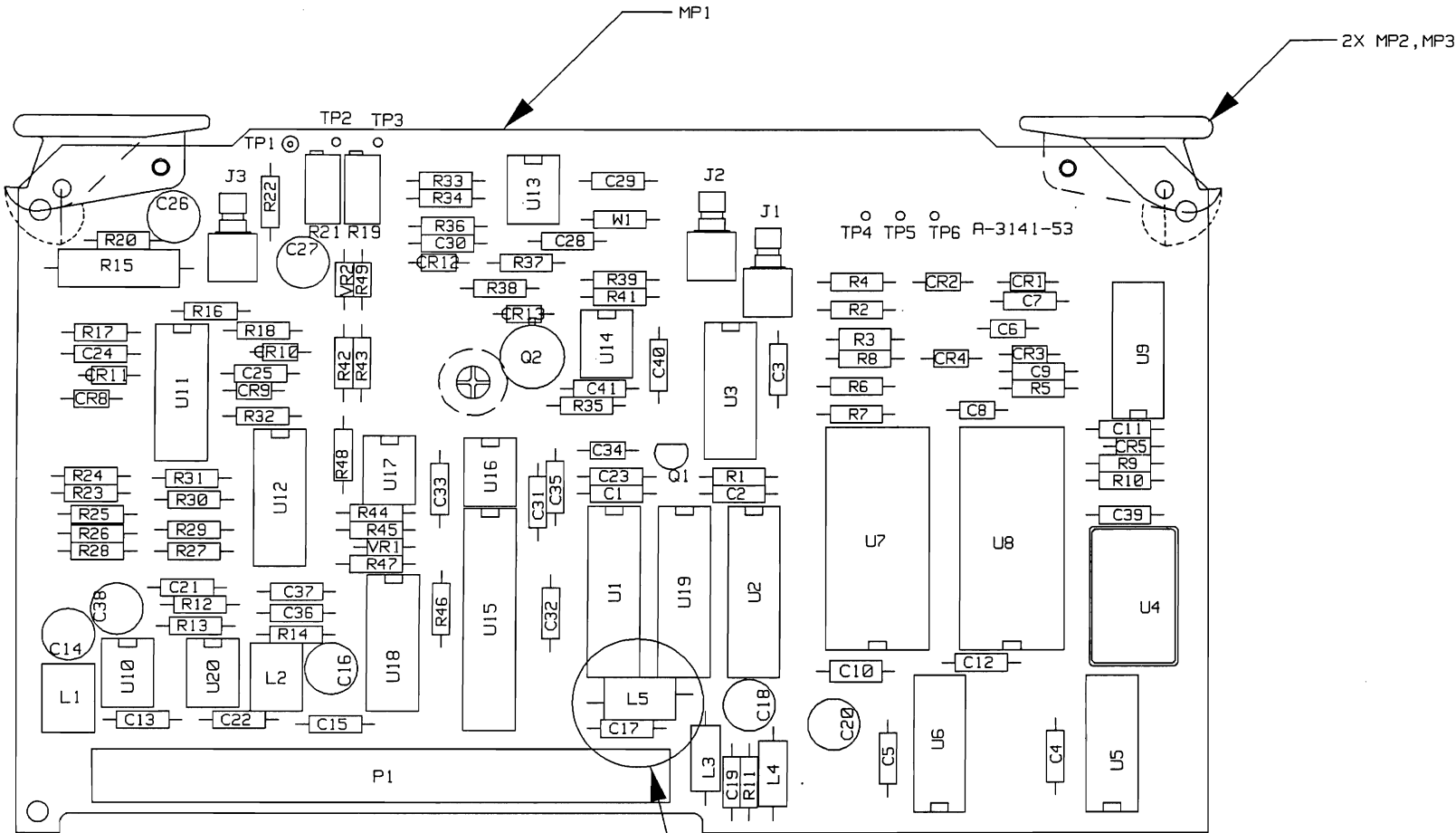
Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R9	0757-0438	3	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R10	0757-1094	9	1	RESISTOR 1.47K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R11	0757-1094	9	1	RESISTOR 1.47K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R12	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R13	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R14	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R15	0757-0814	9	1	RESISTOR 511 +-1% .5W TF TC=0+-100	05524	CMF-65-2
R16	0698-8827	4	1	RESISTOR 1M +-1% .125W TF TC=0+-100	05524	CMF-55-1
R17	0757-1094	9	1	RESISTOR 1.47K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R18	0757-1094	9	1	RESISTOR 1.47K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R19	2100-0670	6	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ	04568	67XR
R20	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R21	2100-0670	6	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ	04568	67XR
R22	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R23	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R24	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R25	0698-6624	5	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R26	0698-6377	5	1	RESISTOR 200 +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R27	0698-6364	0	1	RESISTOR 50 +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R28	0698-6355	9	1	RESISTOR 400 +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R29	0698-6377	5	1	RESISTOR 200 +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R30	0698-6624	5	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R31	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R32	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R33	0698-6624	5	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R34	0698-0084	9	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R35	0698-3430	5	1	RESISTOR 21.5 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R36	0698-3430	5	1	RESISTOR 21.5 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R37	0757-0200	7	1	RESISTOR 5.62K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R38	0699-0388	8	1	RESISTOR 500K +-0.1% .125W TF TC=0+-50	01074	H8
R39	0698-6317	3	1	RESISTOR 500 +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R41	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R42	0698-6320	8	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R43	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R44	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9

\*Indicates factory-selected value

**HP Part Number 5063-0214**  
**Event Counter (continued)**

Reference Designator	HP Part Number	C	Qty	Description	Mfr Code	Mfr Part Number
R45	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R46	0699-1313	1	1	RESISTOR 14K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1
R47	0698-6320	8	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R48	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R49	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
TP1	0360-0077	5	1	TERMINAL-STUD SGL-TUR SWGFRM-MTG	01461	1601-HP
TP2	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP3	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP4	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP5	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP6	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	08590-80105	9	1		28480	08590-80105
U2	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U3	1820-3079	0	1	IC DCDR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U4	1813-0174	5	1	CLK-OSC-XTAL STD 4.0-MHZ 0.01%	02483	MX040-2
U5	1820-4677	6	1	IC CNTR CMOS/HC DECD ASYNCHRO DUAL 4-BIT	28480	1820-4677
U6	1820-4677	6	1	IC CNTR CMOS/HC DECD ASYNCHRO DUAL 4-BIT	28480	1820-4677
U7	1820-5602	9	1	IC-PROGRAMMABLE INTERVAL TIMER,DC-10MHZ	03811	P82C54-2
U8	1820-5602	9	1	IC-PROGRAMMABLE INTERVAL TIMER,DC-10MHZ	03811	P82C54-2
U9	1820-4242	1	1	IC SCHMITT-TRIG CMOS/HCT INV HEX	03799	CD74HCT14E
U10	1826-1514	6	1	IC V RGLTR-V-REF-FXD 9.95/10.05V 8-DIP-P	28480	1826-1514
U11	1826-1559	9	1	IC INSTM AMPL PRGMBL 16 PIN DIP-P	28480	1826-1559
U12	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U13	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U14	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U15	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U16	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U17	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U18	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U19	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U20	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
VR1	1902-0953	7	1	DIODE-ZNR 6.2V 5% DO-35 PD=.4W TC=+.053%	02688	1N753AD035
VR2	1902-0953	7	1	DIODE-ZNR 6.2V 5% DO-35 PD=.4W TC=+.053%	02688	1N753AD035
W1	8159-0005	0	1	RESISTOR 0 CWM	01339	L-2007-1
W2	8159-0005	0	1	RESISTOR 0 CWM	01339	L-2007-1


SYM	REVISIONS	D-5063-0214-2	
		APPROVED	DATE
A	AS ISSUED PER PCO 53-07224 /JB		



REMOVE L5 AND REPLACE  
WITH W2, USING L5  
MOUNTING HOLES

SEE MATERIAL LIST 5063-0214

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OTHERS EXCEPT AS AUTHORIZED BY HP.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.  TOLERANCES: XX.XXX ±.015  SEE CORP. STD. 600	DRAWN BY	DATE	BD ASSEMBLY- EVENT COUNTER		 HEWLETT PACKARD
	ENGINEER/CHECKER				
	RELEASED TO PROD.		TITLE		PART NUMBER 5063-0214
	SUPSEDES DWG.		NONE SCALE		
			SHEET 1 OF 1		D-5063-0214-2

SYM	REVISIONS	APPROVED	DATE
A	RS ISSUED PER PCO 53-07224 BC		

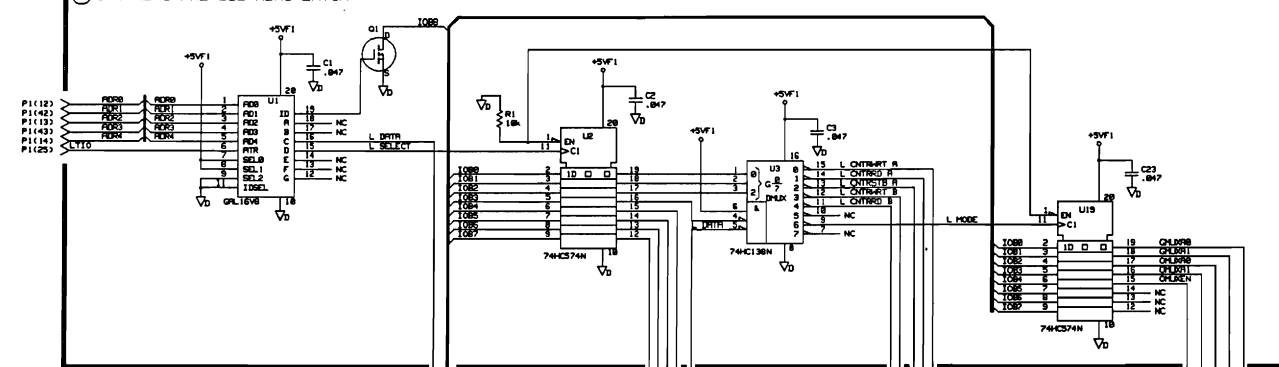
NOTES:

1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABREVIATED. PREFIX INDICATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.
2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω), CAPACITANCE IN MICROFARADS (μF), INDUCTANCE IN MICROHENRIES (μH).
3. PHONONIC TABLE

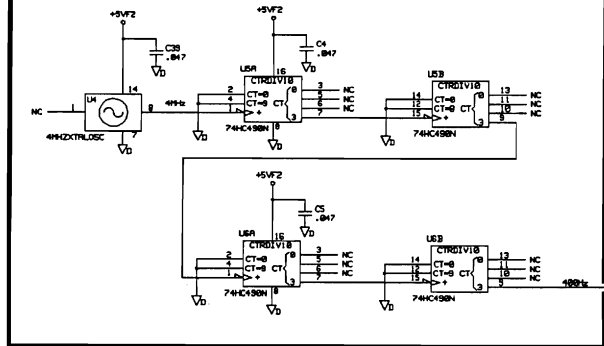
PHONONIC	DESCRIPTION

4. GROUND TRACKS

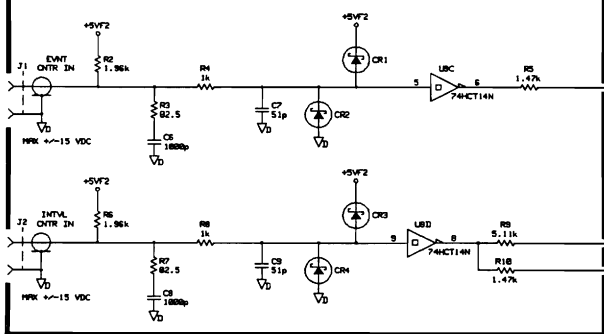
(A) I/O ADRS PAL/SUB ADRS LATCH



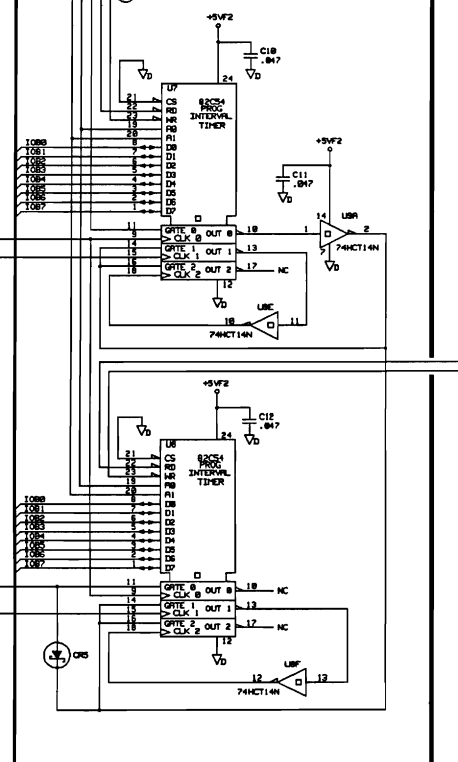
(B) FREQ REF AND DIVIDE BY 10000 (INSIDE SHIELD #3)



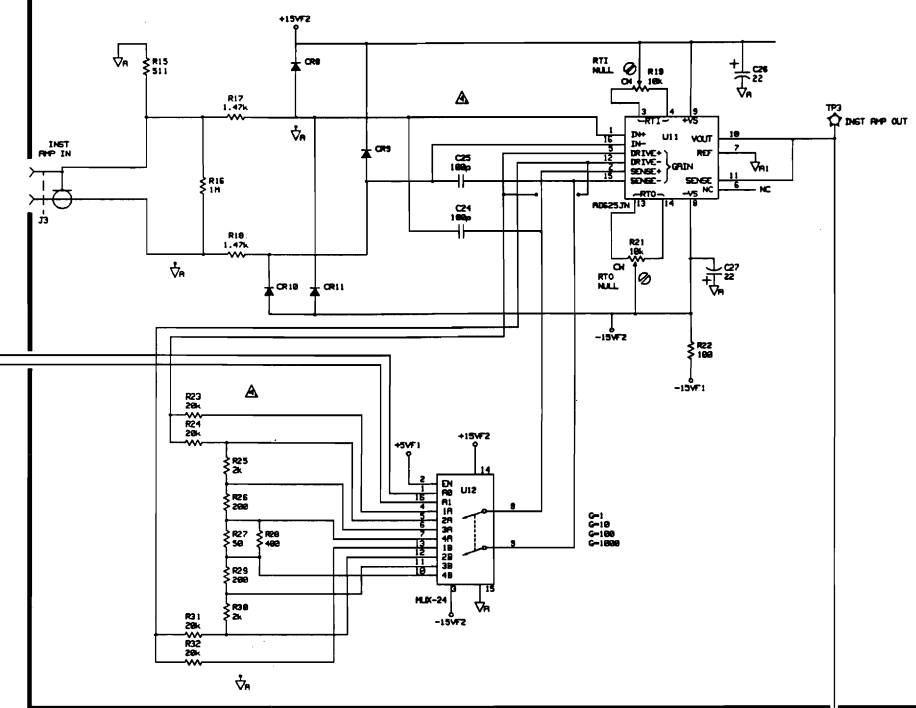
(C) INPUT SIGNAL CONDITIONING (INSIDE SHIELD #3)



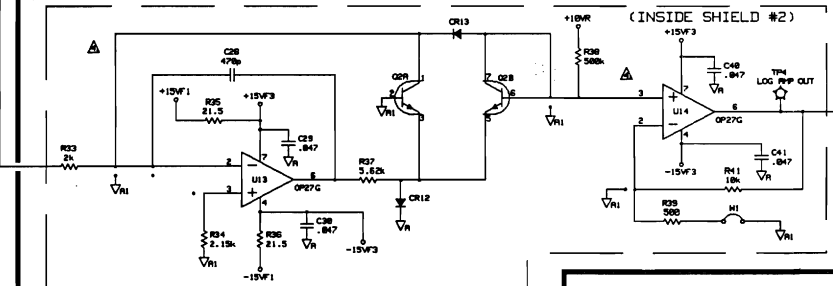
(D) COUNTERS (INSIDE SHIELD #3)



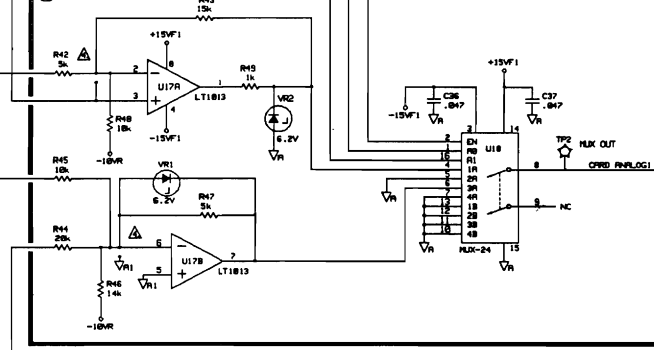
(E) INSTRUMENTATION AMPLIFIER (SHIELD #1)



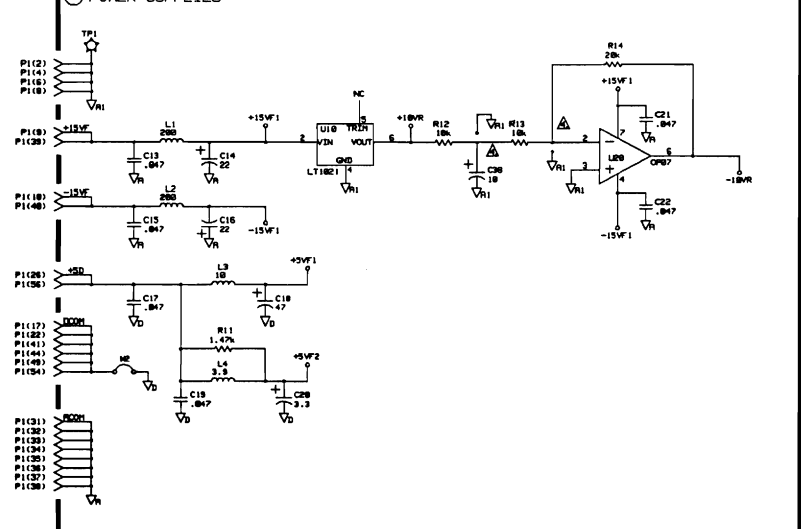
(F) LOG AMPLIFIER (INSIDE SHIELD #2)



(G) OUTPUT MUX



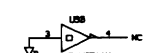
(H) POWER SUPPLIES



PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
P1(1)	VH		
P1(2)	VH		
P1(3)	VH		
P1(4)	VH		
P1(5)	VH		
P1(6)	VH		
P1(7)	VH		
P1(8)	VH		
P1(9)	VH		
P1(10)	VH		
P1(11)	VH		
P1(12)	VH		
P1(13)	VH		
P1(14)	VH		
P1(15)	VH		

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
P1(1)	VH		
P1(2)	VH		
P1(3)	VH		
P1(4)	VH		
P1(5)	VH		
P1(6)	VH		
P1(7)	VH		
P1(8)	VH		
P1(9)	VH		
P1(10)	VH		
P1(11)	VH		
P1(12)	VH		
P1(13)	VH		
P1(14)	VH		
P1(15)	VH		

NOT USED:



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ITEM	QTY.	PART/MATERIAL-DESCRIPTION	PART 'L'-PART NO.	PART 'L'-ENG. NO.	PART 'L'-SPEC.
<p>DRWN BY: _____ DATE: _____</p> <p>ENGINEER/CHECKER: _____</p> <p>RELEASE TO PROD.: _____</p> <p>SUPERSEDES ENG.: _____</p>					
<p><b>BOARD ASSEMBLY- COUNTER/AMPLIFIER (SCHEMATIC)</b></p> <p>TITLE: _____</p> <p>SCALE: NONE</p> <p>SHEET 1 OF 1</p>			<p>5063-0214</p> <p>D-5063-0214-1</p>		



# **Component-Level Information Packet for 5063-0234**

## **Cellular Demod/TV**



**HP Part No. 5961-0481  
Printed in USA September 1992**

**HP Part Number 5063-0234**  
**Cellular Demod/TV**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4794	7	1	CAP-FXD 5.6pF +8.92% 100 V CER C0G	09939	RPA10C0G5R6D100PT
C2	0160-4807	3	1	CAP-FXD 33pF +5% 100 V CER C0G	09939	RPA10C0G330J100
C3	0160-4804	0	1	CAP-FXD 56pF +5% 100 V CER C0G	09939	RPA10C0G560J100
C4	0160-4804	0	1	CAP-FXD 56pF +5% 100 V CER C0G	09939	RPA10C0G560J100
C5	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C6	0160-5699	3	1	CAP-FXD 20pF +5% 100 V CER C0G	28480	0160-5699
C7	0160-4825	5	1	CAP-FXD 560pF +5% 100 V CER C0G	09939	RPA10C0G561J100V
C8	0160-5699	3	1	CAP-FXD 20pF +5% 100 V CER C0G	28480	0160-5699
C9	0160-4825	5	1	CAP-FXD 560pF +5% 100 V CER C0G	09939	RPA10C0G561J100V
C10	0160-4789	0	1	CAP-FXD 15pF +5% 100 V CER C0G	09939	RPA10C0G150J100
C11	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C12	0180-3850	6	1	CAP-FXD 68uF +-10% 10 V TA	04200	299D686X9010DB1
C13	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C14	0160-4788	9	1	CAP-FXD 18pF +5% 100 V CER C0G	09939	RPA10C0G180J100
C15	0160-4802	8	1	CAP-FXD 82pF +5% 100 V CER C0G	09939	RPA10C0G820J100V
C16	0160-4788	9	1	CAP-FXD 18pF +5% 100 V CER C0G	09939	RPA10C0G180J100
C17	0160-4802	8	1	CAP-FXD 82pF +5% 100 V CER C0G	09939	RPA10C0G820J100V
C18	0160-5405	9	1	CAP-FXD 130pF +5% 100 V CER C0G	09939	RPA10C0G131J100V
C19	0160-5404	8	1	CAP-FXD 360pF +5% 100 V CER C0G	09939	RPA10C0G361J100V
C20	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C21	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C22	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C23	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C24	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C25	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C26	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C27	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C28	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C29	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C30	0160-4382	9	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	09939	RPE121-105C0G3R3C200V
C31	0180-3848	2	1	CAP-FXD 33uF +-10% 16 V TA	04200	299D336X9016DB1
C32	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C33	0180-4214	8	1	CAP-FXD 220uF +-10% 10 V TA	28480	0180-4214
C35	0160-6588	1	1	CAP-FXD 0.033uF +-10% 100 V CER X7R	28480	0160-6588
C36	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V

*\*Indicates factory-selected value*

**HP Part Number 5063-0234**  
**Cellular Demod/TV (continued)**

Reference Designator	HP Part Number	C	D	Qty	Description	Mfr Code	Mfr Part Number
C37	0180-3848	2	1		CAP-FXD 33uF +-10% 16 V TA	04200	299D336X9016DB1
C38	0160-5098	6	1		CAP-FXD 0.22uF +-10% 50 V CER X7R	09939	RPA40X7R224K50V
C39	0180-3850	6	1		CAP-FXD 68uF +-10% 10 V TA	04200	299D686X9010DB1
C40	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C41	0160-6146	7	1		CAP-FXD 910pF +-5% 100 V CER C0G	28480	0160-6146
C42	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C43	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C44	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C45	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C46	0160-4811	9	1		CAP-FXD 270pF +-5% 100 V CER C0G	09939	RPA10C0G271J100V
C47	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C48	0160-4810	8	1		CAP-FXD 330pF +-5% 100 V CER C0G	09939	RPA10C0G331J100V
C49	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C50	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C51	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C52	0160-4371	6	1		CAP-FXD 680pF +-5% 100 V CER C0G	09939	RPE121-105C0G681J100V
C53	0160-4386	3	1		CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C54	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C100	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C101	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C103	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C104	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C105	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C109	0180-3850	6	1		CAP-FXD 68uF +-10% 10 V TA	04200	299D686X9010DB1
C110	0160-4835	7	1		CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C111	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C112	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C113	0160-5422	0	1		CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C114	0160-4574	1	1		CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C115	0160-4574	1	1		CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
CR2	1901-0050	3	1		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR3	1901-0050	3	1		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR5	1901-0050	3	1		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR100	1901-0050	3	1		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR101	1901-0050	3	1		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050

**HP Part Number 5063-0234**  
**Cellular Demod/TV (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
CR102	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR103	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
E1	9170-1380	1	1	CORE-SHIELDING BEAD	12580	SAHP763
E2	9170-1380	1	1	CORE-SHIELDING BEAD	12580	SAHP763
J1	1251-8912	3	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8912
J2	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
L1	9100-1640	9	1	INDUCTOR RF-CH-MLD 160UH +-5%	05826	1537-86
L2	9100-1640	9	1	INDUCTOR RF-CH-MLD 160UH +-5%	05826	1537-86
L3	9140-0237	2	1	INDUCTOR RF-CH-MLD 200UH +-5%	05826	1537-90
L4	9100-2547	7	1	INDUCTOR RF-CH-MLD 5.6UH +-10%	28480	9100-2547
L5	9100-2547	7	1	INDUCTOR RF-CH-MLD 5.6UH +-10%	28480	9100-2547
L6	9100-2562	6	1	INDUCTOR RF-CH-MLD 100UH +-10%	28480	9100-2562
L7	9100-2564	8	1	INDUCTOR RF-CH-MLD 150UH +-10%	28480	9100-2564
MP2	7100-1316	4	1	CAN-SQ	01932	HU 4280-.437 + TABS
MP3	0403-0630	8	1	EXTR-PC BD BRN NYL .062-IN-BD-THKNS	02123	91-2-BROWN-9
MP4	7100-1317	5	1	CAN-SQ	01932	HU 4532-.437 + TABS
MP6	0403-0621	7	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
P3	1252-1882	4	1	CONN-POST TYPE .100-PIN-SPCG 3-CONT	02946	78208-103
P4	1252-2195	4	1	CONN-POST TYPE .100-PIN-SPCG 4-CONT	02946	78208-104
P5	1251-5285	7	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	68015-602
Q3	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q100	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
R1	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R2	0698-7247	0	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R3	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R4	0698-7241	4	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R5	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R6	0698-7241	4	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R7	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R8	0698-7204	9	1	RESISTOR 46.4 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R9	0698-6320	8	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R10	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R11	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R12	0698-8820	7	1	RESISTOR 4.64 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R13	0698-6320	8	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9

*\*Indicates factory-selected value*

**HP Part Number 5063-0234**  
**Cellular Demod/TV (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R14	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R15	0698-3444	1	1	RESISTOR 316 $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R16	0698-3444	1	1	RESISTOR 316 $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R17	0699-2124	4	1	RESISTOR 619 $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1
R18	0699-0692	7	1	RESISTOR 1.4K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	01074	H8
R19	0698-6963	5	1	RESISTOR 5.55K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R20	0698-6533	5	1	RESISTOR 12.5K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R21	0698-6631	4	1	RESISTOR 2.5K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R22	0698-6631	4	1	RESISTOR 2.5K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R25	0698-7270	9	1	RESISTOR 26.1K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R27	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R28	0698-7270	9	1	RESISTOR 26.1K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R29	0698-6631	4	1	RESISTOR 2.5K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R30	0698-7229	8	1	RESISTOR 511 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R31	0698-7247	0	1	RESISTOR 2.87K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R32	0699-0073	8	1	RESISTOR 10M $\pm 1\%$ .125W TF TC=0 $\pm$ -100	06118	MK2
R33	0699-0073	8	1	RESISTOR 10M $\pm 1\%$ .125W TF TC=0 $\pm$ -100	06118	MK2
R34	0698-7284	5	1	RESISTOR 100K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R35	0698-7270	9	1	RESISTOR 26.1K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R36	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R37	0698-8816	1	1	RESISTOR 2.15 $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R38	0698-7286	7	1	RESISTOR 121K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R39	0698-7288	9	1	RESISTOR 147K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R40	0698-8826	3	1	RESISTOR 825K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R41	0699-2124	4	1	RESISTOR 619 $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1
R42	0699-0400	5	1	RESISTOR 3.6K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1
R43	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R44	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R45	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R46	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R47	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R48	0698-7229	8	1	RESISTOR 511 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R49	0698-7253	8	1	RESISTOR 5.11K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R50	0698-7236	7	1	RESISTOR 1K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R51	0698-7236	7	1	RESISTOR 1K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2

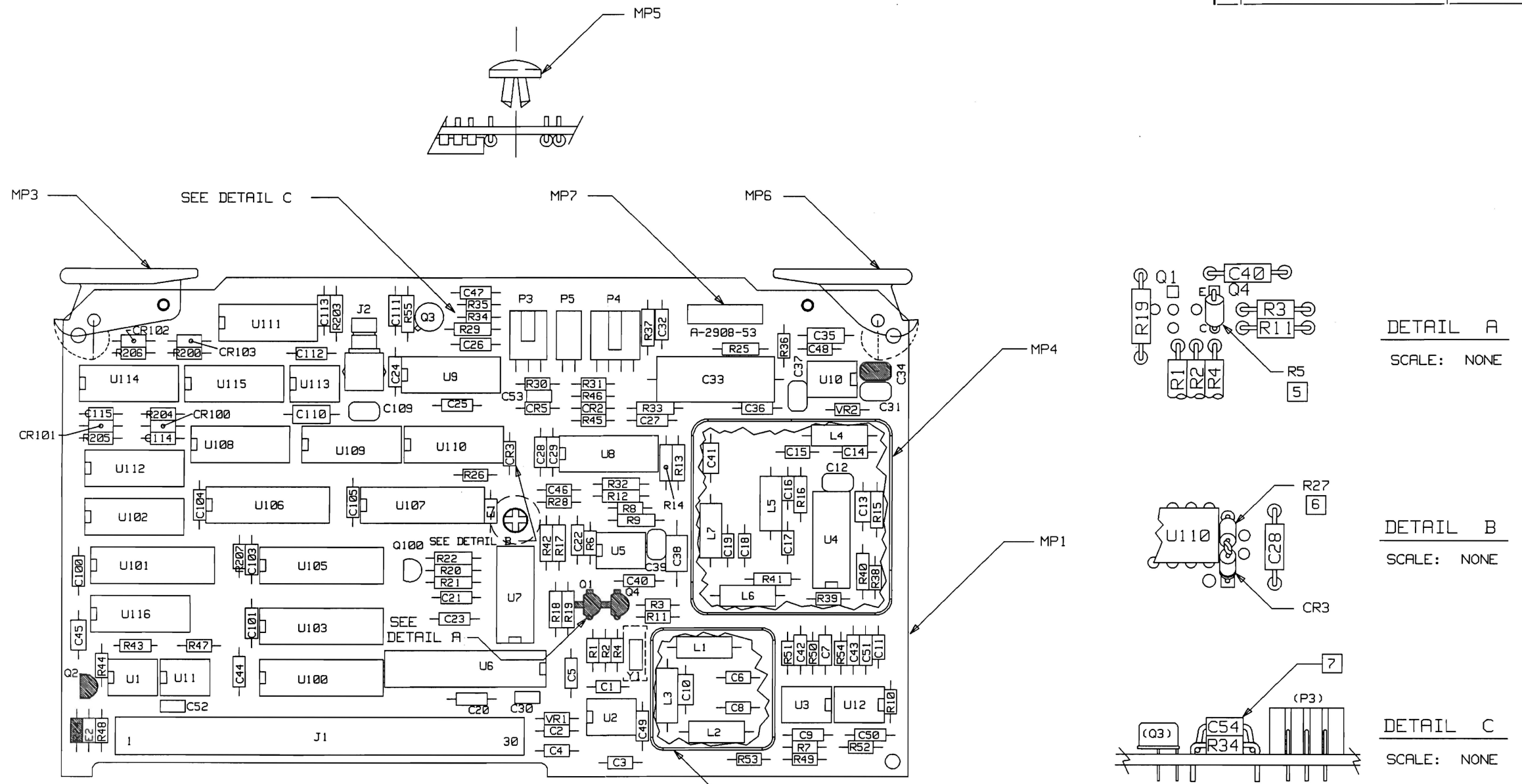
**HP Part Number 5063-0234**  
**Cellular Demod/TV (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R52	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R53	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R54	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R55	0698-3458	7	1	RESISTOR 348K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R200	0698-7244	7	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R203	0698-8825	2	1	RESISTOR 681K +-1% .125W TF TC=0+-100	01074	H8
R204	0698-7244	7	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R205	0698-7244	7	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R206	0698-7244	7	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R207	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
U1	1826-0785	1	1	IC OP AMP LOW-BIAS-H-IMPD DUAL 8 PIN	28480	1826-0785
U2	1826-1913	9	1	IC MISC 8 PIN DIP-P	28480	1826-1913
U3	1826-0159	3	1	IC RF/IF AMPL IF 8 PIN DIP-P	28480	1826-0159
U4	1820-6408	5	1	IC GATE CMOS/AC EXCL-OR QUAD 2-INP	28480	1820-6408
U5	1826-1431	6	1	IC V RGLTR-V-REF-FXD 4.9975/5.0025V	28480	1826-1431
U6	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1943	5	1	IC OP AMP HS QUAD 14 PIN DIP-C	28480	1826-1943
U8	1826-1943	5	1	IC OP AMP HS QUAD 14 PIN DIP-C	28480	1826-1943
U9	1820-1934	2	1	D/A 8-BIT 16-CERDIP BPLR	28480	1820-1934
U10	1826-0682	7	1	IC AUDIO AMPL PWR 8 PIN DIP-P	28480	1826-0682
U11	1826-2026	7	1	ANALOG SWITCH SPST 8 -DIP-P	28480	1826-2026
U12	1826-0159	3	1	IC RF/IF AMPL IF 8 PIN DIP-P	28480	1826-0159
U100	1820-4152	2	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	03799	CD74HCT574E
U101	08590-80105	9	1		28480	08590-80105
U102	1820-3298	5	1	IC GATE CMOS/HC OR QUAD 2-INP	28480	1820-3298
U103	1820-4152	2	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	03799	CD74HCT574E
U105	1820-4152	2	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	03799	CD74HCT574E
U106	1820-4152	2	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	03799	CD74HCT574E
U107	1820-4152	2	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	03799	CD74HCT574E
U108	1820-3205	4	1	IC CNTR CMOS/HC BIN UP/DOWN SYNCHRO	28480	1820-3205
U109	1820-3205	4	1	IC CNTR CMOS/HC BIN UP/DOWN SYNCHRO	28480	1820-3205
U110	1820-3205	4	1	IC CNTR CMOS/HC BIN UP/DOWN SYNCHRO	28480	1820-3205
U111	1820-3672	9	1	IC MUXR/DATA-SEL CMOS/HC 4-TO-1-LINE	28480	1820-3672
U112	1820-3185	9	1	IC SCHMITT-TRIG CMOS/HC INV HEX	28480	1820-3185
U113	1826-1942	4	1	IC MISC 8 PIN DIP-P	28480	1826-1942

**HP Part Number 5063-0234**  
**Cellular Demod/TV (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U114	1820-3173	5	1	IC FF CMOS/HC J-K NEG-EDGE-TRIG	28480	1820-3173
U115	1820-3183	7	1	IC GATE CMOS/HC NAND QUAD 2-INP	28480	1820-3183
U116	1826-0609	8	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
VR1	1902-0048	1	1	DIODE-ZNR 6.81V 5% DO-35 PD=.4W	02688	
VR2	1902-0579	3	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	02688	
Y1	0410-2134	6	1	CRYSTAL-QUARTZ F=18.416 MHZ +-.017 MHZ	09620	

SYN		REVISIONS	APPROVED	DATE
A	AS ISSUED PER	PCO 53-07285/GH		



- NOTES: UNLESS OTHERWISE SPECIFIED
1. ALL DIMENSIONS ARE IN INCHES.
  2. MAXIMUM COMPONENT HEIGHT .450
  3. MAXIMUM LEAD TRIM LENGTH .065
  4. DO NOT LOAD Q2, R24, R26 AND C34.
  - 5 DO NOT LOAD Q1 AND Q4. INSTALL R5 IN PLACE OF Q4 AS SHOWN IN DETAIL A.
  - 6 ADD R27 IN SERIES WITH CR3. SEE DETAIL B.
  - 7 ADD C54 PIGGY-BACK TO R34. SEE DETAIL C.

RAW BOARD NUMBER 5021-8673  
SEE 5063-0234 MATERIAL LIST

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TOLERANCES: XX.XXX CL.018  
XX.XX CL.02

THIRD ANGLE PROJECTION

DO NOT SCALE THIS DRAWING

DRAWN BY

ENGINEER/CHECKER

RELEASE TO PROD.

SUPERSEDES DRG.

DATE

DATE

DATE

ASSEMBLY, PWB

CELLULAR

DEMOD-TV

TITLE

alacx234

FILENAME

SCALE NONE

SHEET 1 of 1

5063-0234

PART NUMBER

D- 5063-0234-2

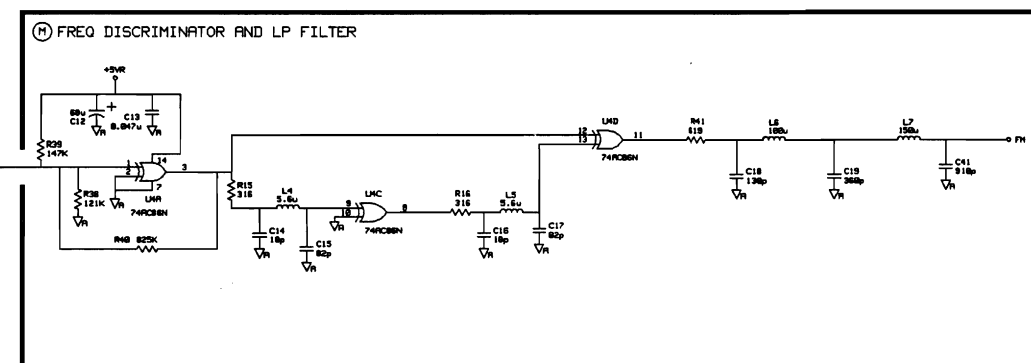
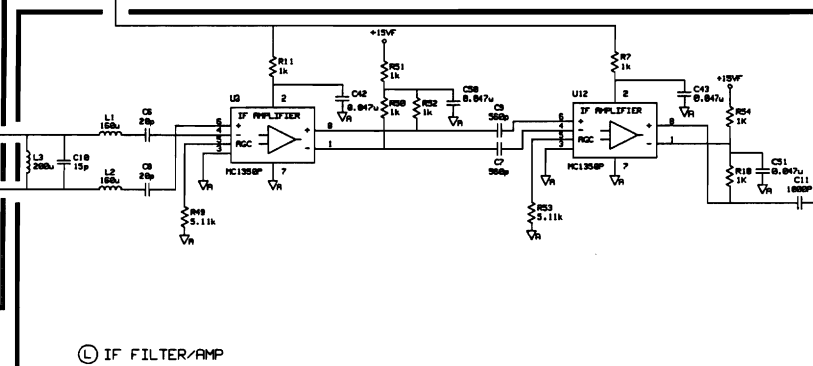
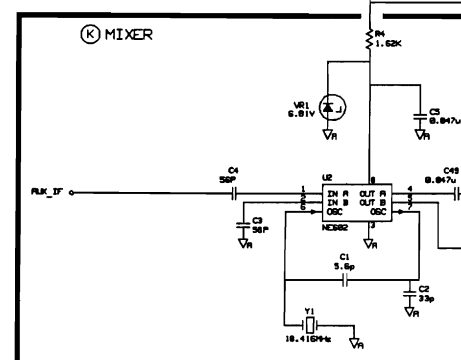
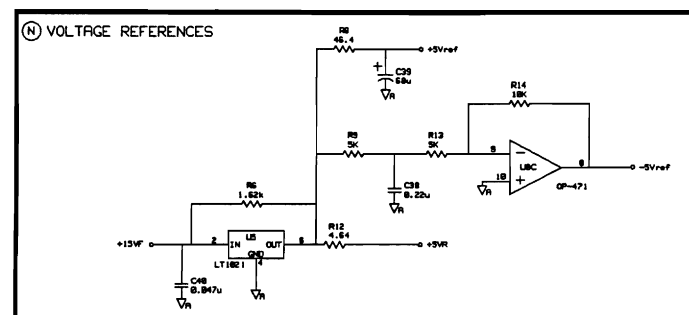
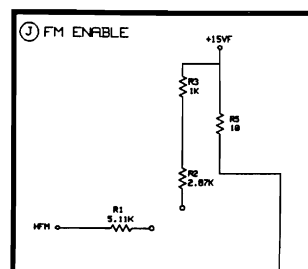
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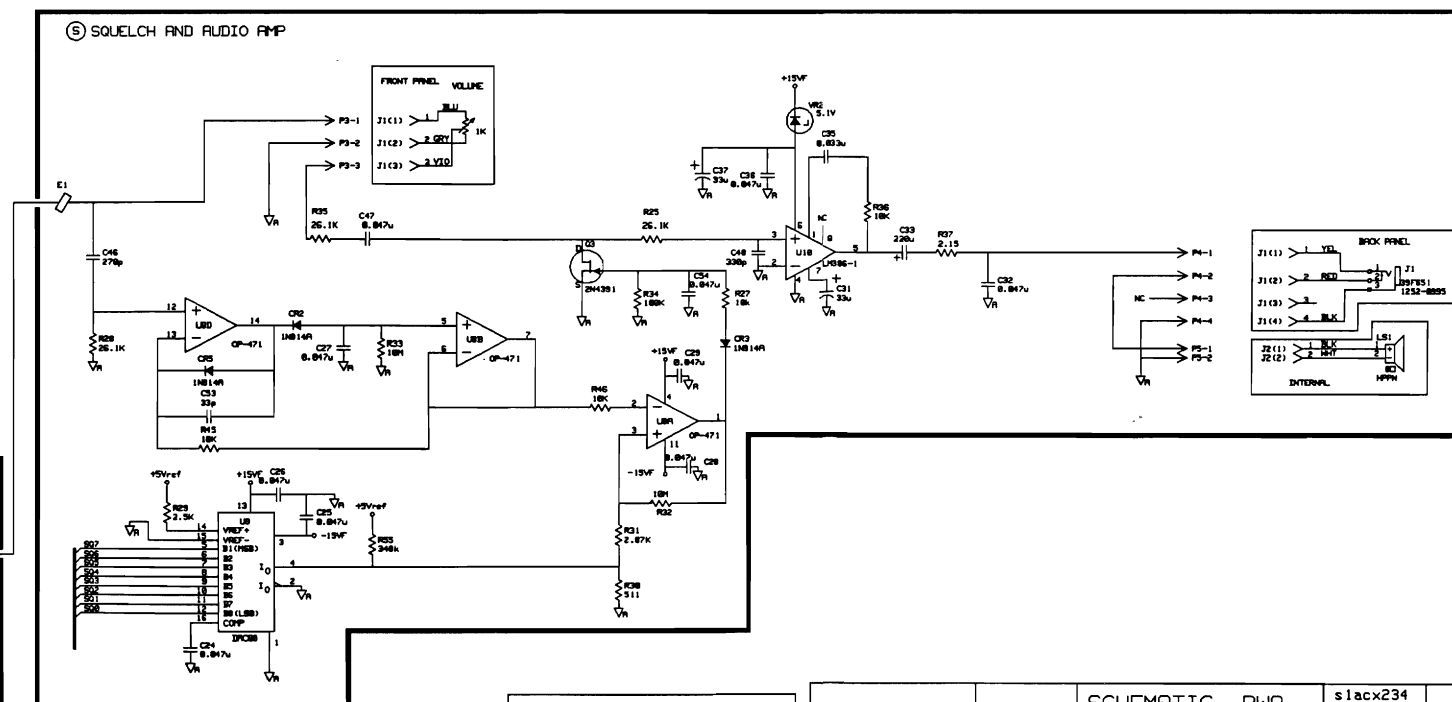
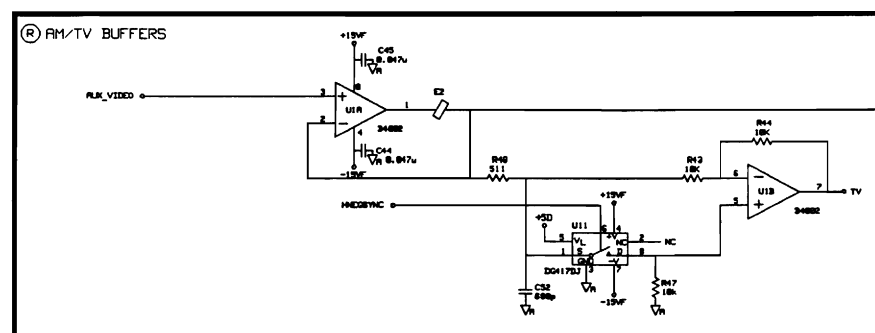
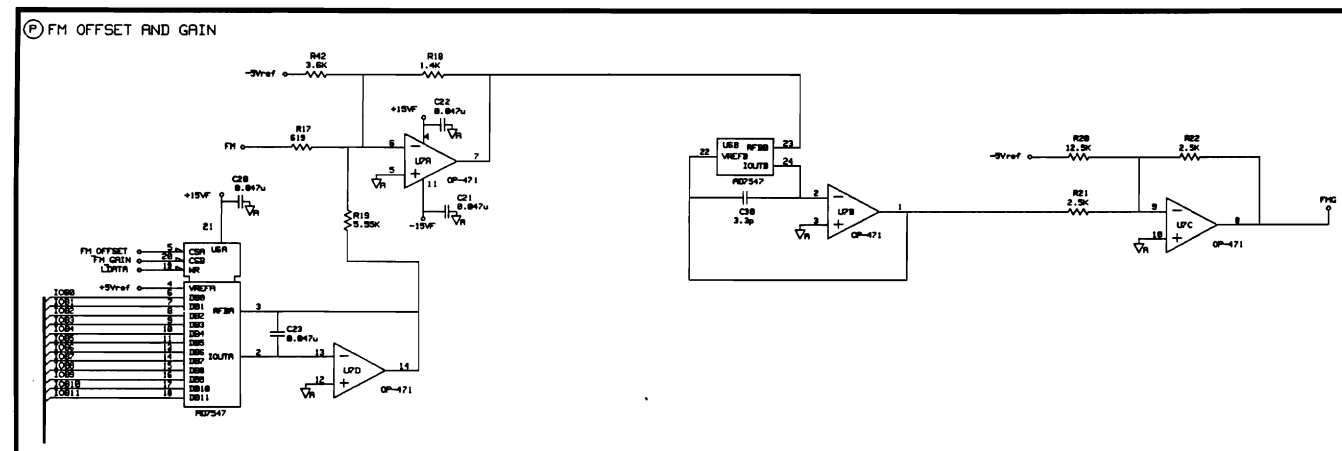


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  2. UNLESS OTHERWISE INDICATED:  
RESISTANCE IN OHMS (Ω)  
CAPACITANCE IN MICROFARADS (μF)  
INDUCTANCE IN MICROHENRIES (μH)

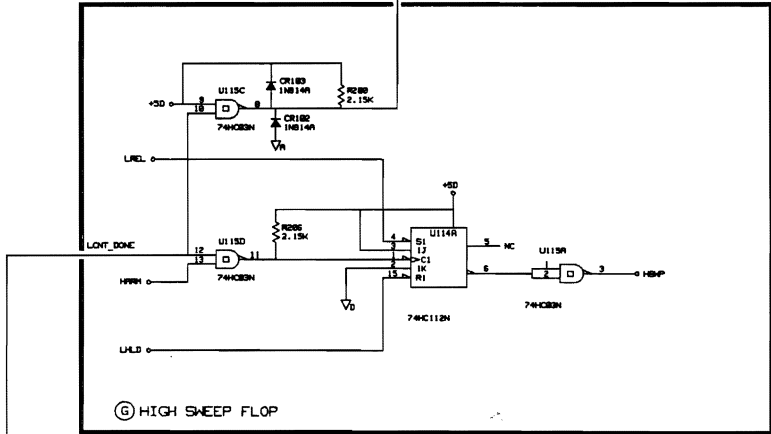
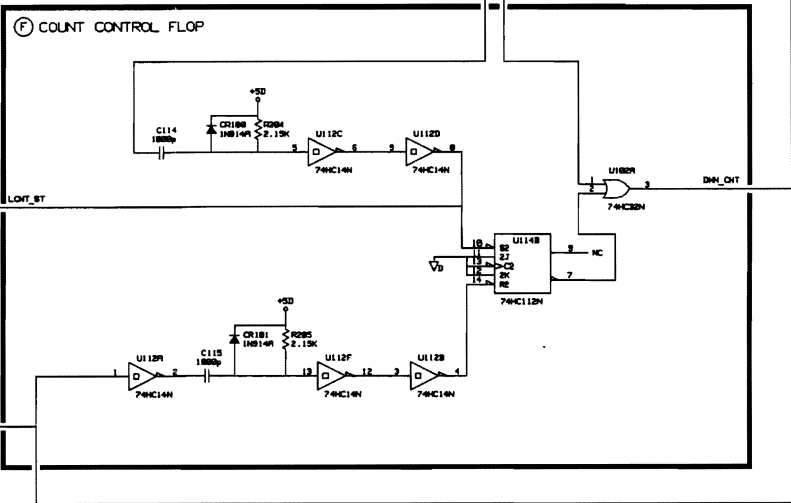
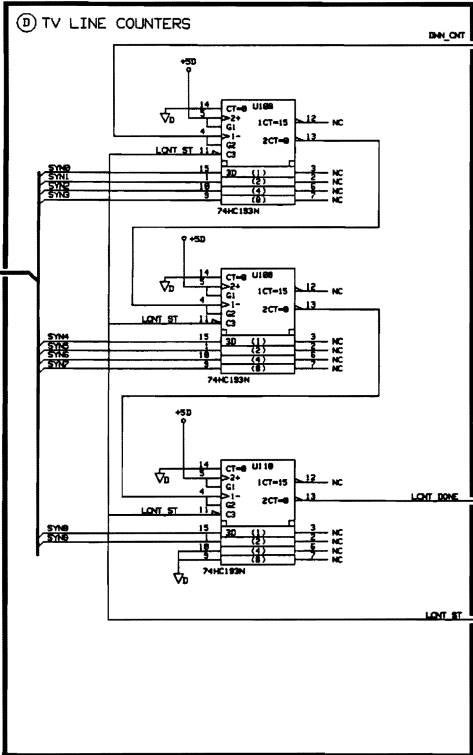
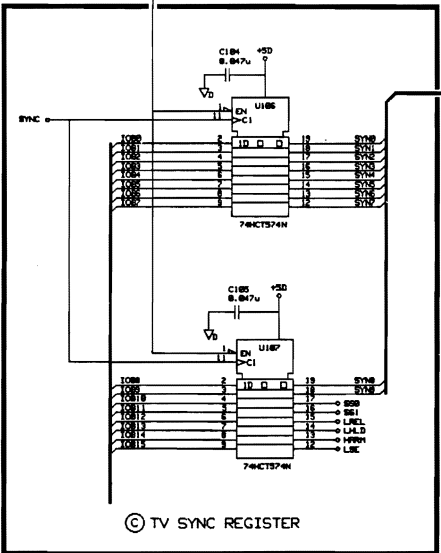
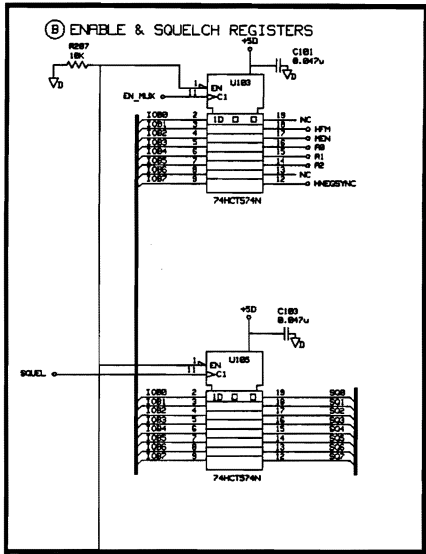
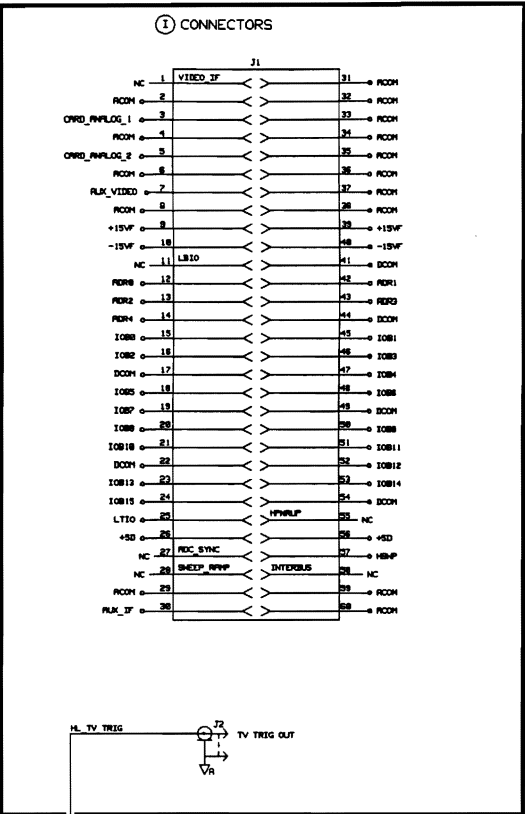
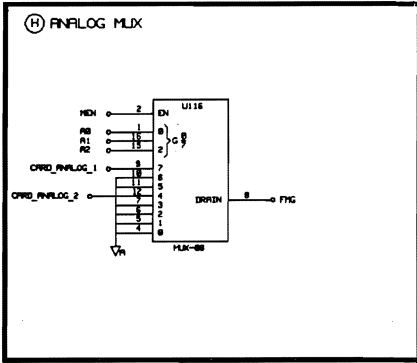
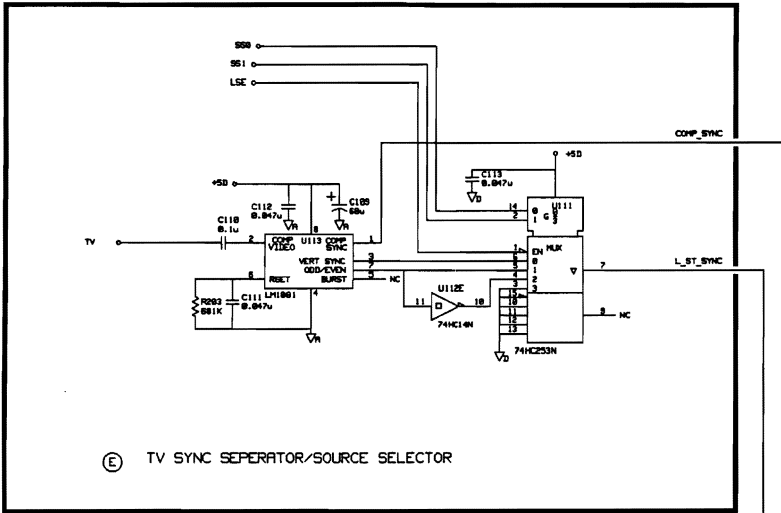
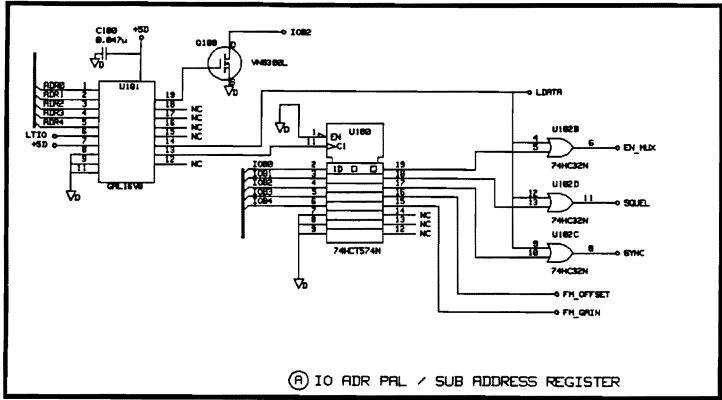
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PHONONIC	DESCRIPTION



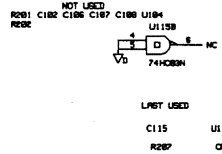
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<div>ENGINEER-CHECKER</div> <div>DATE</div>			<div>SHEET 1 of 2</div> <div>5063-0234 PART NUMBER</div>		
<div>RELEASE TO PROD.</div> <div>DATE</div>			<div>D- 5063-0234-1</div>		
SUPERSEDES DWG.			TITLE		

REV A		D-5063-0234-1	
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# TV LINE TRIGGER



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SCHEMATIC, PWA  
CELLULAR  
DEMOM/TV

S280x234 FILENAME	HP
SCALE	NONE
SHEET 2 of 2	5063-0234
PART NUMBER	D-5063-0234-1

# **Component-Level Information Packet**

## **for 08590-60105**

### **Amplitude Control**

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**HP Document Part Number 08590-90121**

**Printed October 1989  
Printed in USA**

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**HP Part Number 08590-60105**  
**Amplitude Control**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A12	08590-60105	7	1	BD AY-AMPTD CONT	28480	08590-60105
C1	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C2	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C3	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C4	0160-4789	0	1	CAPACITOR-FXD 15PF +-5% 100VDC CER 0+-30	04222	SA102A150JAAH
C5	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C6	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C7	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C8	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C9	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C10	0160-4789	0	1	CAPACITOR-FXD 15PF +-5% 100VDC CER 0+-30	04222	SA102A150JAAH
C11	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C12	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C13	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C14	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C15	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C16	0160-4789	0	1	CAPACITOR-FXD 15PF +-5% 100VDC CER 0+-30	04222	SA102A150JAAH
C17	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C18	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C19	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C20	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C21	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C22	0160-4789	0	1	CAPACITOR-FXD 15PF +-5% 100VDC CER 0+-30	04222	SA102A150JAAH
C23	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C24	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C25	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C26	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C27	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C28	0160-4789	0	1	CAPACITOR-FXD 15PF +-5% 100VDC CER 0+-30	04222	SA102A150JAAH
C29	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C30	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C31	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C32	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C34	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C35	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C36	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C37	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C38	0160-4789	0	1	CAPACITOR-FXD 15PF +-5% 100VDC CER 0+-30	04222	SA102A150JAAH
C39	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C40	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C41	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C42	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C43	0160-4789	0	1	CAPACITOR-FXD 15PF +-5% 100VDC CER 0+-30	04222	SA102A150JAAH
C44	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C45	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C46	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH

*\*Indicates factory-selected value*

08590-60105 Parts  
Page 1

## HP Part Number 08590-60105

## Amplitude Control

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C47	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C48	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C49	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C50	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C51	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
C52	0160-4554	7	1	CAPACITOR-FXD .01UF +-20% 50VDC CER	04222	SA105C103MAAH
CR1	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR2	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR3	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR4	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR5	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR6	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR7	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR8	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR9	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR10	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR11	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR12	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR13	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR14	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR15	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR16	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR17	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR18	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR19	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR20	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR21	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR22	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR23	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR24	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR25	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR26	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR27	1901-1117	5	1	DIODE-SWITCHING 30V	2M627	1SS135
CR28	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR29	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR30	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR31	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	9N171	1N4150
CR32	1901-0539	3	1	DIODE-SCHOTTKY SM SIG		
CR33	1901-0539	3	1	DIODE-SCHOTTKY SM SIG		
CR34	1901-0539	3	1	DIODE-SCHOTTKY SM SIG		
J1	1252-2816	6	1	CONNECTOR MODU 20 F2R	00779	5-87729-6
J2	1252-2816	6	1	CONNECTOR MODU 20 F2R	00779	5-87729-6
L1	9100-3313	7	1	INDUCTOR RF-CH-MLD 22UH +-5% .166D-INX.3	24226	15M222J
L2	9100-3313	7	1	INDUCTOR RF-CH-MLD 22UH +-5% .166D-INX.3	24226	15M222J
L3	9100-3313	7	1	INDUCTOR RF-CH-MLD 22UH +-5% .166D-INX.3	24226	15M222J
R1	0757-0346	2	1	RESISTOR 10 1% .125W TF TC=0+-100	91637	CMF-55-1, T-1
R2	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R3	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H

# HP Part Number 08590-60105

## Amplitude Control

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R4	0698-0082	7	1	RESISTOR 464 1% .125W TF TC=0+-100	19701	SFR25H
R5	0698-3132	4	1	RESISTOR 261 1% .125W TF TC=0+-100	19701	SFR25H
R6	0757-0394	0	1	RESISTOR 51.1 1% .125W TF TC=0+-100	19701	SFR25H
R7	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R8	0698-3132	4	1	RESISTOR 261 1% .125W TF TC=0+-100	19701	SFR25H
R9	0698-6774	6	1	RESISTOR 150 .1% .125W TF TC=0+-25	19701	5033R
R10	0698-6323	1	1	RESISTOR 100 .1% .125W TF TC=0+-25	91637	CMF-55-1, T-9
R11	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R12	0698-3445	2	1	RESISTOR 348 1% .125W TF TC=0+-100	19701	SFR25H
R13	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R14	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R15	0757-0346	2	1	RESISTOR 10 1% .125W TF TC=0+-100	91637	CMF-55-1, T-1
R16	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R17	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R18	0698-0082	7	1	RESISTOR 464 1% .125W TF TC=0+-100	19701	SFR25H
R19	0698-3132	4	1	RESISTOR 261 1% .125W TF TC=0+-100	19701	SFR25H
R20	0757-0394	0	1	RESISTOR 51.1 1% .125W TF TC=0+-100	19701	SFR25H
R21	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R22	0698-3132	4	1	RESISTOR 261 1% .125W TF TC=0+-100	19701	SFR25H
R23	0699-0689	2	1	RESISTOR 88.5 .1% .125W TF TC=0+-25	K8479	H8
R24	0698-6774	6	1	RESISTOR 150 .1% .125W TF TC=0+-25	19701	5033R
R25	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R26	0698-3445	2	1	RESISTOR 348 1% .125W TF TC=0+-100	19701	SFR25H
R27	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R28	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R29	0757-0346	2	1	RESISTOR 10 1% .125W TF TC=0+-100	91637	CMF-55-1, T-1
R30	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R31	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R32	0698-0082	7	1	RESISTOR 464 1% .125W TF TC=0+-100	19701	SFR25H
R33	0698-3132	4	1	RESISTOR 261 1% .125W TF TC=0+-100	19701	SFR25H
R34	0757-0394	0	1	RESISTOR 51.1 1% .125W TF TC=0+-100	19701	SFR25H
R35	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R36	0698-3132	4	1	RESISTOR 261 1% .125W TF TC=0+-100	19701	SFR25H
R37	0698-7644	1	1	RESISTOR 215 .1% .125W TF TC=0+-25	19701	5033R
R38	0698-6354	8	1	RESISTOR 40 .1% .125W TF TC=0+-25	19701	5033R
R39	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R40	0698-3445	2	1	RESISTOR 348 1% .125W TF TC=0+-100	19701	SFR25H
R41	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R42	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R43	0757-0346	2	1	RESISTOR 10 1% .125W TF TC=0+-100	91637	CMF-55-1, T-1
R44	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R45	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R46	0698-0082	7	1	RESISTOR 464 1% .125W TF TC=0+-100	19701	SFR25H
R47	0698-3132	4	1	RESISTOR 261 1% .125W TF TC=0+-100	19701	SFR25H
R48	0757-0394	0	1	RESISTOR 51.1 1% .125W TF TC=0+-100	19701	SFR25H
R49	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R50	0698-3132	4	1	RESISTOR 261 1% .125W TF TC=0+-100	19701	SFR25H

\*Indicates factory-selected value

08590-60105 Parts List

Page 3 of 5

## HP Part Number 08590-60105

## Amplitude Control

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R51	0698-6364	0	1	RESISTOR 50 .1% .125W TF TC=0+-25	19701	5033R
R52	0699-1637	2	1	RESISTOR 203.2 .1% .125W TF TC=0+-25	19701	5033R
R53	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R54	0698-3445	2	1	RESISTOR 348 1% .125W TF TC=0+-100	19701	SFR25H
R55	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R56	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R57	0757-0346	2	1	RESISTOR 10 1% .125W TF TC=0+-100	91637	CMF-55-1, T-1
R58	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R59	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R60	0698-0082	7	1	RESISTOR 464 1% .125W TF TC=0+-100	19701	SFR25H
R61	0698-3132	4	1	RESISTOR 261 1% .125W TF TC=0+-100	19701	SFR25H
R62	0757-0394	0	1	RESISTOR 51.1 1% .125W TF TC=0+-100	19701	SFR25H
R63	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R64	0698-3132	4	1	RESISTOR 261 1% .125W TF TC=0+-100	19701	SFR25H
R65	0699-0966	8	1	RESISTOR 25 .1% .125W TF TC=0+-25	K8479	H8
R66	0699-0992	0	1	RESISTOR 227.2 .1% .125W TF TC=0+-25	K8479	H8
R67	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R68	0698-3445	2	1	RESISTOR 348 1% .125W TF TC=0+-100	19701	SFR25H
R69	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R70	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R71	0757-0346	2	1	RESISTOR 10 1% .125W TF TC=0+-100	91637	CMF-55-1, T-1
R72	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R73	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R74	0698-3444	1	1	RESISTOR 316 1% .125W TF TC=0+-100	19701	SFR25H
R76	0757-0394	0	1	RESISTOR 51.1 1% .125W TF TC=0+-100	19701	SFR25H
R77	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R78	0757-0398	4	1	RESISTOR 75 1% .125W TF TC=0+-100	19701	SFR25H
R79	0757-0420	3	1	RESISTOR 750 1% .125W TF TC=0+-100	19701	SFR25H
R80	0698-3442	9	1	RESISTOR 237 1% .125W TF TC=0+-100	19701	SFR25H
R81	0698-3444	1	1	RESISTOR 316 1% .125W TF TC=0+-100	19701	SFR25H
R82	0757-0417	8	1	RESISTOR 562 1% .125W TF TC=0+-100	19701	SFR25H
R83	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R84	0698-727	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R86	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	197014	SFR25H
R87	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R88	0698-3444	1	1	RESISTOR 316 1% .125W TF TC=0+-100	19701	SFR25H
R90	0757-0394	0	1	RESISTOR 51.1 1% .125W TF TC=0+-100	19701	SFR25H
R91	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R92	0757-0398	4	1	RESISTOR 75 1% .125W TF TC=0+-100	19701	SFR25H
R93	0757-0420	3	1	RESISTOR 750 1% .125W TF TC=0+-100	19701	SFR25H
R94	0698-3442	9	1	RESISTOR 237 1% .125W TF TC=0+-100	19701	SFR25H
R95	0698-3444	1	1	RESISTOR 316 1% .125W TF TC=0+-100	19701	SFR25H
R96	0757-0417	8	1	RESISTOR 562 1% .125W TF TC=0+-100	19701	SFR25H
R97	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R98	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R100	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R101	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R102	0698-3444	1	1	RESISTOR 316 1% .125W TF TC=0+-100	19701	SFR25H

# HP Part Number 08590-60105

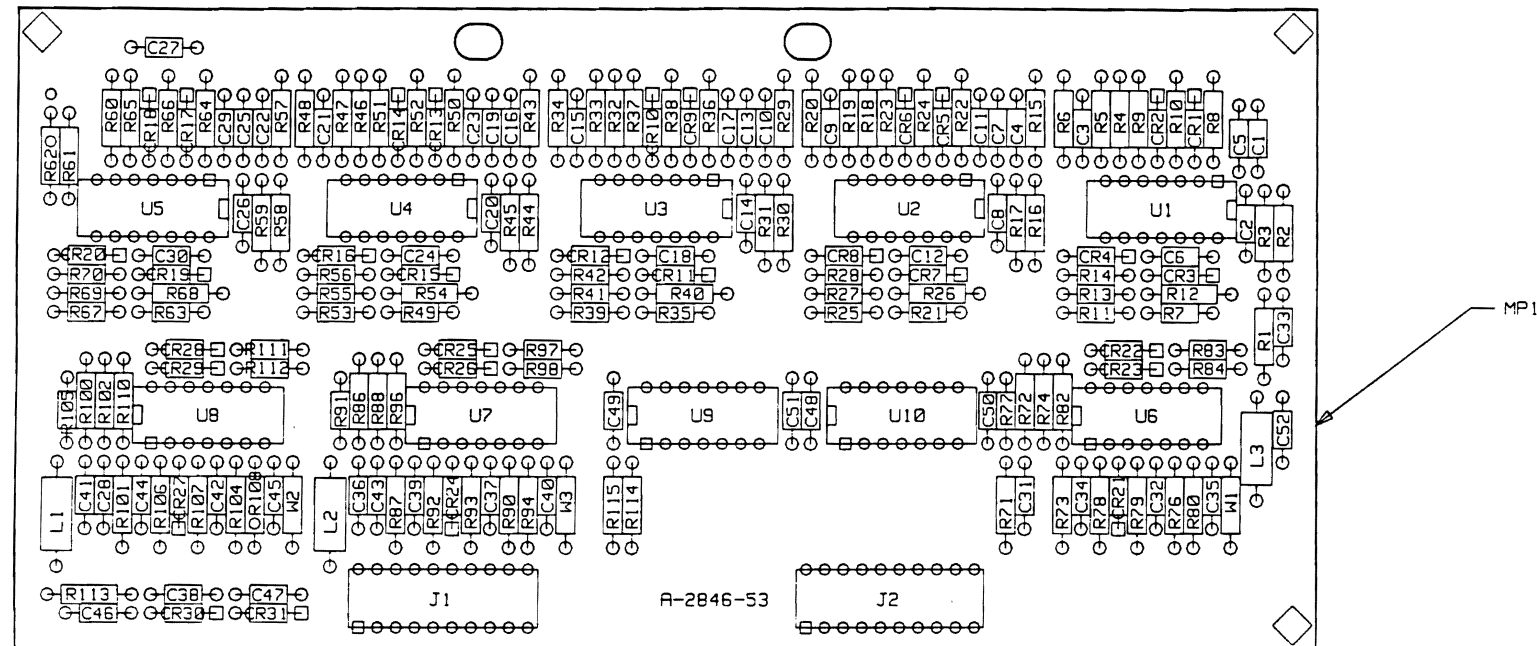
## Amplitude Control

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R104	0757-0394	0	1	RESISTOR 51.1 1% .125W TF TC=0+-100	19701	SFR25H
R105	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R106	0757-0405	4	1	RESISTOR 162 1% .125W TF TC=0+-100	19701	SFR25H
R107	0757-0420	3	1	RESISTOR 750 1% .125W TF TC=0+-100	19701	SFR25H
R108	0698-3442	9	1	RESISTOR 237 1% .125W TF TC=0+-100	19701	SFR25H
R109	0698-3444	1	1	RESISTOR 316 1% .125W TF TC=0+-100	19701	SFR25H
R110	0757-0417	8	1	RESISTOR 562 1% .125W TF TC=0+-100	19701	SFR25H
R111	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R112	0698-7277	6	1	RESISTOR 51.1K 1% .05W TF TC=0+-100	19701	5023R
R113	0757-0421	4	1	RESISTOR 825 1% .125W TF TC=0+-100	19701	SFR25H
R114	0757-0442	9	1	RESISTOR 10K 1% .125W TF TC=0+-100	19701	SFR25H
R115	0757-0428	1	1	RESISTOR 1.62K 1% .125W TF TC=0+-100	19701	SFR25H
U1	1820-1804	5	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	04713	MPQ6842
U2	1820-1804	5	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	04713	MPQ6842
U3	1820-1804	5	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	04713	MPQ6842
U4	1820-1804	5	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	04713	MPQ6842
U5	1820-1804	5	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	04713	MPQ6842
U6	1820-1804	5	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	04713	MPQ6842
U7	1820-1804	5	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	04713	MPQ6842
U8	1820-1804	5	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	04713	MPQ6842
U9	1826-0557	5	1	IC OP AMP GP QUAD 14-DIP-C PKG	27014	LM348J
U10	1826-0557	5	1	IC OP AMP GP QUAD 14-DIP-C PKG	27014	LM348J
W1	8159-0005	0	1	RESISTOR-ZERO OHMS 22 AWG LEAD DIA	55210	L-2007-1
W2	8159-0005	0	1	RESISTOR-ZERO OHMS 22 AWG LEAD DIA	55210	L-2007-1
W3	8159-0005	0	1	RESISTOR-ZERO OHMS 22 AWG LEAD DIA	55210	L-2007-1

\*Indicates factory-selected value

08590-60105 Parts List  
Page 5 of 5

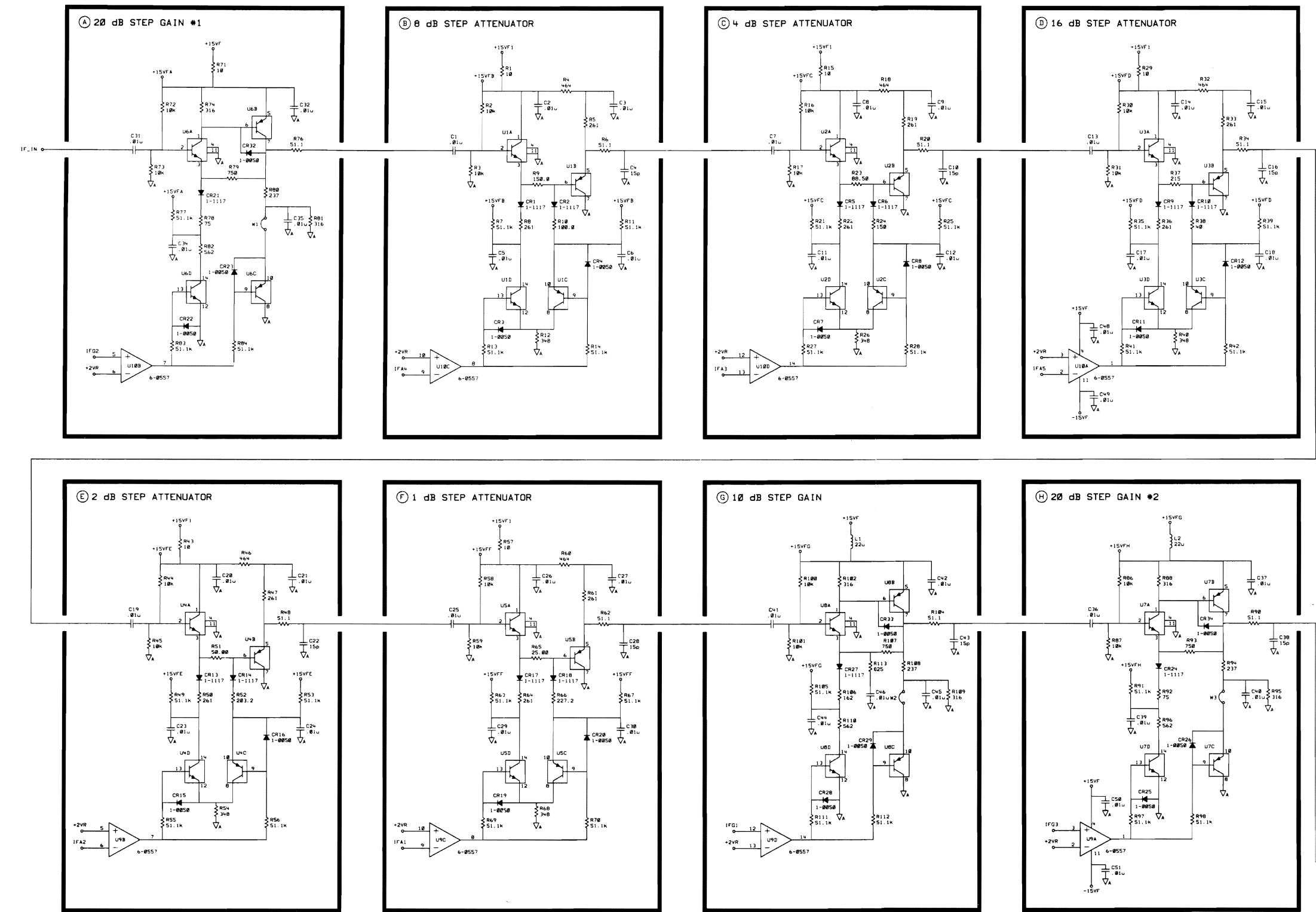




NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. MAXIMUM COMPONENT HEIGHT .400.
3. MAXIMUM LEAD TRIM .100.
4. CHECK FOR MODIFICATIONS IN THE P.C. LINE  
ASSEMBLY DOCUMENTATION MANUAL A-08590-A12.

SEE 08590-60105 MATERIAL LIST



**GAIN CONTROL TABLE**

INSTRUMENT SETTINGS:

- 1) INSTRUMENT PRESET
- 2) BAND LOCK BAND B (MICROWAVE ANALYZERS ONLY)
- 3) RF INPUT ATTENUATION = 10 dB
- 4) 'H' IS LOGICAL HIGH, >2.5 VOLTS
- 5) 'L' IS LOGICAL LOW, <0.8 VOLTS

REFERENCE LEVEL (dBm)	ATTEN (dB)	STEP (dB)	U1A	U1B	U1C	U1D	U1E	U1F	U1G	U1H	U1I	U1J	U1K	U1L	U1M	U1N	U1O	U1P	U1Q	U1R	U1S	U1T	U1U	U1V	U1W	U1X	U1Y	U1Z
0	10	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-1	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-2	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-3	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-4	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-5	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-6	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-7	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-8	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-9	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-10	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-11	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-12	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-13	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-14	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-15	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-16	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-17	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-18	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-19	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-20	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-21	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-22	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-23	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-24	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-25	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-26	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-27	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-28	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-29	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
-30	0	0	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H

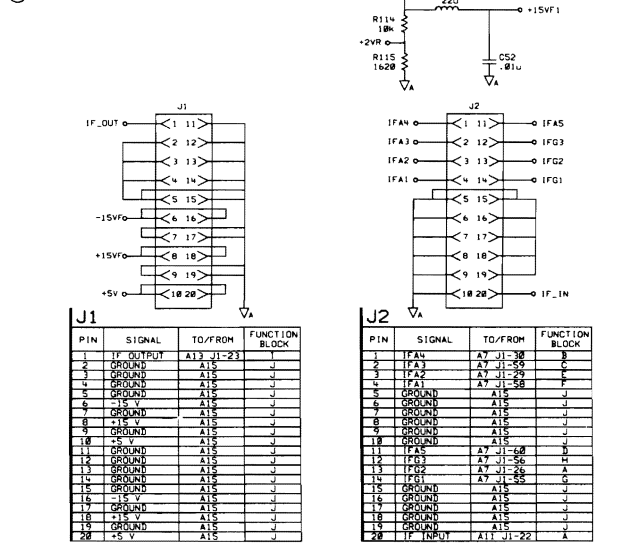
**NOTES:**

1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.
2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω), CAPACITANCE IN MICROFARADS (μF), INDUCTANCE IN MICROHENRIES (μH).
3. REFERENCE DESIGNATORS NOT USED: C3, R75, R85, R89, R99, R103

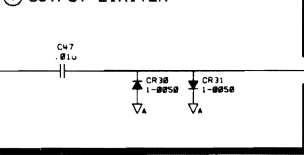
**4. MNEMONIC TABLE**

MNEMONIC	DESCRIPTION
IFA1	1 dB ATTEN CONTROL
IFA2	2 dB ATTEN CONTROL
IFA3	4 dB ATTEN CONTROL
IFA4	8 dB ATTEN CONTROL
IFA5	16 dB ATTEN CONTROL
IFG1	18 dB STEP CONTROL
IFG2	20 dB STEP CONTROL
IFG3	28 dB STEP CONTROL
+2V	+2 V. TTL REFERENCE
+5V	+5 VOLT SUPPLY
+15V	+15 VOLT SUPPLY
-15V	-15 VOLT SUPPLY

**J EDGE CONNECTORS / POWER**



**I OUTPUT LIMITER**



# **Component-Level Information Packet**

## **for 08590-60107**

### **Memory Card Reader**

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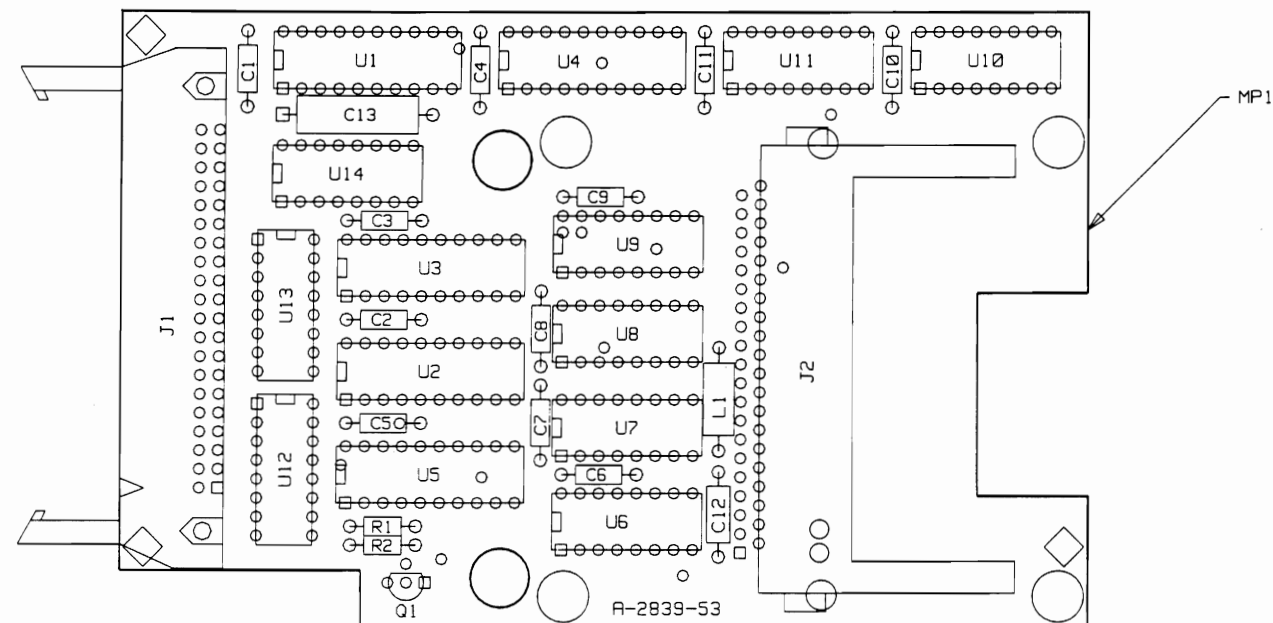


**HP Part Number 08590-60107**  
**Memory Card**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A17	08590-60107	9	1	BD AY-MEM CARD	28480	0890-60107
C1	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	A101C103KAAH
C2	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C3	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C4	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C5	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C6	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C7	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C8	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C9	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C10	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	A101C103KAAH
C11	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	A101C103KAAH
C12	0160-4835	7	1	CAPACITOR-FXD .1UF +-10% 50VDC CER	04222	A115C104KAAH
C13	0180-0116	1	1	CAPACITOR-FXD 6.8UF+-10% 35VDC TA	56289	150D685X9035B2-DYS
J1	1252-1290	8	1	CONN-POST TYPE .100-PIN-SPCG 40-CONT	00779	746867-9
J2	1252-2906	5	1	CONNECTOR MEM CARD	28480	1252-2906
L1	9100-1631	8	1	INDUCTOR RF-CH-MLD 56UH +-5% .166D-INX.3	99800	1537-64
Q1	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	17856	VN0300L
R1	0698-7260	7	1	RESISTOR 10K 1% .05W TF TC=0+-100	19701	5063J
R2	0698-7260	7	1	RESISTOR 10K 1% .05W TF TC=0+-100	19701	5063J
R3	0698-7260	7	1	RESISTOR 10K 1% .05W TF TC=0+-100	19701	5063J
R4	0698-7260	7	1	RESISTOR 10K 1% .05W TF TC=0+-100	19701	5063J
U1	08590-80105	9	1	PAL - PROGRAMMED	28480	08590-80105
U2	1820-3330	6	1	IC TRANSCEIVER CMOS/74HC BUS OCTL	27014	MM74HC245AN
U3	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG COM	27014	MM74HC574N
U4	08590-80106	0	1	PAL - PROGRAMMED	28480	08590-80106
U5	1820-3297	4	1	IC DRVR CMOS/74HC BUS OCTL	04713	MC74HC244N
U6	1820-3785	5	1	IC CNTR CMOS/74HC BIN SYNCHRO POS-EDGE-T	04713	MC74HC163N
U7	1820-3785	5	1	IC CNTR CMOS/74HC BIN SYNCHRO POS-EDGE-T	04713	MC74HC163N
U8	1820-3785	5	1	IC CNTR CMOS/74HC BIN SYNCHRO POS-EDGE-T	04713	MC74HC163N
U9	1820-3785	5	1	IC CNTR CMOS/74HC BIN SYNCHRO POS-EDGE-T	04713	MC74HC163N
U10	1820-3785	5	1	IC CNTR CMOS/74HC BIN SYNCHRO POS-EDGE-T	04713	MC74HC163N
U11	1820-3785	5	1	IC CNTR CMOS/74HC BIN SYNCHRO POS-EDGE-T	04713	MC74HC163N
U12	1810-0301	4	1	NETWORK-RES 16-DIP 51.0 OHM X 8	11236	761-3-R51
U13	1810-0301	4	1	NETWORK-RES 16-DIP 51.0 OHM X 8	11236	761-3-R51
U14	1810-0301	4	1	NETWORK-RES 16-DIP 51.0 OHM X 8	11236	761-3-R51

*\*Indicates factory-selected value*

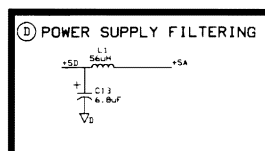
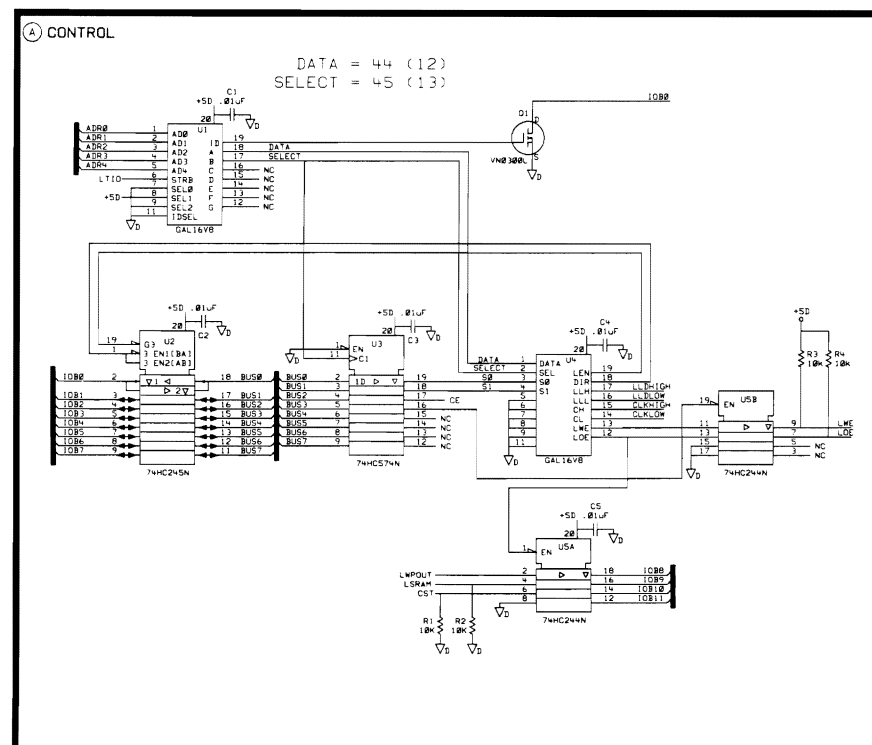
08590-60107 Parts List  
Page 1 of 1



NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. REMOVE TABS AFTER WAVE SOLDER.
3. MAXIMUM COMPONENT HEIGHT .500.
4. MAXIMUM LEAD TRIM LENGTH .118.
5. CHECK FOR MODIFICATIONS IN THE P.C. LINE  
ASSEMBLY DOCUMENTATION MANUAL A-08590-A17.

SEE MATERIAL LIST 08590-60107

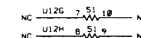
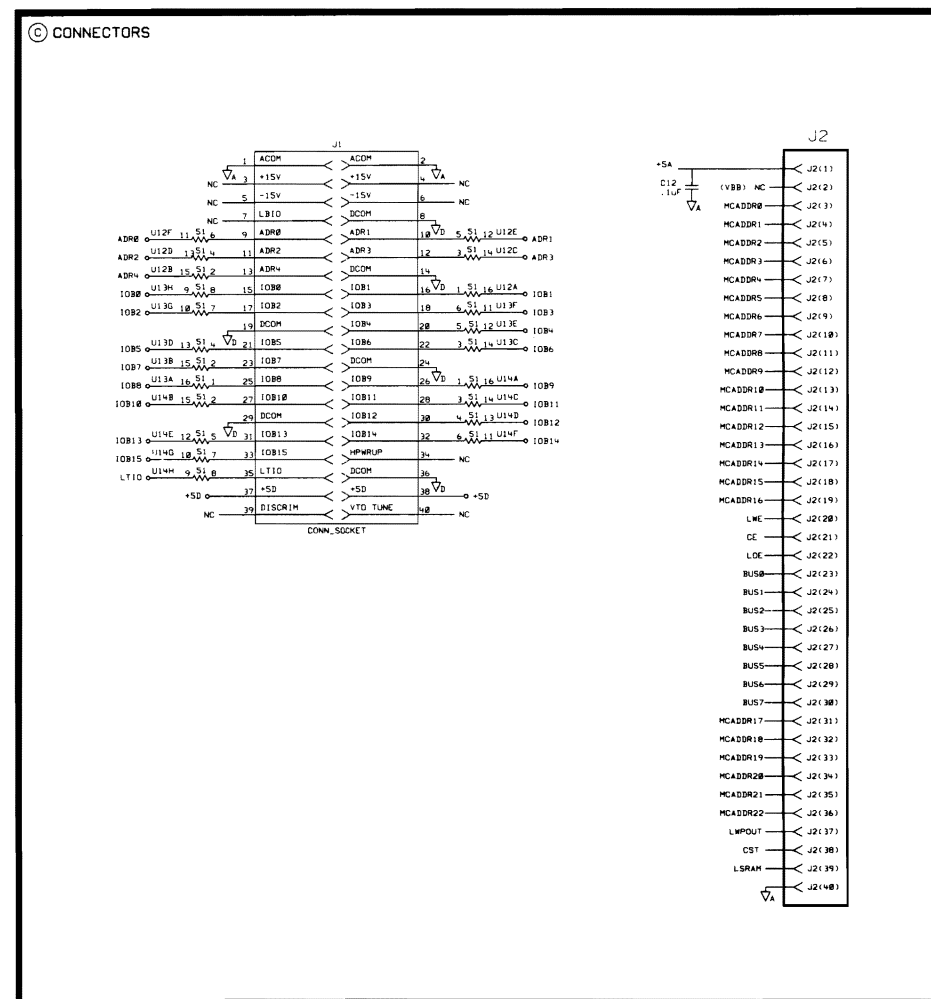
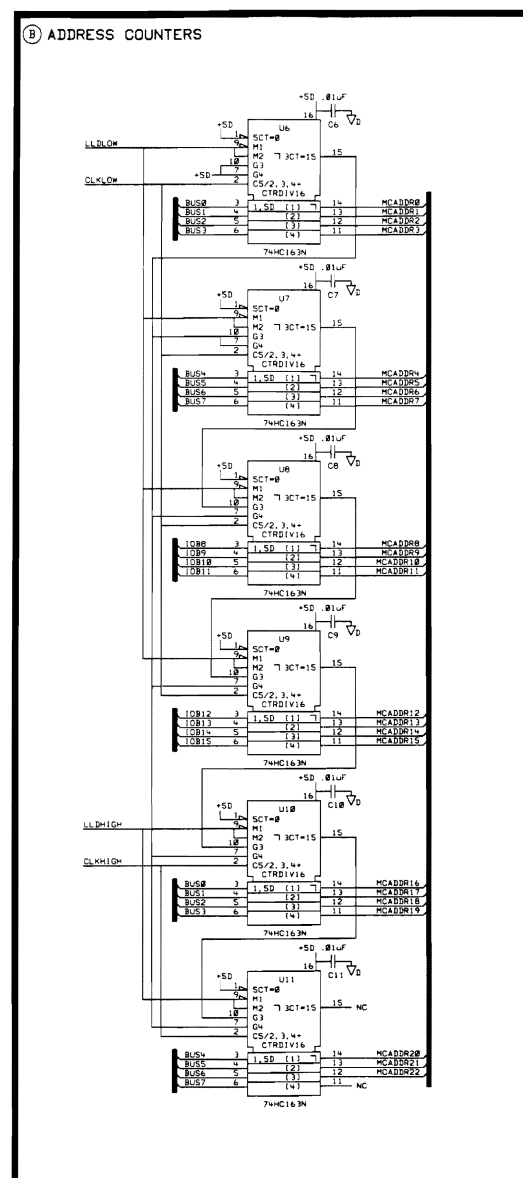


NOTES:

1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.
2. UNLESS OTHERWISE INDICATED:  
RESISTANCE IN OHMS ( $\Omega$ )  
CAPACITANCE IN MICROFARADS ( $\mu$ F)  
INDUCTANCE IN MICRONERIES ( $\mu$ H)

### 3. MNEMONIC TABLE

MNEMONIC	DESCRIPTION



# **Component-Level Information Packet**

## **for 08590-60108**

### **HP-IB I/O**

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# HP Part Number 08590-60108

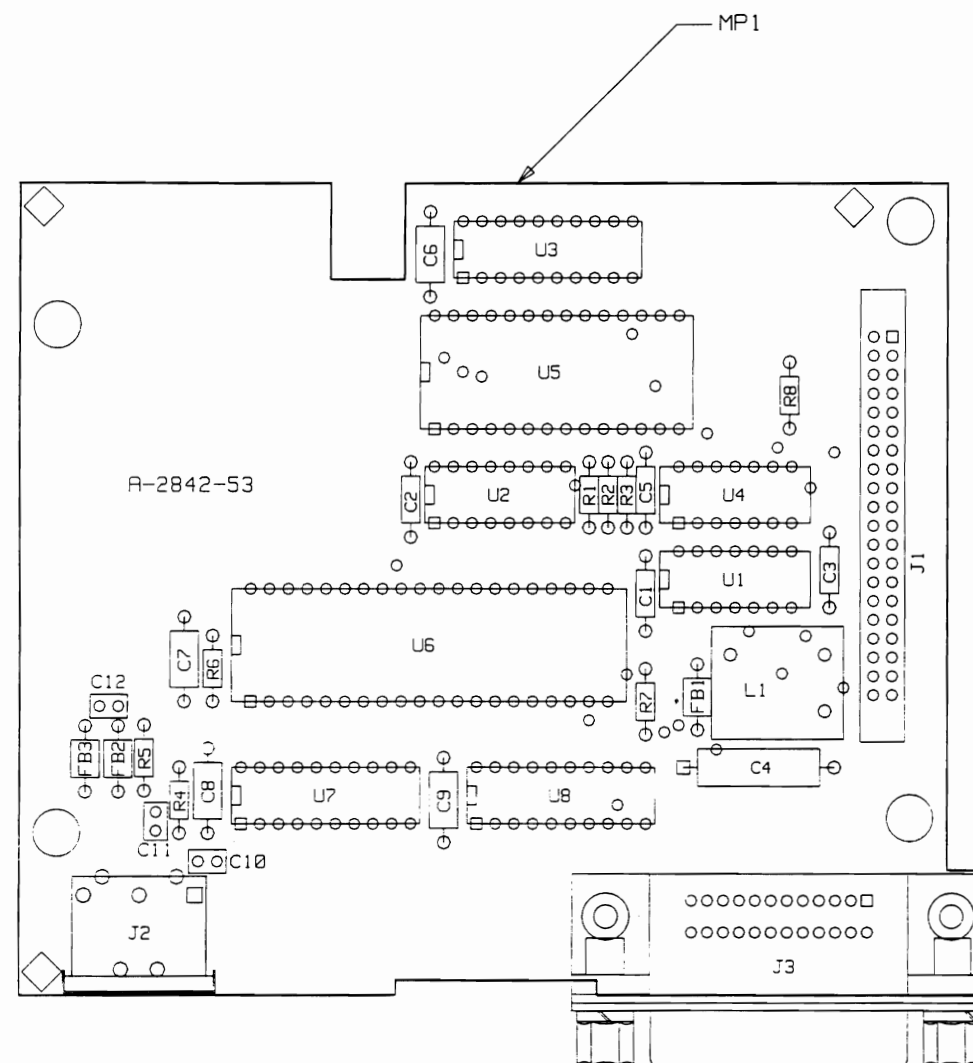
## HP-IB

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A20	08590-60108	0	1	BD AY-HP-IB I-0	28480	08590-60108
C1	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C2	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C3	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C4	0180-0116	1	1	CAPACITOR-FXD 6.8UF+-10% 35VDC TA	56289	150D685X9035B2-DYS
C5	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C6	0160-4835	7	1	CAPACITOR-FXD .1UF +-10% 50VDC CER	04222	SA115C104KAAH
C7	0160-4835	7	1	CAPACITOR-FXD .1UF +-10% 50VDC CER	04222	SA115C104KAAH
C8	0160-4835	7	1	CAPACITOR-FXD .1UF +-10% 50VDC CER	04222	SA115C104KAAH
C9	0160-4835	7	1	CAPACITOR-FXD .1UF +-10% 50VDC CER	04222	SA115C104KAAH
C10	0160-4386	3	1	CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30		RPE121-105C06330J200V
C11	0160-4386	3	1	CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30		RPE121-105C06330J200V
C12	0160-4386	3	1	CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30		RPE121-105C06330J200V
C13	0160-4386	3	1	CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30		RPE121-105C06330J200V
FB1	9170-1419	7	1	BEAD, SHIELDING 54 OHMS @ 250MHZ 3.44nH	02114	11413-4B
FB2	9170-1419	7	1	BEAD, SHIELDING 54 OHMS @ 250MHZ 3.44nH	02114	11413-4B
FB3	9170-1419	7	1	BEAD, SHIELDING 54 OHMS @ 250MHZ 3.44nH	02114	11413-4B
J1	1252-1469	3	1	CONN-POST TYPE .100-PIN-SPCG 40-CONT	00779	103292-2
J2	1252-2347	8	1	CONNECTOR 5-PIN F CIRCULAR DIN	00779	212044-1
J3	1251-7651	5	1	CONN-RECT MICRORBN 24-CKT 24-CONT	00779	553811-1
L1	9140-0738	8	1	INDUCTOR 100UH .7D-INX.6LG-IN	56289	
MP2	0380-0643	3	1	STANDOFF-HEX .255-IN-LG 6-32-THD	14480	
MP3	2190-0587	3	1	WASHER-LK HLCL 5.0 MM 5.1-MM-ID		
MP4	2200-0109	8	1	SCREW-MACH 4-40 .438-IN-LG PAN-HD-POZI	77250	
R1	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
R2	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
R3	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
R4	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
R5	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
R6	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
R7	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
R8	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
U1	1820-3298	5	1	IC GATE CMOS/74HC OR QUAD 2-INP	27014	MM74HC32N
U2	1820-3785	5	1	IC CNTR CMOS/74HC BIN SYNCHRO POS-EDGE-T	04713	MC74HC163N
U3	1820-3297	4	1	IC DRVR CMOS/74HC BUS OCTL	04713	MC74HC244N
U4	1820-4053	2	1	IC INV CMOS/74HC HEX	01295	SN74HC05N
U5	1820-2289	2	1	IC-PROGRAMMABLE COMMUNICATIONS INTERFACE	34649	D8251A
U6	1820-2548	6	1	IC-GENERAL PURPOSE INTERFACE BUS ADAPTER	01295	TMS9914ANL
U7	1820-3513	7	1	IC-INTERFACE XCVR BCD UP/DOWN INSTRUMENT	27014	DS75161AN
U8	1820-3431	8	1	IC-INTERFACE XCVR BCD UP/DOWN INSTRUMENT	27014	DS75160AN

\*Indicates factory-selected value

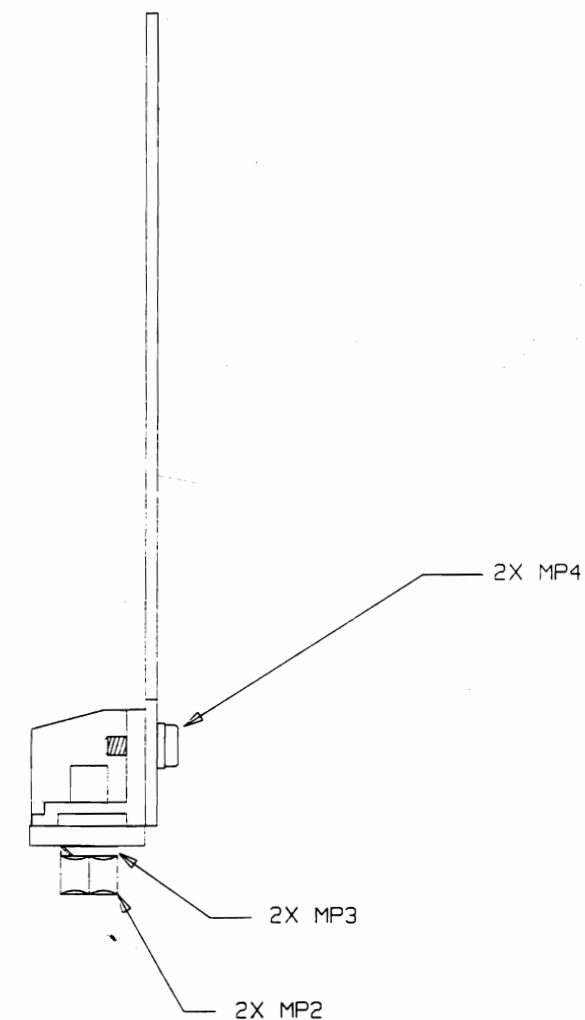
08590-60108 Parts List  
Page 1 of 1

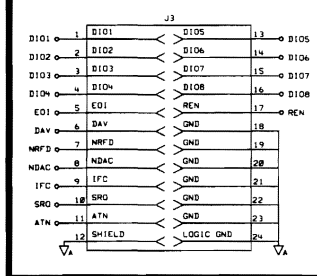
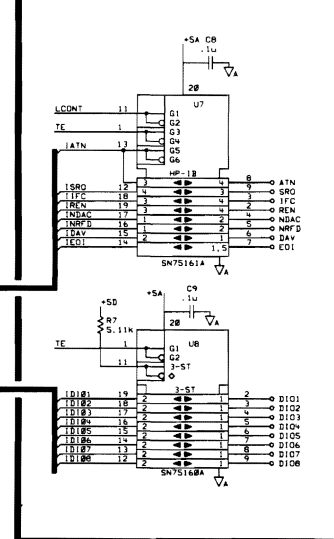
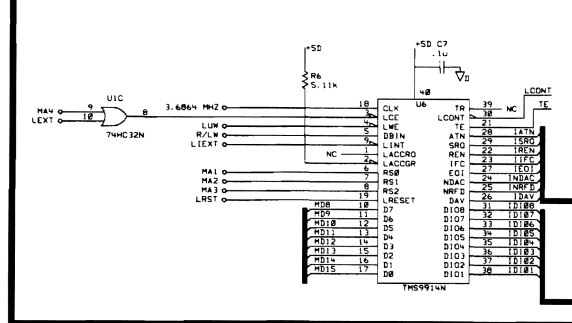
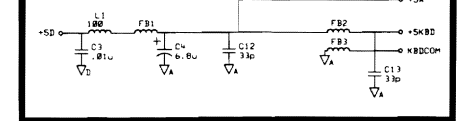
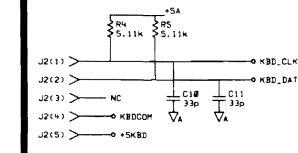
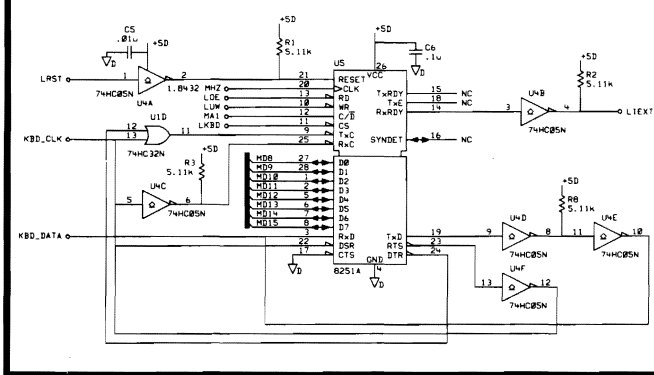
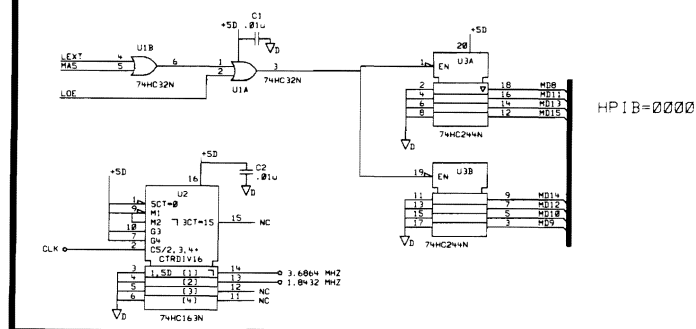
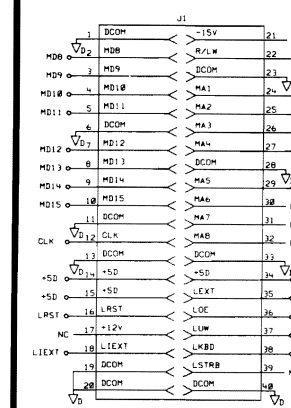




NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. REMOVE TABS AFTER WAVE SOLDER.
3. MAXIMUM COMPONENT HEIGHT VARIES WITH COMPONENT HEIGHT AND POSITION ON MATING BOARD. CHECK MATING BOARD BEFORE MOVING COMPONENTS.
4. MAXIMUM LEAD TRIM LENGTH .118.
5. CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-08590-A20





3. PRESENTATION TABLE	
MEMORIC	DESCRIPTION

# **Component-Level Information Packet**

## **for 08590-60109**

### **RS-232 I/O**

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# HP Part Number 08590-60109

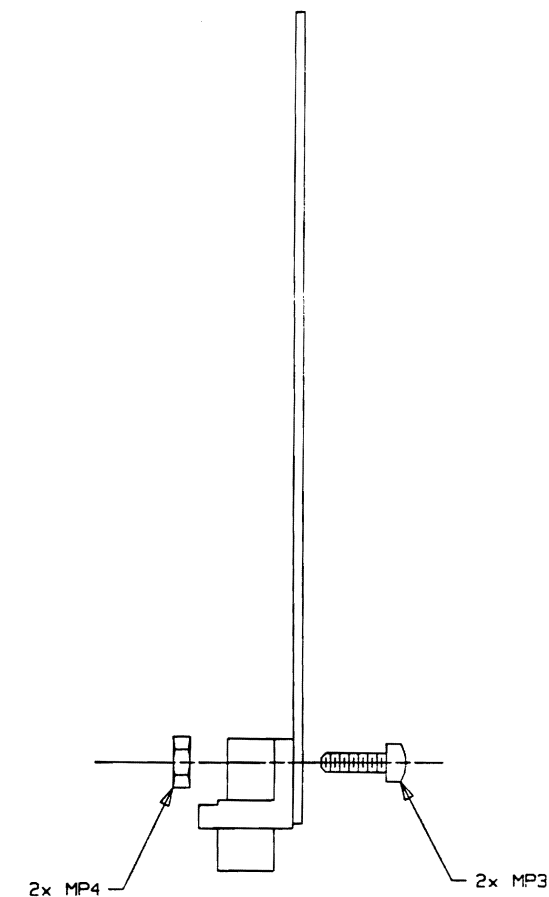
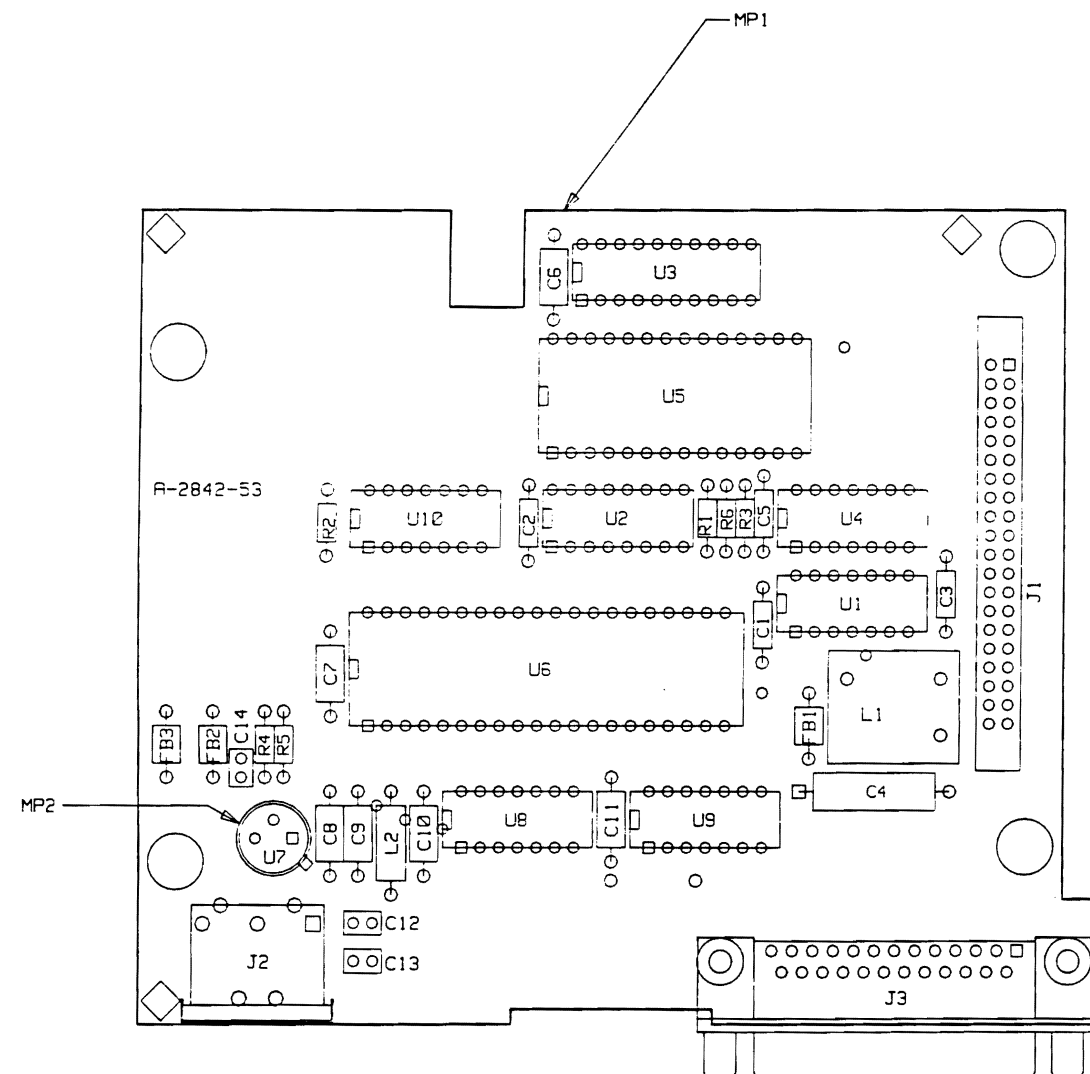
RS232

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A21	08590-60109	1	1	BD AY-RS-232 I-0	28480	08590-60109
C1	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C2	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C3	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C4	0180-0116	1	1	CAPACITOR-FXD 6.8UF+-10% 35VDC TA	56289	150D685X9035B2-DYS
C5	0160-4832	4	1	CAPACITOR-FXD .01UF +-10% 100VDC CER	04222	SA101C103KAAH
C6	0160-4835	7	1	CAPACITOR-FXD .1UF +-10% 50VDC CER	04222	SA115C104KAAH
C7	0160-4835	7	1	CAPACITOR-FXD .1UF +-10% 50VDC CER	04222	SA115C104KAAH
C8	0160-4835	7	1	CAPACITOR-FXD .1UF +-10% 50VDC CER	04222	SA115C104KAAH
C9	0160-4835	7	1	CAPACITOR-FXD .1UF +-10% 50VDC CER	04222	SA115C104KAAH
C10	0160-4835	7	1	CAPACITOR-FXD .1UF +-10% 50VDC CER	04222	SA115C104KAAH
C11	0160-4835	7	1	CAPACITOR-FXD .1UF +-10% 50VDC CER	04222	SA115C104KAAH
C12	0160-4386	3	1	CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30		RPE121-105C0G330J200V
C13	0160-4386	3	1	CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30		RPE121-105C0G330J200V
C14	0160-4386	3	1	CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30		RPE121-105C0G330J200V
C15	0160-4386	3	1	CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30		RPE121-105C0G330J200V
FB1	9170-1419	7	1	BEAD, SHIELDING 54 OHMS @ 250MHZ 3.44nH	02114	11413-4B
FB2	9170-1419	7	1	BEAD, SHIELDING 54 OHMS @ 250MHZ 3.44nH	02114	11413-4B
FB3	9170-1419	7	1	BEAD, SHIELDING 54 OHMS @ 250MHZ 3.44nH	02114	11413-4B
J1	1252-1469	3	1	CONN-POST TYPE .100-PIN-SPCG 40-CONT	00779	103292-2
J2	1252-2347	8	1	CONNECTOR 5-PIN F CIRCULAR DIN	00779	212044-1
J3	1252-0467	9	1	CONN-RECT D-SUBMIN 25-CKT 25-CONT	00779	745783-6
L1	9140-0738	8	1	INDUCTOR 100UH .7D-INX.6LG-IN	56289	
L2	9100-1631	8	1	INDUCTOR RF-CH-MLD 56UH +-5% .166D-INX.3	99800	1537-64
MP2	1200-0173	5	1	INSULATOR-XSTR DAP-GL	07047	A-10001 DAP
MP3	0515-0169	5	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 10MM-LG		
MP4	0535-0025	4	1	NUT-HEX DBL-CHAM M3 X 0.5 2.4MM-THK		
R1	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
R2	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
R3	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
R4	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
R5	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
R6	0698-7253	8	1	RESISTOR 5.11K 1% .05W TF TC=0+-100	19701	5063J
U1	1820-3298	5	1	IC GATE CMOS/74HC OR QUAD 2-INP	27014	MM74HC32N
U2	1820-3785	5	1	IC CNTR CMOS/74HC BIN SYNCHRO POS-EDGE-T	04713	MC74HC163N
U3	1820-3297	4	1	IC DRVR CMOS/74HC BUS OCTL	04713	MC74HC244N
U4	1820-4053	2	1	IC INV CMOS/74HC HEX	01295	SN74HC05N
U5	1820-2289	2	1	IC-PROGRAMMABLE COMMUNICATIONS INTERFACE	34649	D8251A
U6	1820-3623	0	1	IC-ASYNCHRONOUS COMM.INTERFACE	27014	INS8250AN
U7	1826-0300	6	1	IC V RGLTR-FXD-NEG 11.5/12.5V TO-39 PKG	27014	LM79M12CH
U8	1820-3322	6	1	IC-INTERFACE DRVR COMMUNICATION EIA	04713	MC1488P
U9	1820-3321	5	1	IC-INTERFACE RCVR COMMUNICATION EIA	04713	MC1489AP
U10	1820-4053	2	1	IC INV CMOS/74HC HEX	01295	SN74HC05N

\*Indicates factory-selected value

08590-60109 Parts List

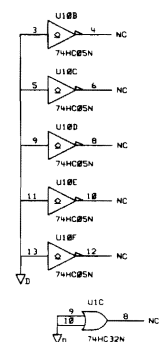
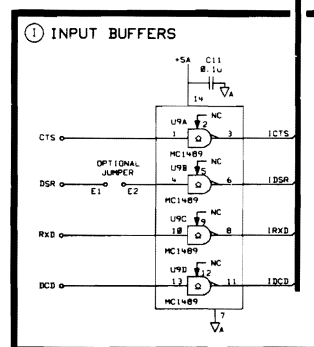
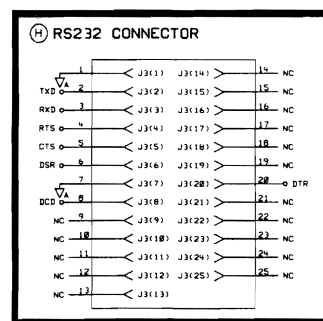
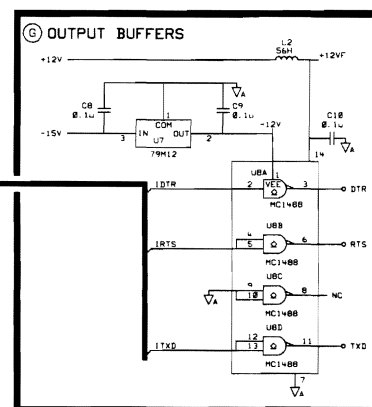
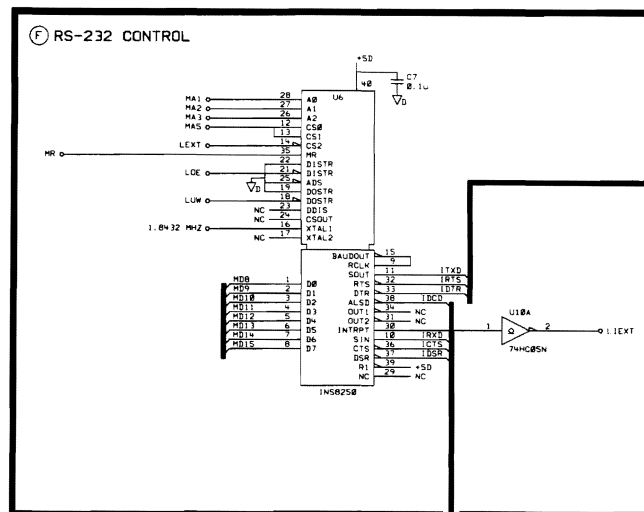
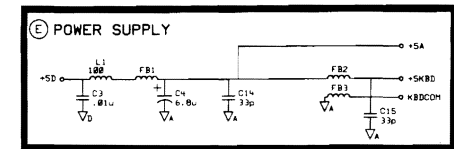
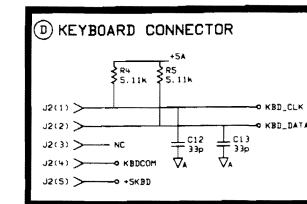
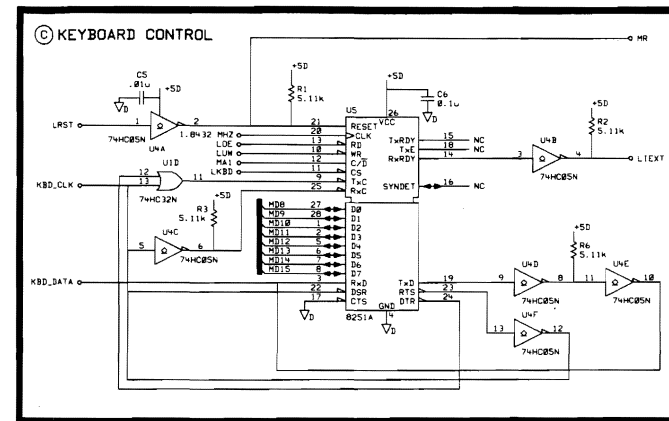
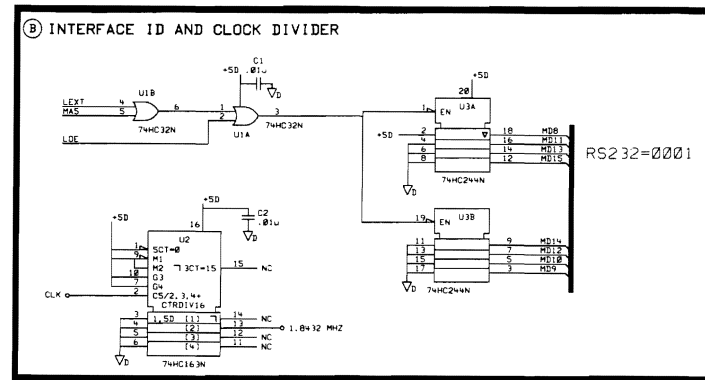
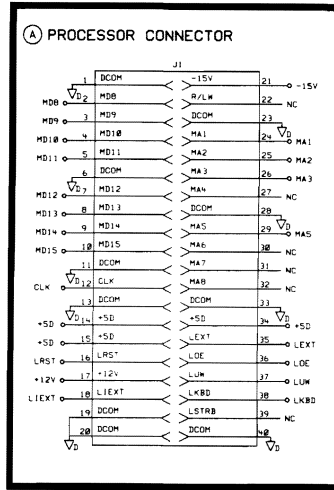
Page 1 of 1



# NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. THIS BOARD MOUNTS FACE TO FACE WITH THE PROCESSOR BOARD AND IS THEREFORE SUBJECT TO CERTAIN COMPONENT HEIGHT RESTRICTIONS. ENGINEER MUST BE CONSULTED BEFORE MOVING OR ADDING ANY PARTS.
3. MAXIMUM LEAD TRIM LENGTH .100.
4. CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-08590-A21.

SEE MATERIAL LIST 08590-60109



NOTES:

1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.

2. UNLESS OTHERWISE INDICATED:  
RESISTANCE IN OHMS ( $\Omega$ )  
CAPACITANCE IN MICROFARADS ( $\mu$ F)  
INDUCTANCE IN MICROHENRIES ( $\mu$ H)

3. MNEMONIC TABLE	
MNEMONIC	DESCRIPTION

# **Component-Level Information Packet**

## **for 08590-60117/ 08590-60155**

### **Second Converter and Tripler**

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**HP Document Part Number 08590-90117**

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**SCANS  
BY  
ARTEK-MANUALS**



## HP Part Number 08590-60117

## Second Converter

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A5	08590-60117	1	1	AY-SECOND CONV	28480	08590-60117
C5	0160-5435	5	1	CAPACITOR-FDTHRU 8.5PF 8% 200V CER		2425-081-X5E0-809BF
C7	0160-3036	8	1	CAPACITOR-FDTHRU 5000PF +80 -20% 200V	33095	54-713-011-X5V-502Z
C8	0160-5435	5	1	CAPACITOR-FDTHRU 8.5PF 8% 200V CER		2425-081-X5E0-809BF
CR1	1901-0950	2	1	DIODE-SCHOTTKY SM SIG	28480	1901-0950
CR2	0122-0179	4	1	DIODE-VVC 1.2PF C0/C30-TYP=3.8 BVR=30V	31091	DVH6832-62
CR3	1902-0967	3	1	DIODE-ZNR 24V 5% D0-35 PD=.4W TC=+.094%	04713	
J1	1250-1157	2	1	CONNECTOR-RF SMA FEM THD-HOLE 50-OHM	16179	2058-5029-00
J3	1250-0691	7	1	CONNECTOR-RF SMB M SGL-HOLE-FR 50-OHM	98291	051-045-4610-220
J4	1250-0691	7	1	CONNECTOR-RF SMB M SGL-HOLE-FR 50-OHM	98291	051-045-4610-220
J5	1250-0691	7	1	CONNECTOR-RF SMB M SGL-HOLE-FR 50-OHM	98291	051-045-4610-220
L1	9100-2255	4	1	INDUCTOR RF-CH-MLD 470NH +-10% .105D-INX	24226	10M470K
L2	08565-80003	5	1	COIL, SECOND CONVERTER	28480	08565-80003
MP1	08590-20123	5	1	BLOCK CAVITY	28480	08590-20123
MP4	08590-20127	9	1	CAP, INNER ELEMENT	28480	08590-20127
MP5	08565-00152	7	1	MTG TAB MIXER DIODE	28480	08565-00152
MP5	2200-0171	4	1	SCREW-MACH 4-40 .75-IN-LG 82 DEG	77250	
MP7	3030-0397	6	1	SCREW-SET 10-32 1-IN-LG FLAT-PT BRS	73734	
MP8	3030-0397	6	1	SCREW-SET 10-32 1-IN-LG FLAT-PT BRS	73734	
MP9	3030-0397	6	1	SCREW-SET 10-32 1-IN-LG FLAT-PT BRS	73734	
MP10	3030-0397	6	1	SCREW-SET 10-32 1-IN-LG FLAT-PT BRS	73734	
MP11	0380-0573	8	1	STANDOFF-HEX .625-IN-LG 10-32-THD	06540	8396-A-1032-10
MP11	2740-0001	3	1	NUT-HEX-DBL-CHAM 10-32-THD .109-IN-THK	73734	
MP12	2740-0001	3	1	NUT-HEX-DBL-CHAM 10-32-THD .109-IN-THK	73734	
MP13	2740-0001	3	1	NUT-HEX-DBL-CHAM 10-32-THD .109-IN-THK	73734	
MP14	2950-0078	9	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	74163	500220
MP15	0360-0043	5	1	TERMINAL-SLDR LUG PL-MTG FOR-#6-SCR	78584	922
R1	0757-0346	2	1	RESISTOR 10 1% .125W TF TC=0+-100	91637	CMF-55-1, T-1

\*Indicates factory-selected value

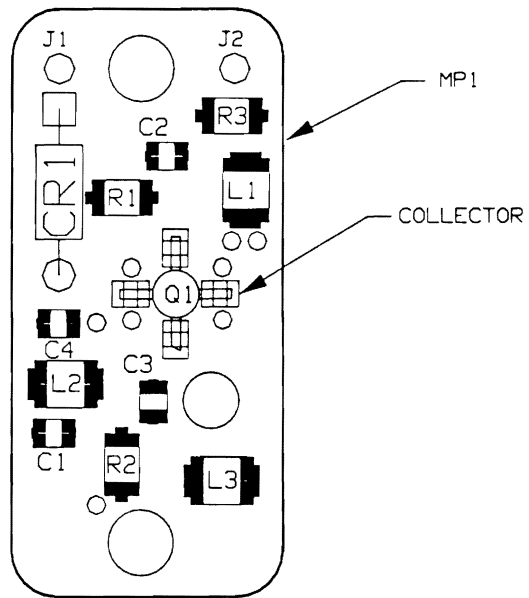
# HP Part Number 08590-60155

## Tripler

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A5A1	08590-60155	7	1	BD AY-FREQ TRIP	28480	08590-60155
C2	0160-5961	2	1	CAPACITOR-FXD 22PF +-5% 50VDC CER 0+-30		GRH40-001C0G220J050C
C3	0160-5967	8	1	CAPACITOR-FXD 100PF +-5% 50VDC CER 0+-30		GRH40-001C0G101J050C
C4	0160-5960	1	1	CAPACITOR-FXD 27PF +-5% 50VDC CER 0+-30		GRH40-001C0G270J050C
CR1	1902-0048	1	1	DIODE-ZNR 6.81V 5% D0-35 PD=.4W	04713	
L2	9140-1206	7	1	INDUCTOR 100NH +-5% 2.8W-MMX3.4LG-MM	24226	SM3-100J
L3	9140-1198	6	1	INDUCTOR 22NH +-5% 2.8W-MMX3.4LG-MM Q=40	24226	SM3-022J
		3	1			
Q1	1854-1093	5	1	TRANSISTOR NPN SI PD=700MW FT=6GHZ	28480	HXTR-3102
R1	0699-1432	5	1	RESISTOR 511 1% .125W TKF TC=0+-100	91637	CRCW1206F
R2	0699-1432	5	1	RESISTOR 511 1% .125W TKF TC=0+-100	91637	CRCW1206F
R3	0699-1344	8	1	RESISTOR 10 1% .125W TKF TC=0+-100	91637	CRCW1206F

\*Indicates factory-selected value

08590-60155 Parts List  
Page 1 of 1

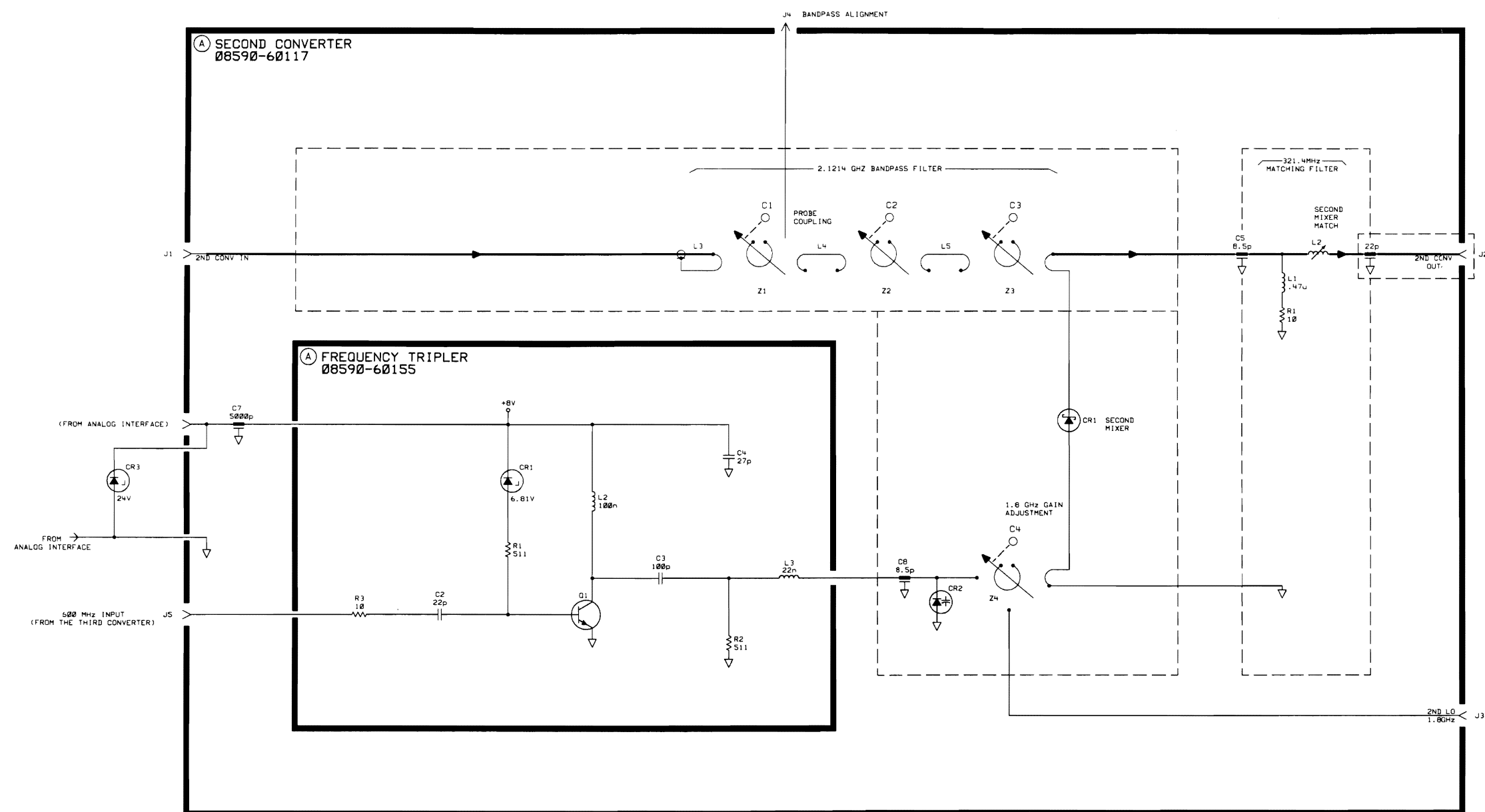


NOTES: UNLESS OTHERWISE SPECIFIED

1. DATE CODE FAR SIDE A-2846-53

SEE 08590-60155 MATERIAL LIST

SECOND CONVERTER ASSEMBLY  
08590-60117



# **Component-Level Information Packet for 08590-60196**

## **Tracking Generator Control**



HP Part No. 08590-90157  
Printed in USA October 1992

**HP Part Number 08590-60196**  
**Tracking Generator Control**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C2	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C3	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C4	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C5	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C6	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C7	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C8	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C9	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C10	0160-6588	1	1	CAP-FXD 0.033uF +-10% 100 V CER X7R	28480	0160-6588
C11	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C12	0180-4191	0	1	CAP-FXD 33uF +-10% 35 V TA	28480	0180-4191
C13	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C14	0180-4191	0	1	CAP-FXD 33uF +-10% 35 V TA	28480	0180-4191
C15	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C16	0180-4132	9	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	173D685X9035X
C17	0160-4535	4	1	CAP-FXD 1uF +-10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C18	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C19	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C20	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C21	0160-4800	6	1	CAP-FXD 120pF +-5% 100 V CER C0G	09939	RPA10C0G121J100V
C22	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C23	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C24	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C25	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C26	0160-4535	4	1	CAP-FXD 1uF +-10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C27	0160-4535	4	1	CAP-FXD 1uF +-10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C28	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C29	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C30	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C31	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C32	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C33	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C34	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C35	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V

*\*Indicates factory-selected value*

**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C36	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C37	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C38	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C39	0160-2437	1	1	CAP-FXD 5000pF +-80% -20% 0 V CER X5V	03746	54-713-033-X5V-502Z
C40	0160-2437	1	1	CAP-FXD 5000pF +-80% -20% 0 V CER X5V	03746	54-713-033-X5V-502Z
C41	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C42	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C43	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C44	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C45	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C46	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C47	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C48	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C49	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C50	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C51	0160-4535	4	1	CAP-FXD 1uF +-10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C52	0160-4535	4	1	CAP-FXD 1uF +-10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C53	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C54	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C55	0160-4535	4	1	CAP-FXD 1uF +-10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C56	0160-4535	4	1	CAP-FXD 1uF +-10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C57	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C58	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C59	0160-4801	7	1	CAP-FXD 100pF +-5% 100 V CER C0G	09939	RPA10C0G101J100V
C60	0160-4801	7	1	CAP-FXD 100pF +-5% 100 V CER C0G	09939	RPA10C0G101J100V
C61	0160-4490	0	1	CAP-FXD 1.8pF +-13.89% 200 V CER C0G	09939	RPE121-105C0G1R8C200V
C62	0160-5976	9	1	CAP-FXD 12pF +-5% 50 V CER C0G	09939	GRM40-001C0G120J050C
C63	0160-4490	0	1	CAP-FXD 1.8pF +-13.89% 200 V CER C0G	09939	RPE121-105C0G1R8C200V
C64	0160-4518	3	1	CAP-FXD 3.9pF +-12.82% 200 V CER C0G	09939	RPE121-105C0G3R9D200V
C65	0160-4801	7	1	CAP-FXD 100pF +-5% 100 V CER C0G	09939	RPA10C0G101J100V
C66	0160-3872	0	1	CAP-FXD 2.2pF +-11.36% 200 V CER C0G	09939	RPE121-105C0G2R2C200V
C67	0160-4389	6	1	CAP-FXD 100pF +-5% 200 V CER C0G	09939	RPE121-105C0G101J200V
C68	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C69	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C70	0160-4389	6	1	CAP-FXD 100pF +-5% 200 V CER C0G	09939	RPE121-105C0G101J200V

**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C71	0160-4619	5	1	CAP-FXD 2.7pF +-9.26% 200 V CER U2J	09939	RPE121-105C0G2R7C200V
CR3	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR4	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR5	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR6	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR7	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR8	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR9	1901-0033	2	1	DIODE-GEN PRP 180V 200MA DO-35	28480	1901-0033
CR10	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR11	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR12	0122-0161	4	1	DIODE-VVC 2.15PF 7% C 3/C25-MIN=4.5	28480	0122-0161
CR13	1902-0951	5	1	DIODE-ZNR 5.1V 5% DO-35 PD=.4W TC=+.035%	28480	1902-0951
DS1	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
DS2	1990-1270	8	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	00746	LTZ-MR15
J1	1252-1469	3	1	CONN-POST TYPE .100-PIN-SPCG 40-CONT	01380	103292-2
J2	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J3	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J4	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J5	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J6	1250-1020	8	1	CONNECTOR-RF SMA RCPT SGL-HOLE-RR 50-OHM	28480	1250-1020
L1	9100-2251	0	1	INDUCTOR RF-CH-MLD 220NH +-10%	03706	1A2203M+-10%
L2	9135-0080	2	1	INDUCTOR 27NH +-5.556% 2.6D-MMX6.6LG-MM	03273	10M271X-1
L3	9100-2251	0	1	INDUCTOR RF-CH-MLD 220NH +-10%	03706	1A2203M+-10%
L4	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
MP2	1200-0173	5	1	INSULATOR-XSTR DAP-GL	02210	A-10001 DAP
MP6	0520-0181	2	8	SCREW-MACH 2-56 .875-IN-LG PAN-HD-POZI	04771	
MP8	1200-0172	4	4	INSULATOR-XSTR DAP-GL	02210	10042-DAP
P1	1252-2349	0	1	CONN-POST TYPE .100-PIN-SPCG 12-CONT	02946	78207-112
Q1	1854-0295	7	1	TRANSISTOR-DUAL NPN TO-78 PD=400MW	28480	1854-0295
Q2	1853-0075	9	1	TRANSISTOR-DUAL PNP PD=400MW	28480	1853-0075
Q3	1854-0295	7	1	TRANSISTOR-DUAL NPN TO-78 PD=400MW	28480	1854-0295
Q4	1854-0295	7	1	TRANSISTOR-DUAL NPN TO-78 PD=400MW	28480	1854-0295
Q5	1853-0075	9	1	TRANSISTOR-DUAL PNP PD=400MW	28480	1853-0075
Q6	1854-0295	7	1	TRANSISTOR-DUAL NPN TO-78 PD=400MW	28480	1854-0295
Q7	1855-0276	6	1	TRANSISTOR J-FET 2N4416A N-CHAN D-MODE	28480	1855-0276

*\*Indicates factory-selected value*



**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
Q8	1855-0276	6	1	TRANSISTOR J-FET 2N4416A N-CHAN D-MODE	28480	1855-0276
Q9	1855-0276	6	1	TRANSISTOR J-FET 2N4416A N-CHAN D-MODE	28480	1855-0276
Q10	1855-0276	6	1	TRANSISTOR J-FET 2N4416A N-CHAN D-MODE	28480	1855-0276
Q11	1853-0388	7	1	TRANSISTOR-DUAL PNP TO-78 PD=600MW	28480	1853-0388
Q12	1853-0036	2	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q13	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q14	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q15	1853-0036	2	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q16	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q17	1853-0036	2	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q18	1854-0946	5	1	TRANSISTOR NPN SI PD=290MW	00039	NE02135
Q19	1853-0036	2	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q20	1854-0946	5	1	TRANSISTOR NPN SI PD=290MW	00039	NE02135
Q21	1853-0036	2	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
R1	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R2	0698-8827	4	1	RESISTOR 1M +-1% .125W TF TC=0+-100	05524	CMF-55-1
R3	0698-7264	1	1	RESISTOR 14.7K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R4	0698-7271	0	1	RESISTOR 28.7K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R5	0698-7273	2	1	RESISTOR 34.8K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R6	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R7	0698-7221	0	1	RESISTOR 237 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R8	0698-7252	7	1	RESISTOR 4.64K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R9	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R10	0698-7255	0	1	RESISTOR 6.19K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R11	0698-7247	0	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R12	0698-7252	7	1	RESISTOR 4.64K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R13	0698-7252	7	1	RESISTOR 4.64K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R14	0698-7221	0	1	RESISTOR 237 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R15	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R16	0698-7284	5	1	RESISTOR 100K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R17	0698-3266	5	1	RESISTOR 237K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R18	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R19	0698-8827	4	1	RESISTOR 1M +-1% .125W TF TC=0+-100	05524	CMF-55-1
R20	0698-6361	7	1	RESISTOR 8K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R21	0698-6624	5	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9

**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R22	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R23	0698-6320	8	1	RESISTOR 5K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R24	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R25	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R26	0698-7243	6	1	RESISTOR 1.96K +1% .05W TF TC=0+-100	05524	CMF-50-2
R27	0698-7284	5	1	RESISTOR 100K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R28	0698-7284	5	1	RESISTOR 100K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R29	0698-7268	5	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R30	0698-7284	5	1	RESISTOR 100K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R31	0698-7268	5	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R32	0757-0421	4	1	RESISTOR 825 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R33	0698-6362	8	1	RESISTOR 1K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R34	0698-6322	0	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R35	0757-0288	1	1	RESISTOR 9.09K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R36	0698-6353	7	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R37	0698-7284	5	1	RESISTOR 100K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R38	0698-7268	5	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R39	0698-7284	5	1	RESISTOR 100K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R40	0698-7268	5	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R41	0698-6619	8	1	RESISTOR 15K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R42	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R43	2100-3750	9	1	RESISTOR-TRMR 20K 10% TKF SIDE-ADJ	04568	67XR
R44	0698-7244	7	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R45	0698-7275	4	1	RESISTOR 42.2K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R46	0698-3429	2	1	RESISTOR 19.6 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R47	0811-3619	4	1	RESISTOR 260 +-2% .125W PN TC=+3400+-300	01854	R3129
R48	0698-3266	5	1	RESISTOR 237K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R49	2100-3750	9	1	RESISTOR-TRMR 20K 10% TKF SIDE-ADJ	04568	67XR
R50	0698-7267	4	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R51	0811-3575	1	1	RESISTOR 3K +-2% .125W PN TC=+5600+-300	01854	R3118
R52	0698-3266	5	1	RESISTOR 237K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R53	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R54	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R55	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R56	0698-6630	3	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9

*\*Indicates factory-selected value*

**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R57	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R58	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R59	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R60	0698-6320	8	1	RESISTOR 5K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R61	0811-3575	1	1	RESISTOR 3K $\pm 2\%$ .125W PN TC=+5600 $\pm$ -300	01854	R3118
R62	0698-6624	5	1	RESISTOR 2K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R63	0698-7247	0	1	RESISTOR 2.87K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R64	0698-7241	4	1	RESISTOR 1.62K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R65	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R66	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R67	0698-3627	2	1	RESISTOR 200 $\pm 5\%$ 2W MO TC=0 $\pm$ -200	02499	GS-3
R68	0698-7253	8	1	RESISTOR 5.11K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R69	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R70	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R71	0698-3627	2	1	RESISTOR 200 $\pm 5\%$ 2W MO TC=0 $\pm$ -200	02499	GS-3
R72	0698-7253	8	1	RESISTOR 5.11K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R73	0698-7256	1	1	RESISTOR 6.81K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R74	0698-7216	3	1	RESISTOR 147 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R75	0698-7244	7	1	RESISTOR 2.15K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R76	0698-7264	1	1	RESISTOR 14.7K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R77	0698-7286	7	1	RESISTOR 121K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R78	0698-7228	7	1	RESISTOR 464 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R79	0698-7228	7	1	RESISTOR 464 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R80	0698-7236	7	1	RESISTOR 1K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R81	0698-7236	7	1	RESISTOR 1K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R82	0698-8827	4	1	RESISTOR 1M $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R83	0698-7236	7	1	RESISTOR 1K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R84	0698-6358	2	1	RESISTOR 100K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R85	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R86	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R87	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R88	0698-6774	6	1	RESISTOR 150 $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R89	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R90	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R91	0698-7236	7	1	RESISTOR 1K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2

**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

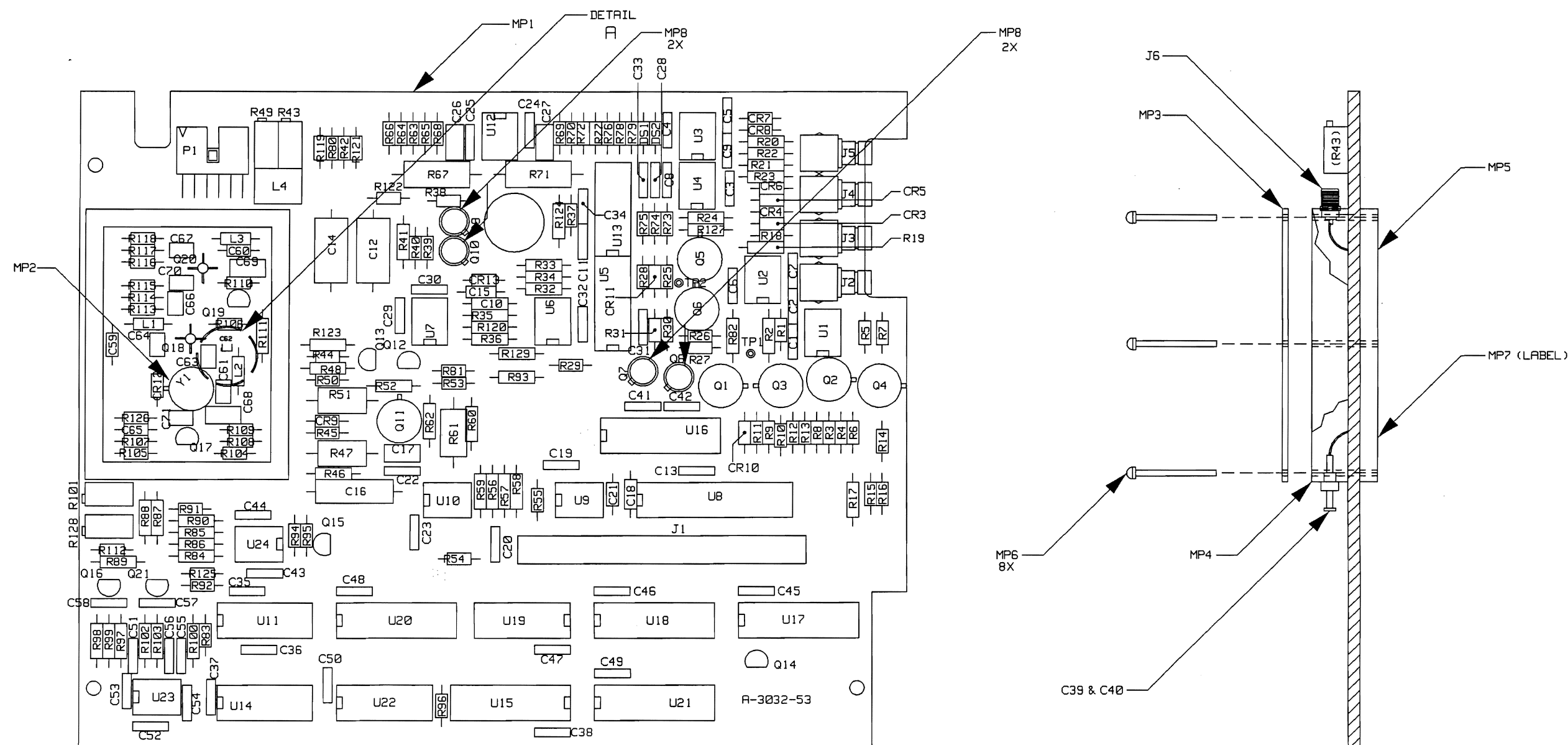
Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R92	0698-7229	8	1	RESISTOR 511 +1% .05W TF TC=0+-100	05524	CMF-50-2
R93	0757-0346	2	1	RESISTOR 10 +1% .125W TF TC=0+-100	05524	CMF-55-1
R94	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R95	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R96	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R97	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R98	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R99	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R100	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R101	2100-0544	3	1	RESISTOR-TRMR 100K 10% TKF SIDE-ADJ	04568	67XR
R102	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R103	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R104	0698-7253	8	1	RESISTOR 5.11K +1% .05W TF TC=0+-100	05524	CMF-50-2
R105	0698-7250	5	1	RESISTOR 3.83K +1% .05W TF TC=0+-100	05524	CMF-50-2
R106	0698-7253	8	1	RESISTOR 5.11K +1% .05W TF TC=0+-100	05524	CMF-50-2
R107	0698-7229	8	1	RESISTOR 511 +1% .05W TF TC=0+-100	05524	CMF-50-2
R108	0698-7253	8	1	RESISTOR 5.11K +1% .05W TF TC=0+-100	05524	CMF-50-2
R109	0698-7250	5	1	RESISTOR 3.83K +1% .05W TF TC=0+-100	05524	CMF-50-2
R110	0698-7253	8	1	RESISTOR 5.11K +1% .05W TF TC=0+-100	05524	CMF-50-2
R111	0698-3443	0	1	RESISTOR 287 +1% .125W TF TC=0+-100	05524	CMF-55-1
R112	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R113	0698-7214	1	1	RESISTOR 121 +1% .05W TF TC=0+-100	05524	CMF-50-2
R114	0698-7205	0	1	RESISTOR 51.1 +1% .05W TF TC=0+-100	05524	CMF-50-2
R115	0698-7214	1	1	RESISTOR 121 +1% .05W TF TC=0+-100	05524	CMF-50-2
R116	0698-7214	1	1	RESISTOR 121 +1% .05W TF TC=0+-100	05524	CMF-50-2
R117	0698-7205	0	1	RESISTOR 51.1 +1% .05W TF TC=0+-100	05524	CMF-50-2
R118	0698-7214	1	1	RESISTOR 121 +1% .05W TF TC=0+-100	05524	CMF-50-2
R119	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R120	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R121	0698-7263	0	1	RESISTOR 13.3K +1% .05W TF TC=0+-100	05524	CMF-50-2
R122	0698-7240	3	1	RESISTOR 1.47K +1% .05W TF TC=0+-100	05524	CMF-50-2
R123	0757-0276	7	1	RESISTOR 61.9 +1% .125W TF TC=0+-100	05524	CMF-55-1
R124	0698-8827	4	1	RESISTOR 1M +1% .125W TF TC=0+-100	05524	CMF-55-1
R125	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R126	0698-7253	8	1	RESISTOR 5.11K +1% .05W TF TC=0+-100	05524	CMF-50-2

*\*Indicates factory-selected value*

**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

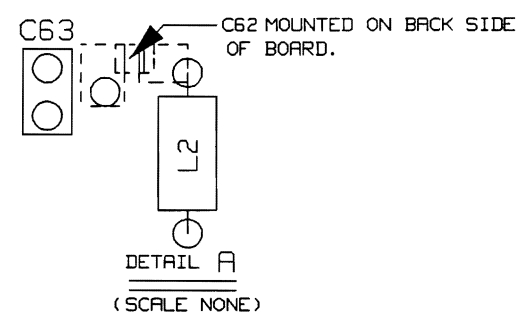
Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R127	0698-6320	8	1	RESISTOR 5K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R128	2100-0544	3	1	RESISTOR-TRMR 100K 10% TKF SIDE-ADJ	04568	67XR
R129	0757-0422	5	1	RESISTOR 909 $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
TP1	0360-0124	3	1	CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND	13309	
TP2	0360-0124	3	1	CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND	13309	
U1	1826-1381	5	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-P	28480	1826-1381
U2	1826-1381	5	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-P	28480	1826-1381
U3	1826-1381	5	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-P	28480	1826-1381
U4	1826-1381	5	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-P	28480	1826-1381
U5	1826-0759	9	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U6	1826-1381	5	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-P	28480	1826-1381
U7	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U8	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U9	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U10	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U11	1826-0609	8	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
U12	1826-0785	1	1	IC OP AMP LOW-BIAS-H-IMPD DUAL 8 PIN	28480	1826-0785
U13	1826-0141	3	1	IC COMPARATOR GP DUAL 14 PIN DIP-C	28480	1826-0141
U14	1820-3173	5	1	IC FF CMOS/HC J-K NEG-EDGE-TRIG	28480	1820-3173
U15	1820-3790	2	1	IC LCH CMOS/HC D-TYPE OCTL	28480	1820-3790
U16	1826-1234	7	1	D/A 8-BIT 20-CERDIP CMOS	28480	1826-1234
U17	08590-80105	9	1	PAL, PROGRAMMED	28480	08590-80105
U18	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U19	1820-3079	0	1	IC DCDR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U20	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U21	1820-3789	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U22	1858-0047	5	1	TRANSISTOR ARRAY 16-PIN PLSTC DIP	28480	1858-0047
U23	1826-0785	1	1	IC OP AMP LOW-BIAS-H-IMPD DUAL 8 PIN	28480	1826-0785
U24	1826-0785	1	1	IC OP AMP LOW-BIAS-H-IMPD DUAL 8 PIN	28480	1826-0785
Y1	0410-2139	1	1	RESONATOR-SURF ACST W FREQUENCY:707.13	12127	RP-1193

SYN		REVISIONS	APPROVED	DATE
A		AS ISSUED PER PCO# 53-06599 HS		




# NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. REMOVE TABS AFTER WAVE SOLDER.
3. MAXIMUM COMPONENT HEIGHT \_\_\_\_\_.
4. MAXIMUM LEAD TRIM LENGTH .080.
5. CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-08590-A7A1.
6. MAXIMUM COMPONENT HEIGHT CONTROLLED BY ASSOCIATED BOARDS IN SYSTEM.

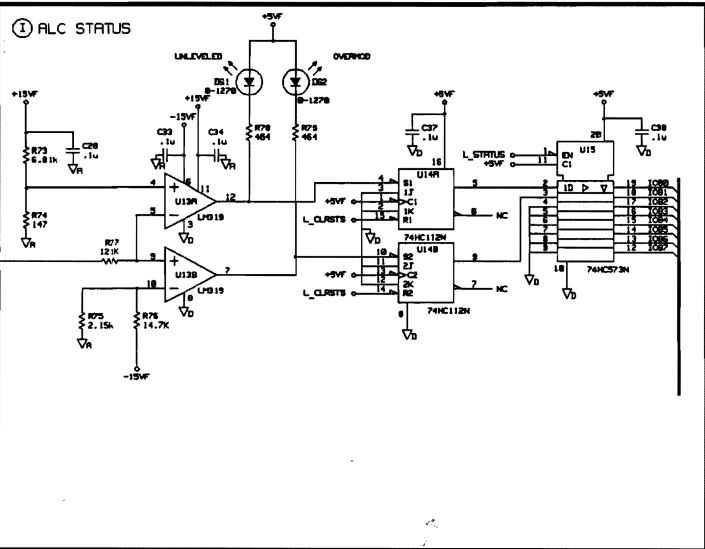
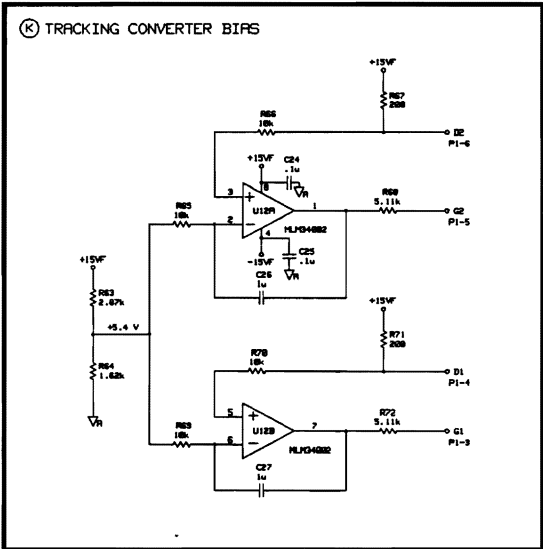
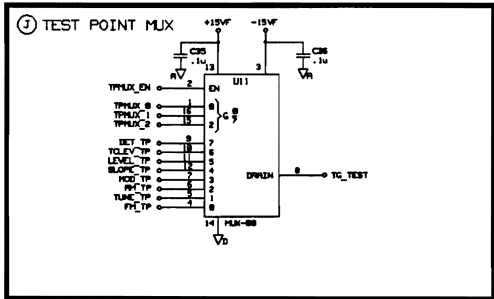
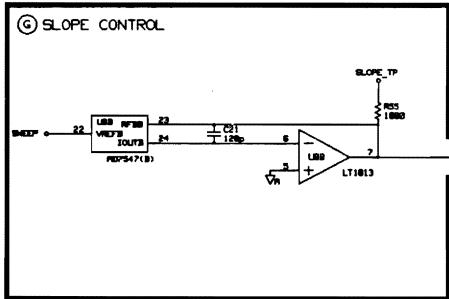
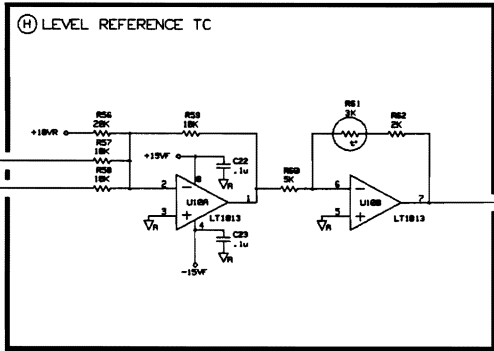
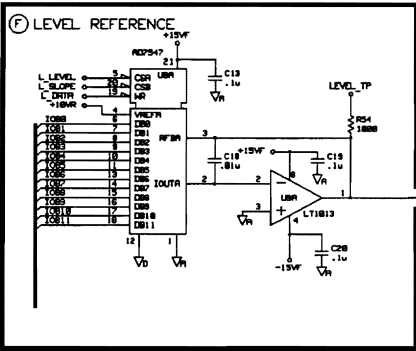
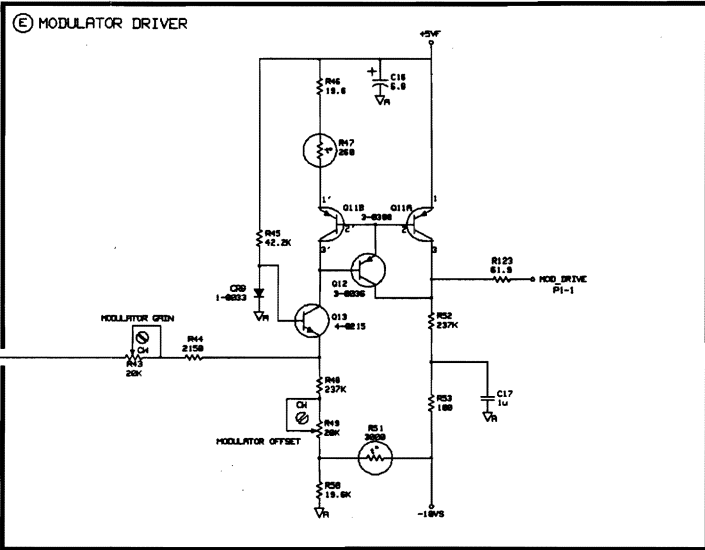
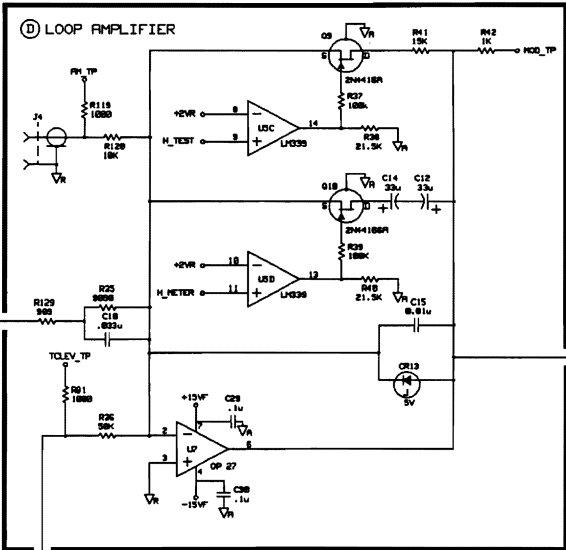
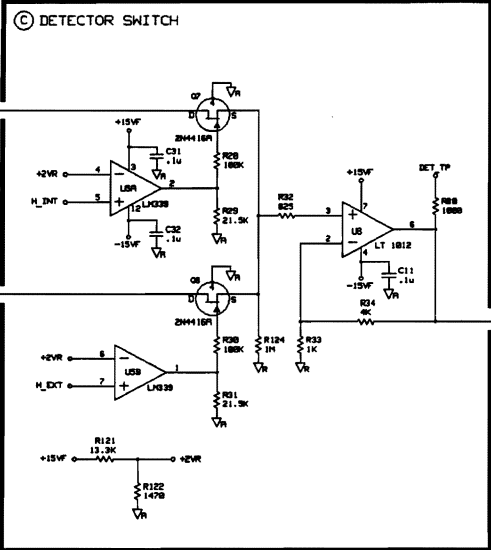
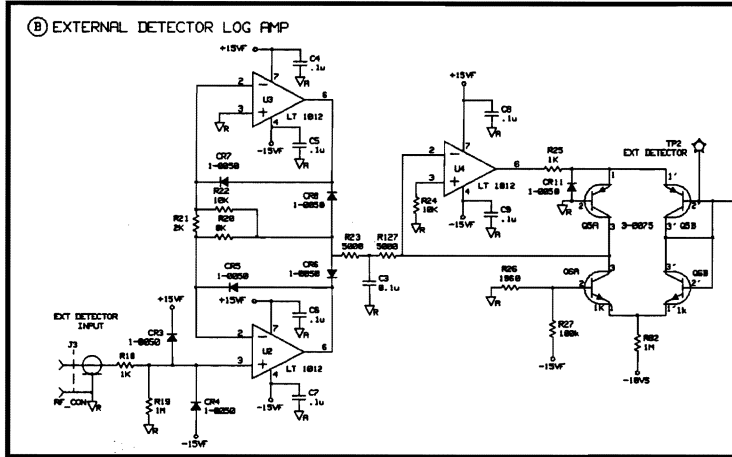
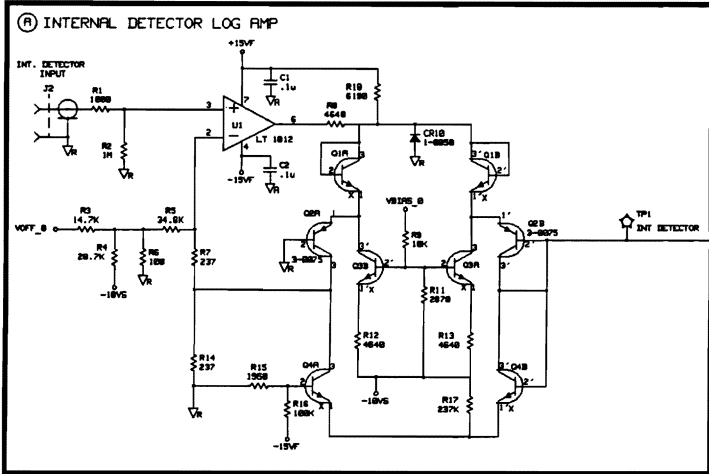


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OTHERS EXCEPT AS AUTHORIZED BY HP.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.  TOLERANCES: XX.XXX ±.015   SEE CORP. STD. 600	DRAWN BY	2-25-91	BOARD ASSEMBLY- TRACKING GEN		 HEWLETT PACKARD
	ENGINEER-CHECKER	2-25-91			
	RELEASED TO PROD.			TITLE	
	SUPERSEDES DWG.		NONE	SHEET 1 of 1	D -08590-60196-2

SEE 08590-60196 MATERIAL LIST

SYN	REVISIONS	APPROVED	DATE
A	RS ISSUE PER PCO 53-06599	BC	



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ITEM	QTY.	PART/MATERIAL-DESCRIPTION	PART/L-PART NO.	PART/L-DWG. NO.	PART/L-SPEC.
1	1	BOARD ASSEMBLY- TRACKING GEN CONTROL (SCHEMATIC)			
2	1	FILED-W-6100/100			
3	1	SHEET 1 OF 2			
4	1	D-08590-60196-1			





# **Component-Level Information Packet for 08590-60197**

## **Analog Interface**



HP Part No. 08590-90205  
Printed in USA October 1992

**HP Part Number 08590-60197**  
**Analog Interface**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C2	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C3	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C4	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C5	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C6	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C7	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C8	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C9	0180-3636	6	1	CAP-FXD 330uF +-20% 35 V AL-ELCTLT	28480	0180-3636
C10	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C11	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C12	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C13	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C14	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C15	0160-4800	6	1	CAP-FXD 120pF +-5% 100 V CER C0G	09939	RPA10C0G121J100V
C16	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C17	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C18	0160-4800	6	1	CAP-FXD 120pF +-5% 100 V CER C0G	09939	RPA10C0G121J100V
C19	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C20	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C21	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C22	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C23	0160-4822	2	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPA20C0G102J100V
C24	0160-6223	1	1	CAP-FXD 2uF +-5% 100 V POLYP-MET	05176	X335 2.0UF 100V 5%
C25	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C26	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C27	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C28	0180-3817	5	1	CAP-FXD 100uF +-20% 50 V AL-ELCTLT	28480	0180-3817
C30	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C31	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C32	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C33	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C34	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C35	0180-3635	5	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3635
C36	0160-5098	6	1	CAP-FXD 0.22uF +-10% 50 V CER X7R	09939	RPA40X7R224K50V

*\*Indicates factory-selected value*

**CLIP 08590-90205 1**

**HP Part Number 08590-60197**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C37	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C38	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C39	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C40	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C41	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C44	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C45	0160-4833	5	1	CAP-FXD 0.022uF +-10% 100 V CER X7R	09939	RPA20X7R223K100V
C46	0160-4819	7	1	CAP-FXD 2200pF +-5% 100 V CER C0G	09939	RPA30C0G222J100VPT
C47	0180-3771	0	1	CAP-FXD 1uF +-10% 35 V TA	04200	299D105X9035AB1
C48	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C49	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C50	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C51	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C52	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C53	0180-3771	0	1	CAP-FXD 1uF +-10% 35 V TA	04200	299D105X9035AB1
C54	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C55	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C56	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C57	0180-3771	0	1	CAP-FXD 1uF +-10% 35 V TA	04200	299D105X9035AB1
C59	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C60	0160-4822	2	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPA20C0G102J100V
C61	0160-4834	6	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	09939	RPA30X7R473K100V
C62	0160-4834	6	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	09939	RPA30X7R473K100V
C63	0180-3643	5	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C64	0180-3643	5	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C101	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C102	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C103	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C104	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C105	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C106	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C107	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C108	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C109	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C110	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT

**HP Part Number 08590-60197**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C111	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C113	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C114	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C150	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C151	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
CR1	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR3	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR4	1901-0518	8	1	DIODE-SCHOTTKY SM SIG	12395	5082-2800
CR5	1901-0518	8	1	DIODE-SCHOTTKY SM SIG	12395	5082-2800
CR6	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR101	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR102	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
J1	1251-8912	3	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8912
J2	1252-2260	4	1	CONN-POST TYPE .100-PIN-SPCG 8-CONT	02946	78207-108
J3	1252-3106	9	1	CONN-POST TYPE .100-PIN-SPCG 9-CONT	02946	68451-158
J4	1252-1470	6	1	CONN-POST TYPE .100-PIN-SPCG 40-CONT	01380	103922-1
J5	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
L1	9100-1622	7	1	INDUCTOR RF-CH-MLD 24UH +-5%	05826	1537-46
L2	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L3	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L5	9100-1788	6	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	11212	LB2/2.5ZB
MP3	1205-0639	8	1	HEAT SINK SGL TO-220-CS	07179	5910B
MP150	1200-0173	5	3	INSULATOR-XSTR DAP-GL	02210	A-10001 DAP
Q1	1854-0456	2	1	TRANSISTOR NPN SI PD=65W FT=3MHZ	28480	1854-0456
Q3	1855-0417	7	1	TRANSISTOR J-FET N-CHAN D-MODE TO-18 SI	28480	1855-0417
Q4	1855-0686	2	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-92 SI	07221	VP0206N3
Q5	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q6	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q7	1855-0414	4	1	TRANSISTOR J-FET 2N4393 N-CHAN D-MODE	02763	
Q8	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q9	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q10	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q20	1854-0637	1	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	28480	1854-0637
Q21	1853-0314	9	1	TRANSISTOR PNP 2N2905A SI TO-39 PD=400MW	28480	1853-0314

*\*Indicates factory-selected value*

**CLIP 08590-90205 3**

**HP Part Number 08590-60197**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
Q90	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q101	1853-0036	2	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q150	1854-0637	1	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	28480	1854-0637
R1	0698-6624	5	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R2	0698-6624	5	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R3	0698-6630	3	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R4	0698-6630	3	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R5	0698-6343	5	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R6	0698-6344	6	1	RESISTOR 900 +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R7	0698-6323	1	1	RESISTOR 100 +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R8	0698-6353	7	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R9	0698-6353	7	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R10	0699-1909	1	1	RESISTOR 2.31K +0.1% .125W TF TC=0+-25	05524	CMF-55-1
R11	0698-6322	0	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R12	0698-6322	0	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R13	0698-8907	1	1	RESISTOR 320 +0.25% .25W TF TC=0+-50	05524	CMF-60-1
R14	0698-3442	9	1	RESISTOR 237 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R15	0757-1000	7	1	RESISTOR 51.1 +-1% .5W TF TC=0+-100	05524	CMF-65-2
R16	0757-1000	7	1	RESISTOR 51.1 +-1% .5W TF TC=0+-100	05524	CMF-65-2
R17	0698-6343	5	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R18	0698-6362	8	1	RESISTOR 1K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R19	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R20	0698-3334	8	1	RESISTOR 178 +-1% .5W TF TC=0+-100	05524	CMF-65-2
R21	0698-6624	5	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R22	0698-6624	5	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R23	0698-7229	8	1	RESISTOR 511 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R24	0698-6322	0	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R25	0699-0400	5	1	RESISTOR 3.6K +0.1% .125W TF TC=0+-25	05524	CMF-55-1
R26	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R27	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R28	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R29	0699-0154	6	1	RESISTOR 7.2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1
R30	0699-1866	9	1	RESISTOR 2.7K +0.1% .1W TF TC=0+-10	05524	PTF-56-7
R31	0699-1910	4	1	RESISTOR 691.2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1
R32	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1

**HP Part Number 08590-60197**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R33	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R34	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R35	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R36	0757-1094	9	1	RESISTOR 1.47K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R37	0699-0400	5	1	RESISTOR 3.6K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1
R38	0699-2265	4	1	RESISTOR 200 +-0.1% .5W TF TC=0+-10	06337	5043ZB200R0B
R39	0699-2265	4	1	RESISTOR 200 +-0.1% .5W TF TC=0+-10	06337	5043ZB200R0B
R40	0699-2265	4	1	RESISTOR 200 +-0.1% .5W TF TC=0+-10	06337	5043ZB200R0B
R41	0699-2265	4	1	RESISTOR 200 +-0.1% .5W TF TC=0+-10	06337	5043ZB200R0B
R42	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R43	0698-3438	3	1	RESISTOR 147 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R44	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R45	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R46	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R47	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R48	0757-0465	6	1	RESISTOR 100K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R49	0757-0465	6	1	RESISTOR 100K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R50	0699-1147	9	1	RESISTOR 9.53K +-0.1% .1W TF TC=0+-4	05524	PTF-56-6
R51	0699-0078	3	1	RESISTOR 2.1K +-0.1% .1W TF TC=0+-10	05524	PTF-56-7
R52	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R53	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R54	0698-6358	2	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R55	0698-6355	9	1	RESISTOR 400 +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R56	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R57	0698-0084	9	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R58	0698-3155	1	1	RESISTOR 4.64K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R59	0757-0199	3	1	RESISTOR 21.5K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R60	0698-3153	9	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R61	0699-1910	4	1	RESISTOR 691.2K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1
R63	0757-0416	7	1	RESISTOR 511 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R64	0698-8838	7	1	RESISTOR 3.52K +-0.1% .125W TF TC=0+-10	05524	PTF-56-7
R65	0698-3942	4	1	RESISTOR 69.8K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1
R66	0698-8827	4	1	RESISTOR 1M +-1% .125W TF TC=0+-100	05524	CMF-55-1
R67	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R68	0757-0198	2	1	RESISTOR 100 +-1% .5W TF TC=0+-100	05524	CMF-65-2

*\*Indicates factory-selected value*

**CLIP 08590-90205 5**

**HP Part Number 08590-60197**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R69	0757-0477	0	1	RESISTOR 332K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R70	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R71	0698-3429	2	1	RESISTOR 19.6 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R72	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R73	0698-8827	4	1	RESISTOR 1M +-1% .125W TF TC=0+-100	05524	CMF-55-1
R80	0757-0346	2	1	RESISTOR 10 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R81	0757-0346	2	1	RESISTOR 10 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R82	0698-8812	7	1	RESISTOR 1 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R83	0698-8812	7	1	RESISTOR 1 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R90	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R101	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R102	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R103	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R104	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R105	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R106	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R107	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R108	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R110	0757-0458	7	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R111	0757-0439	4	1	RESISTOR 6.81K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R112	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R113	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R114	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R115	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R116	0698-7277	6	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R117	0757-0438	3	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R118	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R119	0698-7263	0	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R120	0698-3154	0	1	RESISTOR 4.22K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R121	0698-7248	1	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R122	0757-0447	4	1	RESISTOR 16.2K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R150	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R151	0698-7233	4	1	RESISTOR 750 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R152	0757-0180	2	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R153	0698-7257	2	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2

**HP Part Number 08590-60197**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R154	0757-0279	0	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	05524	CMF-55-1
TP1	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP2	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1820-3079	0	1	IC DCDR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U2	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U3	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U4	1826-1386	0	1	D/A 12-BIT 18-PLASTIC CMOS	28480	1826-1386
U5	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U6	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U8	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U9	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U10	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U11	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U12	1826-1969	5	1	IC OP AMP LOW-DRIFT DUAL 8 PIN DIP-C	28480	1826-1969
U13	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U14	1826-0811	4	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-0811
U15	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U16	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U17	1826-0609	8	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
U18	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U19	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U20	1826-0915	9	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-C	28480	1826-0915
U21	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U22	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U23	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U24	08590-80105	9	1		28480	08590-80105
U25	1826-1514	6	1	IC V RGLTR-V-REF-FXD 9.95/10.05V 8-DIP-P	28480	1826-1514
U26	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U27	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U28	1826-0285	6	1	IC V RGLTR-FXD-NEG -4.8/-5.2V 3-TO-92	28480	1826-0285
U29	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U30	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U31	1826-1186	8	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-1186
U32	1826-0785	1	1	IC OP AMP LOW-BIAS-H-IMPD DUAL 8 PIN	28480	1826-0785

*\*Indicates factory-selected value*

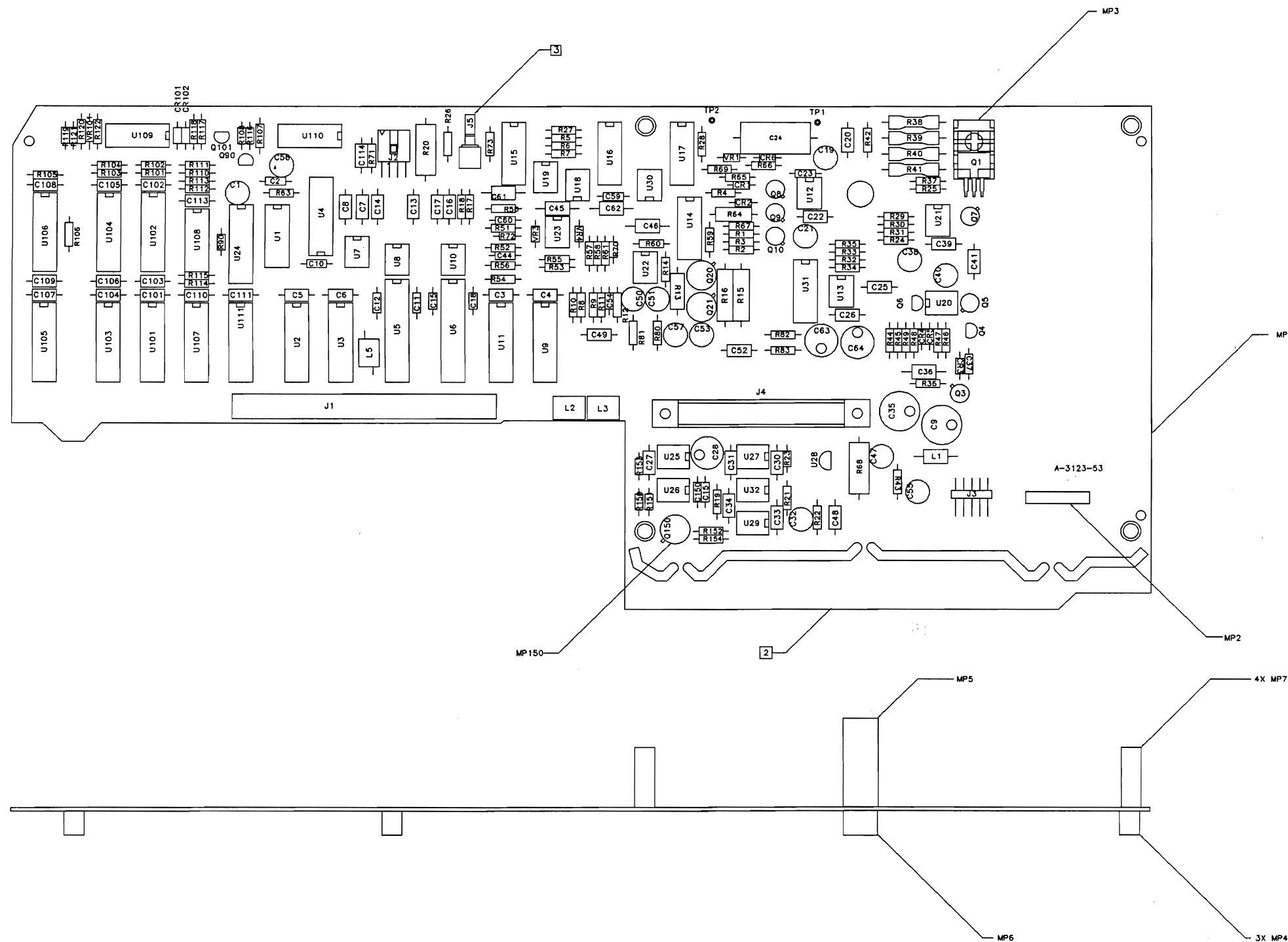
**CLIP 08590-90205 7**



**HP Part Number 08590-60197**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U101	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U102	1826-1253	0	1	D/A 18-CERDIP BPLR	28480	1826-1253
U103	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U104	1826-1253	0	1	D/A 18-CERDIP BPLR	28480	1826-1253
U105	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U106	1826-1253	0	1	D/A 18-CERDIP BPLR	28480	1826-1253
U107	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U108	1826-0759	9	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U109	1858-0074	8	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0074
U110	1858-0047	5	1	TRANSISTOR ARRAY 16-PIN PLSTC DIP	28480	1858-0047
U111	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
VR1	1902-3160	4	1	DIODE-ZNR 10V 2% DO-35 PD=.4W TC=+.06%	02688	
VR3	1902-0950	4	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	28480	1902-0950
VR4	1902-0962	8	1	DIODE-ZNR 15V 5% DO-35 PD=.4W TC=+.087%	02688	
VR101	1902-0579	3	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	02688	

E-08590-60197-2	
SYM	REVISIONS
A	AS ISSUED



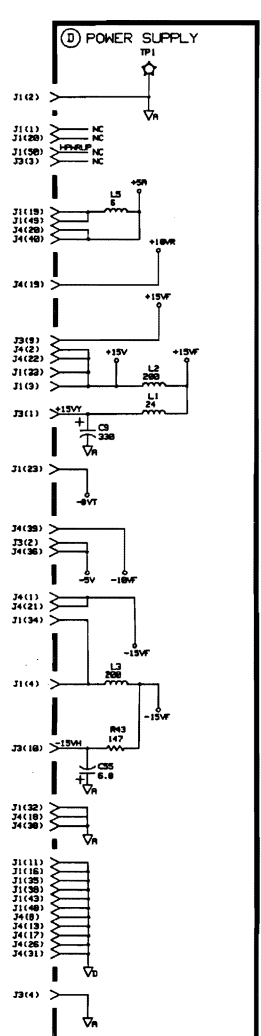
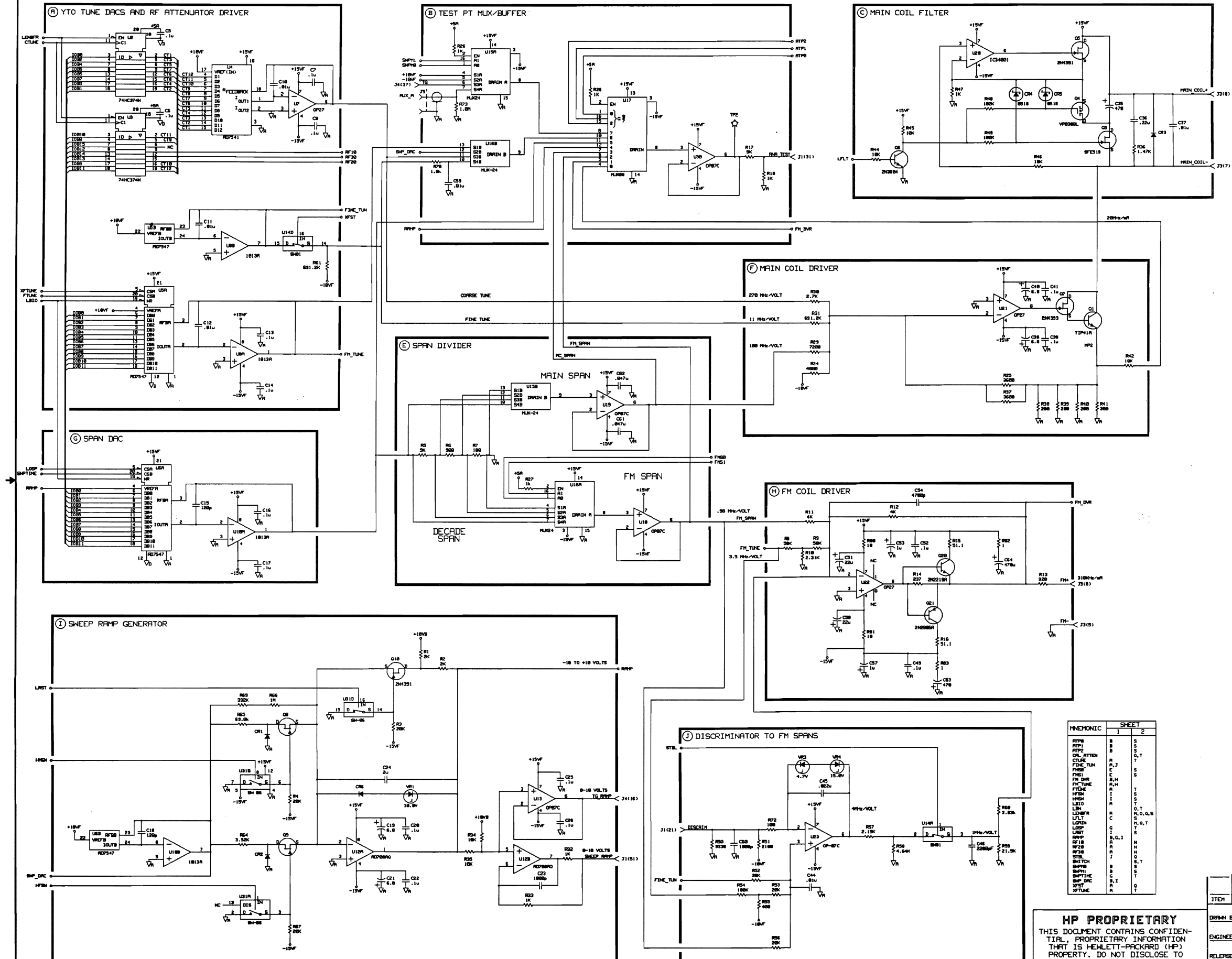
- NOTES: UNLESS OTHERWISE SPECIFIED
1. DIMENSIONS ARE IN INCHES.
  2. REMOVE TABS AFTER WAVE SOLDER.
  3. J5 SHOWN FOR REFERENCE ONLY DO NOT LOAD
  4. CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-08590-A7.

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SEE 08590-60197 MATERIAL LIST

<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.</small> <small>TOLERANCES: 0.005 DIA. 0.010</small> <small>SEE COMP. STD. 800</small>	<small>DRAWN BY</small> <small>CHECKED/CHECKER</small> <small>RELEASED TO PROD.</small> <small>SUPPLIES INC.</small>	<small>DATE</small> <small>SCALE</small> <small>1</small> <small>1</small> <small>1</small>	<small>BOARD ASSEMBLY-</small> <small>ANALOG INTERFACE</small> <small>TITLE</small> <small>NONE</small> <small>SCALE</small> <small>1</small> <small>1</small> <small>1</small>	<small>HEWLETT</small> <small>PACKARD</small> <small>08590-60197</small> <small>-08590-60197-2</small>

SYN	REVISIONS	APPROVED	DATE
A	AS ISSUED		



J1	PIN	SIGNAL	TO/FROM	FUNCTION
J1	1	15V		D
	2	15V		D
	3	15V		D
	4	15V		D
	5	15V		D
	6	15V		D
	7	15V		D
	8	15V		D
	9	15V		D
	10	15V		D
	11	15V		D
	12	15V		D
	13	15V		D
	14	15V		D
	15	15V		D
	16	15V		D
	17	15V		D
	18	15V		D
	19	15V		D
	20	15V		D
	21	15V		D
	22	15V		D
	23	15V		D
	24	15V		D
	25	15V		D
	26	15V		D
	27	15V		D
	28	15V		D

J2	PIN	SIGNAL	TO/FROM	FUNCTION
J2	1	15V		D
	2	15V		D
	3	15V		D
	4	15V		D
	5	15V		D
	6	15V		D
	7	15V		D
	8	15V		D

J3	PIN	SIGNAL	TO/FROM	FUNCTION
J3	1	15V		D
	2	15V		D
	3	15V		D
	4	15V		D
	5	15V		D
	6	15V		D
	7	15V		D
	8	15V		D
	9	15V		D
	10	15V		D
	11	15V		D
	12	15V		D
	13	15V		D
	14	15V		D
	15	15V		D
	16	15V		D

J4	PIN	SIGNAL	TO/FROM	FUNCTION
J4	1	15V		D
	2	15V		D
	3	15V		D
	4	15V		D
	5	15V		D
	6	15V		D
	7	15V		D
	8	15V		D
	9	15V		D
	10	15V		D
	11	15V		D
	12	15V		D
	13	15V		D
	14	15V		D
	15	15V		D
	16	15V		D
	17	15V		D
	18	15V		D
	19	15V		D
	20	15V		D
	21	15V		D
	22	15V		D
	23	15V		D
	24	15V		D

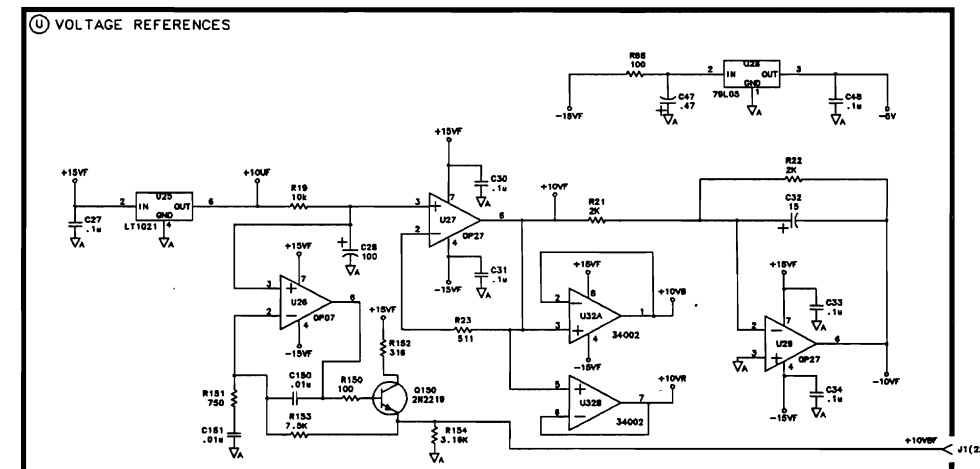
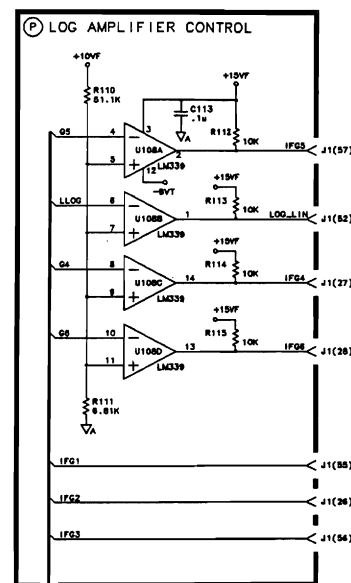
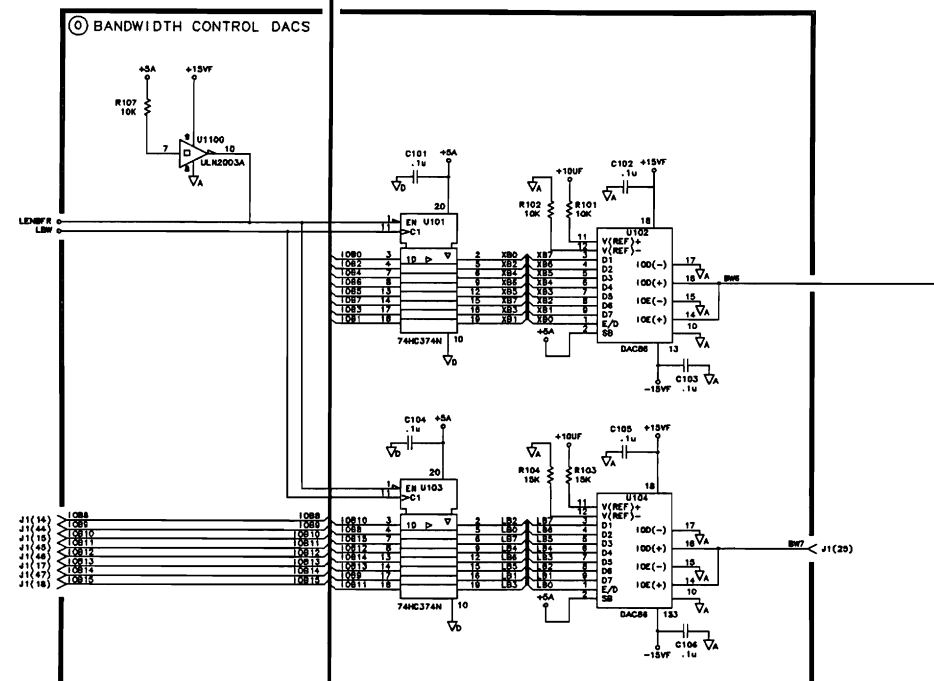
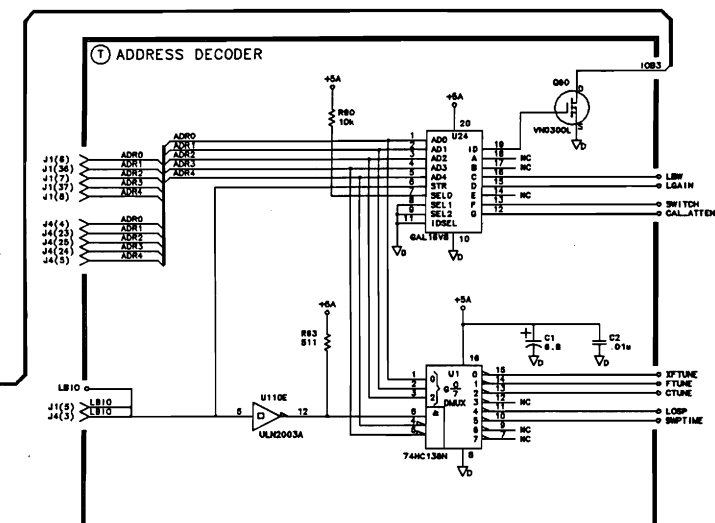
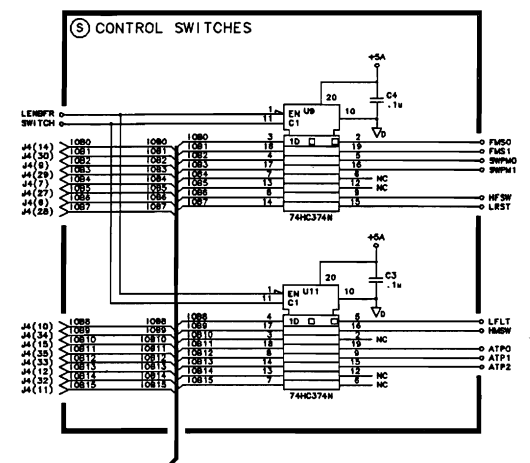
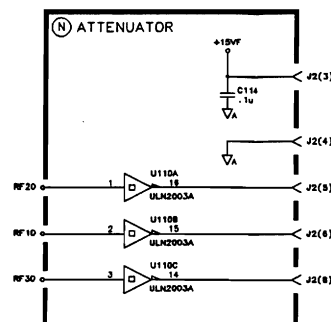
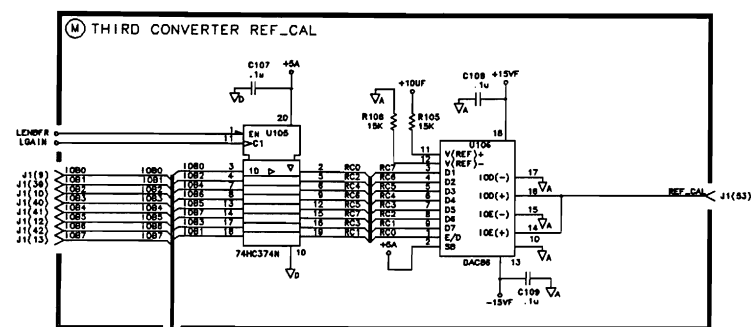
NOTES:  
1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABREVIATED. WITHIN ABREVIATION WITH ASSOCIATED NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
2. UNLESS OTHERWISE INDICATED, RESISTANCE IN OHMS (R), CAPACITANCE IN MICROFARADS (C), INDUCTANCE IN MICROHENRIES (L).  
3. PNEUMATIC TABLE

PNEUMATIC	DESCRIPTION
ATP	ANALOG TEST POINT
ATP1	ANALOG TEST POINT 1
ATP2	ANALOG TEST POINT 2
ATP3	ANALOG TEST POINT 3
ATP4	ANALOG TEST POINT 4
ATP5	ANALOG TEST POINT 5
ATP6	ANALOG TEST POINT 6
ATP7	ANALOG TEST POINT 7
ATP8	ANALOG TEST POINT 8
ATP9	ANALOG TEST POINT 9
ATP10	ANALOG TEST POINT 10
ATP11	ANALOG TEST POINT 11
ATP12	ANALOG TEST POINT 12
ATP13	ANALOG TEST POINT 13
ATP14	ANALOG TEST POINT 14
ATP15	ANALOG TEST POINT 15
ATP16	ANALOG TEST POINT 16
ATP17	ANALOG TEST POINT 17
ATP18	ANALOG TEST POINT 18
ATP19	ANALOG TEST POINT 19
ATP20	ANALOG TEST POINT 20
ATP21	ANALOG TEST POINT 21
ATP22	ANALOG TEST POINT 22
ATP23	ANALOG TEST POINT 23
ATP24	ANALOG TEST POINT 24

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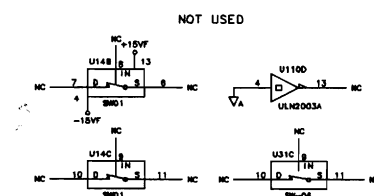
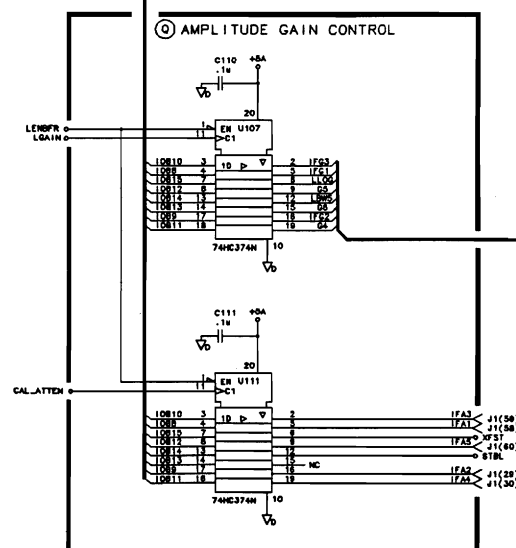
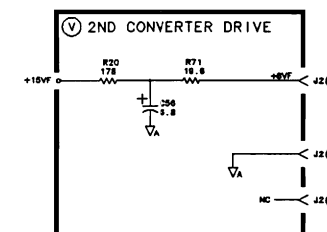
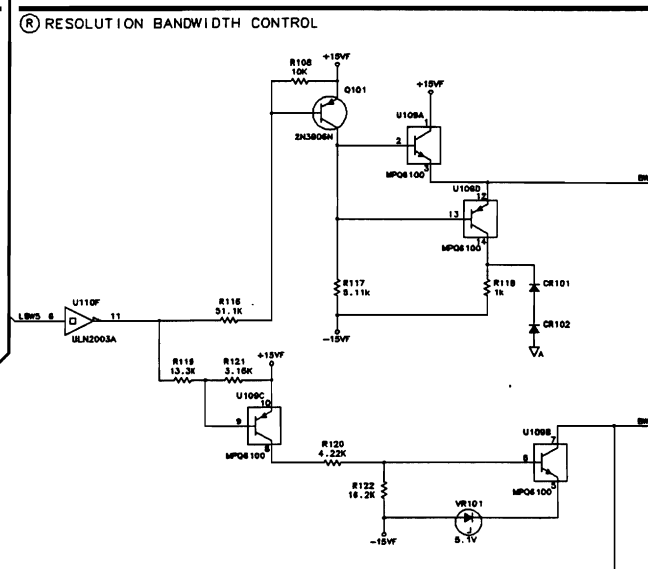
ITEM	QTY.	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
DRWN BY		DATE	BOARD ASSEMBLY-ANALOG INTERFACE		
ENGINEER-CHECKER			TITLE (SCHEMATIC)		
RELEASE TO PROD.			PROJECT-08590 FILENAME-0197123		
SUPERSEDES DWG.			SCALE NONE SHEET 1 OF 2		
			PART NUMBER 08590-60197		
			D -08590-60197-1		

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED		



- NOTES:
1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.
  2. UNLESS OTHERWISE INDICATED, RESISTANCE IN OHMS (Ω), CAPACITANCE IN MICROFARADS (μF), INDUCTANCE IN MICROHENRIES (μH).
  3. WIREMATIC TABLE

WIREMATIC	DESCRIPTION



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ITEM	QTY.	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
DRAWN BY		DATE			
ENGINEER/CHECKER					
RELEASE TO PROD.					
SUPERSEDES DWG.					

BOARD ASSEMBLY-  
ANALOG  
INTERFACE  
TITLE (SCHEMATIC)  
SCALE NONE SHEET 2 OF 2  
D-08590-60197-1

# **Component-Level Information Packet for 08590-60201**

## **Keyboard**

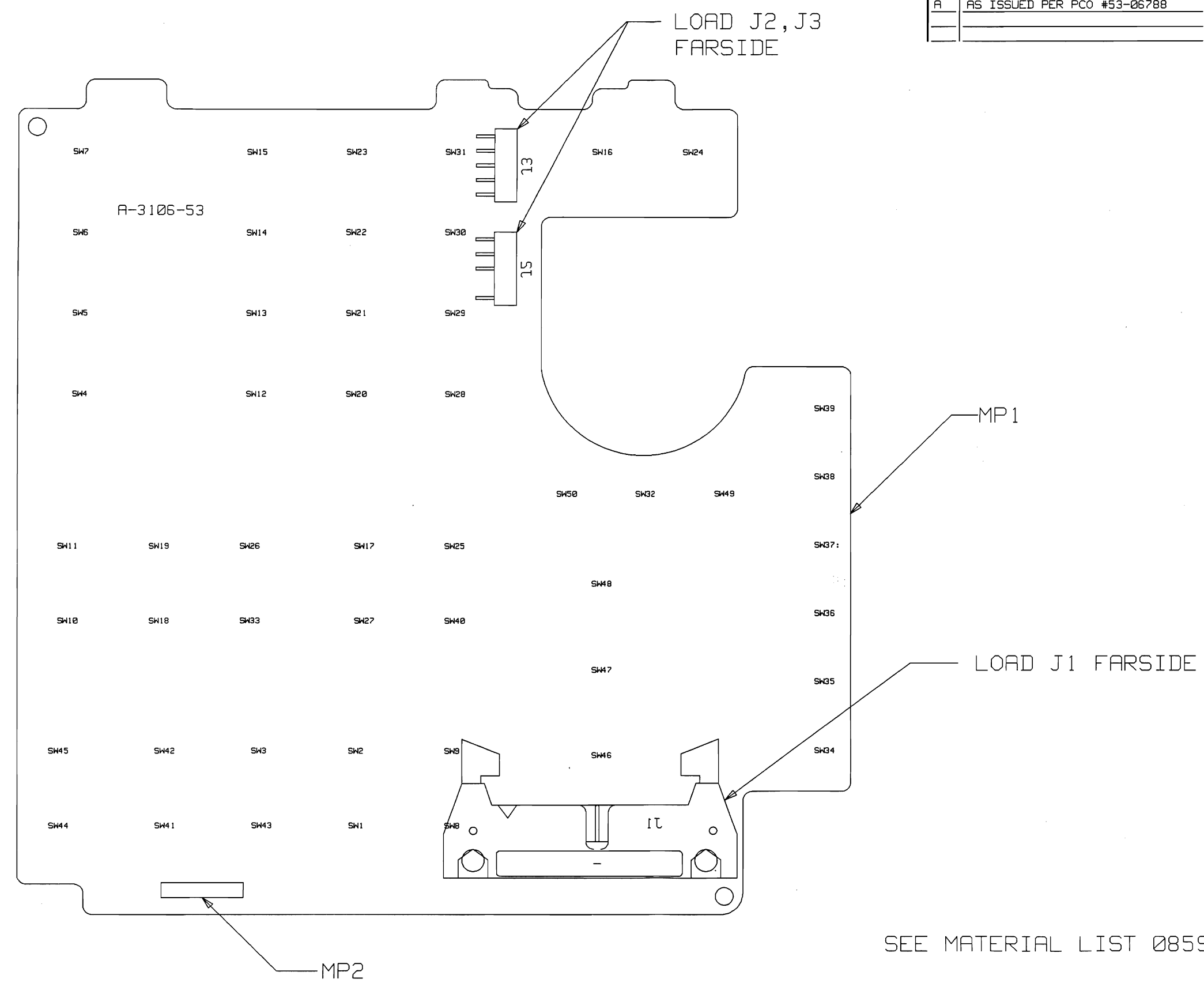


**HP Part No. 08590-90204  
Printed in USA September 1992**

**HP Part Number 08590-60201**  
**Keyboard**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
J2	1252-2043	1	1	CONN-POST TYPE .100-PIN-SPCG 4-CONT	01380	644221-2
J3	1251-7678	6	1	CONN-POST TYPE .100-PIN-SPCG 5-CONT	01380	641212-5

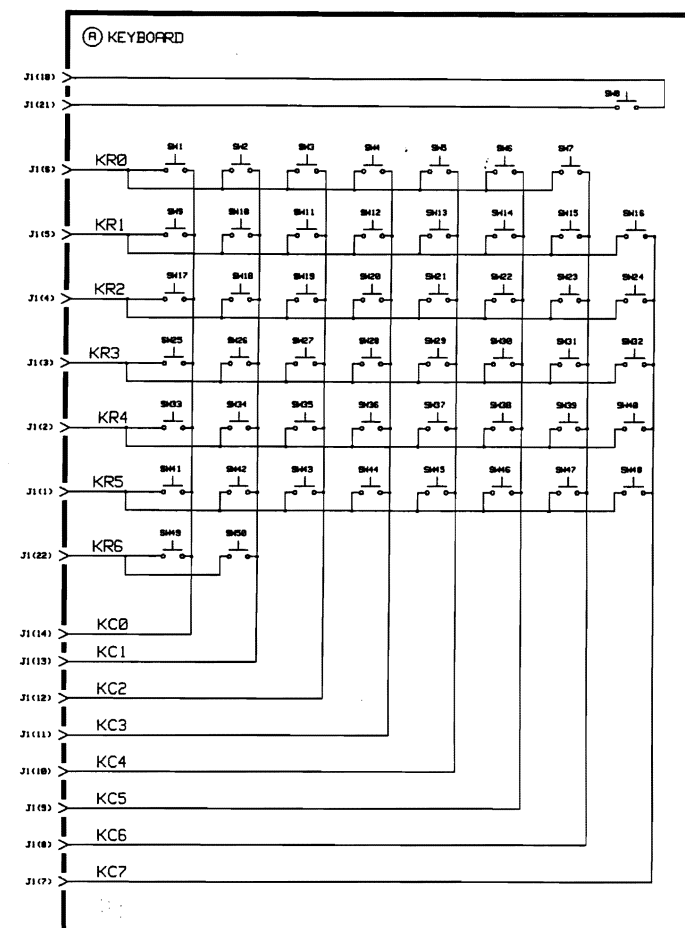
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO #53-06788	HS	



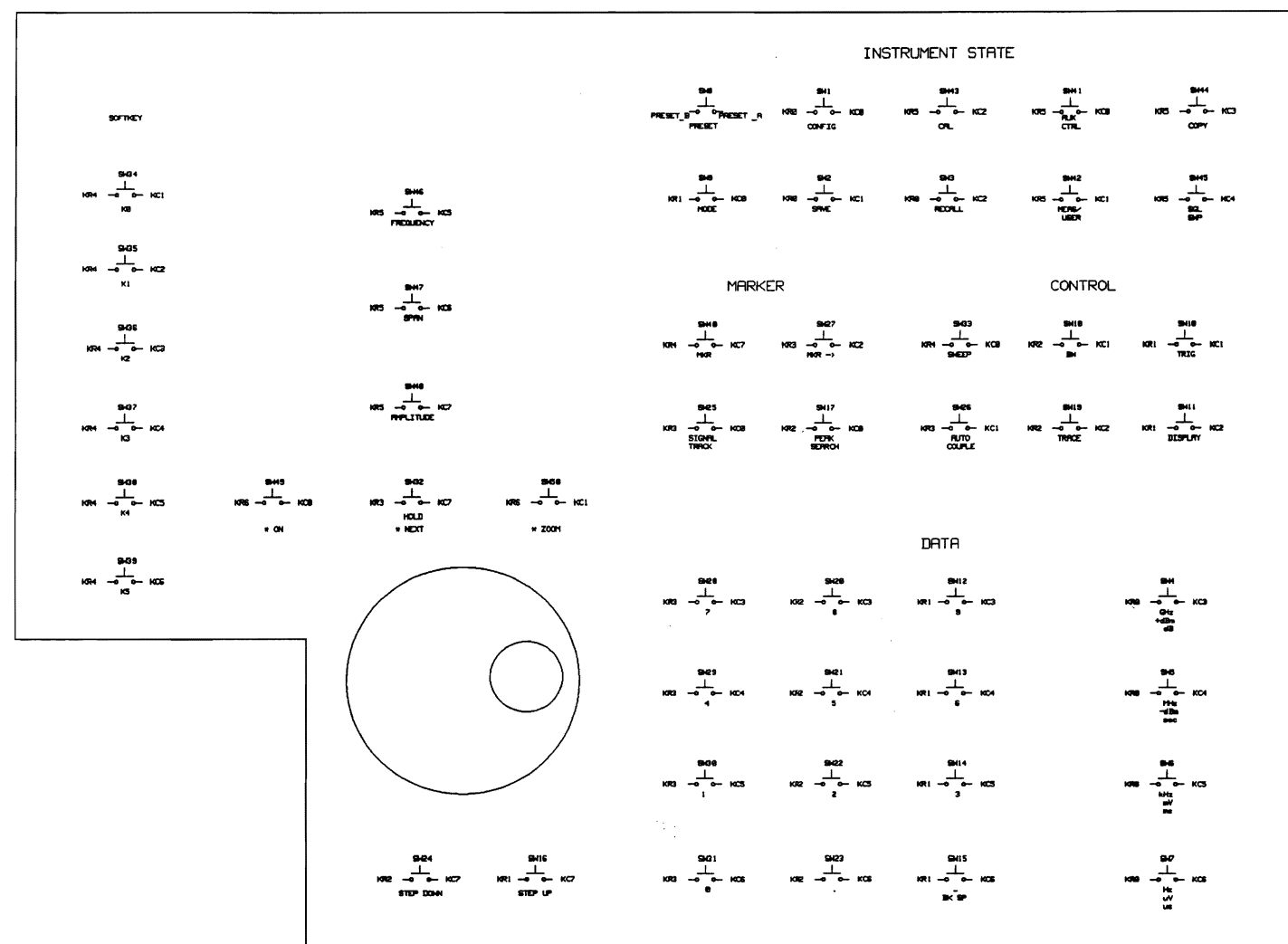
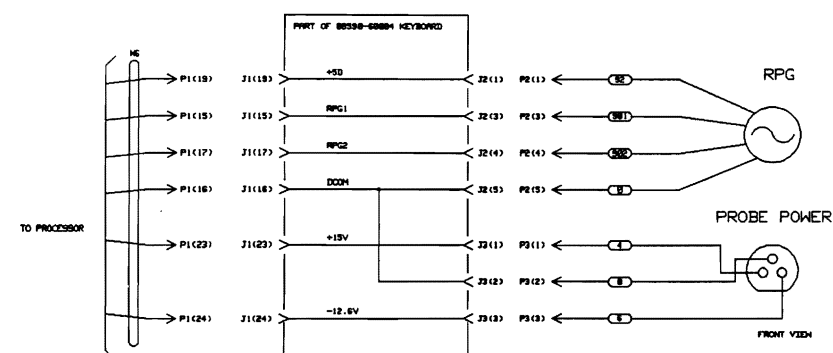
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OTHERS EXCEPT AS AUTHORIZED BY HP.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.  TOLERANCES: XX.XXX 0.010 XX.XX 0.02  THIRD ANGLE PROJECTION  DO NOT SCALE THIS DRAWING	K. GURLEY DRAWN BY	DATE	ASSEMBLY, PWB  KEYBOARD  TITLE	alabb201 FILENAME	HEWLETT PACKARD
	M. MARZALEK ENGINEER/CHECKER	DATE		SCALE 2/1	
	RELEASE TO PROD.	DATE		SHEET 1 OF 1	
	SUPERSEDES DWG.			08590-60201 PART NUMBER	
				C- 08590-60201-2	

SYM	REVISIONS	APPROVED	DATE
1	RELEASED TO PROTO		



NOTE: PIN 1 DESIGNATION ON THE RIBBON CABLE  
MS AND ITS END CONNECTORS MUST BE IGNORED.  
FOLLOW THE PIN DESIGNATION LAYOUT ON THE  
PROCESSOR AND KEYBOARD ASSEMBLIES.



\* SEE ONLY

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ITEM	QTY.	PART/MATERIAL-DESCRIPTION	PART'L-PART NO.	PART'L-ENG. NO.	PART'L-SPEC.
		BOARD ASSEMBLY- KEYBOARD			
		TITLE (SCHEMATIC)			
		FILENAME-085901101			
		SHEET 1 OF 1			
		D-08590-60201-1			



PART NUMBER 08590-60201



# **Component-Level Information Packet for 08590-60216**

## **Bandwidth Filter**



HP Part No. 08590-90208  
Printed in USA October 1992

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**HP Part Number 08590-60216**  
**Bandwidth Filter**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C2	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C4	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C5	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C6	0160-4811	9	1	CAP-FXD 270pF +-5% 100 V CER C0G	09939	RPA10C0G271J100V
C7	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C9	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C10	0160-5899	5	1	CAP-FXD 7.5pF +-6.67% 200 V CER C0G	28480	0160-5899
C12	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C13	0160-4799	2	1	CAP-FXD 2.2pF +-11.36% 100 V CER C0G	09939	RPA10C0G2R2C100
C14	0160-6435	7	1	CAP-FXD 13pF +-5% 100 V CER P2G	09939	DD104NWJ33N1500130J100V
C15	0121-0059	7	1	CAP-VAR 8pF 2pF 350 V CER	01468	304-324-139
C16	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C17	0121-0059	7	1	CAP-VAR 8pF 2pF 350 V CER	01468	304-324-139
C19	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C21	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C22	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C23	0121-0036	0	1	CAP-VAR 18pF 5.5pF 350 V CER	01468	304-324-237
C25	0121-0059	7	1	CAP-VAR 8pF 2pF 350 V CER	01468	304-324-139
C26	0160-5348	9	1	CAP-FXD 51pF +-5% 100 V CER C0G	09939	RPA10C0G510J100
C27	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C28	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C29	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C31	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C32	0160-4786	7	1	CAP-FXD 27pF +-5% 100 V CER C0G	09939	RPA10C0G270J100
C33	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C35	0160-4831	3	1	CAP-FXD 4700pF +-10% 100 V CER X7R	09939	RPA10X7R472K100V
C36	0160-4811	9	1	CAP-FXD 270pF +-5% 100 V CER C0G	09939	RPA10C0G271J100V
C37	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C38	0121-0059	7	1	CAP-VAR 8pF 2pF 350 V CER	01468	304-324-139
C40	0160-5899	5	1	CAP-FXD 7.5pF +-6.67% 200 V CER C0G	28480	0160-5899
C41	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C42	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C43	0160-4799	2	1	CAP-FXD 2.2pF +-11.36% 100 V CER C0G	09939	RPA10C0G2R2C100
C44	0160-6435	7	1	CAP-FXD 13pF +-5% 100 V CER P2G	09939	DD104NWJ33N1500130J100V

\*Indicates factory-selected value

CLIP 08590-90208 1

**HP Part Number 08590-60216**  
**Bandwidth Filter (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C45	0121-0036	0	1	CAP-VAR 18pF 5.5pF 350 V CER	01468	304-324-237
C46	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C47	0121-0059	7	1	CAP-VAR 8pF 2pF 350 V CER	01468	304-324-139
C48	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C49	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C50	0160-6435	7	1	CAP-FXD 13pF +-5% 100 V CER P2G	09939	DD104NWJ33N1500130J100V
C51	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C53	0160-5348	9	1	CAP-FXD 51pF +-5% 100 V CER C0G	09939	RPA10COG510J100
C54	0121-0059	7	1	CAP-VAR 8pF 2pF 350 V CER	01468	304-324-139
C55	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C56	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C57	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C58	0160-5405	9	1	CAP-FXD 130pF +-5% 100 V CER C0G	09939	RPA10C0G131J100V
C59	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C60	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C61	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C62	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C63	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C65	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C66	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C67	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C68	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C69	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C70	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C71	0160-4535	4	1	CAP-FXD 1uF +-10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C72	0160-4535	4	1	CAP-FXD 1uF +-10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C73	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C74	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C75	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C77	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C78	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C79	0160-4535	4	1	CAP-FXD 1uF +-10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C81	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C82	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C83	0160-6435	7	1	CAP-FXD 13pF +-5% 100 V CER P2G	09939	DD104NWJ33N1500130J100V

**HP Part Number 08590-60216**  
**Bandwidth Filter (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C84	0160-5405	9	1	CAP-FXD 130pF +-5% 100 V CER C0G	09939	RPA10C0G131J100V
C85	0160-5405	9	1	CAP-FXD 130pF +-5% 100 V CER C0G	09939	RPA10C0G131J100V
C86	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C87	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C88	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C89	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C91	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C92	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C93	0160-4786	7	1	CAP-FXD 27pF +-5% 100 V CER C0G	09939	RPA10C0G270J100
C94	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C95	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C96	0160-4831	3	1	CAP-FXD 4700pF +-10% 100 V CER X7R	09939	RPA10X7R472K100V
C97	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C98	0160-5405	9	1	CAP-FXD 130pF +-5% 100 V CER C0G	09939	RPA10C0G131J100V
C101	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C102	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C104	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C105	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C110	0160-4790	3	1	CAP-FXD 12pF +-5% 100 V CER C0G	09939	RPA10C0G120J100
C111	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
CR1	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR2	1901-1117	5	1	DIODE-SWITCHING 30V	00746	1SS135
CR3	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
CR4	1901-0535	9	1	DIODE-SCHOTTKY SM SIG	12395	A2X356
CR5	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
CR6	1901-0535	9	1	DIODE-SCHOTTKY SM SIG	12395	A2X356
CR7	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR8	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR9	1901-1117	5	1	DIODE-SWITCHING 30V	00746	1SS135
CR10	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
CR11	1901-0535	9	1	DIODE-SCHOTTKY SM SIG	12395	A2X356
CR12	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
CR13	1901-0535	9	1	DIODE-SCHOTTKY SM SIG	12395	A2X356
CR14	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR15	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070

\*Indicates factory-selected value

**HP Part Number 08590-60216**  
**Bandwidth Filter (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
CR16	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
CR17	1901-0956	8	1	DIODE-CUR RGLTR 1N5306 2.2MA DO-7	03171	
CR18	1901-0535	9	1	DIODE-SCHOTTKY SM SIG	12395	A2X356
CR19	1901-0376	6	1	DIODE-GEN PRP 35V 50MA DO-35	11946	S303
CR20	1901-0535	9	1	DIODE-SCHOTTKY SM SIG	12395	A2X356
CR21	1901-0956	8	1	DIODE-CUR RGLTR 1N5306 2.2MA DO-7	03171	
CR22	1901-0376	6	1	DIODE-GEN PRP 35V 50MA DO-35	11946	S303
L1	9140-0144	0	1	INDUCTOR RF-CH-MLD 4.7UH +-10%	05826	1025-36
L2	9100-1624	9	1	INDUCTOR RF-CH-MLD 30UH +-5%	05826	1537-50
L3	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
L4	9140-0264	5	1	INDUCTOR RF-CH-MLD 1.2UH +-5%	03706	21202M-5%
L5	9100-1624	9	1	INDUCTOR RF-CH-MLD 30UH +-5%	05826	1537-50
L6	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
L7	08590-80153	7	1		28480	08590-80153
L8	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
L9	9140-0453	4	1	INDUCTOR RF-CH-MLD 6.8UH +-5%	03706	26802M-5%
L10	9140-0142	8	1	INDUCTOR RF-CH-MLD 2.2UH +-10%	05826	1025-28
L11	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
L12	9140-0264	5	1	INDUCTOR RF-CH-MLD 1.2UH +-5%	03706	21202M-5%
L13	9100-1624	9	1	INDUCTOR RF-CH-MLD 30UH +-5%	05826	1537-50
L14	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
L15	08590-80153	7	1		28480	08590-80153
L16	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
L17	9140-0453	4	1	INDUCTOR RF-CH-MLD 6.8UH +-5%	03706	26802M-5%
L18	9100-1633	0	1	INDUCTOR RF-CH-MLD 68UH +-5%	05826	1537-68
L19	9140-0144	0	1	INDUCTOR RF-CH-MLD 4.7UH +-10%	05826	1025-36
L20	9100-3313	7	1	INDUCTOR RF-CH-MLD 22UH +-5%	03706	22201M-5%
L21	9100-3313	7	1	INDUCTOR RF-CH-MLD 22UH +-5%	03706	22201M-5%
L22	9140-0142	8	1	INDUCTOR RF-CH-MLD 2.2UH +-10%	05826	1025-28
L23	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
L24	9100-1633	0	1	INDUCTOR RF-CH-MLD 68UH +-5%	05826	1537-68
L25	9140-0144	0	1	INDUCTOR RF-CH-MLD 4.7UH +-10%	05826	1025-36
Q1	1854-0345	8	1	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	28480	1854-0345
Q2	1854-0477	7	1	TRANSISTOR NPN 2N2222A SI TO-18 PD=500MW	28480	1854-0477
Q3	1853-0007	7	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007

**HP Part Number 08590-60216**  
**Bandwidth Filter (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
Q4	1853-0007	7	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q5	1853-0007	7	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q6	1855-0267	5	1	TRANSISTOR J-FET N-CHAN D-MODE TO-92 SI	03171	
Q7	1854-0477	7	1	TRANSISTOR NPN 2N2222A SI TO-18 PD=500MW	28480	1854-0477
Q8	1853-0007	7	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q9	1853-0007	7	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q10	1853-0007	7	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q11	1855-0276	6	1	TRANSISTOR J-FET 2N4416A N-CHAN D-MODE	28480	1855-0276
Q12	1853-0007	7	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q13	1854-0477	7	1	TRANSISTOR NPN 2N2222A SI TO-18 PD=500MW	28480	1854-0477
Q14	1855-0449	5	1	TRANSISTOR J-FET 2N5434 N-CHAN D-MODE	28480	1855-0449
Q15	1855-0449	5	1	TRANSISTOR J-FET 2N5434 N-CHAN D-MODE	28480	1855-0449
R1	0698-7262	9	1	RESISTOR 12.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R2	0698-7264	1	1	RESISTOR 14.7K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R3	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R4	0698-7256	1	1	RESISTOR 6.81K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R6	0698-7240	3	1	RESISTOR 1.47K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R7	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R8	0698-7202	7	1	RESISTOR 38.3 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R9	0698-7197	9	1	RESISTOR 23.7 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R10	0698-7215	2	1	RESISTOR 133 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R11	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R12	0698-0082	7	1	RESISTOR 464 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R13	0757-0447	4	1	RESISTOR 16.2K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R14	0757-0180	2	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R15	0757-0440	7	1	RESISTOR 7.5K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R16	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R17	0757-0419	0	1	RESISTOR 681 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R19	0698-3442	9	1	RESISTOR 237 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R20	0757-0405	4	1	RESISTOR 162 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R21	0698-7239	0	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R22	0698-7248	1	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R23	0698-0085	0	1	RESISTOR 2.61K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R26	2100-3154	7	1	RESISTOR-TRMR 1K 10% TKF SIDE-ADJ 17-TRN	04568	89PR1K
R28	0698-3152	8	1	RESISTOR 3.48K +-1% .125W TF TC=0+-100	05524	CMF-55-1

\*Indicates factory-selected value

**HP Part Number 08590-60216**  
**Bandwidth Filter (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R29	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R30	0757-0444	1	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R31	2100-3052	4	1	RESISTOR-TRMR 50 10% TKF SIDE-ADJ 17-TRN	04568	89PR50
R32	0757-0438	3	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R33	0698-7240	3	1	RESISTOR 1.47K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R34	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R37	0698-7259	4	1	RESISTOR 9.09K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R38	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R39	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R40	0698-0082	7	1	RESISTOR 464 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R41	0757-0447	4	1	RESISTOR 16.2K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R42	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R43	0757-0440	7	1	RESISTOR 7.5K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R44	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R45	0757-0419	0	1	RESISTOR 681 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R47	0698-3442	9	1	RESISTOR 237 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R48	0757-0405	4	1	RESISTOR 162 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R49	0698-7239	0	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R50	0698-7248	1	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R51	0698-0085	0	1	RESISTOR 2.61K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R55	0698-3152	8	1	RESISTOR 3.48K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R56	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R57	0757-0444	1	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R58	0757-0438	3	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R59	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R60	0698-7259	4	1	RESISTOR 9.09K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R61	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R62	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R63	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R64	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R65	0757-0346	2	1	RESISTOR 10 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R66	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R67	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R68	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R69	0698-3152	8	1	RESISTOR 3.48K +-1% .125W TF TC=0+-100	05524	CMF-55-1



**HP Part Number 08590-60216**  
**Bandwidth Filter (continued)**

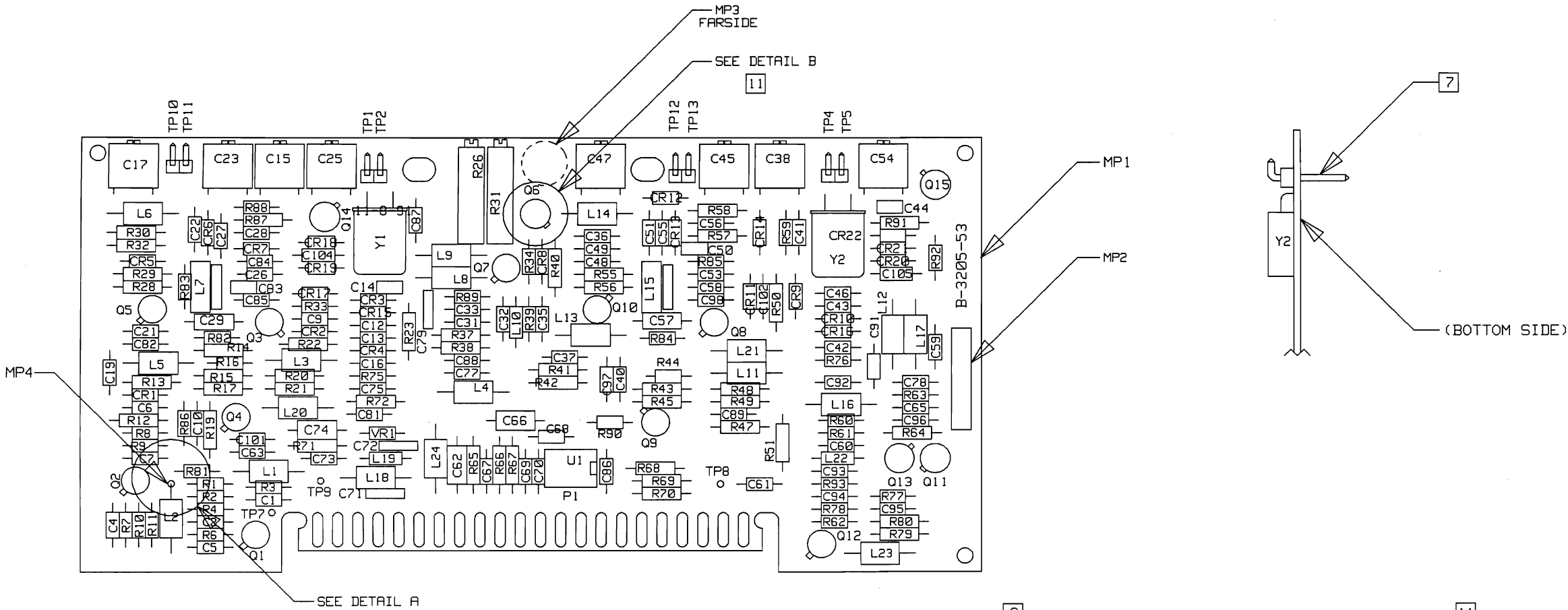
Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R70	0698-3156	2	1	RESISTOR 14.7K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R71	0698-3447	4	1	RESISTOR 422 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R72	0757-0346	2	1	RESISTOR 10 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R75	0698-7256	1	1	RESISTOR 6.81K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R76	0698-7256	1	1	RESISTOR 6.81K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R77	0698-7257	2	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R78	0698-7265	2	1	RESISTOR 16.2K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R79	0757-0405	4	1	RESISTOR 162 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R80	0757-0428	1	1	RESISTOR 1.62K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R81	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R82	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R83	0698-7267	4	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R84	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R85	0698-7267	4	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R86	0698-7262	9	1	RESISTOR 12.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R87	0698-8827	4	1	RESISTOR 1M +-1% .125W TF TC=0+-100	05524	CMF-55-1
R88	0698-7263	0	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R89	0698-7225	4	1	RESISTOR 348 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R90	0698-7262	9	1	RESISTOR 12.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R91	0698-8827	4	1	RESISTOR 1M +-1% .125W TF TC=0+-100	05524	CMF-55-1
R92	0698-7263	0	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R93	0698-7221	0	1	RESISTOR 237 +-1% .05W TF TC=0+-100	05524	CMF-50-2
TP1	1252-3104	7	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	68016-102
TP2	1252-3104	7	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	68016-102
TP4	1252-3104	7	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	68016-102
TP5	1252-3104	7	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	68016-102
TP7	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
TP8	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
TP9	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
TP10	1252-3104	7	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	68016-102
TP11	1252-3104	7	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	68016-102
TP12	1252-3104	7	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	68016-102
TP13	1252-3104	7	1	CONN-POST TYPE .100-PIN-SPCG 2-CONT	02946	68016-102
U1	1826-0915	9	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-C	28480	1826-0915
VR1	1902-0954	8	1	DIODE-ZNR 6.8V 5% DO-35 PD=.4W TC=+.057%	02688	

\*Indicates factory-selected value

**HP Part Number 08590-60216**  
**Bandwidth Filter (continued)**

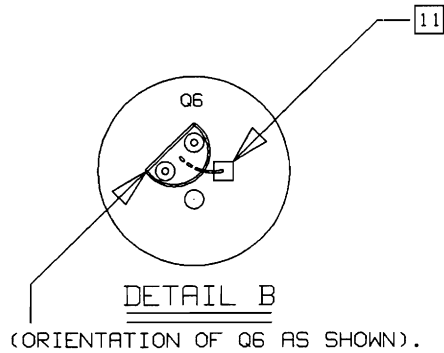
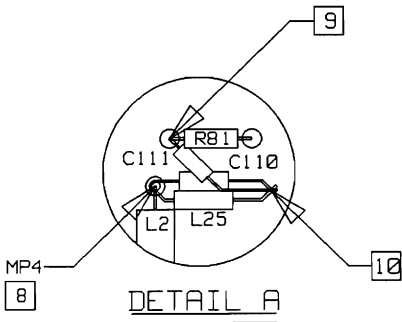
Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
Y1	0410-2118	6	1	CRYSTAL-QUARTZ 21.4 MHZ HC-43/U-HLDR	28480	0410-2118
Y2	0410-2118	6	1	CRYSTAL-QUARTZ 21.4 MHZ HC-43/U-HLDR	28480	0410-2118

SYM		REVISIONS	D -08590-60216-2
A		AS ISSUED PER PCO#53-07390	APPROVED DATE



NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. REMOVE TABS AFTER WAVE SOLDER.
3. MAXIMUM COMPONENT HEIGHT .400.
4. MAXIMUM LEAD TRIM LENGTH .070.
5. L7 AND L15 MUST BE TIGHT TO BOARD SURFACE AFTER MACHINE SOLDER.
6. CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-08590-A11/A13.
7. INSERT LONG END OF TP1, TP2, TP4, TP5, TP10, TP11, TP12 AND TP13 INTO BOARD AS SHOWN.
8. INSERT MP4 INTO PAD OF L2. WRAP AND SOLDER LEADS OF L2, L25 AND C110 AROUND MP4.
9. INSERT LEAD OF C111 INTO HOLE WITH LEAD OF R81.
10. SOLDER LEADS OF L25, C110 AND C111 AS SHOWN.
11. CHANGE Q6 TO A T092 CASE SIZE AND INSERT CENTER LEAD INTO SQUARE PAD AS SHOWN IN DETAIL B. (ORIENTATION OF Q6 AS SHOWN).

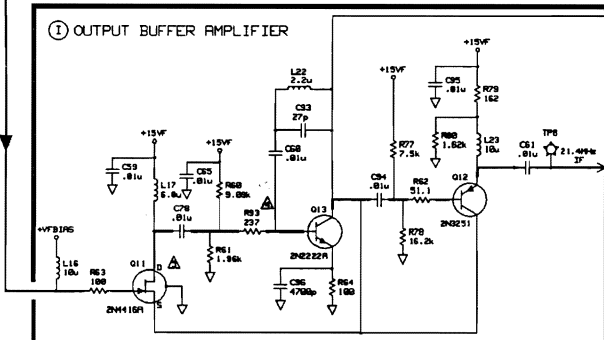
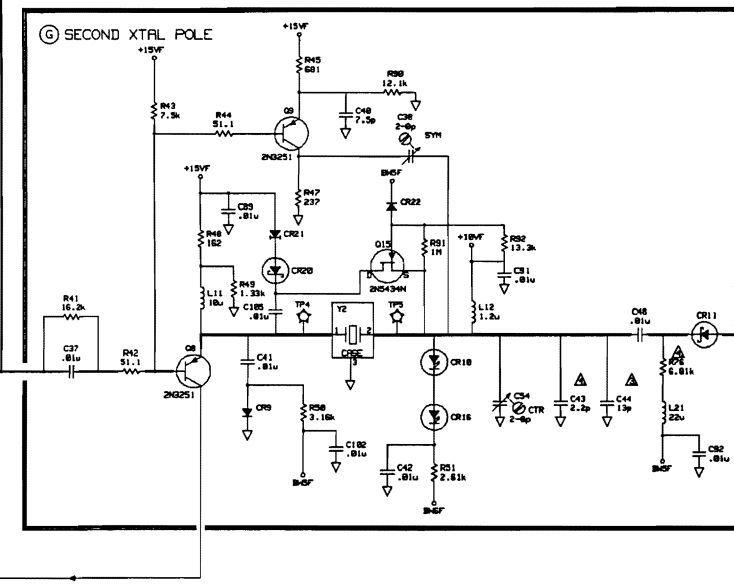
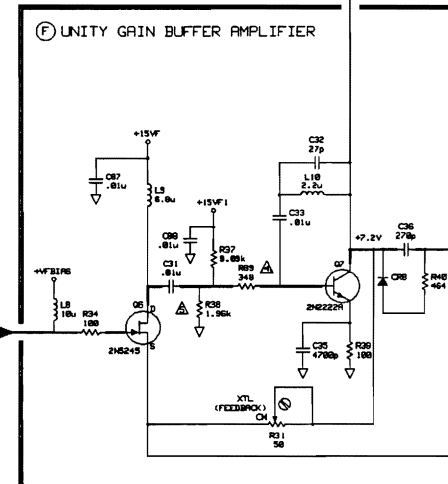
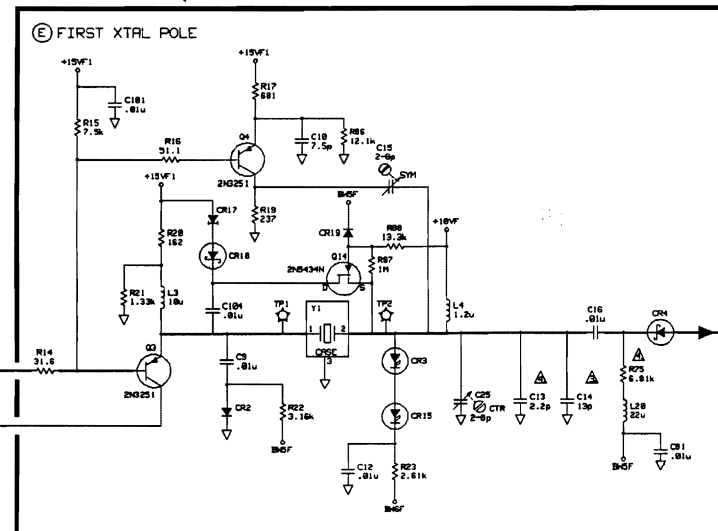
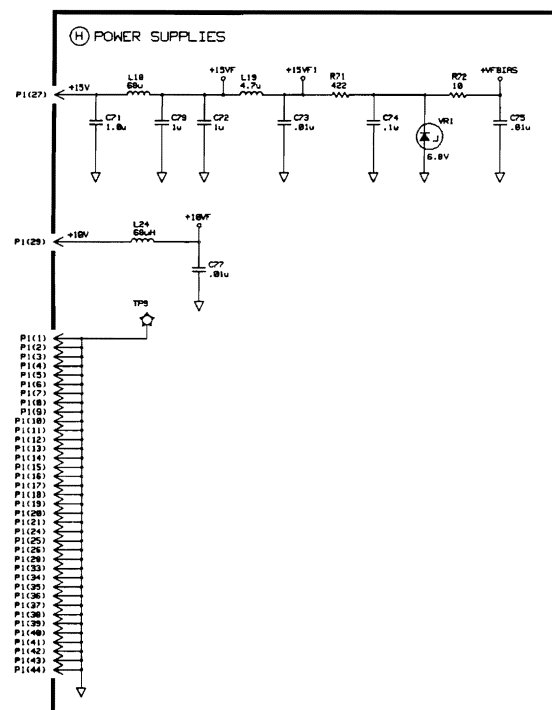
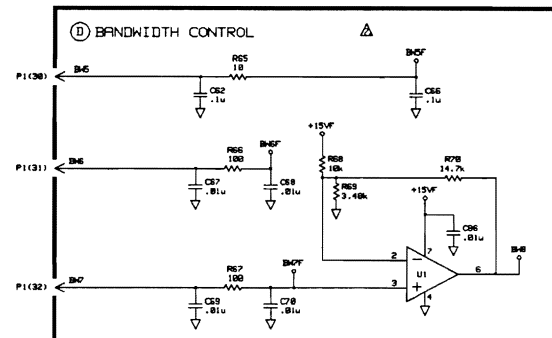
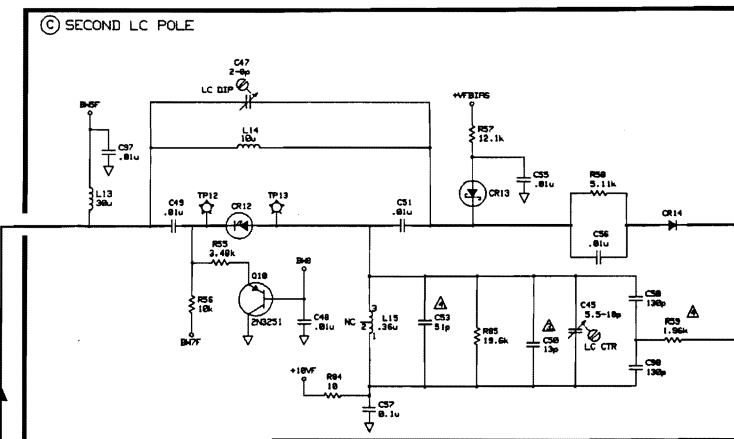
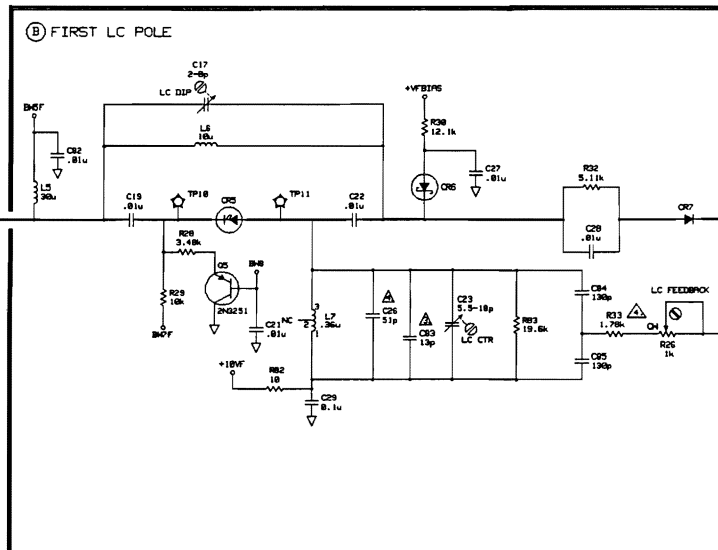
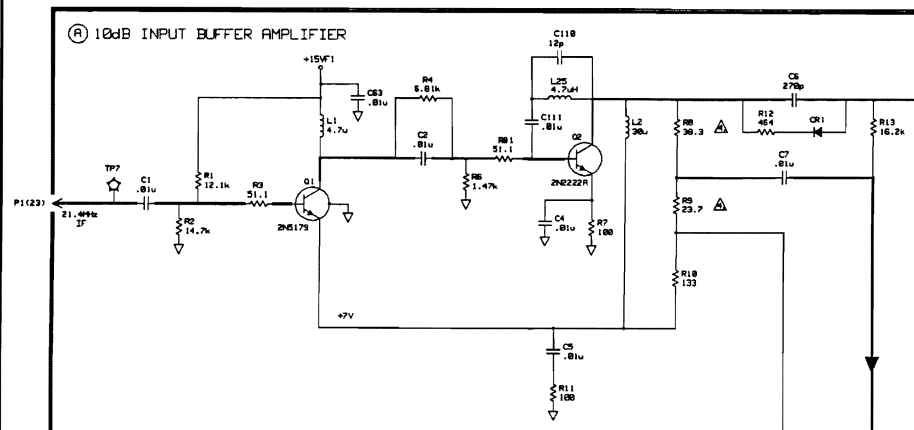


SEE 08590-60216 MATERIAL LIST

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.		DRAWN BY	DATE
TOLERANCES: XX.XXX ±.015		ENGINEER/CHECKER	
SEE CORP. STD. 688		RELEASED TO PROD.	
		SUPERSEDES DRG.	
TITLE		BOARD ASSEMBLY- BANDWIDTH FILTER	
SCALE		NONE	
SHEET 1 of 1		PART NUMBER	
		08590-60216	
		-08590-60216-2	

REV	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-07390 DC		
B	PER ICN 5252 BC		



PIN	SIGNAL	TO-FROM	FUNCTION
1	2N6221	TO	1
2	2N6221	TO	2
3	2N6221	TO	3
4	2N6221	TO	4
5	2N6221	TO	5
6	2N6221	TO	6
7	2N6221	TO	7
8	2N6221	TO	8
9	2N6221	TO	9
10	2N6221	TO	10
11	2N6221	TO	11
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38	2N6221	TO	38
39	2N6221	TO	39
40	2N6221	TO	40
41	2N6221	TO	41
42	2N6221	TO	42
43	2N6221	TO	43
44	2N6221	TO	44

## NOTES:

- REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE PRE-ASSIGNED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.
- UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω), CAPACITANCE IN MICROFARADS (μF), INDUCTANCE IN MICROHENRIES (μH).
- TEMPERATURE COMPENSATING CAPACITOR.
- IDENTICAL FACTORY SELECTED COMPONENT NOMINAL VALUE IS SHOWN.
- SOURCE VOLTAGE SHOULD BE 0.2V TO 1.2V GREATER THAN THE GATE VOLTAGE.
- VOLTAGES SHOULD BE MEASURED WITH 10 OHM OR GREATER AT PROBE TIP TO PREVENT OSCILLATION AND ERRONEOUS READINGS.
- BW, BWS, & BWP ARE BANDWIDTH CONTROL LINES. TYPICAL VALUES WITH ERROR DEFAULT. OHM VALUES.

BANDWIDTH	BW	BWS	BWP	BWP
10MHz	+14	+4.5	+2.3	+1
20MHz	+14	+4.5	+2.3	+1
30MHz	+14	+4.5	+2.3	+1
40MHz	+14	+4.5	+2.3	+1
50MHz	+14	+4.5	+2.3	+1
60MHz	+14	+4.5	+2.3	+1
70MHz	+14	+4.5	+2.3	+1
80MHz	+14	+4.5	+2.3	+1
90MHz	+14	+4.5	+2.3	+1
100MHz	+14	+4.5	+2.3	+1
110MHz	+14	+4.5	+2.3	+1
120MHz	+14	+4.5	+2.3	+1
130MHz	+14	+4.5	+2.3	+1
140MHz	+14	+4.5	+2.3	+1
150MHz	+14	+4.5	+2.3	+1
160MHz	+14	+4.5	+2.3	+1
170MHz	+14	+4.5	+2.3	+1
180MHz	+14	+4.5	+2.3	+1
190MHz	+14	+4.5	+2.3	+1
200MHz	+14	+4.5	+2.3	+1

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ITEM	QTY.	PART/MATERIAL-DESCRIPTION	PART-L-PART NO.	PART-L-ENG. NO.	PART-L-SPEC.
DRWN BY		DATE			
ENGINEER-CHECKER					
RELEASE TO PROD.					
SUPPLIES ENG.					
BOARD ASSEMBLY-BANDWIDTH FILTER (SCHEMATIC)		PART NUMBER 08590-60216			
SCALE NONE SHEET 1 OF 1		D-08590-60216-1			

# **Component-Level Information Packet for 08591-60048**

## **10 MHZ VCXO**



**HP Part No. 08591-90086  
Printed in USA September 1992**

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**HP Part Number 08591-60048**  
**10 MHZ VCXO**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C2	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C3	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C4	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C5	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C6	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C7	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C8	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C9	0160-4518	3	1	CAP-FXD 3.9pF +-12.82% 200 V CER C0G	09939	RPE121-105C0G3R9D200V
C10	0160-4811	9	1	CAP-FXD 270pF +-5% 100 V CER C0G	09939	RPA10C0G271J100V
C11	0160-4811	9	1	CAP-FXD 270pF +-5% 100 V CER C0G	09939	RPA10C0G271J100V
C12	0160-4521	8	1	CAP-FXD 12pF +-5% 200 V CER C0G	09939	RPE121-105C0G120J200V
C13	0121-0443	3	1	CAP-VAR 9pF 3pF 160 V CER	01468	300-427-204
C14	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C15	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
CR1	0122-0161	4	1	DIODE-VVC 2.15PF 7% C 3/C25-MIN=4.5	28480	0122-0161
CR2	1901-0535	9	1	DIODE-SCHOTTKY SM SIG	12395	A2X356
J1	1252-0637	5	1	CONN-POST TYPE .100-PIN-SPCG 6-CONT	01380	103166-1
J2	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
L1	9140-0266	7	1	INDUCTOR RF-CH-MLD 1.8UH +-5%	03706	21802M-5%
MP3	1200-0173	5	1	INSULATOR-XSTR DAP-GL	02210	A-10001 DAP
MP5	7100-1324	4	1	CAN-SQ	01932	HU-4532-2.625-ST
Q1	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q2	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q3	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
R1	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R2	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R3	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R4	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R5	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R6	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R7	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R8	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R9	0698-7250	5	1	RESISTOR 3.83K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R10	0698-7226	5	1	RESISTOR 383 +-1% .05W TF TC=0+-100	05524	CMF-50-2

\*Indicates factory-selected value

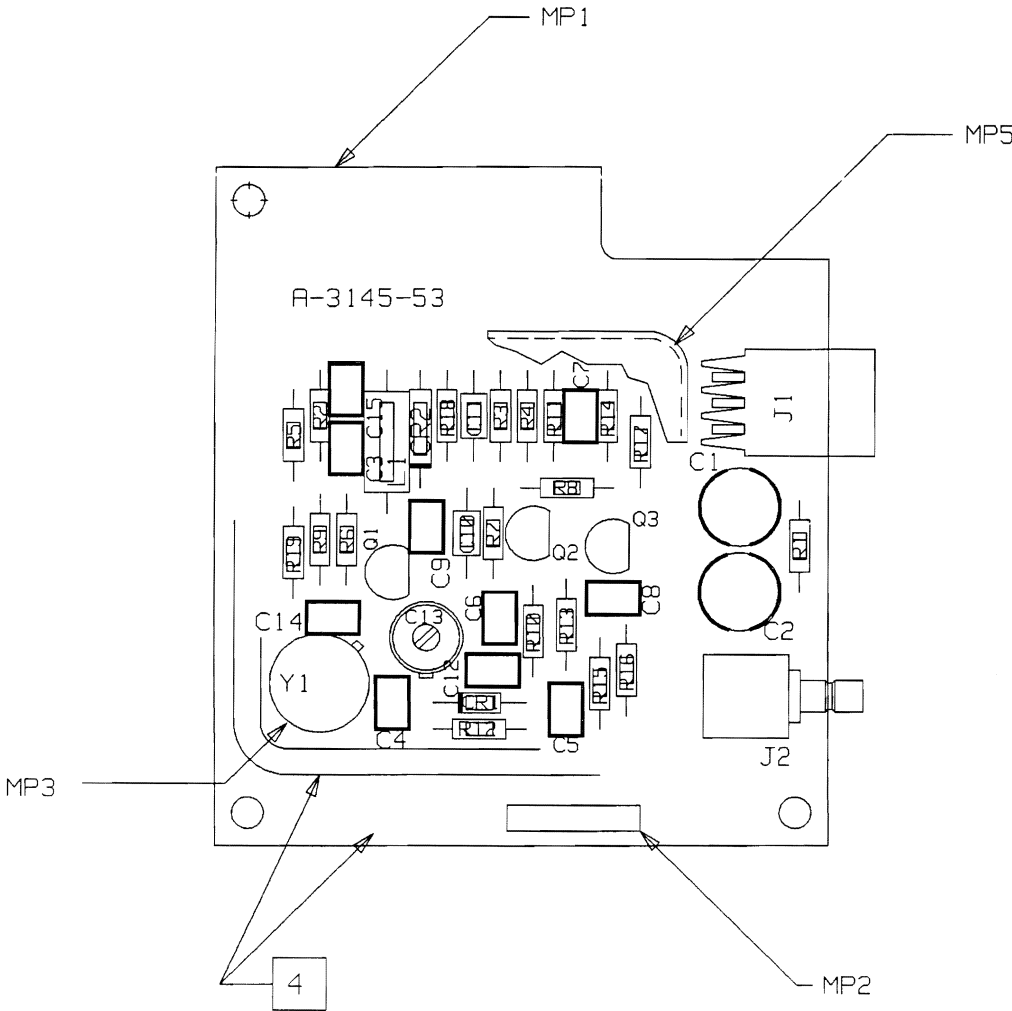
CLIP 08591-90086 1

**HP Part Number 08591-60048**  
**10 MHZ VCXO (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R11	0698-7227	6	1	RESISTOR 422 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R12	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R13	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R14	0698-7228	7	1	RESISTOR 464 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R15	0698-7233	4	1	RESISTOR 750 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R16	0698-7197	9	1	RESISTOR 23.7 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R17	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R18	0698-7229	8	1	RESISTOR 511 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R19	0698-7205	0	1	RESISTOR 51.1 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
Y1	0410-0405	0	1	CRYSTAL-QUARTZ 10.000 MHZ	04458	BK3-1B-10MHZ



SYM	REVISIONS	APPROVED	DATE
A			



NOTES: UNLESS OTHERWISE SPECIFIED.

- 1. DIMENSIONS ARE IN INCHES.
- 2. REMOVE TABS AFTER MACHINE SOLDER.
- 3. MAXIMUM LEAD TRIM LENGTH .118
- 4 ALL MOUNTING HOLES AND INDICATED TRACE AREAS ARE TO BE FREE OF EXCESS SOLDER.

SEE 08591-60048 MATERIAL LIST

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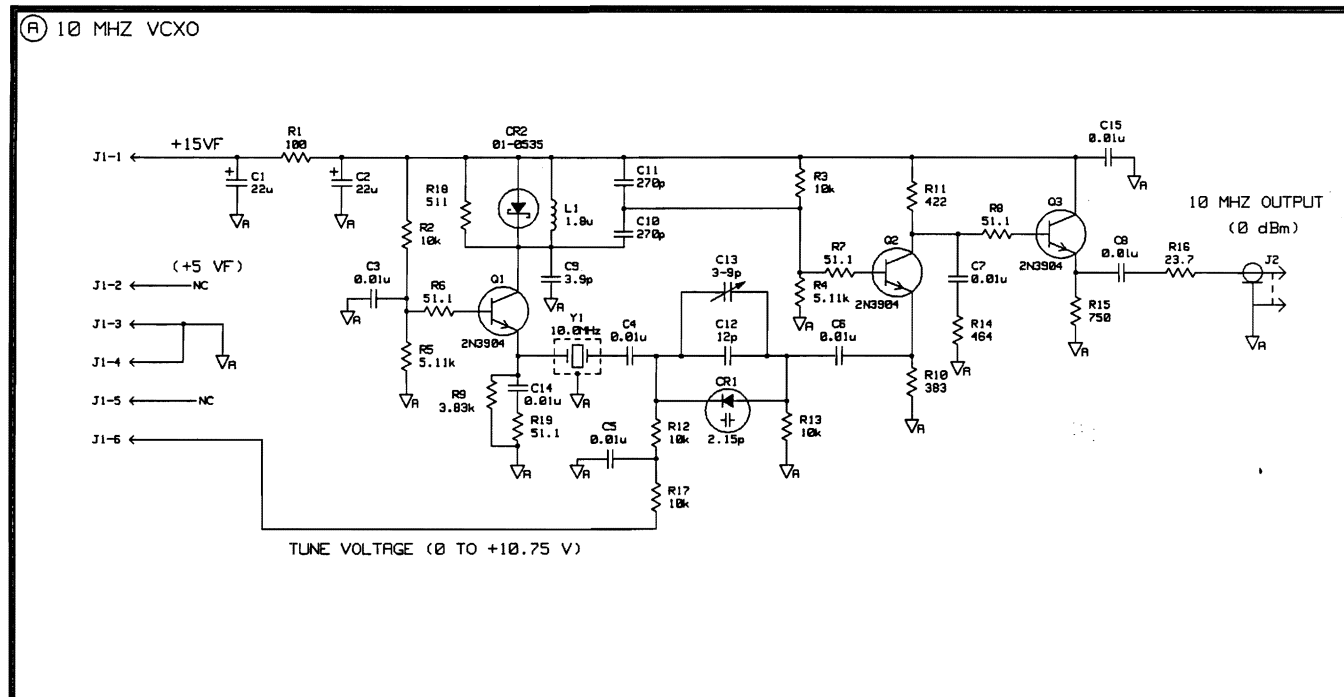
UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX 0.010  
                  XX.XX 0.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
10 MHz VCXO  
TITLE

alaca048 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 1 OF 1	08591-60048 PART NUMBER
C- 08591-60048-2	

SYM	REVISIONS	APPROVED	DATE
A			



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DRAWN BY	DATE	SCHEMATIC, PWA 10 MHz VCXO	slaca048 FILENAME	HEWLETT PACKARD
ENGINEER/CHECKER	DATE		SCALE NONE	
RELEASE TO PROD.	DATE		SHEET 1 OF 1	
SUPERSEDES DWG.			08591-60048 PART NUMBER	
		TITLE	C- 08591-60048-1	

# **Component-Level Information Packet for 08591-60053**

## **Counterlock**



HP Part No. 08591-90085  
Printed in USA October 1992

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**HP Part Number 08591-60053**  
**Counterlock**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3846	0	1	CAP-FXD 15uF +10% 25 V TA	04200	299D156X9025DB1
C2	0180-3846	0	1	CAP-FXD 15uF +10% 25 V TA	04200	299D156X9025DB1
C3	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C4	0180-3846	0	1	CAP-FXD 15uF +10% 25 V TA	04200	299D156X9025DB1
C5	0180-3831	3	1	CAP-FXD 10uF +10% 35 V TA	04200	299D106X9035DB1
C6	0160-4382	9	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	09939	RPE121-105C0G3R3C200V
C7	0160-4554	7	1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C8	0180-3831	3	1	CAP-FXD 10uF +10% 35 V TA	04200	299D106X9035DB1
C9	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C11	0160-4517	2	1	CAP-FXD 1.2pF +-20.8% 200 V CER C0G	09939	RPE110-120C0G1R2C200V
C12	0160-5422	0	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPA20X7R473M50V
C13	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C14	0160-5422	0	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPA20X7R473M50V
C15	0160-4825	5	1	CAP-FXD 560pF +-5% 100 V CER C0G	09939	RPA10C0G561J100V
C16	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C17	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C18	0180-3846	0	1	CAP-FXD 15uF +10% 25 V TA	04200	299D156X9025DB1
C19	0180-3846	0	1	CAP-FXD 15uF +10% 25 V TA	04200	299D156X9025DB1
C20	0160-4833	5	1	CAP-FXD 0.022uF +10% 100 V CER X7R	09939	RPA20X7R223K100V
C21	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C22	0180-3846	0	1	CAP-FXD 15uF +10% 25 V TA	04200	299D156X9025DB1
C23	0160-4493	3	1	CAP-FXD 27pF +5% 200 V CER C0G	09939	RPE121105COG270J200V
C24	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C25	0160-5422	0	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPA20X7R473M50V
C26	0160-4493	3	1	CAP-FXD 27pF +5% 200 V CER C0G	09939	RPE121105COG270J200V
C27	0160-4554	7	1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C28	0160-4493	3	1	CAP-FXD 27pF +5% 200 V CER C0G	09939	RPE121105COG270J200V
C29	0160-4554	7	1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C30	0160-4788	9	1	CAP-FXD 18pF +5% 100 V CER C0G	09939	RPA10C0G180J100
C31	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C32	0160-4802	8	1	CAP-FXD 82pF +5% 100 V CER C0G	09939	RPA10COG820J100V
C33	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C34	0160-4805	1	1	CAP-FXD 47pF +5% 100 V CER C0G	09939	RPA10C0G470J100V
C35	0160-4803	9	1	CAP-FXD 68pF +5% 100 V CER C0G	09939	RPA10C0G680J100V
C36	0160-4801	7	1	CAP-FXD 100pF +5% 100 V CER C0G	09939	RPA10C0G101J100V

\*Indicates factory-selected value

**HP Part Number 08591-60053**  
**Counterlock (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C37	0160-4788	9	1	CAP-FXD 18pF +5% 100 V CER C0G	09939	RPA10C0G180J100
C38	0160-4801	7	1	CAP-FXD 100pF +5% 100 V CER C0G	09939	RPA10C0G101J100V
C39	0160-4802	8	1	CAP-FXD 82pF +5% 100 V CER C0G	09939	RPA10COG820J100V
C40	0160-4813	1	1	CAP-FXD 180pF +5% 100 V CER C0G	09939	RPA10C0G181J100V
C41	0160-4814	2	1	CAP-FXD 150pF +5% 100 V CER C0G	09939	RPA10C0G151J100V
C42	0160-4801	7	1	CAP-FXD 100pF +5% 100 V CER C0G	09939	RPA10C0G101J100V
C43	0160-5349	0	1	CAP-FXD 200pF +5% 100 V CER C0G	09939	RPA10C0G201J100V
C44	0160-4386	3	1	CAP-FXD 33pF +5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C45	0160-4547	8	1	CAP-FXD 150pF +5% 200 V CER C0G	09939	RPE121-105C0G151J200V
C46	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C47	0180-3850	6	1	CAP-FXD 68uF +10% 10 V TA	04200	299D686X9010DB1
C48	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C49	0160-4406	8	1	CAP-FXD 3300pF +5% 100 V CER C0G	09939	RPE113-130C0G332J100V
C51	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C52	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C53	0160-5422	0	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPA20X7R473M50V
C54	0160-5422	0	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPA20X7R473M50V
C55	0160-5422	0	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPA20X7R473M50V
C56	0160-5422	0	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPA20X7R473M50V
C57	0160-4386	3	1	CAP-FXD 33pF +5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C58	0160-4814	2	1	CAP-FXD 150pF +5% 100 V CER C0G	09939	RPA10C0G151J100V
C60	0160-4814	2	1	CAP-FXD 150pF +5% 100 V CER C0G	09939	RPA10C0G151J100V
C61	0160-4386	3	1	CAP-FXD 33pF +5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C62	0160-4520	7	1	CAP-FXD 11pF +5% 200 V CER C0G	09939	RPE121-105C0G110J200V
C63	0160-4523	0	1	CAP-FXD 16pF +5% 200 V CER C0G	09939	RPE121-105C0G160J200V
C64	0160-4786	7	1	CAP-FXD 27pF +5% 100 V CER C0G	09939	RPA10COG270J100
C65	0160-3874	2	1	CAP-FXD 10pF +5% 200 V CER C0G	09939	RPE121-105C0G100D200V
C66	0160-4386	3	1	CAP-FXD 33pF +5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C67	0160-4040	6	1	CAP-FXD 1000pF +5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C68	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C100	0160-4812	0	1	CAP-FXD 220pF +5% 100 V CER C0G	09939	RPA10C0G221J100V
C101	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C102	0160-4554	7	1	CAP-FXD 0.01uF +20% 50 V CER X7R	09939	RPA10X7R103M50V
C103	0160-4789	0	1	CAP-FXD 15pF +5% 100 V CER C0G	09939	RPA10C0G150J100
C104	0160-5422	0	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPA20X7R473M50V

**HP Part Number 08591-60053**  
**Counterlock (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C105	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C106	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C107	0121-0061	1	1	CAP-VAR 18pF 5.5pF 350 V CER	09538	538-016 A 5.5-18
C108	0160-4383	0	1	CAP-FXD 6.8pF +-7.35% 200 V CER C0G	09939	RPE121-105C0G6R8D200V
C109	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C110	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C111	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C112	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C113	0160-4802	8	1	CAP-FXD 82pF +-5% 100 V CER C0G	09939	RPA10C0G820J100V
C114	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C115	0180-3844	8	1	CAP-FXD 3.3uF +-10% 35 V TA	04200	299D335X9035BB1
C116	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C117	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C118	0160-4399	8	1	CAP-FXD 0.66pF +-50% 50 V CER C0G	09939	RPE110C0G0R5B50V
C119	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C120	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C121	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C122	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C123	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C124	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C125	0160-4822	2	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPA20C0G102J100V
C126	0160-4793	6	1	CAP-FXD 6.8pF +-7.35% 100 V CER C0G	09939	RPA10C0G6R8D100
C127	0160-5699	3	1	CAP-FXD 20pF +-5% 100 V CER C0G	28480	0160-5699
C128	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C129	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C130	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C131	0160-4557	0	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPA30X7R104M50V
C132	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C133	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C134	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C136	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C137	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C138	0160-4040	6	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C139	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C140	0160-3874	2	1	CAP-FXD 10pF +-5% 200 V CER C0G	09939	RPE121-105C0G100D200V

\*Indicates factory-selected value

**HP Part Number 08591-60053**  
**Counterlock (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C141	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C200	0160-4040	6	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C201	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C202	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C203	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C204	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C205	0160-4790	3	1	CAP-FXD 12pF +-5% 100 V CER C0G	09939	RPA10C0G120J100
C206	0160-4381	8	1	CAP-FXD 1.5pF +-16.67% 200 V CER C0G	09939	RPE110-120C0G1R5C200V
C207	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C208	0160-4799	2	1	CAP-FXD 2.2pF +-11.36% 100 V CER C0G	09939	RPA10COG2R2C100
C209	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C210	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C211	0160-4797	0	1	CAP-FXD 3.3pF +-7.58% 100 V CER C0G	09939	RPA10COG3R3C100
C212	0160-4822	2	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPA20C0G102J100V
C213	0160-4811	9	1	CAP-FXD 270pF +-5% 100 V CER C0G	09939	RPA10C0G271J100V
C214	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C215	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C216	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C217	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C218	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C219	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C220	0160-5422	0	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPA20X7R473M50V
C221	0160-4833	5	1	CAP-FXD 0.022uF +-10% 100 V CER X7R	09939	RPA20X7R223K100V
C222	0180-3831	3	1	CAP-FXD 10uF +-10% 35 V TA	04200	299D106X9035DB1
C223	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V
C224	0180-3846	0	1	CAP-FXD 15uF +-10% 25 V TA	04200	299D156X9025DB1
C225	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C226	0160-4040	6	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C227	0160-4040	6	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C228	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C229	0160-0575	4	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C230	0160-4030	4	1	CAP-FXD 820pF +-5% 100 V CER C0G	09939	RPE121-105C0G821J100V
C231	0180-3848	2	1	CAP-FXD 33uF +-10% 16 V TA	04200	299D336X9016DB1
C232	0160-4084	8	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C233	0180-3831	3	1	CAP-FXD 10uF +-10% 35 V TA	04200	299D106X9035DB1



**HP Part Number 08591-60053**  
**Counterlock (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C234	0160-4030	4	1	CAP-FXD 820pF +5% 100 V CER C0G	09939	RPE121-105C0G821J100V
C235	0180-3848	2	1	CAP-FXD 33uF +10% 16 V TA	04200	299D336X9016DB1
C236	0160-4084	8	1	CAP-FXD 0.1uF +20% 50 V CER X7R	09939	RPE122-139X7R104M50V
C237	0160-5422	0	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPA20X7R473M50V
C238	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C239	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C240	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C241	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C300	0160-4040	6	1	CAP-FXD 1000pF +5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C301	0160-4040	6	1	CAP-FXD 1000pF +5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C302	0160-4040	6	1	CAP-FXD 1000pF +5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C303	0160-4040	6	1	CAP-FXD 1000pF +5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C304	0160-4040	6	1	CAP-FXD 1000pF +5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C305	0160-4040	6	1	CAP-FXD 1000pF +5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C306	0160-4040	6	1	CAP-FXD 1000pF +5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C307	0160-4040	6	1	CAP-FXD 1000pF +5% 100 V CER C0G	09939	RPE121-105C0G102J100V
C308	0160-4623	1	1	CAP-FXD 3900pF +5% 100 V CER C0G	09939	RPA40C0G392J100V
C309	0160-5404	8	1	CAP-FXD 360pF +5% 100 V CER C0G	09939	RPA10C0G361J100V
C310	0160-6414	2	1	CAP-FXD 2400pF +5% 100 V CER C0G	28480	0160-6414
C311	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C312	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C313	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C314	0160-0575	4	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPE121-105X7R473M50V
C316	0160-4800	6	1	CAP-FXD 120pF +5% 100 V CER C0G	09939	RPA10C0G121J100V
C317	0160-4825	5	1	CAP-FXD 560pF +5% 100 V CER C0G	09939	RPA10C0G561J100V
C318	0160-4802	8	1	CAP-FXD 82pF +5% 100 V CER C0G	09939	RPA10C0G820J100V
CR1	1901-1098	1	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	04486	
CR2	0122-0161	4	1	DIODE-VVC 2.15PF 7% C 3/C25-MIN=4.5	28480	0122-0161
CR3	1901-1098	1	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	04486	
CR4	1901-1098	1	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	04486	
CR6	1901-1098	1	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	04486	
CR7	1901-1098	1	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	04486	
CR100	1901-1098	1	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	04486	
CR101	1901-1098	1	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	04486	
CR200	1901-0535	9	1	DIODE-SCHOTTKY SM SIG	12395	A2X356

\*Indicates factory-selected value

**HP Part Number 08591-60053**  
**Counterlock (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
CR201	1902-0951	5	1	DIODE-ZNR 5.1V 5% DO-35 PD=.4W TC=+.035%	28480	1902-0951
J1	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J2	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J3	1252-0637	5	1	CONN-POST TYPE .100-PIN-SPCG 6-CONT	01380	103166-1
J4	1252-0448	6	1	CONN-POST TYPE .100-PIN-SPCG 40-CONT	01380	499141-9
J5	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J8	1250-0257	1	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-0257
L1	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
L2	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
L3	9100-3560	6	1	INDUCTOR RF-CH-MLD 5.6UH +-5%	03706	25602M-5%
L4	9100-2254	3	1	INDUCTOR RF-CH-MLD 390NH +-10%	03706	1A3903M+-10%
L5	9135-0075	5	1	INDUCTOR RF-CH-MLD 43NH +-6.047%	02172	
L9	9100-1629	4	1	INDUCTOR RF-CH-MLD 47UH +-5%	05826	1537-60
L10	9100-2260	1	1	INDUCTOR RF-CH-MLD 1.8UH +-10%	04733	9230-26
L11	9100-1629	4	1	INDUCTOR RF-CH-MLD 47UH +-5%	05826	1537-60
L12	9100-1637	4	1	INDUCTOR RF-CH-MLD 120UH +-5%	05826	1537-80
L100	9100-2262	3	1	INDUCTOR RF-CH-MLD 3.9UH +-10%	03706	1A3902M+-10%
L101	9140-0142	8	1	INDUCTOR RF-CH-MLD 2.2UH +-10%	05826	1025-28
L102	9100-2252	1	1	INDUCTOR RF-CH-MLD 270NH +-10%	03706	1A2703M+-10%
L103	9100-2891	4	1	INDUCTOR RF-CH-MLD 50NH +-10%	03706	6-02729
L104	9100-2262	3	1	INDUCTOR RF-CH-MLD 3.9UH +-10%	03706	1A3902M+-10%
L105	9100-2262	3	1	INDUCTOR RF-CH-MLD 3.9UH +-10%	03706	1A3902M+-10%
L106	9100-2262	3	1	INDUCTOR RF-CH-MLD 3.9UH +-10%	03706	1A3902M+-10%
L107	9100-2256	5	1	INDUCTOR RF-CH-MLD 560NH +-10%	03706	1A5603M+-10%
L108	9100-2251	0	1	INDUCTOR RF-CH-MLD 220NH +-10%	03706	1A2203M+-10%
L109	9100-2262	3	1	INDUCTOR RF-CH-MLD 3.9UH +-10%	03706	1A3902M+-10%
L110	9100-2262	3	1	INDUCTOR RF-CH-MLD 3.9UH +-10%	03706	1A3902M+-10%
L111	9100-2262	3	1	INDUCTOR RF-CH-MLD 3.9UH +-10%	03706	1A3902M+-10%
L201	9100-2247	4	1	INDUCTOR RF-CH-MLD 100NH +-10%	03706	1A1003M+-10%
L202	9100-2891	4	1	INDUCTOR RF-CH-MLD 50NH +-10%	03706	6-02729
L203	9100-3562	8	1	INDUCTOR RF-CH-MLD 4.7UH +-5%	03706	24702M-5%
L204	9100-2262	3	1	INDUCTOR RF-CH-MLD 3.9UH +-10%	03706	1A3902M+-10%
L205	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH +-5%	05826	1537-76
L206	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH +-5%	05826	1537-76
L300	9100-1651	2	1	INDUCTOR RF-CH-MLD 750UH +-5%	05826	2500-22

**HP Part Number 08591-60053**  
**Counterlock (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
L301	9140-0144	0	1	INDUCTOR RF-CH-MLD 4.7UH +-10%	05826	1025-36
MP2	7121-4611	2	1	LABEL-INFORMATION .15-IN-WD .6-IN-LG	09002	
MP4	0515-0368	6	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP5	0515-0368	6	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP6	0515-0368	6	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP7	0515-0368	6	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP8	0515-0368	6	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP9	0515-0368	6	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP10	0515-0368	6	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP11	0515-0368	6	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP12	0515-0368	6	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP13	0515-0368	6	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP14	0515-0368	6	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP15	0515-0368	6	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP16	0515-0367	5	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP17	0515-0367	5	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP18	0515-0894	3	1	SCREW-MACH M2.5 X 0.45 6MM-LG PAN-HD	09908	
MP19	0515-0894	3	1	SCREW-MACH M2.5 X 0.45 6MM-LG PAN-HD	09908	
MP20	0515-0894	3	1	SCREW-MACH M2.5 X 0.45 6MM-LG PAN-HD	09908	
MP21	0515-0894	3	1	SCREW-MACH M2.5 X 0.45 6MM-LG PAN-HD	09908	
MP22	5022-0070	7	1	SHIELD, BOTTOM ASSY	28480	5022-0070
MP23	5063-0233	0	1	SHIELD, TOP ASSY	28480	5063-0233
Q1	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q2	1854-0345	8	1	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	28480	1854-0345
Q3	1854-0591	6	1	TRANSISTOR NPN SI PD=180MW FT=4GHZ	28480	1854-0591
Q4	1854-0720	3	1	TRANSISTOR NPN SI PD=500MW FT=4GHZ	28480	1854-0720
Q5	1853-0036	2	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q7	1855-0402	0	1	TRANSISTOR J-FET 2N5115 P-CHAN D-MODE	28480	1855-0402
Q200	1854-0345	8	1	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	28480	1854-0345
Q201	1854-0591	6	1	TRANSISTOR NPN SI PD=180MW FT=4GHZ	28480	1854-0591
Q202	1854-0345	8	1	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	28480	1854-0345
Q203	1854-0345	8	1	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	28480	1854-0345
Q204	1853-0036	2	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q205	1855-0414	4	1	TRANSISTOR J-FET 2N4393 N-CHAN D-MODE	02763	
Q206	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904

\*Indicates factory-selected value

**HP Part Number 08591-60053**  
**Counterlock (continued)**

Reference Designator	HP Part Number	C	Qty	Description	Mfr Code	Mfr Part Number
Q207	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q208	1855-0518	9	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0518
Q209	1855-0518	9	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0518
Q210	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
R1	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R2	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R3	0698-7251	6	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R5	0698-7251	6	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R6	0698-7229	8	1	RESISTOR 511 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R7	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R8	0698-0082	7	1	RESISTOR 464 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R9	0698-7240	3	1	RESISTOR 1.47K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R10	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R11	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R12	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R13	0698-7248	1	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R14	0757-0420	3	1	RESISTOR 750 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R15	0698-7248	1	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R16	0698-3444	1	1	RESISTOR 316 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R17	0757-0419	0	1	RESISTOR 681 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R18	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R19	0757-0440	7	1	RESISTOR 7.5K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R20	0698-7197	9	1	RESISTOR 23.7 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R21	0698-7283	4	1	RESISTOR 90.9K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R22	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R23	0698-3443	0	1	RESISTOR 287 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R24	0698-3443	0	1	RESISTOR 287 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R25	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R26	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R28	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R29	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R30	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R31	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R34	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R35	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2

**HP Part Number 08591-60053**  
**Counterlock (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R36	0698-7258	3	1	RESISTOR 8.25K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R37	0698-7258	3	1	RESISTOR 8.25K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R39	0698-7252	7	1	RESISTOR 4.64K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R40	0698-7252	7	1	RESISTOR 4.64K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R41	0698-7248	1	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R42	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R43	0698-7239	0	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R44	0757-0416	7	1	RESISTOR 511 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R45	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R46	0698-7268	5	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R47	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R51	0698-7251	6	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R52	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R53	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R54	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R55	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R56	0698-7244	7	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R57	0698-7244	7	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R100	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R101	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R102	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R103	0698-7223	2	1	RESISTOR 287 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R104	0757-0394	0	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R105	0698-7282	3	1	RESISTOR 82.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R106	0698-7242	5	1	RESISTOR 1.78K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R107	0698-7284	5	1	RESISTOR 100K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R108	0698-7282	3	1	RESISTOR 82.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R109	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R110	0757-0394	0	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R111	0698-7240	3	1	RESISTOR 1.47K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R112	0698-7282	3	1	RESISTOR 82.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R113	0698-7240	3	1	RESISTOR 1.47K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R114	0698-7282	3	1	RESISTOR 82.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R115	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R116	0698-7284	5	1	RESISTOR 100K +-1% .05W TF TC=0+-100	05524	CMF-50-2

\*Indicates factory-selected value

**HP Part Number 08591-60053**  
**Counterlock (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R118	0698-7241	4	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R119	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R120	0757-0394	0	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R121	0698-7248	1	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R122	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R123	0698-7241	4	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R124	0757-0416	7	1	RESISTOR 511 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R125	0698-3429	2	1	RESISTOR 19.6 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R126	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R127	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R128	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R129	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R130	0698-7229	8	1	RESISTOR 511 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R131	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R132	0698-7229	8	1	RESISTOR 511 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R200	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R201	0757-0421	4	1	RESISTOR 825 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R202	0757-0418	9	1	RESISTOR 619 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R203	0757-0418	9	1	RESISTOR 619 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R204	0698-7215	2	1	RESISTOR 133 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R205	0698-7208	3	1	RESISTOR 68.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R206	0698-7208	3	1	RESISTOR 68.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R207	0698-7209	4	1	RESISTOR 75 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R208	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R209	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R210	0698-7264	1	1	RESISTOR 14.7K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R211	0698-7239	0	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R212	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R213	0698-7265	2	1	RESISTOR 16.2K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R214	0757-0317	7	1	RESISTOR 1.33K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R215	0757-0428	1	1	RESISTOR 1.62K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R216	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R217	0757-0420	3	1	RESISTOR 750 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R218	0757-0317	7	1	RESISTOR 1.33K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R219	0757-1094	9	1	RESISTOR 1.47K +-1% .125W TF TC=0+-100	05524	CMF-55-1

**HP Part Number 08591-60053**  
**Counterlock (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R220	0698-7205	0	1	RESISTOR 51.1 +1% .05W TF TC=0+-100	05524	CMF-50-2
R221	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R223	0757-0421	4	1	RESISTOR 825 +1% .125W TF TC=0+-100	05524	CMF-55-1
R224	0698-7288	9	1	RESISTOR 147K +1% .05W TF TC=0+-100	05524	CMF-50-2
R225	0757-0420	3	1	RESISTOR 750 +1% .125W TF TC=0+-100	05524	CMF-55-1
R226	0698-3155	1	1	RESISTOR 4.64K +1% .125W TF TC=0+-100	05524	CMF-55-1
R227	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R228	0698-7268	5	1	RESISTOR 21.5K +1% .05W TF TC=0+-100	05524	CMF-50-2
R229	0698-3151	7	1	RESISTOR 2.87K +1% .125W TF TC=0+-100	05524	CMF-55-1
R230	0757-0290	5	1	RESISTOR 6.19K +1% .125W TF TC=0+-100	05524	CMF-55-1
R231	0757-0416	7	1	RESISTOR 511 +1% .125W TF TC=0+-100	05524	CMF-55-1
R232	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R233	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R234	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R235	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R236	0698-7188	8	1	RESISTOR 10 +1% .05W TF TC=0+-100	05524	CMF-50-2
R237	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R238	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R239	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R240	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R241	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R242	0698-7243	6	1	RESISTOR 1.96K +1% .05W TF TC=0+-100	05524	CMF-50-2
R243	0698-7205	0	1	RESISTOR 51.1 +1% .05W TF TC=0+-100	05524	CMF-50-2
R244	0698-7205	0	1	RESISTOR 51.1 +1% .05W TF TC=0+-100	05524	CMF-50-2
R245	0698-7205	0	1	RESISTOR 51.1 +1% .05W TF TC=0+-100	05524	CMF-50-2
R246	0698-7205	0	1	RESISTOR 51.1 +1% .05W TF TC=0+-100	05524	CMF-50-2
R247	0698-7205	0	1	RESISTOR 51.1 +1% .05W TF TC=0+-100	05524	CMF-50-2
R248	0698-7212	9	1	RESISTOR 100 +1% .05W TF TC=0+-100	05524	CMF-50-2
R249	0698-7212	9	1	RESISTOR 100 +1% .05W TF TC=0+-100	05524	CMF-50-2
R251	0698-7205	0	1	RESISTOR 51.1 +1% .05W TF TC=0+-100	05524	CMF-50-2
R252	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R253	0698-8816	1	1	RESISTOR 2.15 +1% .125W TF TC=0+-100	05524	CMF-55-1
R254	0698-7260	7	1	RESISTOR 10K +1% .05W TF TC=0+-100	05524	CMF-50-2
R256	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2
R257	0698-7236	7	1	RESISTOR 1K +1% .05W TF TC=0+-100	05524	CMF-50-2

\*Indicates factory-selected value

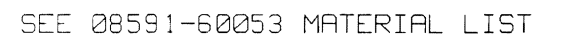
**HP Part Number 08591-60053**  
**Counterlock (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R258	0698-6322	0	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R259	0698-6353	7	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R260	0698-8816	1	1	RESISTOR 2.15 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R261	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R262	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R264	0757-0405	4	1	RESISTOR 162 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R265	0757-0405	4	1	RESISTOR 162 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R266	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R300	1810-0037	3	1	NETWORK-RES 16-DIP 1.0K OHM X 8	02483	761-3-R1K
R301	0698-7249	2	1	RESISTOR 3.48K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R302	0698-7229	8	1	RESISTOR 511 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R303	0698-7251	6	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R304	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R305	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R306	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
T100	9100-4772	4	1	TRANSFORMER-RF FREQ RANGE; 2 TO 600 MHz	02739	TM04-2
TP3	0360-0535	0	1	CONNECTOR-SGL CONT TML-TS-PT	13296	
U1	1820-2921	9	1	IC INV CMOS/HCT HEX	28480	1820-2921
U2	1820-3847	0	1	IC DCDR CMOS/HCT BIN 3-TO-8-LINE	28480	1820-3847
U3	1820-3848	1	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-3848
U4	1820-3848	1	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-3848
U5	08590-80105	9	1		28480	08590-80105
U6	1826-1431	6	1	IC V RGLTR-V-REF-FXD 4.9975/5.0025V	28480	1826-1431
U7	1826-2089	2	1	IC OP AMP LOW-NOISE DUAL 8 PIN DIP-C	28480	1826-2089
U8	1820-6140	2	1	IC DIVR ECL DIV-X-N	01590	SP8716DP
U9	1826-0639	4	1	D/A 8-BIT 16-PLASTIC CMOS	28480	1826-0639
U10	1826-0785	1	1	IC OP AMP LOW-BIAS-H-IMPED DUAL 8 PIN	28480	1826-0785
U11	1820-3405	6	1	IC MISC CMOS 4-BIT	02037	MC145146P
U12	1820-2684	1	1	IC GATE TTL/F NAND QUAD 2-INP	02037	MC74F00N
U13	1820-2772	8	1	IC FF TTL/ALS J-K NEG-EDGE-TRIG	28480	1820-2772
U14	1820-6408	5	1	IC GATE CMOS/AC EXCL-OR QUAD 2-INP	28480	1820-6408
U15	1826-1913	9	1	IC MISC 8 PIN DIP-P	28480	1826-1913
U16	1826-1221	2	1	IC COMPARATOR PRCN 8 PIN DIP-C	28480	1826-1221
U17	1820-3405	6	1	IC MISC CMOS 4-BIT	02037	MC145146P
U18	1826-0785	1	1	IC OP AMP LOW-BIAS-H-IMPED DUAL 8 PIN	28480	1826-0785




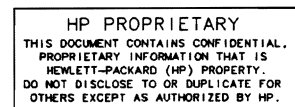
**HP Part Number 08591-60053**  
**Counterlock (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U19	1820-2656	7	1	IC GATE TTL/ALS NAND QUAD 2-INP	28480	1820-2656
U20	1810-0301	4	1	NETWORK-RES 16-DIP 51.0 OHM X 8	02483	761-3-R51
U21	1810-0301	4	1	NETWORK-RES 16-DIP 51.0 OHM X 8	02483	761-3-R51
U22	1810-0301	4	1	NETWORK-RES 16-DIP 51.0 OHM X 8	02483	761-3-R51
U23	1820-3191	7	1	IC MUXR/DATA-SEL CMOS/HC 2-TO-1-LINE	28480	1820-3191
U24	1826-0785	1	1	IC OP AMP LOW-BIAS-H-IMPED DUAL 8 PIN	28480	1826-0785
U100	5086-7806	5	1		28480	5086-7806
U101	1826-1945	7	1	IC DIFF AMPL 8 PIN DIP-P	28480	1826-1945
U102	1826-1945	7	1	IC DIFF AMPL 8 PIN DIP-P	28480	1826-1945
U103	1820-1888	5	1	IC PRESCR ECL	02037	MC12013P
U104	1820-3397	5	1	IC MUXR/DATA-SEL TTL/ALS 4-TO-1-LINE	28480	1820-3397
U105	1820-5602	9	1	IC-PROGRAMMABLE INTERVAL TIMER,DC-10MHZ	03811	P82C54-2
U106	1820-6219	6	1	IC CNTR CMOS/HCT BIN SYNC/ASYN	28480	1820-6219
U107	1826-1946	8	1	IC RF/IF AMPL 8 PIN DIP-P	28480	1826-1946
U108	1820-6215	2	1	IC-INTERFACE RCVR BIPOLAR LINE DUAL	28480	1820-6215
U109	1826-0285	6	1	IC V RGLTR-FXD-NEG -4.8/-5.2V 3-TO-92	28480	1826-0285
U110	1820-3537	5	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG	03799	CD74HCT74E
U200	1820-3456	7	1	IC DRVR CMOS/HCT BUS OCTL	28480	1820-3456
U201	1820-3848	1	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-3848
U202	1820-3090	5	1	IC CNTR TTL/F BIN SYNCHRO POS-EDGE-TRIG	28480	1820-3090



- 1 DO NOT LOAD L6,L200,TP300 AND TP301 ON THIS VERSION.
- 2 CUT TRACE FROM L301 (WAS R27) TO VIA ON THE BOTTOM SIDE OF BOARD.
- 3 REPLACE R27 WITH L301, ADD C316 AND C317 AS SHOWN.
- 4 REMOVE TOP END OF C105 FROM PC BOARD, AND ADD R305 BETWEEN C105 AND ANODE END OF CR100.
- 5 REMOVE PIN 4 OF U16 FROM PC BOARD, SOLDER C51 BETWEEN U16-4 AND GROUND. SOLDER R304 BETWEEN U16-4 AND -15VF.
- 6 REPLACE C42 WITH NEW PART, SOLDER C42 TO C318 AND R306 AS SHOWN, SOLDER LOOSE END OF C318 TO U16-1, AND LOOSE END OF R306 TO VIA.

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D = 08591-60053-2		





**Component-Level Information Packet**  
**for**  
**08591-60060**  
**08590-60213**

**IF Motherboard Driver**



**HP Part No. 08591-90087**  
**Printed in USA September 1992**

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**HP Part Number 08591-60060**  
**IF Motherboard Driver**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C2	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C4	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C5	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C6	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C7	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C8	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C9	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C10	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C101	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C102	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C103	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C104	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C105	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C106	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C107	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C108	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C109	0160-4535	4	1	CAP-FXD 1uF +-10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C110	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C111	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C112	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C113	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C114	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
CR1	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
J1	1251-8911	2	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8911
J2	1252-2909	8	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	01380	2-103168-8
J3	1251-8911	2	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8911
J4	1251-8911	2	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8911
J5	1251-8911	2	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8911
J6	1251-8911	2	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8911
J7	1252-2908	7	1	CONN-POST TYPE .100-PIN-SPCG 20-CONT	01380	1-102318-1
J8	1251-1365	6	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	03394	220-626-03
J9	1252-2908	7	1	CONN-POST TYPE .100-PIN-SPCG 20-CONT	01380	1-102318-1
J10	1252-2908	7	1	CONN-POST TYPE .100-PIN-SPCG 20-CONT	01380	1-102318-1

\*Indicates factory-selected value

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**HP Part Number 08591-60060**  
**IF Motherboard Driver (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
J11	1251-1365	6	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	03394	220-626-03
J12	1251-1365	6	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	03394	220-626-03
J13	1251-8995	2	1	CONN-RECT D-SUBMIN 37-CKT 37-CONT	01380	747375-2
J14	1250-1846	6	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J15	1250-1846	6	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J16	1250-1846	6	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J17	1250-1846	6	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J18	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J19	1252-2153	4	1	CONN-POST TYPE .100-PIN-SPCG 4-CONT	02946	69167-104
J20	1252-2908	7	1	CONN-POST TYPE .100-PIN-SPCG 20-CONT	01380	1-102318-1
L1	9140-0158	6	1	INDUCTOR RF-CH-MLD 1UH +-10%	03706	1A1002M +-10%
L2	9140-0158	6	1	INDUCTOR RF-CH-MLD 1UH +-10%	03706	1A1002M +-10%
L4	9140-0158	6	1	INDUCTOR RF-CH-MLD 1UH +-10%	03706	1A1002M +-10%
L101	9140-0158	6	1	INDUCTOR RF-CH-MLD 1UH +-10%	03706	1A1002M +-10%
Q1	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q2	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
R2	0698-7217	4	1	RESISTOR 162 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R101	0698-7237	8	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R102	0698-7239	0	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R103	0698-3440	7	1	RESISTOR 196 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R104	0698-3445	2	1	RESISTOR 348 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R105	0698-7227	6	1	RESISTOR 422 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R106	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R107	0698-7219	6	1	RESISTOR 196 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R108	0698-7219	6	1	RESISTOR 196 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R109	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R110	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R111	0757-0316	6	1	RESISTOR 42.2 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R112	0698-7206	1	1	RESISTOR 56.2 +-1% .05W TF TC=0+-100	05524	CMF-50-2



**HP Part Number 08590-60213**  
**IF Motherboard Driver**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C2	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C4	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C5	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C6	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C7	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C8	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C9	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C10	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C101	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C102	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C103	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C104	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C105	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C106	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C107	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C108	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C109	0160-4535	4	1	CAP-FXD 1uF +-10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C110	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C111	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C112	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C113	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
C114	0160-4386	3	1	CAP-FXD 33pF +-5% 200 V CER C0G	09939	RPE121-105C0G330J200V
CR1	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
J1	1251-8911	2	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8911
J2	1252-2909	8	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	01380	2-103168-8
J7	1252-2908	7	1	CONN-POST TYPE .100-PIN-SPCG 20-CONT	01380	1-102318-1
J8	1251-1365	6	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	03394	220-626-03
J9	1252-2908	7	1	CONN-POST TYPE .100-PIN-SPCG 20-CONT	01380	1-102318-1
J10	1252-2908	7	1	CONN-POST TYPE .100-PIN-SPCG 20-CONT	01380	1-102318-1
J11	1251-1365	6	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	03394	220-626-03
J12	1251-1365	6	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	03394	220-626-03
J13	1251-8995	2	1	CONN-RECT D-SUBMIN 37-CKT 37-CONT	01380	747375-2
J14	1250-1846	6	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846

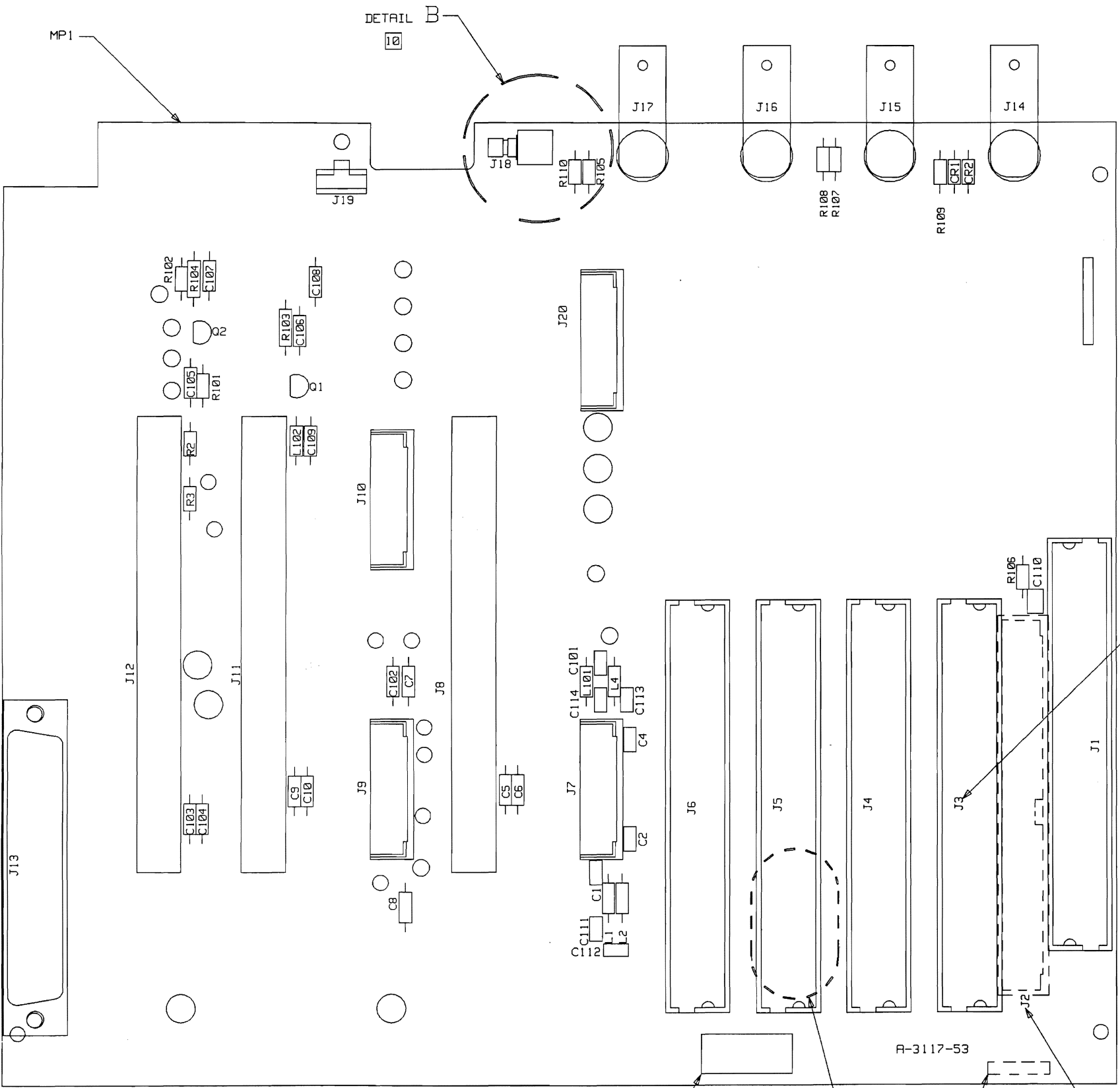
\*Indicates factory-selected value

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**HP Part Number 08590-60213**  
**IF Motherboard Driver (continued)**

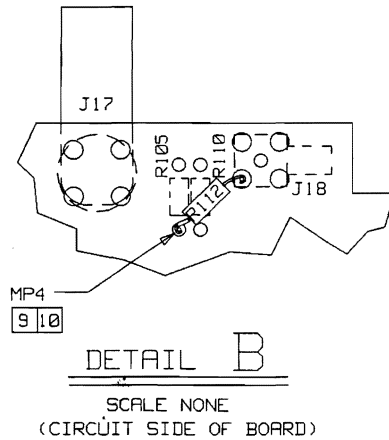
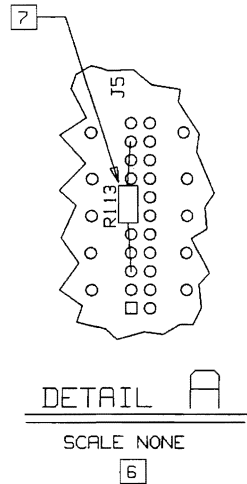
Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
J15	1250-1846	6	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J16	1250-1846	6	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J17	1250-1846	6	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J18	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J19	1252-2153	4	1	CONN-POST TYPE .100-PIN-SPCG 4-CONT	02946	69167-104
J20	1252-2908	7	1	CONN-POST TYPE .100-PIN-SPCG 20-CONT	01380	1-102318-1
L1	9140-0158	6	1	INDUCTOR RF-CH-MLD 1UH +-10%	03706	1A1002M +-10%
L2	9140-0158	6	1	INDUCTOR RF-CH-MLD 1UH +-10%	03706	1A1002M +-10%
L4	9140-0158	6	1	INDUCTOR RF-CH-MLD 1UH +-10%	03706	1A1002M +-10%
L101	9140-0158	6	1	INDUCTOR RF-CH-MLD 1UH +-10%	03706	1A1002M +-10%
Q1	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q2	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
R2	0698-7217	4	1	RESISTOR 162 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R101	0698-7237	8	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R102	0698-7239	0	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R103	0698-3440	7	1	RESISTOR 196 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R104	0698-3445	2	1	RESISTOR 348 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R105	0698-7227	6	1	RESISTOR 422 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R106	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R107	0698-7219	6	1	RESISTOR 196 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R108	0698-7219	6	1	RESISTOR 196 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R109	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R110	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R111	0757-0316	6	1	RESISTOR 42.2 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R112	0698-7206	1	1	RESISTOR 56.2 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R113	0698-8960	6	1	RESISTOR 750K +-1% .125W TF TC=0+-100	01074	H8

SYM	REVISIONS		APPROVED	DATE
	AS ISSUED			
A				



NOTES: UNLESS OTHERWISE SPECIFIED

1. MAXIMUM COMPONENT HEIGHT .460
2. MAXIMUM LEAD TRIM LENGTH .080
3. ALL CONNECTORS MUST BE FLUSH TO BOARD SURFACE AFTER MACHINE SOLDER.
- 4 PLACE MP3 OVER EXISTING BOARD NUMBER. CHECK APPLICABLE BOX FOR DESIGNATED ASSEMBLY.
- 5 J2 IS MOUNTED ON FAR SIDE OF BOARD AFTER MACHINE SOLDER, 08590-60213 ASSY.
- 6 J3-J6 ARE NOT LOADED FOR 08590-60213 ASSY.
- 7 ADD R113 BETWEEN J5-3 AND J5-10 ON THE TOP SIDE OF THE PC BOARD, 08590-60213 ASSY ONLY.
- 8 J3-J6 ARE LOADED FOR 08591-60060 ASSY.
- 9 ADD MP4 TO R112 LEAD, AT R105 CONNECTION AS SHOWN, PER DETAIL B.
- 10 ADD R112 BETWEEN J18 AND R105 ON CIRCUIT SIDE OF PC BOARD, PER DETAIL B.



MP3  
4

DETAIL A  
7

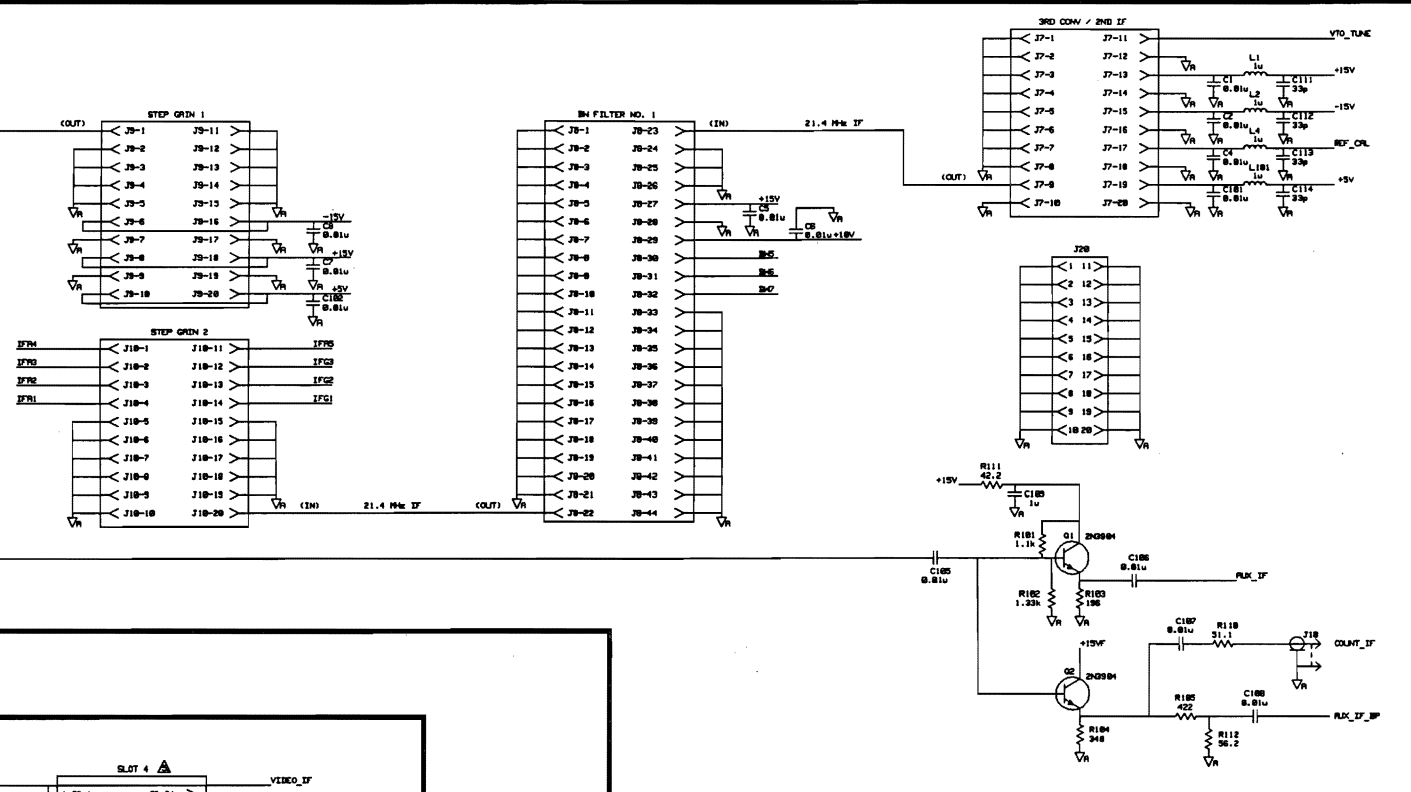
MP2 FAR SIDE  
5

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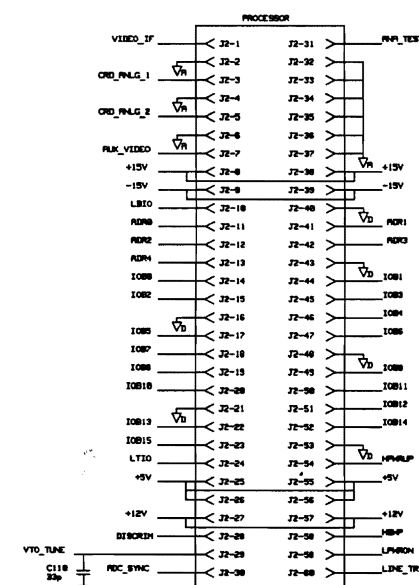
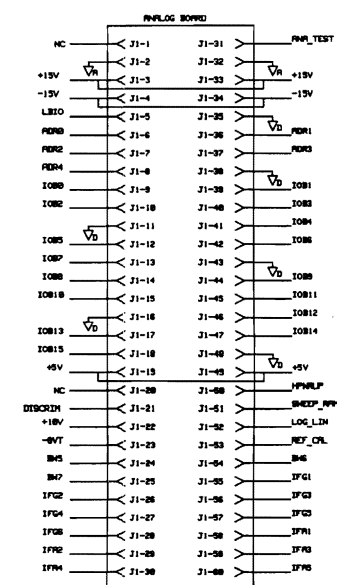
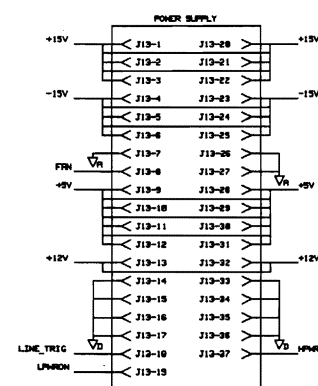
UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX 0.010  
XX.XX 0.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

08590-60213	08590-60213	5021-9918	5,6,7
08591-60060	08591-60060	5021-9918	8
BOARD #	MATL LIST	RAW BD. #	NOTE
DRAWN BY	DATE	ASSEMBLY, PWB IF MOTHERBOARD DRIVER	
ENGINEER/CHECKER	DATE		
RELEASE TO PROD.	DATE		
SUPERSEDES DWG.			
alac060 FILENAME	SCALE NONE	HEWLETT PACKARD	
SHEET 1 OF 1	08591-60060 PART NUMBER		
D-08591-60060-2			

The schematic diagram illustrates the power supply section of the TMS320C49 evaluation module. It features two main filter sections: 'LOC. PPPL' and 'BM FILTER NO.2'. The 'LOC. PPPL' section includes a 21.4 MHz input, a 15V regulator, and a 0.81uF capacitor. The 'BM FILTER NO.2' section includes a 21.4 MHz input, a 15V regulator, and a 0.81uF capacitor. The output of the 'LOC. PPPL' section is connected to the input of the 'BM FILTER NO.2' section. The output of the 'BM FILTER NO.2' section is connected to the 21.4 MHz input of the TMS320C49.



The schematic diagram illustrates the output stage of the 68000 microprocessor. It shows four output pins: 214, 215, 216, and 217. Each pin is connected to a specific signal line and has a pull-up resistor to a 45V supply. The signals are: SHEET\_RMP (pin 214), EXT\_HRP (pin 215), PLX\_VIDEO (pin 216), and PLX\_DF\_BP (pin 217). The circuit includes a 45V supply, a 10K resistor (R180), and a 15K resistor (R187).



1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.

2. UNLESS OTHERWISE INDICATED:  
RESISTANCE IN OHMS (C)  
CAPACITANCE IN MICROFARADS (CF)  
INDUCTANCE IN MICROHENRIES (CI)

3. PHONONIC TABLE	
PHONONIC	DESCRIPTION

00590-60213	00590-60213	A
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PART NO.	MATERIAL LIST	REMARKS
TABLE 1		

[illegible]

HP PROPRIETARY  
THIS DOCUMENT CONTAINS CONFIDENTIAL,  
PROPRIETARY INFORMATION THAT IS  
HEWLETT-PACKARD (HP) PROPERTY.  
DO NOT DISCLOSE TO OR DUPLICATE FOR  
OTHERS EXCEPT AS AUTHORIZED BY HP.

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHEMATIC, PWA IF MOTHERBOARD DRIVER (SCHEMATIC)	TITLE
---	-------

slac060	 HENLEY PACKAR
FILENAME	
SCALE	NONE
SHEET 1 OF 1	08591-60060 PART NUMBER
D- 08591-60060-1	

# **Component-Level Information Packet for 08592-60073**

## **Analog Interface**



HP Part No. 08592-90077  
Printed in USA October 1992

**HP Part Number 08592-60073**  
**Analog Interface**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3850	6	1	CAP-FXD 68uF +-10% 10 V TA	04200	299D686X9010DB1
C2	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C3	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C4	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C7	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C8	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C10	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C11	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C12	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C13	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C14	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C15	0160-4800	6	1	CAP-FXD 120pF +-5% 100 V CER C0G	09939	RPA10C0G121J100V
C16	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C17	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C18	0160-4800	6	1	CAP-FXD 120pF +-5% 100 V CER C0G	09939	RPA10C0G121J100V
C19	0180-3846	0	1	CAP-FXD 15uF +-10% 25 V TA	04200	299D156X9025DB1
C20	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C21	0180-3846	0	1	CAP-FXD 15uF +-10% 25 V TA	04200	299D156X9025DB1
C22	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C23	0160-4822	2	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPA20C0G102J100V
C24	0160-6223	1	1	CAP-FXD 2uF +-5% 100 V POLYP-MET	05176	X335 2.0UF 100V 5%
C27	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C28	0180-3817	5	1	CAP-FXD 100uF +-20% 50 V AL-ELCTLT	28480	0180-3817
C30	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C31	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C32	0180-3846	0	1	CAP-FXD 15uF +-10% 25 V TA	04200	299D156X9025DB1
C33	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C34	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C35	0180-3635	5	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3635
C36	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C37	0160-4831	3	1	CAP-FXD 4700pF +-10% 100 V CER X7R	09939	RPA10X7R472K100V
C38	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C39	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C40	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C41	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT

*\*Indicates factory-selected value*

**CLIP 08592-90077 1**

**HP Part Number 08592-60073**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C44	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C45	0160-4833	5	1	CAP-FXD 0.022uF +-10% 100 V CER X7R	09939	RPA20X7R223K100V
C46	0160-4819	7	1	CAP-FXD 2200pF +-5% 100 V CER C0G	09939	RPA30C0G222J100VPT
C49	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C50	0180-3643	5	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C52	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C54	0160-4831	3	1	CAP-FXD 4700pF +-10% 100 V CER X7R	09939	RPA10X7R472K100V
C55	0180-3641	3	1	CAP-FXD 1000uF +-20% 10 V AL-ELCTLT	28480	0180-3641
C59	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C60	0160-4822	2	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPA20C0G102J100V
C61	0160-4834	6	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	09939	RPA30X7R473K100V
C62	0160-4834	6	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	09939	RPA30X7R473K100V
C63	0180-3771	0	1	CAP-FXD 1uF +-10% 35 V TA	04200	299D105X9035AB1
C64	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C65	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C66	0180-3771	0	1	CAP-FXD 1uF +-10% 35 V TA	04200	299D105X9035AB1
C101	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C102	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C103	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C104	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C105	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C106	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C107	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C108	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C109	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C110	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C111	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C112	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C113	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C150	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C151	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C201	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C202	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C203	0160-5408	2	1	CAP-FXD 75pF +-5% 100 V CER C0G	09939	RPA10COG750J100
C204	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT

**HP Part Number 08592-60073**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C205	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C206	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C207	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C208	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C209	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C210	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C211	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C301	0160-4800	6	1	CAP-FXD 120pF +-5% 100 V CER C0G	09939	RPA10C0G121J100V
C302	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C303	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C304	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C305	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C306	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C307	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C308	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C309	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C310	0160-4682	2	1	CAP-FXD 1000pF +-2.5% 160 V POLYP-FL	06121	B33062-A1102-H
C311	0160-4682	2	1	CAP-FXD 1000pF +-2.5% 160 V POLYP-FL	06121	B33062-A1102-H
C312	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C313	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C314	0160-4800	6	1	CAP-FXD 120pF +-5% 100 V CER C0G	09939	RPA10C0G121J100V
C315	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C316	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C317	0180-3643	5	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C318	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C319	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
C320	0180-3643	5	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C321	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C407	0180-4316	1	1	CAP-FXD 220uF +-20% 50 V AL-ELCTLT	28480	0180-4316
C910	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
CR1	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR3	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR4	1901-0518	8	1	DIODE-SCHOTTKY SM SIG	12395	5082-2800
CR5	1901-0518	8	1	DIODE-SCHOTTKY SM SIG	12395	5082-2800

*\*Indicates factory-selected value*

**CLIP 08592-90077 3**



**HP Part Number 08592-60073**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
CR6	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR101	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR102	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR201	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR202	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR203	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR301	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR302	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR400	1990-0485	5	1	LED-LAMP LUM-INT=2MCD IF=30MA-MAX BVR=5V	28480	1990-0485
J1	1251-8912	3	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8912
J2	1252-2365	0	1	CONN-POST TYPE .100-PIN-SPCG 10-CONT	02946	78207-110
J3	1251-7683	3	1	CONN-POST TYPE .100-PIN-SPCG 10-CONT	01380	87227-5
J4	1252-2008	8	1	CONN-POST TYPE .100-PIN-SPCG 9-CONT	02946	68451-124
J5	1252-2028	2	1	CONN-POST TYPE .100-PIN-SPCG 10-CONT	04726	2510-5022UB
J6	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J24	1252-0500	1	1	CONN-POST TYPE .100-PIN-SPCG 3-CONT	01380	103361-1
J301	1252-2153	4	1	CONN-POST TYPE .100-PIN-SPCG 4-CONT	02946	69167-104
L1	9140-0245	2	1	INDUCTOR RF-CH-MLD 445MH +-5%	28480	9140-0245
L2	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L3	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L4	9100-1641	0	1	INDUCTOR RF-CH-MLD 240UH +-5%	05826	1537-94
L5	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L6	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
L402	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
MP8	1205-0583	1	1	HEAT SINK SGL TO-5/TO-39-CS	02608	2215B-SS1
MP10	0340-0933	0	1	INSULATOR-FLG-BSHG PPS BLACK	02608	7721-3PPS
MP12	0340-0949	8	1	INSULATOR-XSTR THRM-CNDCT	02923	60-11-5791-1674
MP13	1200-0173	5	3	INSULATOR-XSTR DAP-GL	02210	A-10001 DAP
MP14	1205-0478	3	1	HEAT SINK SGL TO-220-CS	02608	6071B
Q1	1855-0646	4	1	TRANSISTOR MOSFET N-CHAN E-MODE TO-39 SI	28480	1855-0646
Q2	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q3	1855-0449	5	1	TRANSISTOR J-FET 2N5434 N-CHAN D-MODE	28480	1855-0449
Q4	1855-0686	2	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-92 SI	07221	VP0206N3
Q5	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q6	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904

**HP Part Number 08592-60073**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C	Qty	Description	Mfr Code	Mfr Part Number
Q8	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q9	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q10	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q20	1854-0637	1	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	28480	1854-0637
Q21	1853-0314	9	1	TRANSISTOR PNP 2N2905A SI TO-39 PD=400MW	28480	1853-0314
Q92	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q150	1854-0637	1	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	28480	1854-0637
Q202	1855-0292	6	1	TRANSISTOR J-FET 2N5432 N-CHAN D-MODE	28480	1855-0292
Q301	1855-0517	8	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-220	28480	1855-0517
R1	0698-6624	5	1	RESISTOR 2K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R2	0698-6624	5	1	RESISTOR 2K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R3	0698-6630	3	1	RESISTOR 20K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R4	0698-6630	3	1	RESISTOR 20K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R5	0698-6343	5	1	RESISTOR 9K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R6	0698-6344	6	1	RESISTOR 900 $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R7	0698-6323	1	1	RESISTOR 100 $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R8	0698-6353	7	1	RESISTOR 50K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R9	0698-6353	7	1	RESISTOR 50K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R10	0699-0517	5	1	RESISTOR 5.621K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 4	05524	PTF-56-6
R11	0698-6322	0	1	RESISTOR 4K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R12	0698-6322	0	1	RESISTOR 4K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R13	0698-3446	3	1	RESISTOR 383 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R14	0698-3442	9	1	RESISTOR 237 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R15	0757-1000	7	1	RESISTOR 51.1 $\pm 1\%$ .5W TF TC=0 $\pm$ 100	05524	CMF-65-2
R16	0757-1000	7	1	RESISTOR 51.1 $\pm 1\%$ .5W TF TC=0 $\pm$ 100	05524	CMF-65-2
R17	0698-6343	5	1	RESISTOR 9K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R18	0698-6362	8	1	RESISTOR 1K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R19	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R20	0698-3446	3	1	RESISTOR 383 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R21	0698-6624	5	1	RESISTOR 2K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R22	0698-6624	5	1	RESISTOR 2K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R23	0698-7229	8	1	RESISTOR 511 $\pm 1\%$ .05W TF TC=0 $\pm$ 100	05524	CMF-50-2
R24	0698-3904	8	1	RESISTOR 14.7K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 10	05524	PTF-56-7
R25	0699-1269	6	1	RESISTOR 2.31K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 10	05524	PTF-56-7
R26	0699-0936	2	1	RESISTOR 57.014K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 5	05524	PTF-56-7

*\*Indicates factory-selected value*

**CLIP 08592-90077 5**

**HP Part Number 08592-60073**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R27	0698-5362	6	1	RESISTOR 1.477K +0.1% .1W TF TC=0+-5	05524	PTF-56-7
R28	0698-8831	0	1	RESISTOR 13.4K +0.1% .125W TF TC=0+-10	05524	PTF-56-7
R29	0699-0118	2	1	RESISTOR 20K +0.1% .1W TF TC=0+-5	05524	PTF-56-7
R30	0699-1146	8	1	RESISTOR 9.064K +0.1% .1W TF TC=0+4	05524	PTF-56-6
R31	0699-0936	2	1	RESISTOR 57.014K +0.1% .1W TF TC=0+-5	05524	PTF-56-7
R32	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R33	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R34	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R35	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R36	0698-3153	9	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R37	0699-2109	5	1	RESISTOR 25K +0.1% .125W TF TC=0+-5	06337	5023Z
R38	0699-1825	0	1	RESISTOR 50 +-1% .3W MF TC=0+-5	02928	301464
R39	0699-1825	0	1	RESISTOR 50 +-1% .3W MF TC=0+-5	02928	301464
R40	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R41	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R42	0698-6320	8	1	RESISTOR 5K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R43	0698-8812	7	1	RESISTOR 1 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R44	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R45	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R46	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R47	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R48	0757-0465	6	1	RESISTOR 100K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R49	0757-0465	6	1	RESISTOR 100K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R50	0699-1147	9	1	RESISTOR 9.53K +0.1% .1W TF TC=0+4	05524	PTF-56-6
R51	0699-0078	3	1	RESISTOR 2.1K +0.1% .1W TF TC=0+-10	05524	PTF-56-7
R52	0698-6630	3	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R53	0698-6630	3	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R54	0698-6358	2	1	RESISTOR 100K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R55	0698-6355	9	1	RESISTOR 400 +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R56	0698-6630	3	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R57	0698-0084	9	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R58	0698-3155	1	1	RESISTOR 4.64K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R59	0757-0199	3	1	RESISTOR 21.5K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R60	0698-3153	9	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R61	0757-0460	1	1	RESISTOR 61.9K +-1% .125W TF TC=0+-100	05524	CMF-55-1

**HP Part Number 08592-60073**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R64	0698-8838	7	1	RESISTOR 3.52K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -10	05524	PTF-56-7
R65	0698-3942	4	1	RESISTOR 69.8K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1
R66	0698-8827	4	1	RESISTOR 1M $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R67	0698-6630	3	1	RESISTOR 20K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R69	0757-0477	0	1	RESISTOR 332K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R70	0698-7236	7	1	RESISTOR 1K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R72	0698-7212	9	1	RESISTOR 100 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R80	0757-0346	2	1	RESISTOR 10 $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R81	0757-0346	2	1	RESISTOR 10 $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R90	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R101	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R102	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R103	0698-6619	8	1	RESISTOR 15K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R104	0698-6619	8	1	RESISTOR 15K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R105	0698-6619	8	1	RESISTOR 15K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R106	0698-6619	8	1	RESISTOR 15K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R107	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R108	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R110	0757-0458	7	1	RESISTOR 51.1K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R111	0757-0439	4	1	RESISTOR 6.81K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R112	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R113	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R114	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R115	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R116	0698-7277	6	1	RESISTOR 51.1K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R117	0757-0438	3	1	RESISTOR 5.11K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R118	0757-0280	3	1	RESISTOR 1K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R119	0698-7263	0	1	RESISTOR 13.3K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R120	0698-3154	0	1	RESISTOR 4.22K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R121	0698-7248	1	1	RESISTOR 3.16K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R122	0757-0447	4	1	RESISTOR 16.2K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R150	0698-7212	9	1	RESISTOR 100 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R151	0698-7233	4	1	RESISTOR 750 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R152	0757-0180	2	1	RESISTOR 31.6 $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R153	0698-7257	2	1	RESISTOR 7.5K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2

*\*Indicates factory-selected value*

**CLIP 08592-90077 7**

**HP Part Number 08592-60073**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R154	0757-0279	0	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R201	0698-0083	8	1	RESISTOR 1.96K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R202	0698-6320	8	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R203	0698-6320	8	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R205	0698-6320	8	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R206	0757-0394	0	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R207	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R208	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R209	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R210	0757-0465	6	1	RESISTOR 100K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R211	0683-2015	9	1	RESISTOR 200 +-5% .25W CF TC=0-400	09126	CF 1/4
R212	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R213	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R214	0698-3446	3	1	RESISTOR 383 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R215	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R216	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R217	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R221	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R222	0698-3446	3	1	RESISTOR 383 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R223	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R251	0811-3587	5	1	RESISTOR 0 CWM	03123	104
R253	0811-3587	5	1	RESISTOR 0 CWM	03123	104
R261	0811-3587	5	1	RESISTOR 0 CWM	03123	104
R262	0811-3587	5	1	RESISTOR 0 CWM	03123	104
R301	0698-6343	5	1	RESISTOR 9K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R302	0698-6344	6	1	RESISTOR 900 +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R303	0698-6323	1	1	RESISTOR 100 +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R304	0698-6353	7	1	RESISTOR 50K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R305	0699-1147	9	1	RESISTOR 9.53K +-0.1% .1W TF TC=0+4	05524	PTF-56-6
R306	0699-0936	2	1	RESISTOR 57.014K +-0.1% .1W TF TC=0+-5	05524	PTF-56-7
R307	0699-0936	2	1	RESISTOR 57.014K +-0.1% .1W TF TC=0+-5	05524	PTF-56-7
R308	0699-1268	5	1	RESISTOR 1.395K +-0.1% .1W TF TC=0+-10	05524	PTF-56-7
R309	0698-7285	6	1	RESISTOR 110K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R310	0698-6406	1	1	RESISTOR 8.54K +-0.1% .1W TF TC=0+4	05524	PTF-56-6
R311	0699-2623	8	1	RESISTOR 2.58K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1

**HP Part Number 08592-60073**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R312	0699-1823	8	1	RESISTOR 30 +-1% .3W MF TC=0+-5	02928	301464
R313	0699-1823	8	1	RESISTOR 30 +-1% .3W MF TC=0+-5	02928	301464
R314	0699-1823	8	1	RESISTOR 30 +-1% .3W MF TC=0+-5	02928	301464
R315	0811-1084	3	1	RESISTOR 22 +-5% 3W PWI TC=0+-30	01854	T2B-79
R316	0698-3160	8	1	RESISTOR 31.6K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R317	0698-8625	0	1	RESISTOR 1K +-0.1% .1W TF TC=0+-5	05524	PTF-56-7
R318	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R319	0698-8812	7	1	RESISTOR 1 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R400	0757-0420	3	1	RESISTOR 750 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R910	0698-7196	8	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	05524	CMF-50-2
TP2	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1820-3079	0	1	IC DCDR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U2	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U5	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U6	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U8	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U9	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U10	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U11	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U12	1826-1969	5	1	IC OP AMP LOW-DRIFT DUAL 8 PIN DIP-C	28480	1826-1969
U13	1810-0318	3	1	NETWORK-RES 6-SIP 1.0K OHM X 5	06252	750-61
U14	1826-0811	4	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-0811
U15	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U16	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U17	1826-0609	8	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
U18	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U19	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U20	1826-0915	9	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-C	28480	1826-0915
U21	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U22	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U23	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U24	08590-80105	9	1		28480	08590-80105
U25	1826-1514	6	1	IC V RGLTR-V-REF-FXD 9.95/10.05V 8-DIP-P	28480	1826-1514
U26	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048

*\*Indicates factory-selected value*

**CLIP 08592-90077 9**

**HP Part Number 08592-60073**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U27	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U29	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U31	1826-1186	8	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-1186
U32	1826-0915	9	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-C	28480	1826-0915
U101	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U102	1826-1253	0	1	D/A 18-CERDIP BPLR	28480	1826-1253
U103	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U104	1826-1253	0	1	D/A 18-CERDIP BPLR	28480	1826-1253
U105	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U106	1826-1253	0	1	D/A 18-CERDIP BPLR	28480	1826-1253
U107	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U108	1826-0759	9	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U109	1858-0074	8	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0074
U110	1820-0471	0	1	IC DRVR TTL BUS HEX	01698	SN7406N
U111	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U201	1820-3146	2	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3146
U202	1820-5047	6	1	IC-INTERFACE DRVR BIPOLAR DISPLAY HIGH	28480	1820-5047
U203	1858-0077	1	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0077
U204	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U205	1820-1934	2	1	D/A 8-BIT 16-CERDIP BPLR	28480	1820-1934
U206	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U207	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U208	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U209	1858-0076	0	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0076
U301	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U302	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U303	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U304	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U305	1826-0988	6	1	SAMPLE AND HOLD 14 -CERDIP	28480	1826-0988
U306	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U308	1810-1079	5	1	NETWORK-RES 8-DIP 10.0K OHM X 4	04568	694-3-R10K (A)
U309	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U310	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
VR1	1902-3160	4	1	DIODE-ZNR 10V 2% DO-35 PD=.4W TC=+.06%	02688	
VR2	1902-0951	5	1	DIODE-ZNR 5.1V 5% DO-35 PD=.4W TC=+.035%	28480	1902-0951

**HP Part Number 08592-60073**  
**Analog Interface (continued)**

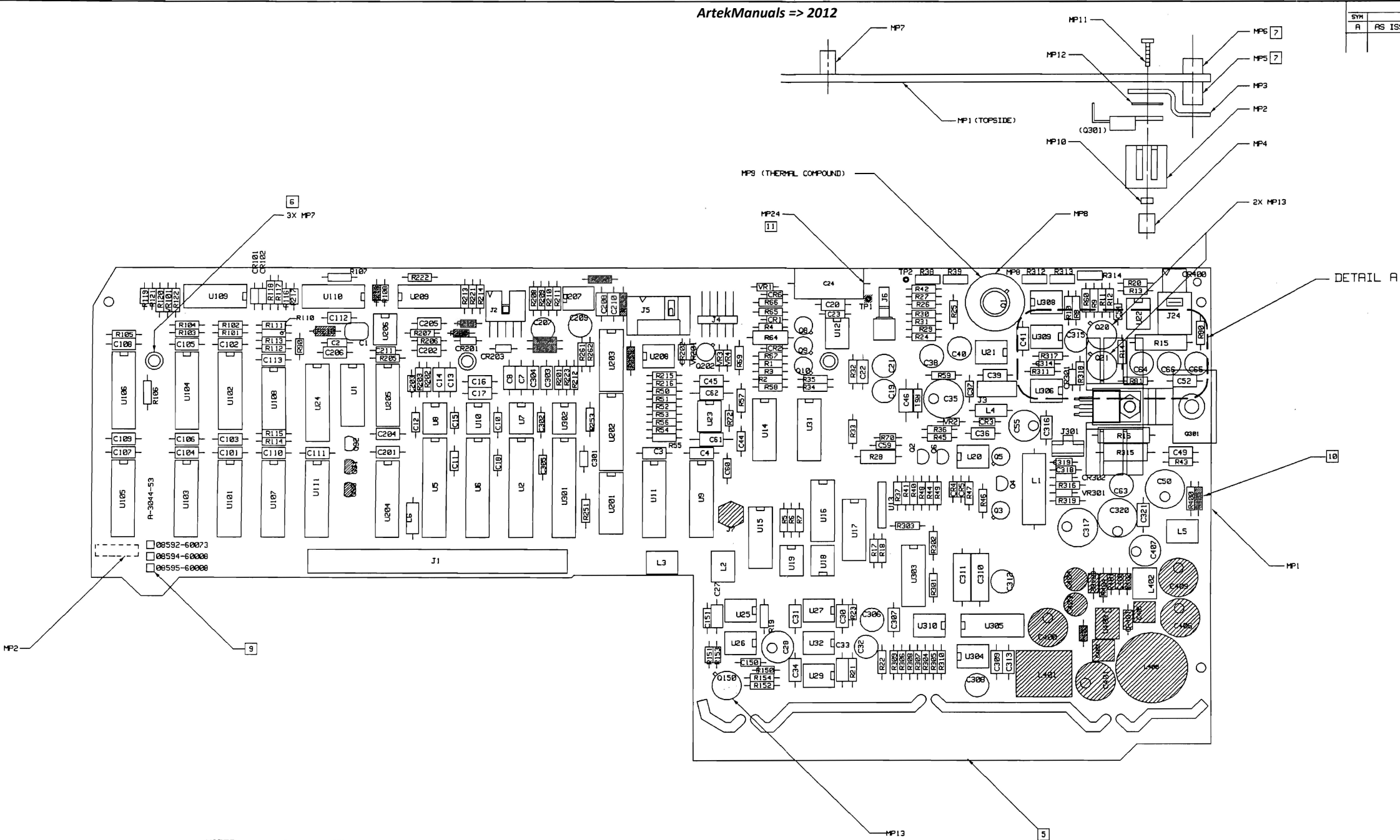
Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
VR3	1902-0950	4	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	28480	1902-0950
VR4	1902-0962	8	1	DIODE-ZNR 15V 5% DO-35 PD=.4W TC=+.087%	02688	
VR101	1902-0579	3	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	02688	
VR201	1902-0959	3	1	DIODE-ZNR 11V 5% DO-35 PD=.4W TC=+.076%	02688	
VR301	1902-0579	3	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	02688	

*\*Indicates factory-selected value*

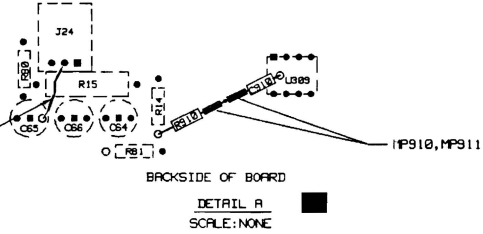
**CLIP 08592-90077 11**



REVISIONS		E-08592-60073-2	
SYM	AS	APPROVED	DATE
A	ISSUED		



- NOTES: UNLESS OTHERWISE SPECIFIED
- 1 DIMENSIONS ARE IN INCHES
  - 2 MAXIMUM COMPONENT HEIGHT .650
  - 3 MAXIMUM LEAD TRIM LENGTH .118
  - 4 J6 SHOWN FOR REFERENCE ONLY. DO NOT LOAD
  - 5 REMOVE TABS AFTER MACHINE SOLDER.
  - 6 MP7 IS SHAGED FROM FARISIDE, INSTALL AFTER MACHINE SOLDERING
  - 7 MP5 AND MP6 INSTALLED AFTER MACHINE SOLDERING
  - 8 CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-08592-A7.
  - 9 MARK APPROPRIATE BOX FOR THIS ASSEMBLY.
  - 10 ALL PARTS SHOWN WITH SHADED AREA ARE NOT TO BE LOADED FOR 08592-60073 ASSEMBLY.
  - 11 ADD .003 INCHES OF INSULATION TO THIS LEAD OF C24.
  - 12 SOLDER C910 INTO VIA UNDER U308.  
SOLDER R910 INTO HOLE OF R14 (NEAREST R81).  
INSTALL MP910 AND MP911 ON FREE LEADS, GRIMP AND SOLDER.  
INSTALL MP20 AS SHOWN.



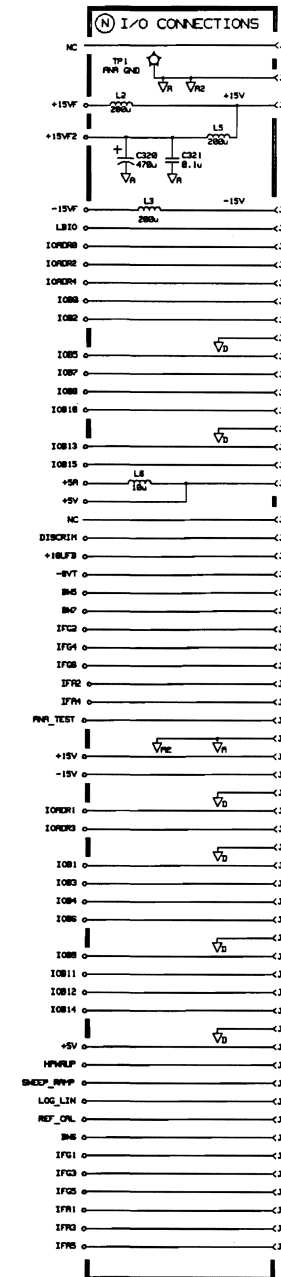
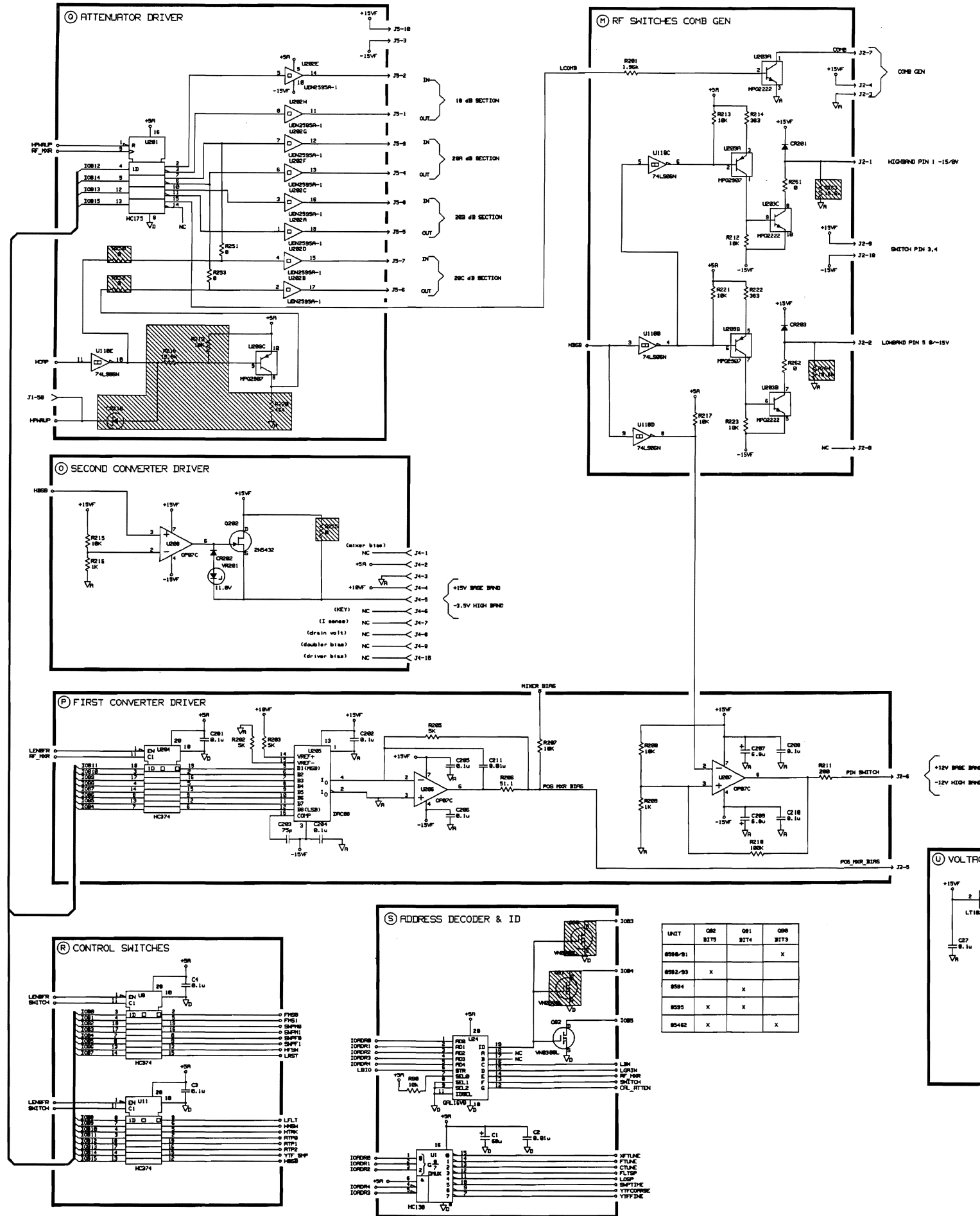
SEE 08592-60073 MATERIAL LIST

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OTHERS EXCEPT AS AUTHORIZED BY HP.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		DATE		BOARD ASSEMBLY- FAN/LOG INTERFACE		HEWLETT PACKARD	
TOLERANCES:	AS SHOWN	DESIGNED BY	CHECKED BY	DATE	DATE	08592-60073	
SEE COMP. STD. 800	ALPHABETIC INC.						
NONE		1		1		E-08592-60073-2	



SYN	REVIEWS	APPROVED	DATE
A	AS ISSUED	maryw	
B	PER PCO 53-07516	BC	



**J1**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NC		
2	NC		
3	NC		
4	NC		
5	NC		
6	NC		
7	NC		
8	NC		
9	NC		
10	NC		
11	NC		
12	NC		
13	NC		
14	NC		
15	NC		
16	NC		
17	NC		
18	NC		
19	NC		
20	NC		
21	NC		
22	NC		
23	NC		
24	NC		
25	NC		
26	NC		
27	NC		
28	NC		
29	NC		
30	NC		

**J2**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NC		
2	NC		
3	NC		
4	NC		
5	NC		
6	NC		
7	NC		
8	NC		
9	NC		
10	NC		
11	NC		
12	NC		
13	NC		
14	NC		
15	NC		
16	NC		
17	NC		
18	NC		
19	NC		
20	NC		
21	NC		
22	NC		
23	NC		
24	NC		
25	NC		
26	NC		
27	NC		
28	NC		
29	NC		
30	NC		

**J3**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NC		
2	NC		
3	NC		
4	NC		
5	NC		
6	NC		
7	NC		
8	NC		
9	NC		
10	NC		
11	NC		
12	NC		
13	NC		
14	NC		
15	NC		
16	NC		
17	NC		
18	NC		
19	NC		
20	NC		
21	NC		
22	NC		
23	NC		
24	NC		
25	NC		
26	NC		
27	NC		
28	NC		
29	NC		
30	NC		

**J4**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NC		
2	NC		
3	NC		
4	NC		
5	NC		
6	NC		
7	NC		
8	NC		
9	NC		
10	NC		
11	NC		
12	NC		
13	NC		
14	NC		
15	NC		
16	NC		
17	NC		
18	NC		
19	NC		
20	NC		
21	NC		
22	NC		
23	NC		
24	NC		
25	NC		
26	NC		
27	NC		
28	NC		
29	NC		
30	NC		

**J5**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NC		
2	NC		
3	NC		
4	NC		
5	NC		
6	NC		
7	NC		
8	NC		
9	NC		
10	NC		
11	NC		
12	NC		
13	NC		
14	NC		
15	NC		
16	NC		
17	NC		
18	NC		
19	NC		
20	NC		
21	NC		
22	NC		
23	NC		
24	NC		
25	NC		
26	NC		
27	NC		
28	NC		
29	NC		
30	NC		

**J301**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NC		
2	NC		
3	NC		
4	NC		
5	NC		
6	NC		
7	NC		
8	NC		
9	NC		
10	NC		
11	NC		
12	NC		
13	NC		
14	NC		
15	NC		
16	NC		
17	NC		
18	NC		
19	NC		
20	NC		
21	NC		
22	NC		
23	NC		
24	NC		
25	NC		
26	NC		
27	NC		
28	NC		
29	NC		
30	NC		

**PHONETIC**

1	2	3
1	U	T,V
2	U	
3	U	
4	U	
5	U	
6	U	
7	U	
8	U	
9	U	
10	U	
11	U	
12	U	
13	U	
14	U	
15	U	
16	U	
17	U	
18	U	
19	U	
20	U	
21	U	
22	U	
23	U	
24	U	
25	U	
26	U	
27	U	
28	U	
29	U	
30	U	

NOTES:

1. REFERENCE DESIGNATORS WITHIN THIS SCHEMATIC ARE RESERVATED. PREFIX INDICATES THE RESERVATION NUMBER FOR COMPLETE REFERENCE.

2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN MICROFARADS (μF) INDUCTANCE IN MICROHENRIES (μH)

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DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES Dwg.	

SCHEMATIC, PWA  
ANALOG  
INTERFACE

s2abc073	FILENAME	HEWLETT PACKARD
NONE	SCALE	
2 of 3	SHEET	08592-60073
D-08592-60073-1	PART NUMBER	



# **Component-Level Information Packet for 08593-60021**

## **3RD Converter**



**HEWLETT  
PACKARD**

**HP Part No. 08590-90146  
Printed in USA    October 1992**

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**HP Part Number 08593-60021**  
**3RD Converter**

Reference Designator	HP Part Number	C	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4799	2	1	CAP-FXD 2.2pF +-11.36% 100 V CER C0G	09939	RPA10C0G2R2C100
C2	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C3	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C4	0160-4382	9	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	09939	RPE121-105C0G3R3C200V
C5	0160-4790	3	1	CAP-FXD 12pF +-5% 100 V CER C0G	09939	RPA10C0G120J100
C6	0160-4790	3	1	CAP-FXD 12pF +-5% 100 V CER C0G	09939	RPA10C0G120J100
C7	0160-4790	3	1	CAP-FXD 12pF +-5% 100 V CER C0G	09939	RPA10C0G120J100
C8	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C9	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C10	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C11	0160-4795	8	1	CAP-FXD 4.7pF +-10.64% 100 V CER C0G	09939	RPA10C0G4R7D100
C12	0160-4790	3	1	CAP-FXD 12pF +-5% 100 V CER C0G	09939	RPA10C0G120J100
C13	0160-4793	6	1	CAP-FXD 6.8pF +-7.35% 100 V CER C0G	09939	RPA10C0G6R8D100
C14	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C15	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C16	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C17	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C18	0160-4801	7	1	CAP-FXD 100pF +-5% 100 V CER C0G	09939	RPA10C0G101J100V
C19	0180-4130	7	1	CAP-FXD 2.2uF +-10% 20 V TA	04200	173D225X9020V
C20	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C21	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C22	0160-4805	1	1	CAP-FXD 47pF +-5% 100 V CER C0G	09939	RPA10C0G470J100V
C23	0160-4805	1	1	CAP-FXD 47pF +-5% 100 V CER C0G	09939	RPA10C0G470J100V
C24	0160-4805	1	1	CAP-FXD 47pF +-5% 100 V CER C0G	09939	RPA10C0G470J100V
C25	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C26	0160-4799	2	1	CAP-FXD 2.2pF +-11.36% 100 V CER C0G	09939	RPA10C0G2R2C100
C27	0180-4132	9	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	173D685X9035X
C28	0160-4822	2	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPA20C0G102J100V
C29	0180-4130	7	1	CAP-FXD 2.2uF +-10% 20 V TA	04200	173D225X9020V
C30	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C31	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C32	0160-4389	6	1	CAP-FXD 100pF +-5% 200 V CER C0G	09939	RPE121-105C0G101J200V
C34	0180-4134	1	1	CAP-FXD 22uF +-10% 15 V TA	04200	173D226X9015X
C36	0160-3879	7	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C37	0160-4554	7	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	09939	RPA10X7R103M50V

\*Indicates factory-selected value

**HP Part Number 08593-60021**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C38	0160-4523	0	1	CAP-FXD 16pF +5% 200 V CER C0G	09939	RPE121-105C0G160J200V
C39	0160-4574	1	1	CAP-FXD 1000pF +10% 100 V CER X7R	09939	RPA10X7R102K100V
C41	0160-4798	1	1	CAP-FXD 2.7pF +9.26% 100 V CER C0G	09939	RPA10C0G2R7C100
C43	0160-4795	8	1	CAP-FXD 4.7pF +10.64% 100 V CER C0G	09939	RPA10C0G4R7D100
C44	0121-0444	4	1	CAP-VAR 9pF 3pF 160 V CER C0G	01468	302-450-204
C45	0160-4795	8	1	CAP-FXD 4.7pF +10.64% 100 V CER C0G	09939	RPA10C0G4R7D100
C46	0121-0444	4	1	CAP-VAR 9pF 3pF 160 V CER C0G	01468	302-450-204
C47	0121-0444	4	1	CAP-VAR 9pF 3pF 160 V CER C0G	01468	302-450-204
C48	0160-4796	9	1	CAP-FXD 3.9pF +6.4% 100 V CER C0G	09939	RPA10C0G3R9C100
C49	0160-3872	0	1	CAP-FXD 2.2pF +11.36% 200 V CER C0G	09939	RPE121-105C0G2R2C200V
C50	0160-4809	5	1	CAP-FXD 390pF +5% 100 V CER C0G	09939	RPA10C0G391J100V
C51	0160-5348	9	1	CAP-FXD 51pF +5% 100 V CER C0G	09939	RPA10C0G510J100
C52	0160-3873	1	1	CAP-FXD 4.7pF +10.64% 200 V CER C0G	09939	RPE121-105C0G4R7D200V
C53	0160-5413	9	1	CAP-FXD 160pF +5% 100 V CER C0G	09939	RPA10C0G161J100V
C54	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C55	0160-5422	0	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPA20X7R473M50V
C56	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C57	0160-4831	3	1	CAP-FXD 4700pF +10% 100 V CER X7R	09939	RPA10X7R472K100V
C58	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C59	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C61	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C62	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C63	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C64	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C65	0160-4535	4	1	CAP-FXD 1uF +10% 50 V CER X7R	09939	RPE113-130X7R105K50V
C66	0160-3873	1	1	CAP-FXD 4.7pF +10.64% 200 V CER C0G	09939	RPE121-105C0G4R7D200V
C67	0160-3873	1	1	CAP-FXD 4.7pF +10.64% 200 V CER C0G	09939	RPE121-105C0G4R7D200V
C68	0160-4383	0	1	CAP-FXD 6.8pF +7.35% 200 V CER C0G	09939	RPE121-105C0G6R8D200V
C69	0160-4490	0	1	CAP-FXD 1.8pF +13.89% 200 V CER C0G	09939	RPE121-105C0G1R8C200V
C70	0160-4801	7	1	CAP-FXD 100pF +5% 100 V CER C0G	09939	RPA10C0G101J100V
C71	0160-5422	0	1	CAP-FXD 0.047uF +20% 50 V CER X7R	09939	RPA20X7R473M50V
C72	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C73	0160-4380	7	1	CAP-FXD 1pF +25% 200 V CER C0G	09939	RPE110-120C0G010C200V
C74	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C75	0160-4382	9	1	CAP-FXD 3.3pF +7.58% 200 V CER C0G	09939	RPE121-105C0G3R3C200V



**HP Part Number 08593-60021**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C76	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C77	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C78	0160-4790	3	1	CAP-FXD 12pF +5% 100 V CER C0G	09939	RPA10C0G120J100
C79	0160-3879	7	1	CAP-FXD 0.01uF +20% 100 V CER X7R	09939	RPE121-105X7R103M100V
C80	0160-4383	0	1	CAP-FXD 6.8pF +7.35% 200 V CER C0G	09939	RPE121-105C0G6R8D200V
CR1	0122-0161	4	1	DIODE-VVC 2.15PF 7% C 3/C25-MIN=4.5	28480	0122-0161
CR2	1901-1070	9	1	DIODE-PIN 110V	28480	1901-1070
J1	1252-2816	6	1	CONN-POST TYPE .100-PIN-SPCG 20-CONT	01380	5-87729-6
J2	1250-1955	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-1955
J3	1250-1955	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-1955
J4	1250-1955	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-1955
J5	1250-1955	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-1955
J6	1252-2816	6	1	CONN-POST TYPE .100-PIN-SPCG 20-CONT	01380	5-87729-6
J7	1250-1955	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-1955
L1	9100-2251	0	1	INDUCTOR RF-CH-MLD 220NH +-10%	03706	1A2203M+-10%
L2	9135-0070	0	1	INDUCTOR 24NH +-6.25% 2.6D-MMX6.6LG-MM	03273	10M024X-1
L3	9135-0075	5	1	INDUCTOR RF-CH-MLD 43NH +-6.047%	02172	
L4	9100-2256	5	1	INDUCTOR RF-CH-MLD 560NH +-10%	03706	1A5603M+-10%
L5	9100-2247	4	1	INDUCTOR RF-CH-MLD 100NH +-10%	03706	1A1003M+-10%
L6	9100-2255	4	1	INDUCTOR RF-CH-MLD 470NH +-10%	03706	1A4703M+-10%
L7	9100-2255	4	1	INDUCTOR RF-CH-MLD 470NH +-10%	03706	1A4703M+-10%
L9	9100-2891	4	1	INDUCTOR RF-CH-MLD 50NH +-10%	03706	6-02729
L10	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L11	9100-2256	5	1	INDUCTOR RF-CH-MLD 560NH +-10%	03706	1A5603M+-10%
L12	9100-2250	9	1	INDUCTOR RF-CH-MLD 180NH +-10%	03706	1A1803M+-10%
L13	9100-3552	6	1	INDUCTOR RF-CH-MLD 1.5UH +-5%	03706	21502M-5%
L14	9100-3560	6	1	INDUCTOR RF-CH-MLD 5.6UH +-5%	03706	25602M-5%
L16	9100-3562	8	1	INDUCTOR RF-CH-MLD 4.7UH +-5%	03706	24702M-5%
L18	9135-0068	6	1	INDUCTOR RF-CH-MLD 33NH +-6.36%	02172	
L20	9100-2250	9	1	INDUCTOR RF-CH-MLD 180NH +-10%	03706	1A1803M+-10%
L22	9100-2251	0	1	INDUCTOR RF-CH-MLD 220NH +-10%	03706	1A2203M+-10%
L24	9100-2255	4	1	INDUCTOR RF-CH-MLD 470NH +-10%	03706	1A4703M+-10%
L25	9100-2247	4	1	INDUCTOR RF-CH-MLD 100NH +-10%	03706	1A1003M+-10%
L26	9135-0077	7	1	INDUCTOR 36NH +-6.389% 2.6D-MMX6.6LG-MM	03273	10M036X-1
MP2	2190-0124	4	5	WASHER-LK INTL T NO. 10 .195-IN-ID	05769	3002-26

\*Indicates factory-selected value

**HP Part Number 08593-60021**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
MP3	2950-0078	9	5	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	04637	500220
MP4	2200-0101	0	2	SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI	04771	
MP6	86701-40001	9	1		28480	86701-40001
MP7	1200-0173	5	1	INSULATOR-XSTR DAP-GL	02210	A-10001 DAP
MP8	3050-0945	2	5	WASHER-FL MTLC NO. 10 .2-IN-ID .33-IN-OD	05313	5714-165-063
Q1	1853-0451	5	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q2	1854-0720	3	1	TRANSISTOR NPN SI PD=500MW FT=4GHZ	28480	1854-0720
Q4	1854-0632	6	1	TRANSISTOR NPN SI PD=180MW FT=4GHZ	28480	1854-0632
Q5	1853-0451	5	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q6	1854-0720	3	1	TRANSISTOR NPN SI PD=500MW FT=4GHZ	28480	1854-0720
Q7	1853-0007	7	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q8	1854-1142	5	1	TRANSISTOR NPN SI TO-92 PD=625MW FT=6GHZ	28480	1854-1142
Q9	1853-0451	5	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q10	1854-0720	3	1	TRANSISTOR NPN SI PD=500MW FT=4GHZ	28480	1854-0720
Q11	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q12	1853-0451	5	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q13	1854-0946	5	1	TRANSISTOR NPN SI PD=290MW	00039	NE02135
R1	0698-7257	2	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R2	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R3	0698-7247	0	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R4	0699-2069	6	1	RESISTOR 13.3 +-1% .05W TF TC=0+-100	05524	CMF-50-21
R5	0698-3445	2	1	RESISTOR 348 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R6	0698-3445	2	1	RESISTOR 348 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R7	0698-7219	6	1	RESISTOR 196 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R8	0698-7221	0	1	RESISTOR 237 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R9	0699-1903	5	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-21
R10	0699-2079	8	1	RESISTOR 82.5 +-1% .05W TF TC=0+-100	05524	CMF-50-21
R11	0698-7219	6	1	RESISTOR 196 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R12	0698-7237	8	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R13	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R14	0698-7188	8	1	RESISTOR 10 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R15	0698-7209	4	1	RESISTOR 75 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R16	0698-7251	6	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R17	0698-7239	0	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R18	0698-7224	3	1	RESISTOR 316 +-1% .05W TF TC=0+-100	05524	CMF-50-2

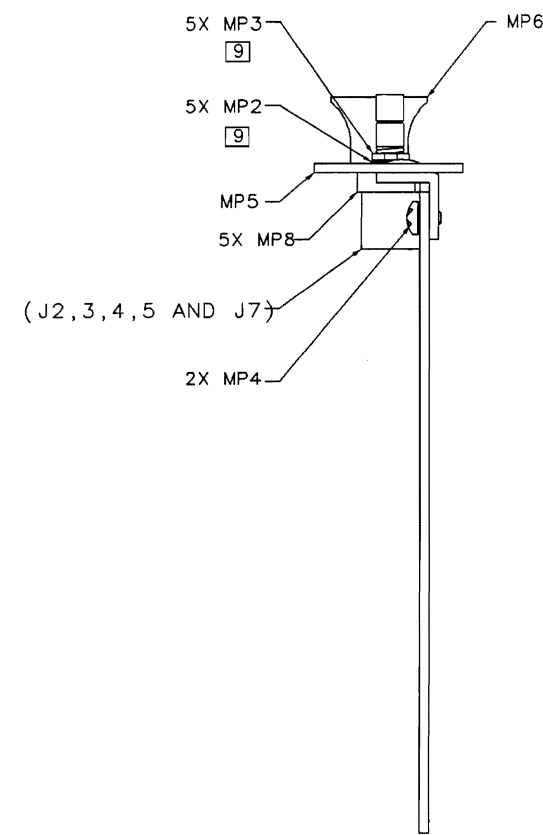
**HP Part Number 08593-60021**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R19	2100-3351	6	1	RESISTOR-TRMR 500 10% TKF SIDE-ADJ 1-TRN	03744	3386X-Y46-501
R20	0698-7237	8	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R21	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R22	0757-0416	7	1	RESISTOR 511 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R23	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R24	0698-7224	3	1	RESISTOR 316 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R25	0698-7197	9	1	RESISTOR 23.7 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R26	0698-7255	0	1	RESISTOR 6.19K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R27	0698-7254	9	1	RESISTOR 5.62K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R28	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R29	0698-7247	0	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R30	0698-7192	4	1	RESISTOR 14.7 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R32	0698-7217	4	1	RESISTOR 162 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R33	0757-0402	1	1	RESISTOR 110 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R34	0757-0398	4	1	RESISTOR 75 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R35	0698-7210	7	1	RESISTOR 82.5 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R36	0698-3430	5	1	RESISTOR 21.5 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R37	0698-3430	5	1	RESISTOR 21.5 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R38	0698-0082	7	1	RESISTOR 464 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R39	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R40	0698-3136	8	1	RESISTOR 17.8K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R41	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R42	0698-3442	9	1	RESISTOR 237 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R43	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R44	0699-1903	5	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-21
R45	0699-1903	5	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-21
R46	0698-8822	9	1	RESISTOR 6.81 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R47	0698-8822	9	1	RESISTOR 6.81 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R48	0698-7261	8	1	RESISTOR 11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R49	0698-7251	6	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R50	0698-7243	6	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R51	0698-7224	3	1	RESISTOR 316 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R52	0757-0405	4	1	RESISTOR 162 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R53	0757-0405	4	1	RESISTOR 162 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R54	0698-7205	0	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	05524	CMF-50-2


\*Indicates factory-selected value

**HP Part Number 08593-60021**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R55	0757-0419	0	1	RESISTOR 681 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R56	0698-0082	7	1	RESISTOR 464 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R57	0757-0416	7	1	RESISTOR 511 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R58	0698-4037	0	1	RESISTOR 46.4 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R59	0698-0084	9	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R60	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R62	0698-0084	9	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R63	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R64	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R65	0698-7253	8	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R66	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R67	0698-7284	5	1	RESISTOR 100K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R68	2100-3355	0	1	RESISTOR-TRMR 100K 10% TKF SIDE-ADJ	03744	3386X-Y46-104
R69	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R70	0698-7215	2	1	RESISTOR 133 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R71	0699-1948	8	1	RESISTOR 46.4 +-1% .05W TF TC=0+-100	05524	CMF-50-21
R72	0699-2032	3	1	RESISTOR 147 +-1% .05W TF TC=0+-100	05524	CMF-50-21
T1	08558-80003	6	1	COIL, FILTER	28480	08558-80003
U1	1820-3485	2	1	IC PRESCR ECL	02037	MC12090P
U2	1826-0372	2	1	IC MISC 8 PIN DIP-P	01876	A251-0100
U3	1813-0211	1	1	IC WIDEBAND AMPL TO-39	28480	1813-0211
U4	0955-0113	1	1	U-WAVE MIXER 1 GHZ MAX	02739	TFM-2-38
U5	0410-2119	7	1	RESONATOR-SURF ACST W FREQUENCY:599.95	12127	RP-1192-2
VR1	1902-0025	4	1	DIODE-ZNR 10V 5% DO-35 PD=.4W TC=+.06%	02688	
VR2	1902-0949	1	1	DIODE-ZNR 4.3V 5% DO-35 PD=.4W TC=+.017%	28480	1902-0949
W1	8159-0005	0	1	RESISTOR 0 CWM	01339	L-2007-1



1. DIMENSIONS ARE IN INCHES.
2. REMOVE TABS AFTER WAVE SOLDER.
3. MAXIMUM COMPONENT HEIGHT .400.
4. MAX LEAD TRIM .100.
5. 08590-60193 AND 08593-60021 USE RAW 08590-20192 ADD LABEL (MP11) TO MAKE DISTINCTION.
6. CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-08590-A9.
7. DO NOT LOAD R71,R72 AND J7 ON ASSEMBLY AND 08590-60193.
8. LOAD R71,R72 AND J7 ON ASSEMBLY 08593-60021.
9. DECREASE QUANTITY TO (4) FOR MP2 AND MP3 ON ASSEMBLY 08590-60193.

08593-60021	08593-60021	NOTE	5	8	9	
08590-60193	08590-60193	NOTE	5	7		
BOARD #	MAT'L LIST	NOTES				
TABLE 1						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.  TOLERANCES: XX .XXX 0.015  SEE CORP. STD. 608		DRAWN BY  ENGINEER/CHECKER  RELEASED TO PROD.  SUPERSEDES DWG.	DATE        	BOARD ASSEMBLY 3RD CONVERTER  TITLE NONE		 <b>HEWLETT PACKARD</b>  PART NUMBER 08593-6002
				SHEET 1 of 1	D-08593-60021-2	

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED	BC	
B	PER PCO 53-07389	EW	
C	PER PCO 53-07389 REV B	BC	
D	PER PCO 53-07451	DC	

J1	SIGNAL	FUNCTION BLOCK
1	ROOM	C
2	ROOM	C
3	ROOM	C
4	ROOM	C
5	ROOM	C
6	ROOM	C
7	ROOM	C
8	ROOM	C
9	ROOM	C
10	ROOM	C
11	ROOM	C
12	ROOM	C
13	ROOM	C
14	ROOM	C
15	ROOM	C
16	ROOM	C
17	ROOM	C
18	ROOM	C
19	ROOM	C
20	ROOM	C

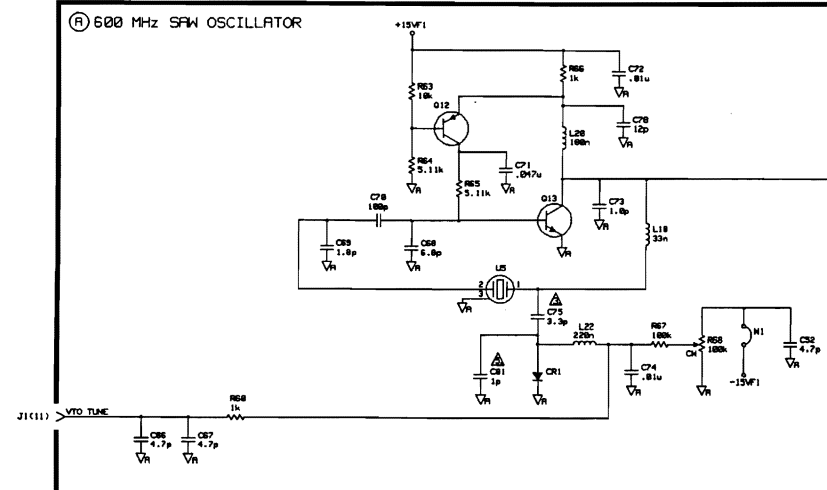
J6	SIGNAL	FUNCTION BLOCK
1	ROOM	C
2	ROOM	C
3	ROOM	C
4	ROOM	C
5	ROOM	C
6	ROOM	C
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8	ROOM	C
9	ROOM	C
10	ROOM	C
11	ROOM	C
12	ROOM	C
13	ROOM	C
14	ROOM	C
15	ROOM	C
16	ROOM	C
17	ROOM	C
18	ROOM	C
19	ROOM	C
20	ROOM	C

NOTES:  
1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE INDICATED BY PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATION.  
2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN PICOFARADS (pF) INDUCTANCE IN MICROHENRIES (μH)

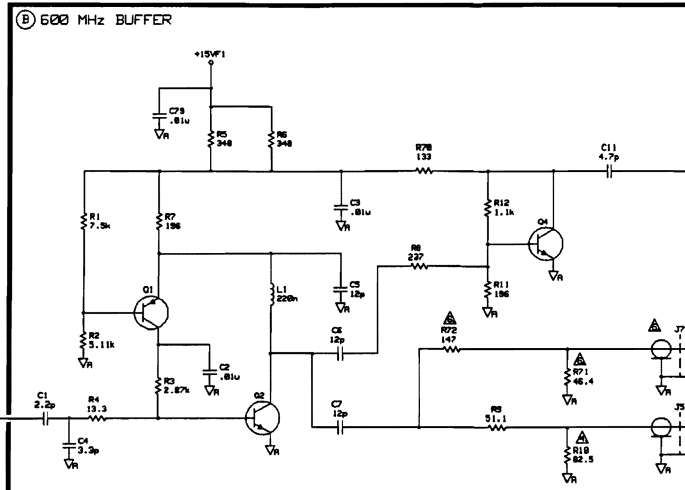
- ▲ FACTORY SELECT PART  
▲ OPTION DEPENDENT COMPONENT VALUES SEE CHART  
▲ DO NOT LOAD ON 1 & 31 THESE ARE FOR FUTURE DEVELOPMENT.  
▲ OPTION DEPENDENT OMITTED COMPONENTS SEE CHART

THIS DRAWING IS USED FOR THE FOLLOWING ASSEMBLIES:		
08590-60193	08590-60193	▲ OMIT R71, R72, & J7
		▲ R20 = 1.33k
		▲ R23 = 147
		▲ R21 = 147
		▲ L2 = 39nH
		▲ R50 = 82.5
		▲ R10 = 46.4
08593-60021	08593-60021	
PART NO.	MATERIAL LIST	REMARKS
TABLE 1		

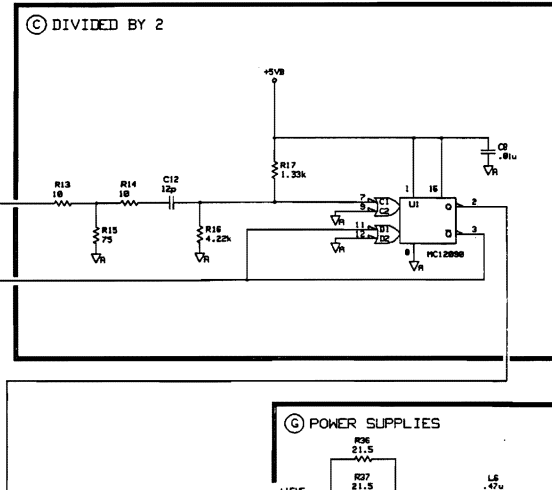
A 600 MHz SAW OSCILLATOR



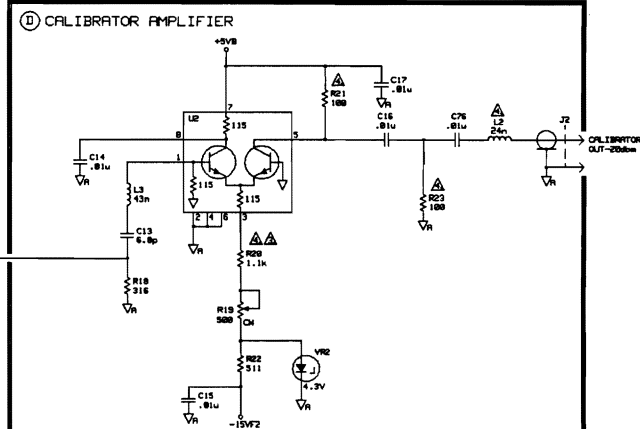
B 600 MHz BUFFER



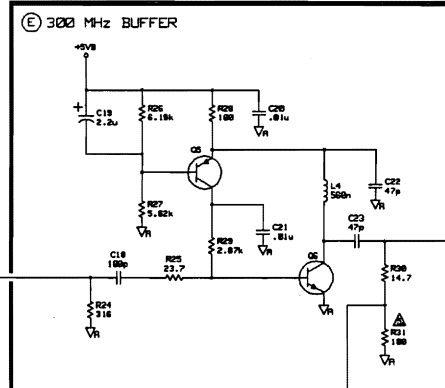
C DIVIDED BY 2



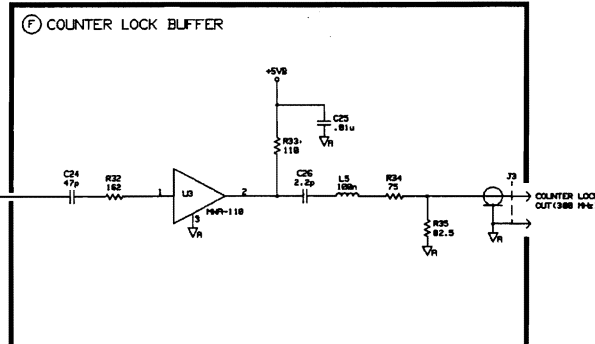
D CALIBRATOR AMPLIFIER



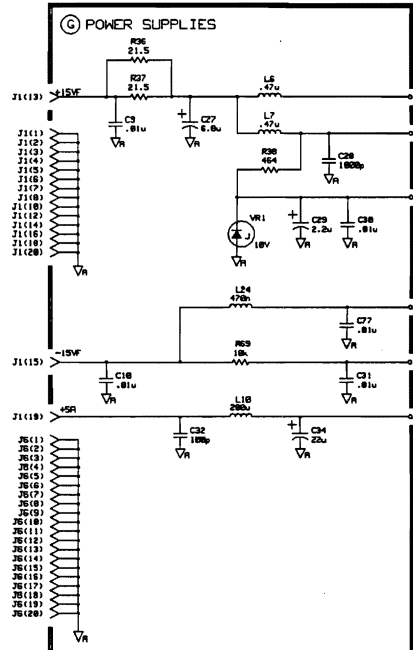
E 300 MHz BUFFER



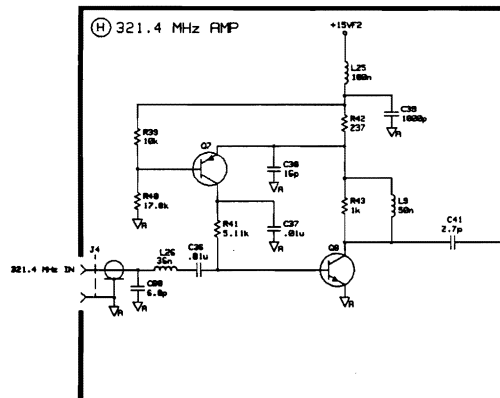
F COUNTER LOCK BUFFER



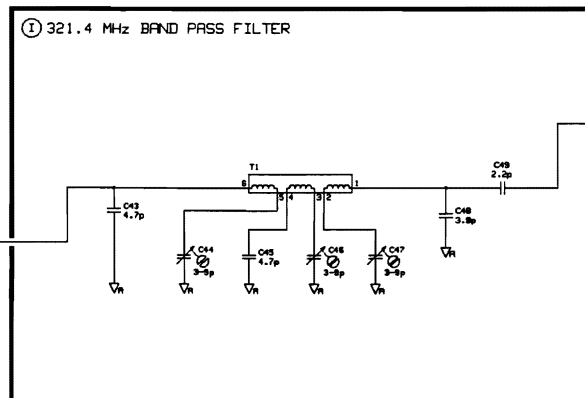
G POWER SUPPLIES



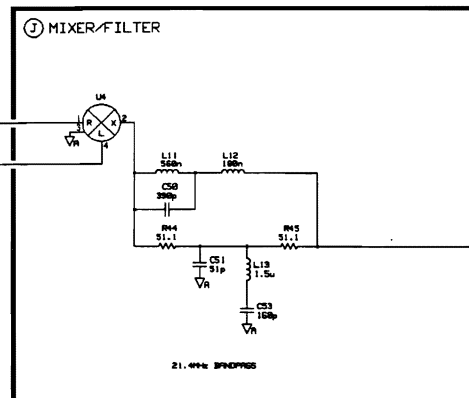
H 321.4 MHz AMP



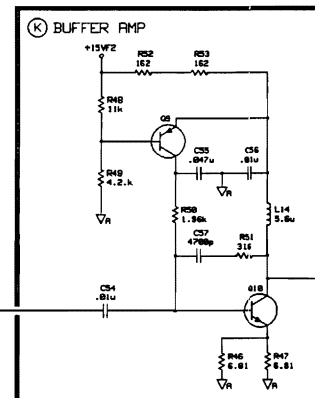
I 321.4 MHz BAND PASS FILTER



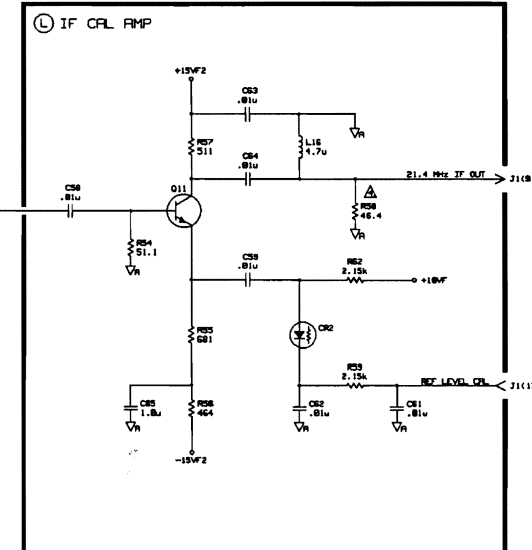
J MIXER/FILTER



K BUFFER AMP



L IF CAL AMP



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ITEM	QTY.	PART/MATERIAL-DESCRIPTION	PART/L-PART NO.	PART/L-ENG. NO.	PART/L-SPEC.
DRAWN BY		DATE	BOARD ASSEMBLY-3RD CONVERTER (SCHEMATIC)		
ENGINEER-CHECKER			TITLE		
RELEASE TO PROD.			FILED: 08593-60021		
SUPERSEDES ENG.			SCALE NONE SHEET 1 OF 1		
			PART NUMBER SEE TABLE 1		
			D-08593-60021-1		

# **Component-Level Information Packet for 08594-60008**

## **Analog Interface**



HP Part No. 08594-90027  
Printed in USA October 1992

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**HP Part Number 08594-60008**  
**Analog Interface**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3850	6	1	CAP-FXD 68uF +-10% 10 V TA	04200	299D686X9010DB1
C2	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C3	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C4	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C7	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C8	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C10	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C12	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C13	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C14	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C15	0160-4800	6	1	CAP-FXD 120pF +-5% 100 V CER C0G	09939	RPA10C0G121J100V
C16	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C17	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C18	0160-4800	6	1	CAP-FXD 120pF +-5% 100 V CER C0G	09939	RPA10C0G121J100V
C19	0180-3846	0	1	CAP-FXD 15uF +-10% 25 V TA	04200	299D156X9025DB1
C20	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C21	0180-3846	0	1	CAP-FXD 15uF +-10% 25 V TA	04200	299D156X9025DB1
C22	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C23	0160-4822	2	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPA20C0G102J100V
C24	0160-6223	1	1	CAP-FXD 2uF +-5% 100 V POLYP-MET	05176	X335 2.0UF 100V 5%
C27	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C28	0180-3817	5	1	CAP-FXD 100uF +-20% 50 V AL-ELCTLT	28480	0180-3817
C30	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C31	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C32	0180-3846	0	1	CAP-FXD 15uF +-10% 25 V TA	04200	299D156X9025DB1
C33	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C34	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C35	0180-3635	5	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3635
C36	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C37	0160-4831	3	1	CAP-FXD 4700pF +-10% 100 V CER X7R	09939	RPA10X7R472K100V
C38	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C39	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C40	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C41	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C44	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V

\*Indicates factory-selected value

**HP Part Number 08594-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C45	0160-4833	5	1	CAP-FXD 0.022uF +-10% 100 V CER X7R	09939	RPA20X7R223K100V
C46	0160-4819	7	1	CAP-FXD 2200pF +-5% 100 V CER C0G	09939	RPA30C0G222J100VPT
C49	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C50	0180-3643	5	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C52	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C54	0160-4831	3	1	CAP-FXD 4700pF +-10% 100 V CER X7R	09939	RPA10X7R472K100V
C55	0180-3641	3	1	CAP-FXD 1000uF +-20% 10 V AL-ELCTLT	28480	0180-3641
C59	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C60	0160-4822	2	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPA20C0G102J100V
C61	0160-4834	6	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	09939	RPA30X7R473K100V
C62	0160-4834	6	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	09939	RPA30X7R473K100V
C63	0180-3771	0	1	CAP-FXD 1uF +-10% 35 V TA	04200	299D105X9035AB1
C64	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C65	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C66	0180-3771	0	1	CAP-FXD 1uF +-10% 35 V TA	04200	299D105X9035AB1
C101	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C102	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C103	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C104	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C105	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C106	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C107	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C108	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C109	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C110	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C111	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C112	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C113	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C150	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C151	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C305	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C317	0180-3643	5	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C910	0160-4574	1	1	CAP-FXD 1000pF +-10% 100 V CER X7R	09939	RPA10X7R102K100V
CR1	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050

**HP Part Number 08594-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
CR3	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR4	1901-0518	8	1	DIODE-SCHOTTKY SM SIG	12395	5082-2800
CR5	1901-0518	8	1	DIODE-SCHOTTKY SM SIG	12395	5082-2800
CR6	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR101	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR102	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR210	1901-0734	0	1	DIODE-PWR RECT 1N5818 30V 1A	28480	1901-0734
J1	1251-8912	3	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8912
J3	1251-7683	3	1	CONN-POST TYPE .100-PIN-SPCG 10-CONT	01380	87227-5
J4	1252-2008	8	1	CONN-POST TYPE .100-PIN-SPCG 9-CONT	02946	68451-124
J5	1252-2028	2	1	CONN-POST TYPE .100-PIN-SPCG 10-CONT	04726	2510-5022UB
J6	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
L1	9140-0245	2	1	INDUCTOR RF-CH-MLD 445MH +-5%	28480	9140-0245
L2	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L3	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L4	9100-1641	0	1	INDUCTOR RF-CH-MLD 240UH +-5%	05826	1537-94
L6	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
MP8	1205-0583	1	1	HEAT SINK SGL TO-5/TO-39-CS	02608	2215B-SS1
MP13	1200-0173	5	3	INSULATOR-XSTR DAP-GL	02210	A-10001 DAP
Q1	1855-0646	4	1	TRANSISTOR MOSFET N-CHAN E-MODE TO-39 SI	28480	1855-0646
Q2	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q3	1855-0449	5	1	TRANSISTOR J-FET 2N5434 N-CHAN D-MODE	28480	1855-0449
Q4	1855-0686	2	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-92 SI	07221	VP0206N3
Q5	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q6	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q8	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q9	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q10	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q20	1854-0637	1	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	28480	1854-0637
Q21	1853-0314	9	1	TRANSISTOR PNP 2N2905A SI TO-39 PD=400MW	28480	1853-0314
Q91	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q150	1854-0637	1	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	28480	1854-0637
R1	0698-6624	5	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R2	0698-6624	5	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R3	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9

\*Indicates factory-selected value

**HP Part Number 08594-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R4	0698-6630	3	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R5	0698-6343	5	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R6	0698-6344	6	1	RESISTOR 900 +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R7	0698-6323	1	1	RESISTOR 100 +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R8	0698-6353	7	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R9	0698-6353	7	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R10	0699-0517	5	1	RESISTOR 5.621K +0.1% .1W TF TC=0+4	05524	PTF-56-6
R11	0698-6322	0	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R12	0698-6322	0	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R13	0698-3446	3	1	RESISTOR 383 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R14	0698-3442	9	1	RESISTOR 237 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R15	0757-1000	7	1	RESISTOR 51.1 +-1% .5W TF TC=0+-100	05524	CMF-65-2
R16	0757-1000	7	1	RESISTOR 51.1 +-1% .5W TF TC=0+-100	05524	CMF-65-2
R17	0698-6343	5	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R18	0698-6362	8	1	RESISTOR 1K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R19	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R20	0698-3446	3	1	RESISTOR 383 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R21	0698-6624	5	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R22	0698-6624	5	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R23	0698-7229	8	1	RESISTOR 511 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R24	0698-3904	8	1	RESISTOR 14.7K +0.1% .1W TF TC=0+-10	05524	PTF-56-7
R25	0699-1269	6	1	RESISTOR 2.31K +0.1% .1W TF TC=0+-10	05524	PTF-56-7
R26	0699-0936	2	1	RESISTOR 57.014K +0.1% .1W TF TC=0+-5	05524	PTF-56-7
R27	0698-5362	6	1	RESISTOR 1.477K +0.1% .1W TF TC=0+-5	05524	PTF-56-7
R28	0698-8831	0	1	RESISTOR 13.4K +0.1% .125W TF TC=0+-10	05524	PTF-56-7
R29	0699-0118	2	1	RESISTOR 20K +0.1% .1W TF TC=0+-5	05524	PTF-56-7
R30	0699-1146	8	1	RESISTOR 9.064K +0.1% .1W TF TC=0+4	05524	PTF-56-6
R31	0699-0936	2	1	RESISTOR 57.014K +0.1% .1W TF TC=0+-5	05524	PTF-56-7
R32	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R33	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R34	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R35	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R36	0698-3153	9	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R37	0699-2109	5	1	RESISTOR 25K +0.1% .125W TF TC=0+-5	06337	5023Z
R38	0699-1825	0	1	RESISTOR 50 +-1% .3W MF TC=0+-5	02928	301464

**HP Part Number 08594-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R39	0699-1825	0	1	RESISTOR 50 $\pm 1\%$ .3W MF TC=0 $\pm$ 5	02928	301464
R40	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R41	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R42	0698-6320	8	1	RESISTOR 5K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R43	0698-8812	7	1	RESISTOR 1 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R44	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R45	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R46	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R47	0757-0280	3	1	RESISTOR 1K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R48	0757-0465	6	1	RESISTOR 100K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R49	0757-0465	6	1	RESISTOR 100K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R50	0699-1147	9	1	RESISTOR 9.53K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 4	05524	PTF-56-6
R51	0699-0078	3	1	RESISTOR 2.1K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 10	05524	PTF-56-7
R52	0698-6630	3	1	RESISTOR 20K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R53	0698-6630	3	1	RESISTOR 20K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R54	0698-6358	2	1	RESISTOR 100K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R55	0698-6355	9	1	RESISTOR 400 $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R56	0698-6630	3	1	RESISTOR 20K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R57	0698-0084	9	1	RESISTOR 2.15K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R58	0698-3155	1	1	RESISTOR 4.64K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R59	0757-0199	3	1	RESISTOR 21.5K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R60	0698-3153	9	1	RESISTOR 3.83K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R61	0757-0460	1	1	RESISTOR 61.9K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R64	0698-8838	7	1	RESISTOR 3.52K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 10	05524	PTF-56-7
R65	0698-3942	4	1	RESISTOR 69.8K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1
R66	0698-8827	4	1	RESISTOR 1M $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R67	0698-6630	3	1	RESISTOR 20K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R69	0757-0477	0	1	RESISTOR 332K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R70	0698-7236	7	1	RESISTOR 1K $\pm 1\%$ .05W TF TC=0 $\pm$ 100	05524	CMF-50-2
R72	0698-7212	9	1	RESISTOR 100 $\pm 1\%$ .05W TF TC=0 $\pm$ 100	05524	CMF-50-2
R80	0757-0346	2	1	RESISTOR 10 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R81	0757-0346	2	1	RESISTOR 10 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R90	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ 100	05524	CMF-50-2
R101	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R102	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9

\*Indicates factory-selected value

**HP Part Number 08594-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R103	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R104	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R105	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R106	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R107	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R108	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R110	0757-0458	7	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R111	0757-0439	4	1	RESISTOR 6.81K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R112	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R113	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R114	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R115	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R116	0698-7277	6	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R117	0757-0438	3	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R118	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R119	0698-7263	0	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R120	0698-3154	0	1	RESISTOR 4.22K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R121	0698-7248	1	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R122	0757-0447	4	1	RESISTOR 16.2K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R150	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R151	0698-7233	4	1	RESISTOR 750 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R152	0757-0180	2	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R153	0698-7257	2	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R154	0757-0279	0	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R218	0698-7267	4	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R219	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R220	0698-7228	7	1	RESISTOR 464 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R250	0811-3587	5	1	RESISTOR 0 CWM	03123	104
R252	0811-3587	5	1	RESISTOR 0 CWM	03123	104
R255	0811-3587	5	1	RESISTOR 0 CWM	03123	104
R319	0698-8812	7	1	RESISTOR 1 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R910	0698-7196	8	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	05524	CMF-50-2
TP2	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1820-3079	0	1	IC DCDR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U2	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933

**HP Part Number 08594-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U5	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U6	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U8	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U9	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U10	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U11	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U12	1826-1969	5	1	IC OP AMP LOW-DRIFT DUAL 8 PIN DIP-C	28480	1826-1969
U13	1810-0318	3	1	NETWORK-RES 6-SIP 1.0K OHM X 5	06252	750-61
U14	1826-0811	4	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-0811
U15	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U16	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U17	1826-0609	8	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
U18	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U19	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U20	1826-0915	9	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-C	28480	1826-0915
U21	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U22	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U23	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U24	08590-80105	9	1		28480	08590-80105
U25	1826-1514	6	1	IC V RGLTR-V-REF-FXD 9.95/10.05V 8-DIP-P	28480	1826-1514
U26	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U27	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U29	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U31	1826-1186	8	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-1186
U32	1826-0915	9	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-C	28480	1826-0915
U101	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U102	1826-1253	0	1	D/A 18-CERDIP BPLR	28480	1826-1253
U103	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U104	1826-1253	0	1	D/A 18-CERDIP BPLR	28480	1826-1253
U105	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U106	1826-1253	0	1	D/A 18-CERDIP BPLR	28480	1826-1253
U107	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U108	1826-0759	9	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U109	1858-0074	8	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0074

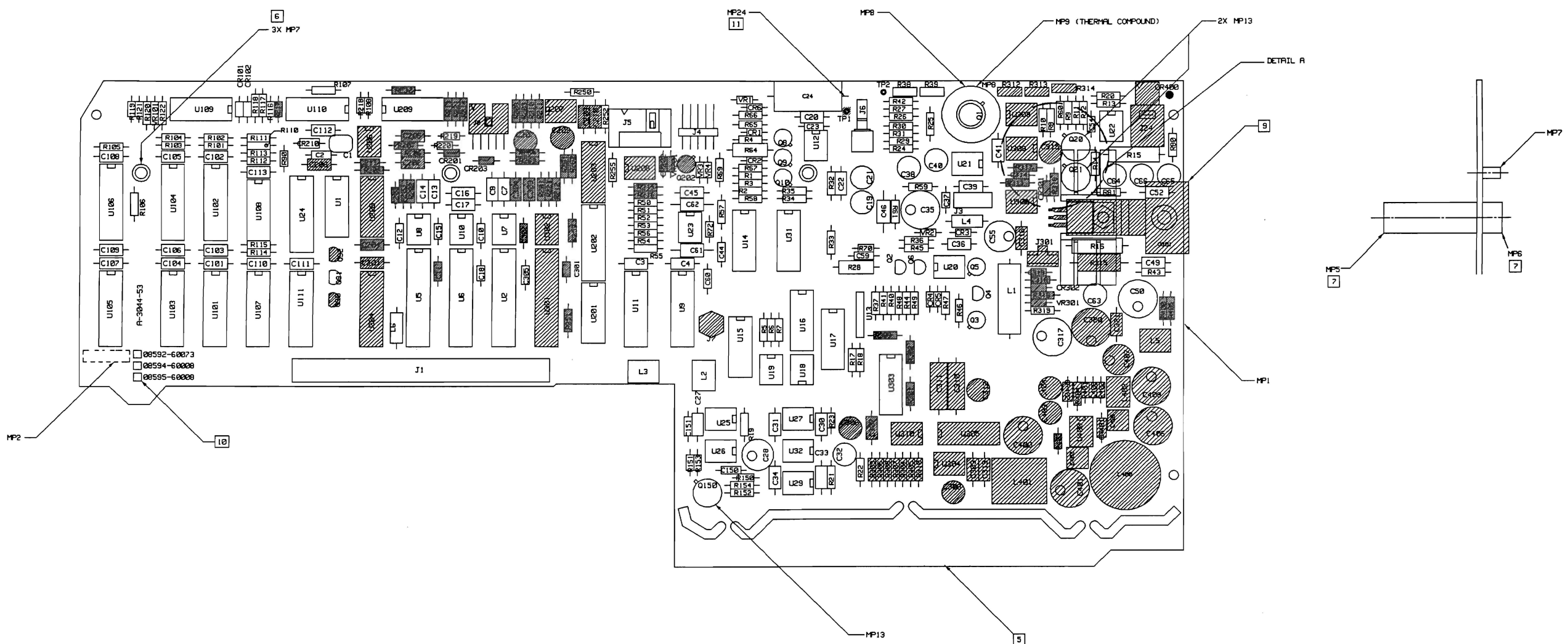
\*Indicates factory-selected value

**HP Part Number 08594-60008**  
**Analog Interface (continued)**

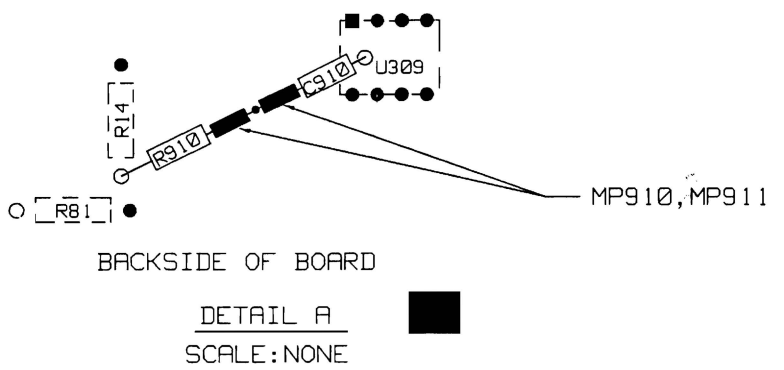
Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U110	1820-0471	0	1	IC DRVR TTL BUS HEX	01698	SN7406N
U111	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U201	1820-3146	2	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3146
U202	1820-5047	6	1	IC-INTERFACE DRVR BIPOLAR DISPLAY HIGH	28480	1820-5047
U209	1858-0076	0	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0076
U303	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
VR1	1902-3160	4	1	DIODE-ZNR 10V 2% DO-35 PD=.4W TC=+.06%	02688	
VR2	1902-0951	5	1	DIODE-ZNR 5.1V 5% DO-35 PD=.4W TC=+.035%	28480	1902-0951
VR3	1902-0950	4	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	28480	1902-0950
VR4	1902-0962	8	1	DIODE-ZNR 15V 5% DO-35 PD=.4W TC=+.087%	02688	
VR101	1902-0579	3	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	02688	



E-08594-60008-2	
SYM	REVISIONS
A	AS ISSUED
APPROVED	
DATE	



- NOTES: UNLESS OTHERWISE SPECIFIED
- 1 DIMENSIONS ARE IN INCHES
  - 2 MAXIMUM COMPONENT HEIGHT .650
  - 3 MAXIMUM LEAD TRIM LENGTH .118
  - 4 J6 SHOWN FOR REFERENCE ONLY. DO NOT LOAD
  - 5 REMOVE TABS AFTER MACHINE SOLDER.
  - 6 MP7 IS SHIPPED FROM FAR SIDE, INSTALL AFTER MACHINE SOLDERING
  - 7 MP5 AND MP6 INSTALLED AFTER MACHINE SOLDERING
  - 8 CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-08594-A7.
  - 9 ALL PARTS SHOWN WITH SHADED AREA ARE NOT TO BE LOADED FOR 08594-60008 ASSEMBLY.
  - 10 MARK APPROPRIATE BOX FOR THIS ASSEMBLY.
  - 11 ADD .003 INCHES OF INSULATION TO THIS LEAD OF C24.
  - 12 SOLDER C910 INTO VIA UNDER U309.
  - 13 SOLDER R910 INTO HOLE OF R14 (NEAREST R81).
  - 14 INSTALL MP910 AND MP911 ON FREE LEADS, CRIMP AND SOLDER.



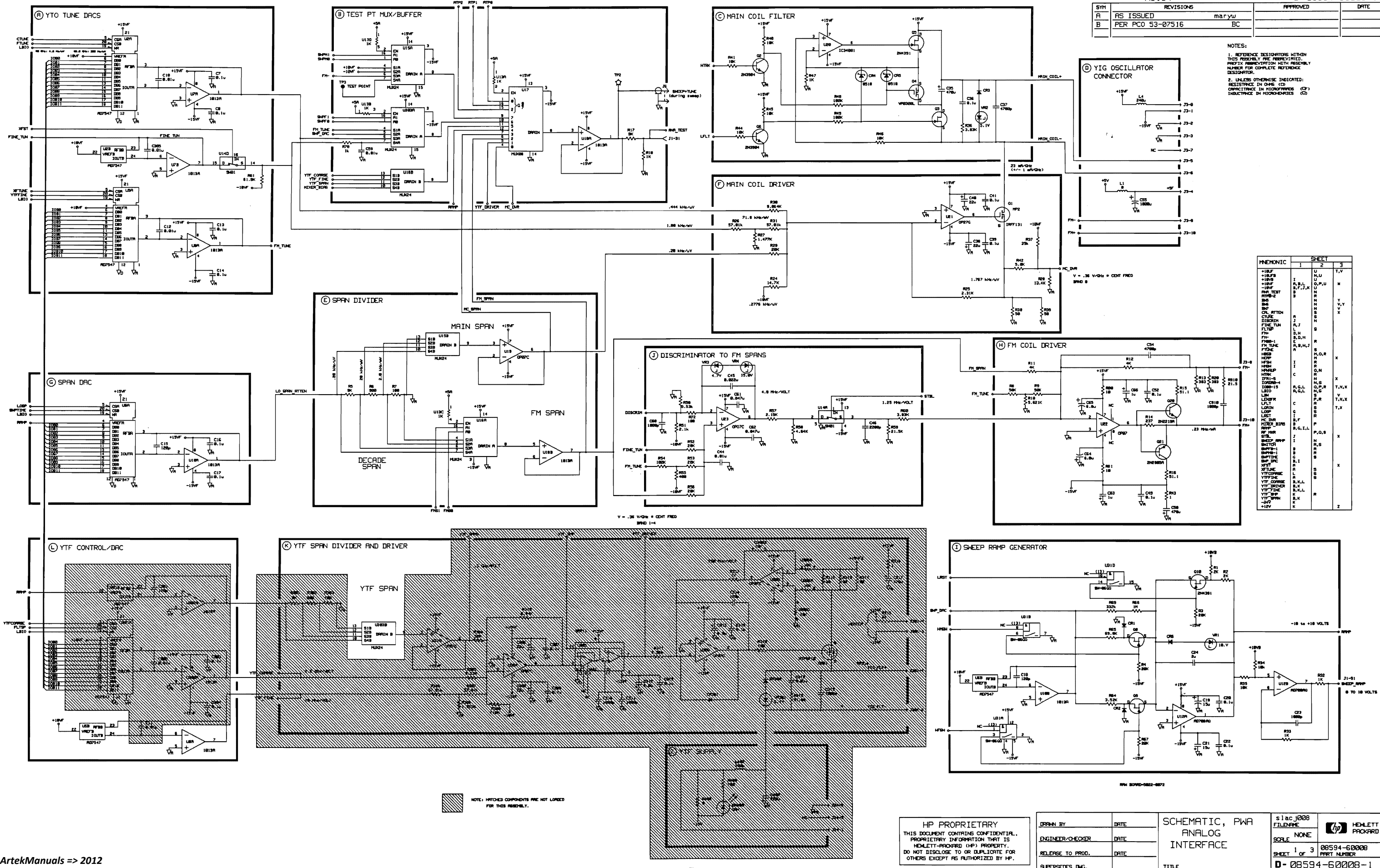
SEE 08594-60008 MATERIAL LIST

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NOT DISCLOSE TO OR DUPLICATE FOR  
OTHERS EXCEPT AS AUTHORIZED BY HP.

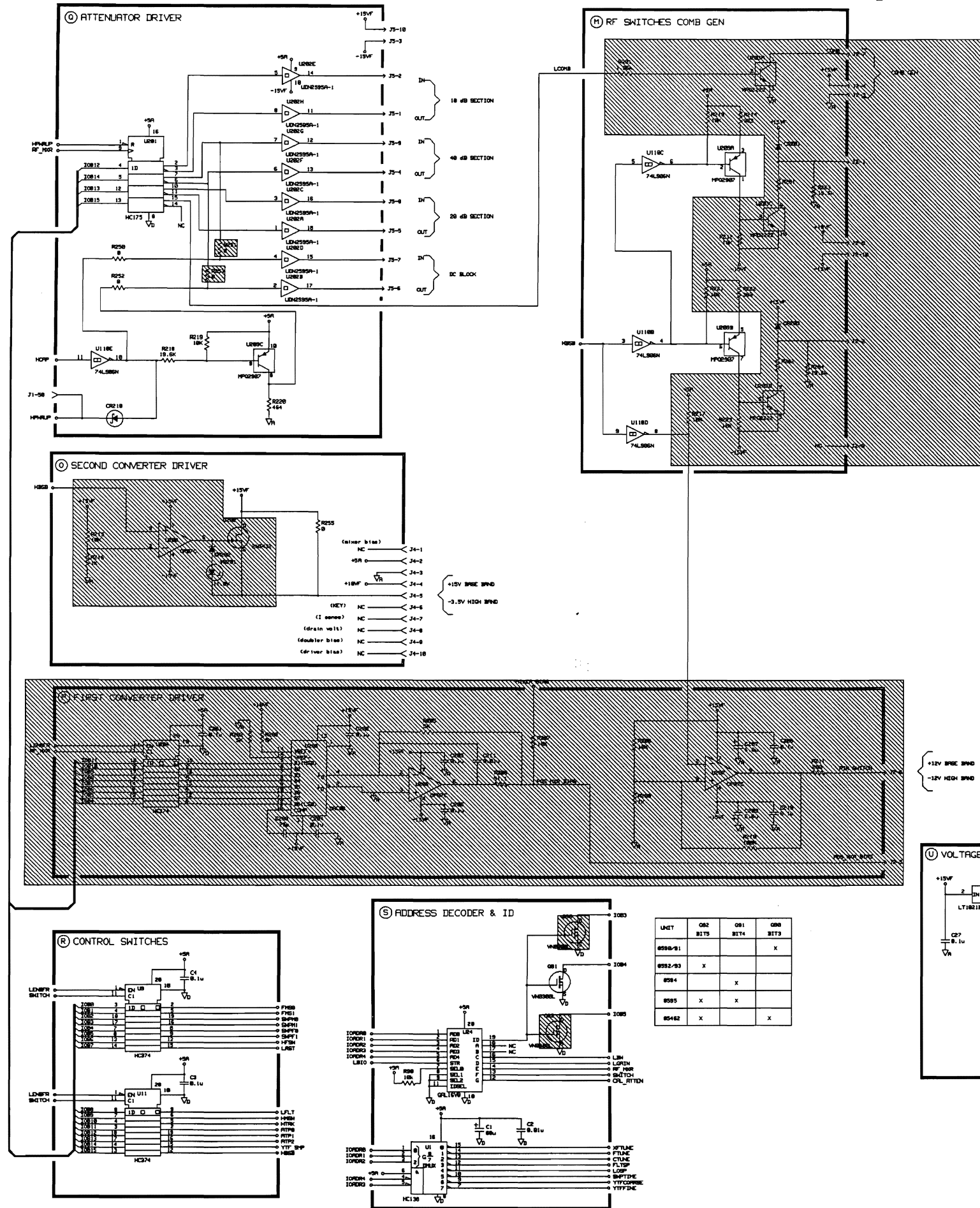
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES	DESIGNED BY	DATE	BOARD ASSEMBLY- ANALOG INTERFACE	HEWLETT PACKARD
TOLERANCES: .01, .02, .05	DESIGNED/CHANGED		TITLE	08594-60008
SEE COMP. STD. 800	RELAYED TO PROD.		NONE	E-08594-60008-2
REWORKED BY			SCALE	SHEET 1 OF 1

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED	maryw	
B	PER PCO 53-07516	BC	

NOTES:  
1. REFERENCE DESIGNATIONS WITHIN THIS SCHEMATIC ARE PRESUMED TO BE CORRECT UNLESS OTHERWISE INDICATED.  
2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS ( $\Omega$ ) CAPACITANCE IN MICROFARADS ( $\mu$ F) INDUCTANCE IN MICROHENRIES ( $\mu$ H)



SYN	REVISIONS	APPROVED	DATE
A	AS ISSUED	mar yw	
B	PER PCO 53-07516	BC	



PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	HPVLP	IN	18 dB SECTION
2	HPVLP	IN	40 dB SECTION
3	HPVLP	IN	20 dB SECTION
4	HPVLP	IN	DC BLOCK
5	HPVLP	IN	18 dB SECTION
6	HPVLP	IN	40 dB SECTION
7	HPVLP	IN	20 dB SECTION
8	HPVLP	IN	DC BLOCK
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PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
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19	HPVLP	IN	20 dB SECTION
20	HPVLP	IN	DC BLOCK

- NOTES:
- REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE RESERVED. PREFIX PRESERVATION WITH RESPECT TO ALIEN FOR COMPLETE REFERENCE DESIGNATION.
  - UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN MICROFARADS (μF) INDUCTANCE IN MICROHENRIES (μH)

NOTE: HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.

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		SHEET 2 OF 3	08594-60008
		PART NUMBER	D-08594-60008-1
		TITLE	



# **Component-Level Information Packet for 08595-60008**

## **Analog Interface**



**HEWLETT  
PACKARD**

HP Part No. 08595-90026  
Printed in USA October 1992

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**HP Part Number 08595-60008**  
**Analog Interface**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3850	6	1	CAP-FXD 68uF +-10% 10 V TA	04200	299D686X9010DB1
C2	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C3	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C4	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C7	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C8	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C10	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C11	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C12	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C13	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C14	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C15	0160-4800	6	1	CAP-FXD 120pF +-5% 100 V CER C0G	09939	RPA10C0G121J100V
C16	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C17	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C18	0160-4800	6	1	CAP-FXD 120pF +-5% 100 V CER C0G	09939	RPA10C0G121J100V
C19	0180-3846	0	1	CAP-FXD 15uF +-10% 25 V TA	04200	299D156X9025DB1
C20	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C21	0180-3846	0	1	CAP-FXD 15uF +-10% 25 V TA	04200	299D156X9025DB1
C22	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C23	0160-4822	2	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPA20C0G102J100V
C24	0160-6223	1	1	CAP-FXD 2uF +-5% 100 V POLYP-MET	05176	X335 2.0UF 100V 5%
C27	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C28	0180-3817	5	1	CAP-FXD 100uF +-20% 50 V AL-ELCTLT	28480	0180-3817
C30	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C31	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C32	0180-3846	0	1	CAP-FXD 15uF +-10% 25 V TA	04200	299D156X9025DB1
C33	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C34	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C35	0180-3635	5	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3635
C36	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C37	0160-4831	3	1	CAP-FXD 4700pF +-10% 100 V CER X7R	09939	RPA10X7R472K100V
C38	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C39	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C40	0180-3847	1	1	CAP-FXD 22uF +-10% 25 V TA	04200	299D226X9025DB1
C41	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT

\*Indicates factory-selected value

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**HP Part Number 08595-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C44	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C45	0160-4833	5	1	CAP-FXD 0.022uF +-10% 100 V CER X7R	09939	RPA20X7R223K100V
C46	0160-4819	7	1	CAP-FXD 2200pF +-5% 100 V CER C0G	09939	RPA30C0G222J100VPT
C49	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C50	0180-3643	5	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C52	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C54	0160-4831	3	1	CAP-FXD 4700pF +-10% 100 V CER X7R	09939	RPA10X7R472K100V
C55	0180-3641	3	1	CAP-FXD 1000uF +-20% 10 V AL-ELCTLT	28480	0180-3641
C59	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C60	0160-4822	2	1	CAP-FXD 1000pF +-5% 100 V CER C0G	09939	RPA20C0G102J100V
C61	0160-4834	6	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	09939	RPA30X7R473K100V
C62	0160-4834	6	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	09939	RPA30X7R473K100V
C63	0180-3771	0	1	CAP-FXD 1uF +-10% 35 V TA	04200	299D105X9035AB1
C64	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C65	0180-3769	6	1	CAP-FXD 6.8uF +-10% 35 V TA	04200	299D685X9035DB1
C66	0180-3771	0	1	CAP-FXD 1uF +-10% 35 V TA	04200	299D105X9035AB1
C101	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C102	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C103	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C104	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C105	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C106	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C107	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C108	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C109	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C110	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C111	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C112	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C113	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C150	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C151	0160-4832	4	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	09939	RPA10X7R103K100V
C201	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C202	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C203	0160-5408	2	1	CAP-FXD 75pF +-5% 100 V CER C0G	09939	RPA10COG750J100
C204	0160-4835	7	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	09939	RPA20X7R104K50VPT



**HP Part Number 08595-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C205	0160-4835	7	1	CAP-FXD 0.1uF +10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C206	0160-4835	7	1	CAP-FXD 0.1uF +10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C207	0180-3769	6	1	CAP-FXD 6.8uF +10% 35 V TA	04200	299D685X9035DB1
C208	0160-4835	7	1	CAP-FXD 0.1uF +10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C209	0180-3769	6	1	CAP-FXD 6.8uF +10% 35 V TA	04200	299D685X9035DB1
C210	0160-4835	7	1	CAP-FXD 0.1uF +10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C211	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C301	0160-4800	6	1	CAP-FXD 120pF +5% 100 V CER C0G	09939	RPA10C0G121J100V
C302	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C303	0160-4835	7	1	CAP-FXD 0.1uF +10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C304	0160-4835	7	1	CAP-FXD 0.1uF +10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C305	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C306	0180-3847	1	1	CAP-FXD 22uF +10% 25 V TA	04200	299D226X9025DB1
C307	0160-4835	7	1	CAP-FXD 0.1uF +10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C308	0180-3847	1	1	CAP-FXD 22uF +10% 25 V TA	04200	299D226X9025DB1
C309	0160-4835	7	1	CAP-FXD 0.1uF +10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C310	0160-4682	2	1	CAP-FXD 1000pF +2.5% 160 V POLYP-FL	06121	B33062-A1102-H
C311	0160-4682	2	1	CAP-FXD 1000pF +2.5% 160 V POLYP-FL	06121	B33062-A1102-H
C312	0180-3769	6	1	CAP-FXD 6.8uF +10% 35 V TA	04200	299D685X9035DB1
C313	0160-4835	7	1	CAP-FXD 0.1uF +10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C314	0160-4800	6	1	CAP-FXD 120pF +5% 100 V CER C0G	09939	RPA10C0G121J100V
C315	0180-3769	6	1	CAP-FXD 6.8uF +10% 35 V TA	04200	299D685X9035DB1
C316	0160-4835	7	1	CAP-FXD 0.1uF +10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C317	0180-3643	5	1	CAP-FXD 470uF +20% 25 V AL-ELCTLT	28480	0180-3643
C318	0160-4832	4	1	CAP-FXD 0.01uF +10% 100 V CER X7R	09939	RPA10X7R103K100V
C319	0160-4574	1	1	CAP-FXD 1000pF +10% 100 V CER X7R	09939	RPA10X7R102K100V
C320	0180-3643	5	1	CAP-FXD 470uF +20% 25 V AL-ELCTLT	28480	0180-3643
C321	0160-4835	7	1	CAP-FXD 0.1uF +10% 50 V CER X7R	09939	RPA20X7R104K50VPT
C407	0180-4316	1	1	CAP-FXD 220uF +20% 50 V AL-ELCTLT	28480	0180-4316
C910	0160-4574	1	1	CAP-FXD 1000pF +10% 100 V CER X7R	09939	RPA10X7R102K100V
CR1	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR3	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR4	1901-0518	8	1	DIODE-SCHOTTKY SM SIG	12395	5082-2800
CR5	1901-0518	8	1	DIODE-SCHOTTKY SM SIG	12395	5082-2800

\*Indicates factory-selected value

**HP Part Number 08595-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
CR6	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR101	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR102	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR202	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR210	1901-0734	0	1	DIODE-PWR RECT 1N5818 30V 1A	28480	1901-0734
CR301	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR302	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
J1	1251-8912	3	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	28480	1251-8912
J2	1252-2365	0	1	CONN-POST TYPE .100-PIN-SPCG 10-CONT	02946	78207-110
J3	1251-7683	3	1	CONN-POST TYPE .100-PIN-SPCG 10-CONT	01380	87227-5
J4	1252-2008	8	1	CONN-POST TYPE .100-PIN-SPCG 9-CONT	02946	68451-124
J5	1252-2028	2	1	CONN-POST TYPE .100-PIN-SPCG 10-CONT	04726	2510-5022UB
J6	1250-0543	8	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	07247	59S213-40TD3
J301	1252-2153	4	1	CONN-POST TYPE .100-PIN-SPCG 4-CONT	02946	69167-104
L1	9140-0245	2	1	INDUCTOR RF-CH-MLD 445MH +-5%	28480	9140-0245
L2	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L3	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L4	9100-1641	0	1	INDUCTOR RF-CH-MLD 240UH +-5%	05826	1537-94
L5	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
L6	9100-0539	3	1	INDUCTOR RF-CH-MLD 10UH +-5%	03706	21001M-5%
L402	9140-0736	6	1	INDUCTOR 200UH .3W-INX.4LG-IN	12313	99ZSPA44219
MP4	0380-1088	2	1	STANDOFF-HEX .438-IN-LG 4-40-THD	11781	350-7416-06-19
MP8	1205-0583	1	1	HEAT SINK SGL TO-5/TO-39-CS	02608	2215B-SS1
MP10	0340-0933	0	1	INSULATOR-FLG-BSHG PPS BLACK	02608	7721-3PPS
MP11	0570-0680	1	1	STUD-PRS-IN 4-40 UNC-2A .625-IN-LG PH	03981	KFH-440-10ET
MP12	0340-0949	8	1	INSULATOR-XSTR THRM-CNDCT	02923	60-11-5791-1674
MP13	1200-0173	5	3	INSULATOR-XSTR DAP-GL	02210	A-10001 DAP
MP14	1205-0478	3	1	HEAT SINK SGL TO-220-CS	02608	6071B
MP910	0890-0098	3		TUBING-FLEX .032-ID TFE .016-WALL	02408	I-SW
MP911	0890-0098	3		TUBING-FLEX .032-ID TFE .016-WALL	02408	I-SW
Q1	1855-0646	4	1	TRANSISTOR MOSFET N-CHAN E-MODE TO-39 SI	28480	1855-0646
Q2	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q3	1855-0449	5	1	TRANSISTOR J-FET 2N5434 N-CHAN D-MODE	28480	1855-0449
Q4	1855-0686	2	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-92 SI	07221	VP0206N3
Q5	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420

**HP Part Number 08595-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
Q6	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=625MW	00746	2N3904
Q8	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q9	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q10	1855-0420	2	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q20	1854-0637	1	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	28480	1854-0637
Q21	1853-0314	9	1	TRANSISTOR PNP 2N2905A SI TO-39 PD=400MW	28480	1853-0314
Q91	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q92	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q150	1854-0637	1	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	28480	1854-0637
Q202	1855-0292	6	1	TRANSISTOR J-FET 2N5432 N-CHAN D-MODE	28480	1855-0292
Q301	1855-0517	8	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-220	28480	1855-0517
R1	0698-6624	5	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R2	0698-6624	5	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R3	0698-6630	3	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R4	0698-6630	3	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R5	0698-6343	5	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R6	0698-6344	6	1	RESISTOR 900 +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R7	0698-6323	1	1	RESISTOR 100 +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R8	0698-6353	7	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R9	0698-6353	7	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R10	0699-0517	5	1	RESISTOR 5.621K +0.1% .1W TF TC=0+4	05524	PTF-56-6
R11	0698-6322	0	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R12	0698-6322	0	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R13	0698-3446	3	1	RESISTOR 383 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R14	0698-3442	9	1	RESISTOR 237 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R15	0757-1000	7	1	RESISTOR 51.1 +-1% .5W TF TC=0+-100	05524	CMF-65-2
R16	0757-1000	7	1	RESISTOR 51.1 +-1% .5W TF TC=0+-100	05524	CMF-65-2
R17	0698-6343	5	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R18	0698-6362	8	1	RESISTOR 1K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R19	0698-6360	6	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R20	0698-3446	3	1	RESISTOR 383 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R21	0698-6624	5	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R22	0698-6624	5	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R23	0698-7229	8	1	RESISTOR 511 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R24	0698-3904	8	1	RESISTOR 14.7K +0.1% .1W TF TC=0+-10	05524	PTF-56-7

\*Indicates factory-selected value

**HP Part Number 08595-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R25	0699-1269	6	1	RESISTOR 2.31K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 10	05524	PTF-56-7
R26	0699-0936	2	1	RESISTOR 57.014K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 5	05524	PTF-56-7
R27	0698-5362	6	1	RESISTOR 1.477K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 5	05524	PTF-56-7
R28	0698-8831	0	1	RESISTOR 13.4K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 10	05524	PTF-56-7
R29	0699-0118	2	1	RESISTOR 20K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 5	05524	PTF-56-7
R30	0699-1146	8	1	RESISTOR 9.064K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 4	05524	PTF-56-6
R31	0699-0936	2	1	RESISTOR 57.014K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 5	05524	PTF-56-7
R32	0757-0280	3	1	RESISTOR 1K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R33	0757-0280	3	1	RESISTOR 1K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R34	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R35	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R36	0698-3153	9	1	RESISTOR 3.83K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R37	0699-2109	5	1	RESISTOR 25K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 5	06337	5023Z
R38	0699-1825	0	1	RESISTOR 50 $\pm 1\%$ .3W MF TC=0 $\pm$ 5	02928	301464
R39	0699-1825	0	1	RESISTOR 50 $\pm 1\%$ .3W MF TC=0 $\pm$ 5	02928	301464
R40	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R41	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R42	0698-6320	8	1	RESISTOR 5K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R43	0698-8812	7	1	RESISTOR 1 $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R44	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R45	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R46	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R47	0757-0280	3	1	RESISTOR 1K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R48	0757-0465	6	1	RESISTOR 100K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R49	0757-0465	6	1	RESISTOR 100K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R50	0699-1147	9	1	RESISTOR 9.53K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 4	05524	PTF-56-6
R51	0699-0078	3	1	RESISTOR 2.1K $\pm 0.1\%$ .1W TF TC=0 $\pm$ 10	05524	PTF-56-7
R52	0698-6630	3	1	RESISTOR 20K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R53	0698-6630	3	1	RESISTOR 20K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R54	0698-6358	2	1	RESISTOR 100K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R55	0698-6355	9	1	RESISTOR 400 $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R56	0698-6630	3	1	RESISTOR 20K $\pm 0.1\%$ .125W TF TC=0 $\pm$ 25	05524	CMF-55-1, T-9
R57	0698-0084	9	1	RESISTOR 2.15K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R58	0698-3155	1	1	RESISTOR 4.64K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1
R59	0757-0199	3	1	RESISTOR 21.5K $\pm 1\%$ .125W TF TC=0 $\pm$ 100	05524	CMF-55-1

**HP Part Number 08595-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R60	0698-3153	9	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R61	0757-0460	1	1	RESISTOR 61.9K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R64	0698-8838	7	1	RESISTOR 3.52K +-0.1% .125W TF TC=0+-10	05524	PTF-56-7
R65	0698-3942	4	1	RESISTOR 69.8K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1
R66	0698-8827	4	1	RESISTOR 1M +-1% .125W TF TC=0+-100	05524	CMF-55-1
R67	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R69	0757-0477	0	1	RESISTOR 332K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R70	0698-7236	7	1	RESISTOR 1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R72	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R80	0757-0346	2	1	RESISTOR 10 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R81	0757-0346	2	1	RESISTOR 10 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R90	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R101	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R102	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R103	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R104	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R105	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R106	0698-6619	8	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1, T-9
R107	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R108	0698-7260	7	1	RESISTOR 10K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R110	0757-0458	7	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R111	0757-0439	4	1	RESISTOR 6.81K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R112	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R113	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R114	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R115	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R116	0698-7277	6	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R117	0757-0438	3	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R118	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R119	0698-7263	0	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R120	0698-3154	0	1	RESISTOR 4.22K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R121	0698-7248	1	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R122	0757-0447	4	1	RESISTOR 16.2K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R150	0698-7212	9	1	RESISTOR 100 +-1% .05W TF TC=0+-100	05524	CMF-50-2
R151	0698-7233	4	1	RESISTOR 750 +-1% .05W TF TC=0+-100	05524	CMF-50-2

\*Indicates factory-selected value

**HP Part Number 08595-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C	Qty	Description	Mfr Code	Mfr Part Number
R152	0757-0180	2	1	RESISTOR 31.6 $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R153	0698-7257	2	1	RESISTOR 7.5K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R154	0757-0279	0	1	RESISTOR 3.16K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R201	0698-0083	8	1	RESISTOR 1.96K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R202	0698-6320	8	1	RESISTOR 5K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R203	0698-6320	8	1	RESISTOR 5K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R205	0698-6320	8	1	RESISTOR 5K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R206	0757-0394	0	1	RESISTOR 51.1 $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R207	0698-6360	6	1	RESISTOR 10K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R208	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R209	0757-0280	3	1	RESISTOR 1K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R210	0757-0465	6	1	RESISTOR 100K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R211	0683-2015	9	1	RESISTOR 200 $\pm 5\%$ .25W CF TC=0-400	09126	CF 1/4
R212	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R213	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R214	0698-3446	3	1	RESISTOR 383 $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R215	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R216	0757-0280	3	1	RESISTOR 1K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R217	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R218	0698-7267	4	1	RESISTOR 19.6K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R219	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R220	0698-7228	7	1	RESISTOR 464 $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R221	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R222	0698-3446	3	1	RESISTOR 383 $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R223	0757-0442	9	1	RESISTOR 10K $\pm 1\%$ .125W TF TC=0 $\pm$ -100	05524	CMF-55-1
R250	0811-3587	5	1	RESISTOR 0 CWM	03123	104
R252	0811-3587	5	1	RESISTOR 0 CWM	03123	104
R261	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R262	0698-7260	7	1	RESISTOR 10K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R263	0698-7267	4	1	RESISTOR 19.6K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R264	0698-7267	4	1	RESISTOR 19.6K $\pm 1\%$ .05W TF TC=0 $\pm$ -100	05524	CMF-50-2
R301	0698-6343	5	1	RESISTOR 9K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R302	0698-6344	6	1	RESISTOR 900 $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R303	0698-6323	1	1	RESISTOR 100 $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9
R304	0698-6353	7	1	RESISTOR 50K $\pm 0.1\%$ .125W TF TC=0 $\pm$ -25	05524	CMF-55-1, T-9

**HP Part Number 08595-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
R305	0699-1147	9	1	RESISTOR 9.53K +-0.1% .1W TF TC=0+4	05524	PTF-56-6
R306	0699-0936	2	1	RESISTOR 57.014K +-0.1% .1W TF TC=0+-5	05524	PTF-56-7
R307	0699-0936	2	1	RESISTOR 57.014K +-0.1% .1W TF TC=0+-5	05524	PTF-56-7
R308	0699-1268	5	1	RESISTOR 1.395K +-0.1% .1W TF TC=0+-10	05524	PTF-56-7
R309	0698-7285	6	1	RESISTOR 110K +-1% .05W TF TC=0+-100	05524	CMF-50-2
R310	0698-6406	1	1	RESISTOR 8.54K +-0.1% .1W TF TC=0+4	05524	PTF-56-6
R311	0699-2623	8	1	RESISTOR 2.58K +-0.1% .125W TF TC=0+-25	05524	CMF-55-1
R312	0699-1823	8	1	RESISTOR 30 +-1% .3W MF TC=0+-5	02928	301464
R313	0699-1823	8	1	RESISTOR 30 +-1% .3W MF TC=0+-5	02928	301464
R314	0699-1823	8	1	RESISTOR 30 +-1% .3W MF TC=0+-5	02928	301464
R315	0811-1084	3	1	RESISTOR 22 +-5% 3W PWI TC=0+-30	01854	T2B-79
R316	0698-3160	8	1	RESISTOR 31.6K +-1% .125W TF TC=0+-100	05524	CMF-55-1
R317	0698-8625	0	1	RESISTOR 1K +-0.1% .1W TF TC=0+-5	05524	PTF-56-7
R318	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R319	0698-8812	7	1	RESISTOR 1 +-1% .125W TF TC=0+-100	05524	CMF-55-1
R405	0811-3587	5	1	RESISTOR 0 CWM	03123	104
R910	0698-7196	8	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	05524	CMF-50-2
TP2	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1820-3079	0	1	IC DCDR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U2	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U5	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U6	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U8	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U9	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U10	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U11	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U12	1826-1969	5	1	IC OP AMP LOW-DRIFT DUAL 8 PIN DIP-C	28480	1826-1969
U13	1810-0318	3	1	NETWORK-RES 6-SIP 1.0K OHM X 5	06252	750-61
U14	1826-0811	4	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-0811
U15	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U16	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U17	1826-0609	8	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
U18	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U19	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048

\*Indicates factory-selected value

**HP Part Number 08595-60008**  
**Analog Interface (continued)**

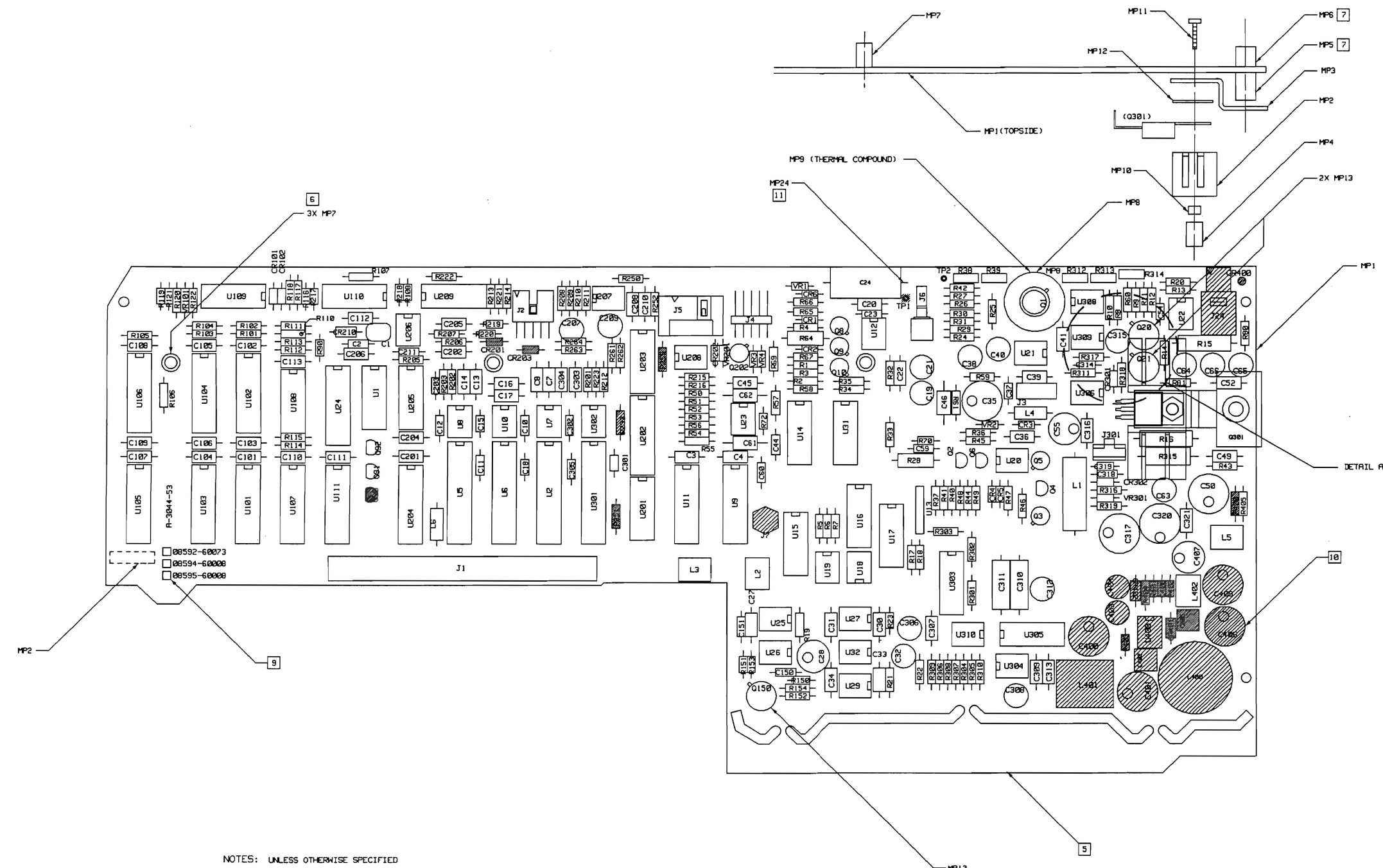
Reference Designator	HP Part Number	C	Qty	Description	Mfr Code	Mfr Part Number
U20	1826-0915	9	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-C	28480	1826-0915
U21	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U22	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U23	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U24	08590-80105	9	1		28480	08590-80105
U25	1826-1514	6	1	IC V RGLTR-V-REF-FXD 9.95/10.05V 8-DIP-P	28480	1826-1514
U26	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U27	1826-1049	2	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U29	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U31	1826-1186	8	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-1186
U32	1826-0915	9	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-C	28480	1826-0915
U101	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U102	1826-1253	0	1	D/A 18-CERDIP BPLR	28480	1826-1253
U103	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U104	1826-1253	0	1	D/A 18-CERDIP BPLR	28480	1826-1253
U105	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U106	1826-1253	0	1	D/A 18-CERDIP BPLR	28480	1826-1253
U107	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U108	1826-0759	9	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U109	1858-0074	8	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0074
U110	1820-0471	0	1	IC DRVR TTL BUS HEX	01698	SN7406N
U111	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U201	1820-3146	2	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3146
U202	1820-5047	6	1	IC-INTERFACE DRVR BIPOLAR DISPLAY HIGH	28480	1820-5047
U203	1858-0077	1	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0077
U204	1820-3565	9	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U205	1820-1934	2	1	D/A 8-BIT 16-CERDIP BPLR	28480	1820-1934
U206	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U207	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U208	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U209	1858-0076	0	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0076
U301	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U302	1826-1436	1	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U303	1826-0610	1	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U304	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048



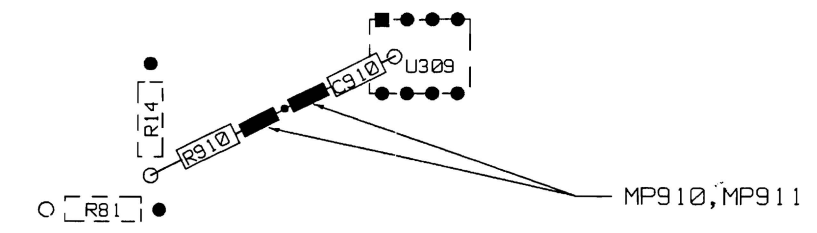
**HP Part Number 08595-60008**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U305	1826-0988	6	1	SAMPLE AND HOLD 14 -CERDIP	28480	1826-0988
U306	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U308	1810-1079	5	1	NETWORK-RES 8-DIP 10.0K OHM X 4	04568	694-3-R10K (A)
U309	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U310	1826-1048	1	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
VR1	1902-3160	4	1	DIODE-ZNR 10V 2% DO-35 PD=.4W TC=+.06%	02688	
VR2	1902-0951	5	1	DIODE-ZNR 5.1V 5% DO-35 PD=.4W TC=+.035%	28480	1902-0951
VR3	1902-0950	4	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	28480	1902-0950
VR4	1902-0962	8	1	DIODE-ZNR 15V 5% DO-35 PD=.4W TC=+.087%	02688	
VR101	1902-0579	3	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	02688	
VR201	1902-0959	3	1	DIODE-ZNR 11V 5% DO-35 PD=.4W TC=+.076%	02688	
VR301	1902-0579	3	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	02688	

SYN		REVISIONS		E-08595-60008-2	
SYN	A	AS	ISSUED	APPROVED	DATE



- NOTES: UNLESS OTHERWISE SPECIFIED
- 1 DIMENSIONS ARE IN INCHES
  - 2 MAXIMUM COMPONENT HEIGHT .650
  - 3 MAXIMUM LEAD TRIM LENGTH .118
  - 4 J6 SHOWN FOR REFERENCE ONLY. DO NOT LOAD
  - 5 REMOVE TABS AFTER MACHINE SOLDER.
  - 6 MP7 IS SHAVED FROM REVERSE, INSTALL AFTER MACHINE SOLDERING
  - 7 MP5 AND MP6 INSTALLED AFTER MACHINE SOLDERING
  8. CHECK FOR MODIFICATIONS IN THE P.C. LINE  
ASSEMBLY DOCUMENTATION MANUAL A-08595-A7.
  - 9 MARK APPROPRIATE BOX FOR THIS ASSEMBLY.
  - 10 ALL PARTS SHOWN WITH SHADED AREA ARE NOT TO BE  
LOADED FOR 08595-60008 ASSEMBLY.
  - 11 ADD .003 INCHES OF INSULATION TO THIS LEAD OF C24.
  - 12 SOLDER C310 INTO VIA UNDER U308.  
SOLDER R910 INTO HOLE OF R14 (NEAREST R81).  
INSTALL MP910 AND MP911 ON FREE LEADS, CRIMP AND SOLDER.



BACKSIDE OF BOARD  
DETAIL A  
SCALE: NONE

SEE 08595-60008 MATERIAL LIST

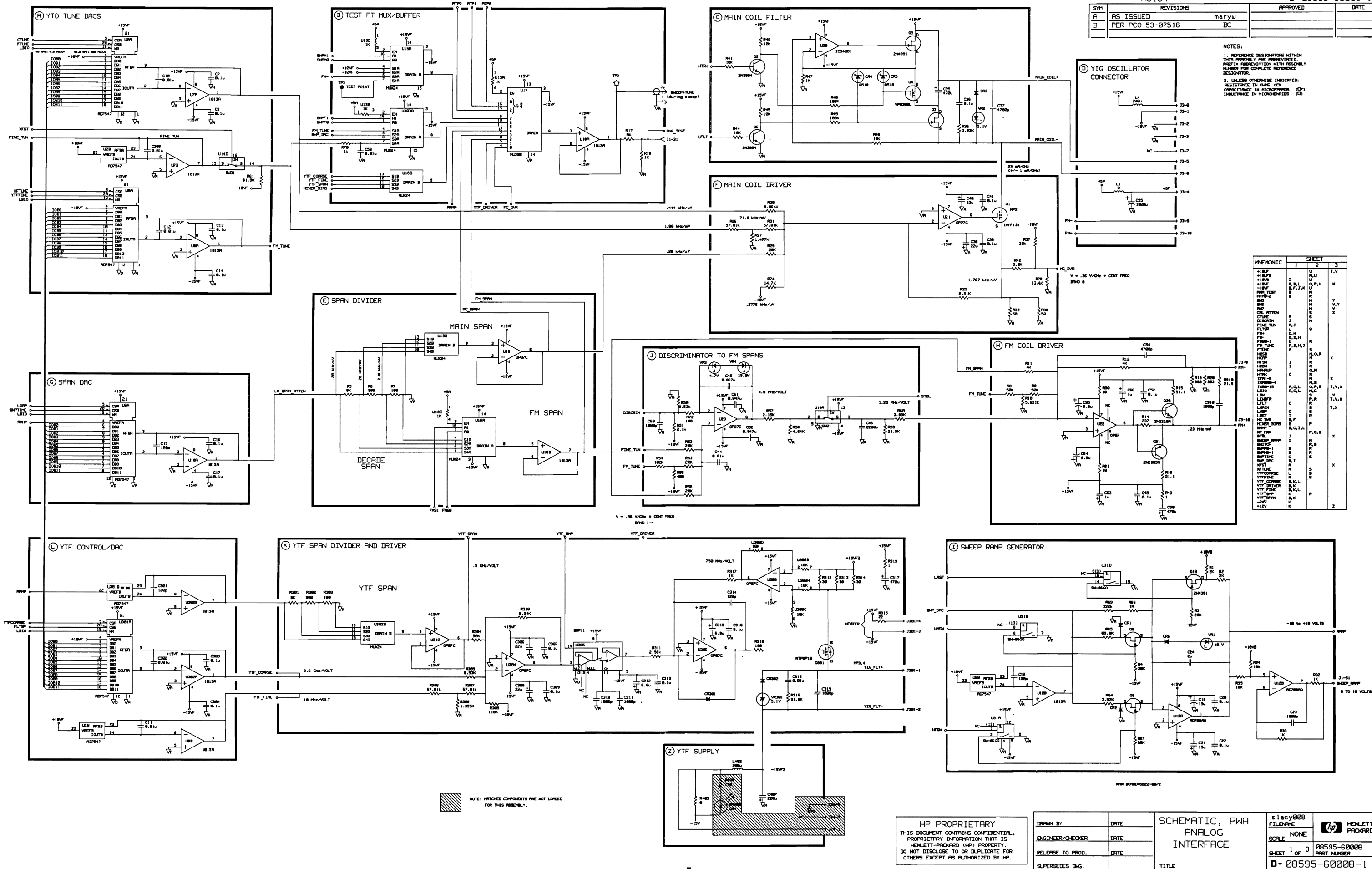
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OTHERS EXCEPT AS AUTHORIZED BY HP.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES		DESIGNED BY	DATE	BOARD ASSEMBLY- ANALOG INTERFACE		 HEWLETT PACKARD	08595-60008 E-08595-60008-2
TOLERANCES	UNLESS OTHERWISE SPECIFIED	ENGINEER/DESIGNER		TITLE	SCALE		
REL. COMP. STD. 680		REVIEWED BY					

REV	REVISIONS	APPROVED	DATE
A	AS ISSUED	maryw	
B	PER PCO 53-07516	BC	

NOTES:

1. REFERENCE DESIGNATIONS WITHIN THIS SCHEMATIC ARE INDICATED BY PREFIX AND NUMBER FOR COMPLETE IDENTIFICATION.
2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω), CAPACITANCE IN MICROFARADS (μF), INDUCTANCE IN MICROHENRIES (μH).



PHONONIC	1	2	3
1813A	U	T	V
1813B	U	T	V
1813C	U	T	V
1813D	U	T	V
1813E	U	T	V
1813F	U	T	V
1813G	U	T	V
1813H	U	T	V
1813I	U	T	V
1813J	U	T	V
1813K	U	T	V
1813L	U	T	V
1813M	U	T	V
1813N	U	T	V
1813O	U	T	V
1813P	U	T	V
1813Q	U	T	V
1813R	U	T	V
1813S	U	T	V
1813T	U	T	V
1813U	U	T	V
1813V	U	T	V
1813W	U	T	V
1813X	U	T	V
1813Y	U	T	V
1813Z	U	T	V

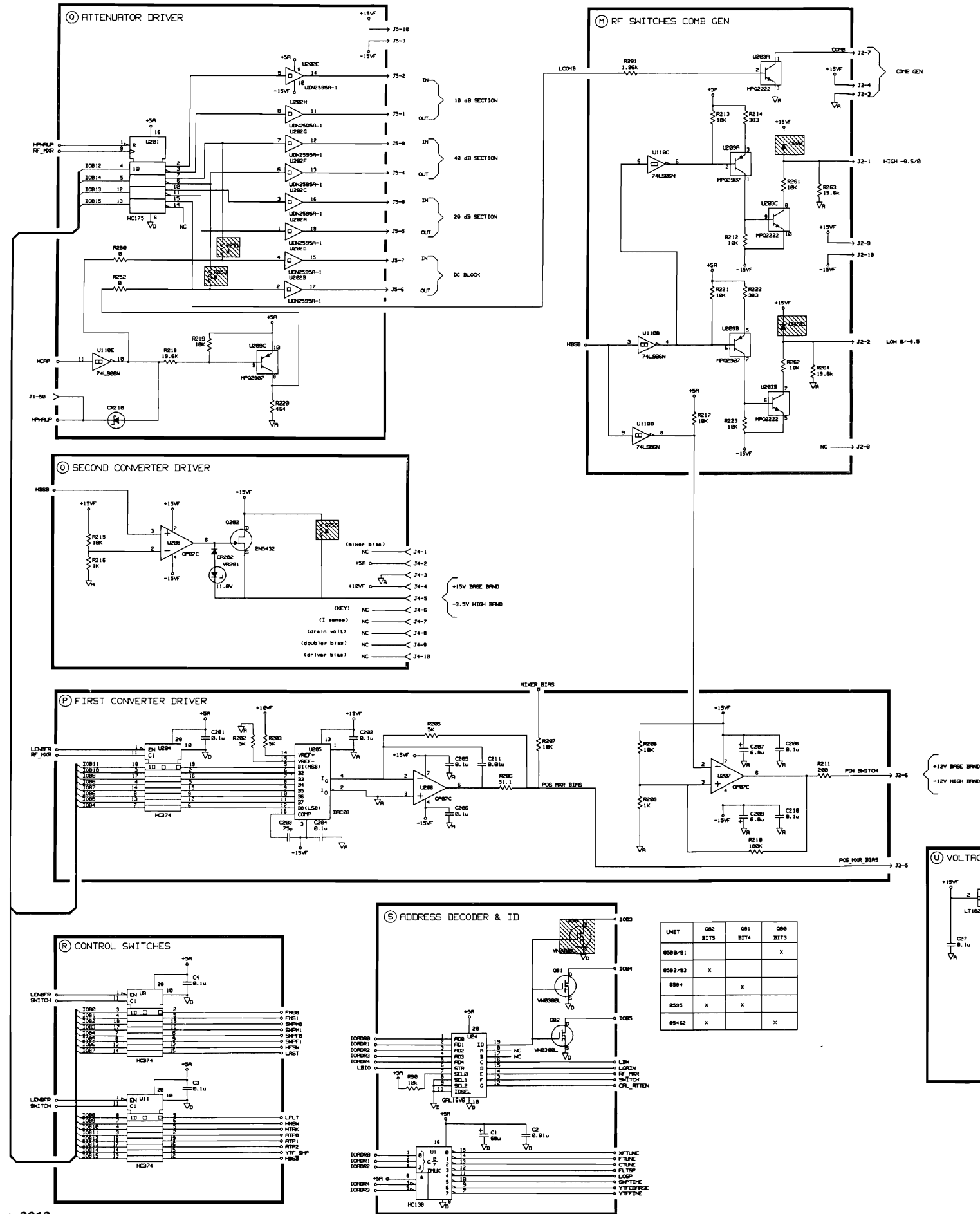
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DRAWN BY  
ENGINEER/CHECKER  
RELEASE TO PROD.  
SUPERSEDES DNG.

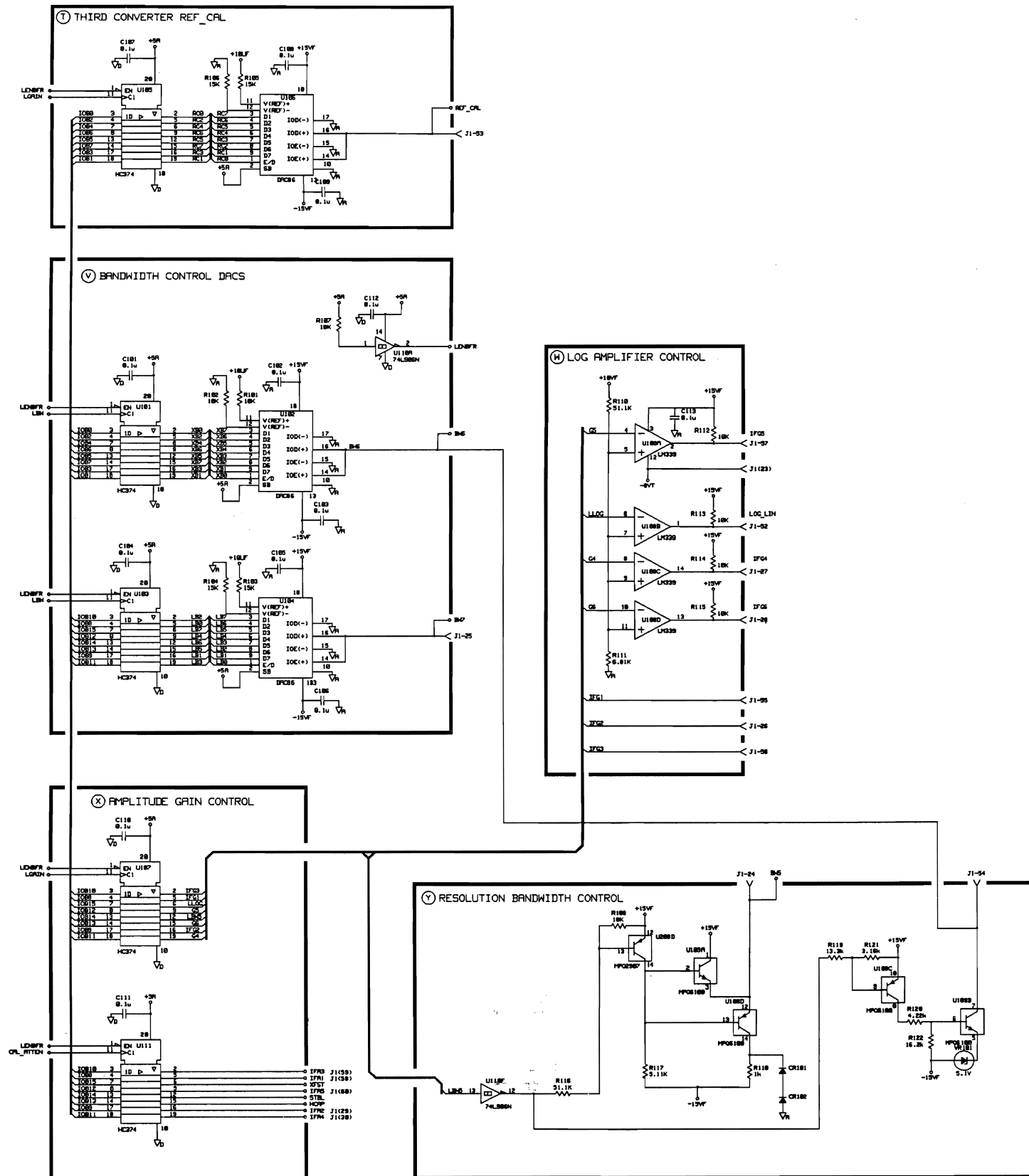
SCHEMATIC, PWA  
ANALOG  
INTERFACE

slacy008  
FILENAME  
SCALE NONE  
SHEET 1 OF 3  
D-08595-60008  
PART NUMBER  
D-08595-60008-1

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED	maryw	
B	PER PCO 53-07516	BC	



SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED maryw		
B	PER PCO 53-07516 BC		

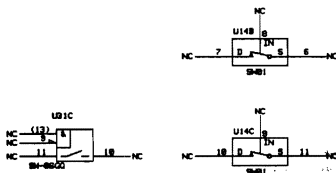


PHEMIONIC	SHEET		
	1	2	3
+18LF		U	T,V
+18V		U	
+18W	I	U	
+18X	I	P,U	M
-18W			
ANAL TEST	B	F,J,K	
ANAL			
BQ	N	N	V,Y
BQ2	N	N	V
BQ3	N	N	X
BQ4	N	N	
BQ5	N	N	
BQ6	N	N	
BQ7	N	N	
BQ8	N	N	
BQ9	N	N	
BQ10	N	N	
BQ11	N	N	
BQ12	N	N	
BQ13	N	N	
BQ14	N	N	
BQ15	N	N	
BQ16	N	N	
BQ17	N	N	
BQ18	N	N	
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BQ95	N	N	
BQ96	N	N	
BQ97	N	N	
BQ98	N	N	
BQ99	N	N	
BQ100	N	N	

NOTES:

1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.
2. UNLESS OTHERWISE INDICATED:  
RESISTANCE IN OHMS (Ω)  
CAPACITANCE IN MICROFARADS (μF)  
INDUCTANCE IN MICROHENRIES (μH)

## UNUSED PACKAGES



NOTE: MATED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.

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DESIGNED BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHEMATIC, PWA  
ANALOG  
INTERFACE

TITLE	DATE	TIME	LOCATION	STATUS
1. [Illegible]	10/10/1964	10:00	Room 101	Completed
2. [Illegible]	10/10/1964	11:00	Room 101	Completed
3. [Illegible]	10/10/1964	12:00	Room 101	Completed
4. [Illegible]	10/10/1964	13:00	Room 101	Completed
5. [Illegible]	10/10/1964	14:00	Room 101	Completed
6. [Illegible]	10/10/1964	15:00	Room 101	Completed
7. [Illegible]	10/10/1964	16:00	Room 101	Completed
8. [Illegible]	10/10/1964	17:00	Room 101	Completed
9. [Illegible]	10/10/1964	18:00	Room 101	Completed
10. [Illegible]	10/10/1964	19:00	Room 101	Completed
11. [Illegible]	10/10/1964	20:00	Room 101	Completed
12. [Illegible]	10/10/1964	21:00	Room 101	Completed
13. [Illegible]	10/10/1964	22:00	Room 101	Completed
14. [Illegible]	10/10/1964	23:00	Room 101	Completed
15. [Illegible]	10/10/1964	00:00	Room 101	Completed
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17. [Illegible]	10/10/1964	02:00	Room 101	Completed
18. [Illegible]	10/10/1964	03:00	Room 101	Completed
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20. [Illegible]	10/10/1964	05:00	Room 101	Completed
21. [Illegible]	10/10/1964	06:00	Room 101	Completed
22. [Illegible]	10/10/1964	07:00	Room 101	Completed
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31. [Illegible]	10/10/1964	16:00	Room 101	Completed
32. [Illegible]	10/10/1964	17:00	Room 101	Completed
33. [Illegible]	10/10/1964	18:00	Room 101	Completed
34. [Illegible]	10/10/1964	19:00	Room 101	Completed
35. [Illegible]	10/10/1964	20:00	Room 101	Completed
36. [Illegible]	10/10/1964	21:00	Room 101	Completed
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39. [Illegible]	10/10/1964	00:00	Room 101	Completed
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41. [Illegible]	10/10/1964	02:00	Room 101	Completed
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s3acy008		HP		HEMLET PACKARD	
FILENAME		NONE			
SCALE		3 OF 3		08595-60008	
SHEET		PART NUMBER			
D- 08595-60008-1					