

**Component-Level Information Packet
for 08712-60011**

**Reference (08712-60018) and
Frac-N (03325-66521) Combined**



Agilent Technologies

**Part No. 08712-90120
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**HP Part Number 08712-60018
Reference**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C2	0160-4520	1	CAP-FXD 11pF +-5% 200 V CER C0G	28480	0160-4520
C3	0180-3845	1	CAP-FXD 4.7uF +-10% 35 V TA	28480	0180-3845
C4	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C5	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C6	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C7	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C8	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C9	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C10	0160-4527	1	CAP-FXD 56pF +-5% 200 V CER C0G	28480	0160-4527
C11	0160-4811	1	CAP-FXD 270pF +-5% 100 V CER C0G	28480	0160-4811
C12	0160-4811	1	CAP-FXD 270pF +-5% 100 V CER C0G	28480	0160-4811
C13	0160-4811	1	CAP-FXD 270pF +-5% 100 V CER C0G	28480	0160-4811
C14	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C15	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C16	0160-3878	1	CAP-FXD 1000pF +-20% 100 V CER X7R	28480	0160-3878
C17	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C18	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C19	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C20	0180-3845	1	CAP-FXD 4.7uF +-10% 35 V TA	28480	0180-3845
C21	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C22	0160-3874	1	CAP-FXD 10pF +-5% 200 V CER C0G	28480	0160-3874
C23	0160-4811	1	CAP-FXD 270pF +-5% 100 V CER C0G	28480	0160-4811
C24	0180-3845	1	CAP-FXD 4.7uF +-10% 35 V TA	28480	0180-3845
C25	0160-4830	1	CAP-FXD 2200pF +-10% 100 V CER X7R	28480	0160-4830
C26	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C27	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C28	0180-3401	1	CAP-FXD 470uF +-20% 50 V AL-ELCTLT	28480	0180-3401
C29	0180-3401	1	CAP-FXD 470uF +-20% 50 V AL-ELCTLT	28480	0180-3401
C30	0180-3401	1	CAP-FXD 470uF +-20% 50 V AL-ELCTLT	28480	0180-3401
C31	0180-3401	1	CAP-FXD 470uF +-20% 50 V AL-ELCTLT	28480	0180-3401
C32	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C33	0180-3813	1	CAP-FXD 10uF +-10% 10 V TA	28480	0180-3813
C34	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C35	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575

**Indicates factory-selected value*

HP Part Number 08712-60018
Reference (continued)

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C36	0180-3467	1	CAP-FXD 22uF +-20% 63 V AL-ELCTLT	28480	0180-3467
C37	0180-3845	1	CAP-FXD 4.7uF +-10% 35 V TA	28480	0180-3845
C38	0180-3845	1	CAP-FXD 4.7uF +-10% 35 V TA	28480	0180-3845
C39	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C40	0180-3845	1	CAP-FXD 4.7uF +-10% 35 V TA	28480	0180-3845
C41	0160-3874	1	CAP-FXD 10pF +-5% 200 V CER C0G	28480	0160-3874
C42	0180-3845	1	CAP-FXD 4.7uF +-10% 35 V TA	28480	0180-3845
C43	0180-3845	1	CAP-FXD 4.7uF +-10% 35 V TA	28480	0180-3845
C44	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C45	0180-3845	1	CAP-FXD 4.7uF +-10% 35 V TA	28480	0180-3845
C46	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C47	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C48	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C49	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C50	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C51	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C52	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C53	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C54	0160-0573	1	CAP-FXD 4700pF +-20% 100 V CER X7R	28480	0160-0573
C55	0160-4527	1	CAP-FXD 56pF +-5% 200 V CER C0G	28480	0160-4527
C56	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C57	0180-3813	1	CAP-FXD 10uF +-10% 10 V TA	28480	0180-3813
C58	0180-3401	1	CAP-FXD 470uF +-20% 50 V AL-ELCTLT	28480	0180-3401
C59	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C62	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C63	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C65	0180-3467	1	CAP-FXD 22uF +-20% 63 V AL-ELCTLT	28480	0180-3467
C66	0160-4491	1	CAP-FXD 8.2pF +-6.1% 200 V CER C0G	28480	0160-4491
CR1	1901-0033	1	DIODE-GEN PRP 180V 200MA DO-35	28480	1901-0033
CR2	1901-0033	1	DIODE-GEN PRP 180V 200MA DO-35	28480	1901-0033
CR3	1901-0033	1	DIODE-GEN PRP 180V 200MA DO-35	28480	1901-0033
CR4	1901-0033	1	DIODE-GEN PRP 180V 200MA DO-35	28480	1901-0033
CR5	1901-0033	1	DIODE-GEN PRP 180V 200MA DO-35	28480	1901-0033
E2	9170-1368	1	CORE-SHIELDING BEAD	28480	9170-1368
E3	9170-1368	1	CORE-SHIELDING BEAD	28480	9170-1368

**HP Part Number 08712-60018
Reference (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
E4	9170-1368	1	CORE-SHIELDING BEAD	28480	9170-1368
E5	9170-1368	1	CORE-SHIELDING BEAD	28480	9170-1368
E6	9170-1368	1	CORE-SHIELDING BEAD	28480	9170-1368
J1	1250-1512	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-1512
J2	1251-2969	1	CONNECTOR-PHONO SINGLE PHONO JACK; DIP	28480	1251-2969
J3	1250-1512	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-1512
J4	1251-2969	1	CONNECTOR-PHONO SINGLE PHONO JACK; DIP	28480	1251-2969
J5	1252-2407	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2407
J6	1250-1842	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1842
L1	9140-1151	1	INDUCTOR-FIXED L: 28 UH MIN; TEST V	28480	9140-1151
L2	9100-3313	1	INDUCTOR RF-CH-MLD 22uH +5%	28480	9100-3313
MP2	0380-3058	1	STANDOFF-RVT-ON 6.7-MM-LG M3.0 X 0.5-THD	02121	BR5114SPB-6.7-34
MP3	0380-3058	1	STANDOFF-RVT-ON 6.7-MM-LG M3.0 X 0.5-THD	02121	BR5114SPB-6.7-34
MP4	0380-3058	1	STANDOFF-RVT-ON 6.7-MM-LG M3.0 X 0.5-THD	02121	BR5114SPB-6.7-34
MP5	0380-3058	1	STANDOFF-RVT-ON 6.7-MM-LG M3.0 X 0.5-THD	02121	BR5114SPB-6.7-34
MP6	0380-3058	1	STANDOFF-RVT-ON 6.7-MM-LG M3.0 X 0.5-THD	02121	BR5114SPB-6.7-34
MP7	0380-3058	1	STANDOFF-RVT-ON 6.7-MM-LG M3.0 X 0.5-THD	02121	BR5114SPB-6.7-34
MP8	0380-3058	1	STANDOFF-RVT-ON 6.7-MM-LG M3.0 X 0.5-THD	02121	BR5114SPB-6.7-34
MP9	0380-3058	1	STANDOFF-RVT-ON 6.7-MM-LG M3.0 X 0.5-THD	02121	BR5114SPB-6.7-34
MP10	0380-3058	1	STANDOFF-RVT-ON 6.7-MM-LG M3.0 X 0.5-THD	02121	BR5114SPB-6.7-34
MP11	0590-1095	1	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	03981	KF2-M3-ZI
MP12	0590-1095	1	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	03981	KF2-M3-ZI
MP13	0590-1095	1	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	03981	KF2-M3-ZI
MP14	0590-1095	1	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	03981	KF2-M3-ZI
MP15	0590-1095	1	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	03981	KF2-M3-ZI
MP16	0590-1095	1	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	03981	KF2-M3-ZI
MP17	0590-1095	1	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	03981	KF2-M3-ZI
MP18	0590-1095	1	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	03981	KF2-M3-ZI
MP19	1480-0059	1	PIN-ROLL .062-IN-DIA .25-IN-LG STL	04559	52-012-062-0250
MP20	1480-0059	1	PIN-ROLL .062-IN-DIA .25-IN-LG STL	04559	52-012-062-0250
MP21	08711-20020	1	SHLD-FRAC N TOP	28480	08711-20020
MP22	08711-20021	1	SHLD-FRAC N BTM	28480	08711-20021
MP23	0515-0374	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 10MM-LG	05610	
MP24	0515-0374	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 10MM-LG	05610	
MP25	0515-0374	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 10MM-LG	05610	

**Indicates factory-selected value*

HP Part Number 08712-60018
Reference (continued)

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
MP26	0515-0374	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 10MM-LG	05610	
MP27	0515-0430	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 6MM-LG	05610	
MP28	0515-0430	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 6MM-LG	05610	
MP29	0515-0430	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 6MM-LG	05610	
MP30	0515-0430	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 6MM-LG	05610	
MP31	0515-0430	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 6MM-LG	05610	
MP32	1205-0639	1	HEAT SINK SGL TO-220-CS	07179	576802B03100
MP33	1205-0639	1	HEAT SINK SGL TO-220-CS	07179	576802B03100
MP34	08712-60008	1	SHLD AY-FRAC/N	28480	08712-60008
MP35	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP36	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP37	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
MP38	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
P1	1252-2356	1	CONN-POST TYPE 2.54-PIN-SPCG-MTG-END	28480	1252-2356
Q1	1853-0448	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0448
Q2	1853-0314	1	TRANSISTOR PNP 2N2905A SI TO-39 PD=400MW	28480	1853-0314
Q3	1854-0637	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	28480	1854-0637
Q4	1854-1028	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-1028
Q5	1854-1028	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-1028
Q6	1854-0456	1	TRANSISTOR NPN SI PD=65W FT=3MHZ	28480	1854-0456
Q7	1853-0448	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0448
Q8	1853-0563	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0563
Q9	1853-0563	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0563
Q10	1854-0828	1	TRANSISTOR NPN SI TO-220AB PD=65W	28480	1854-0828
R1	2100-0670	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ	28480	2100-0670
R2	0698-3157	1	RESISTOR 19.6K +-1% .125W TF TC=0+-100	28480	0698-3157
R3	0757-0123	1	RESISTOR 34.8K +-1% .125W TF TC=0+-100	28480	0757-0123
R4	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R5	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	28480	0757-0438
R6	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R7	0698-3260	1	RESISTOR 464K +-1% .125W TF TC=0+-100	28480	0698-3260
R8	0811-1732	1	RESISTOR 1 +-5% 3W PWI TC=0+-50	28480	0811-1732
R9	0757-0420	1	RESISTOR 750 +-1% .125W TF TC=0+-100	28480	0757-0420
R10	0811-1732	1	RESISTOR 1 +-5% 3W PWI TC=0+-50	28480	0811-1732
R11	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	28480	0757-0438

**HP Part Number 08712-60018
Reference (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R12	0757-0398	1	RESISTOR 75 +-1% .125W TF TC=0+-100	28480	0757-0398
R13	0757-0395	1	RESISTOR 56.2 +-1% .125W TF TC=0+-100	28480	0757-0395
R14	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R15	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R16	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R17	0698-3260	1	RESISTOR 464K +-1% .125W TF TC=0+-100	28480	0698-3260
R18	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R19	1810-0332	1	NETWORK-RES 8-SIP 680.0 OHM X 7	28480	1810-0332
R20	1810-0332	1	NETWORK-RES 8-SIP 680.0 OHM X 7	28480	1810-0332
R21	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R22	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R23	0757-0180	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	28480	0757-0180
R24	0698-3437	1	RESISTOR 133 +-1% .125W TF TC=0+-100	28480	0698-3437
R25	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R26	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R27	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R28	0698-3449	1	RESISTOR 28.7K +-1% .125W TF TC=0+-100	28480	0698-3449
R29	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R30	0757-0278	1	RESISTOR 1.78K +-1% .125W TF TC=0+-100	28480	0757-0278
R31	0698-3161	1	RESISTOR 38.3K +-1% .125W TF TC=0+-100	28480	0698-3161
R32	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R33	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	28480	0757-0438
R34	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R35	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R36	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R37	0757-0278	1	RESISTOR 1.78K +-1% .125W TF TC=0+-100	28480	0757-0278
R38	0757-0420	1	RESISTOR 750 +-1% .125W TF TC=0+-100	28480	0757-0420
R39	0698-3161	1	RESISTOR 38.3K +-1% .125W TF TC=0+-100	28480	0698-3161
R40	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	28480	0757-0438
R41	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R42	0764-0041	1	RESISTOR 30 +-5% 2W MO TC=0+-200	28480	0764-0041
R43	0757-0278	1	RESISTOR 1.78K +-1% .125W TF TC=0+-100	28480	0757-0278
R44	0757-0458	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	28480	0757-0458
R45	0757-0398	1	RESISTOR 75 +-1% .125W TF TC=0+-100	28480	0757-0398
R48	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280

**Indicates factory-selected value*

**HP Part Number 08712-60018
Reference (continued)**

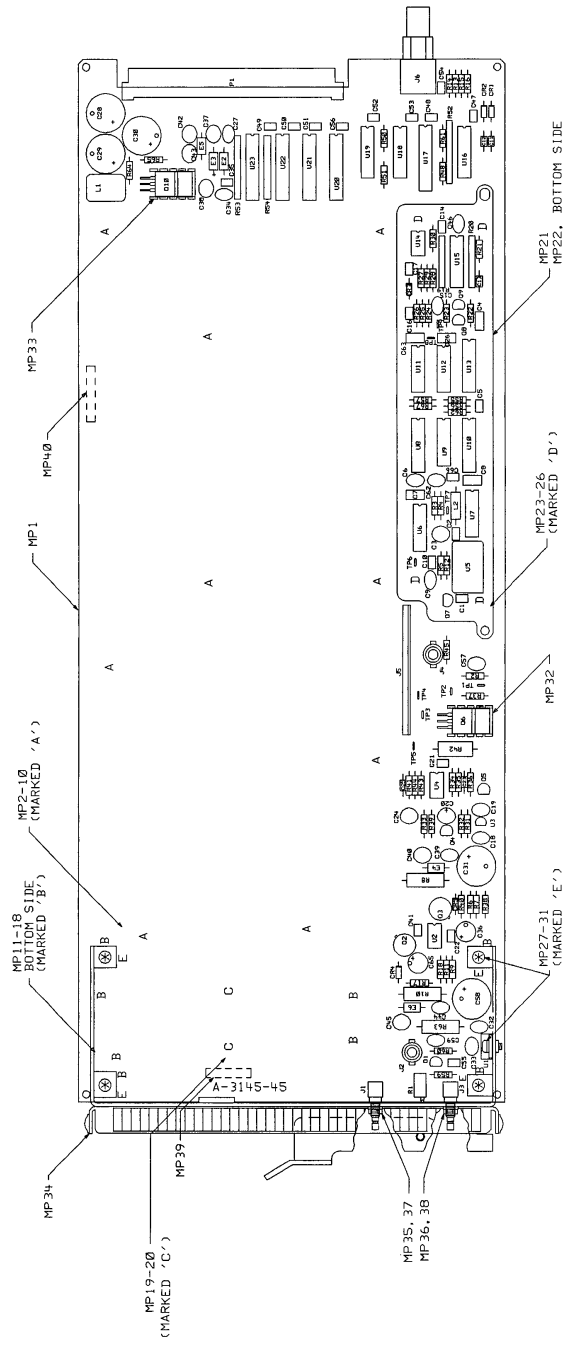
Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R50	0698-0085	1	RESISTOR 2.61K +-1% .25W TF TC=0+-100	28480	0698-0085
R51	0698-0085	1	RESISTOR 2.61K +-1% .25W TF TC=0+-100	28480	0698-0085
R52	1810-0398	1	NETWORK-RES 10-SIP 22.0K OHM X 9	28480	1810-0398
R53	1810-0398	1	NETWORK-RES 10-SIP 22.0K OHM X 9	28480	1810-0398
R54	1810-0277	1	NETWORK-RES 10-SIP 2.2K OHM X 9	28480	1810-0277
R55	0698-3433	1	RESISTOR 28.7 +-1% .125W TF TC=0+-100	28480	0698-3433
R56	0698-3433	1	RESISTOR 28.7 +-1% .125W TF TC=0+-100	28480	0698-3433
R57	0698-3433	1	RESISTOR 28.7 +-1% .125W TF TC=0+-100	28480	0698-3433
R59	0757-0395	1	RESISTOR 56.2 +-1% .125W TF TC=0+-100	28480	0757-0395
R60	0757-0398	1	RESISTOR 75 +-1% .125W TF TC=0+-100	28480	0757-0398
R61	0698-0085	1	RESISTOR 2.61K +-1% .25W TF TC=0+-100	28480	0698-0085
R62	0698-3433	1	RESISTOR 28.7 +-1% .125W TF TC=0+-100	28480	0698-3433
R63	0811-1732	1	RESISTOR 1 +-5% 3W PWI TC=0+-50	28480	0811-1732
R64	0698-3440	1	RESISTOR 196 +-1% .125W TF TC=0+-100	28480	0698-3440
R65	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R67	0698-3433	1	RESISTOR 28.7 +-1% .125W TF TC=0+-100	28480	0698-3433
TP1	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP2	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP3	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP4	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP5	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP6	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP7	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP8	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP9	1460-2201	1	SPRING RADIAL TEST POINT	12646	
U1	1826-0122	1	IC PWR MGT-V-REG-FXD-POS 4.8/5.2V TO-220	28480	1826-0122
U2	1826-1328	1	IC OP AMP LOW-NOISE DUAL 8 PIN DIP-P	28480	1826-1328
U3	1826-1646	1	IC PWR MGT-V-REG-FXD-POS 4.975/5.025V	28480	1826-1646
U4	1826-0346	1	IC OP AMP GP DUAL 8 PIN DIP-P	28480	1826-0346
U5	1813-1038	1	CLK-OSC-XTAL PRC 10.0-MHZ 0.0005%	28480	1813-1038
U6	1820-2691	1	IC FF TTL/F D-TYPE POS-EDGE-TRIG	28480	1820-2691
U7	1820-3664	1	IC GATE CMOS/HCT NAND QUAD 2-INP	28480	1820-3664
U8	1820-6229	1	IC CNTR TTL/F DECD SYNCHRO POS-EDGE-TRIG	28480	1820-6229
U9	1820-2684	1	IC GATE TTL/F NAND QUAD 2-INP	28480	1820-2684
U10	1820-6229	1	IC CNTR TTL/F DECD SYNCHRO POS-EDGE-TRIG	28480	1820-6229

**HP Part Number 08712-60018
Reference (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U11	1820-2506	1	IC INV TTL/F HEX	28480	1820-2506
U12	1820-2691	1	IC FF TTL/F D-TYPE POS-EDGE-TRIG	28480	1820-2691
U13	1820-3438	1	IC MUXR/DATA-SEL TTL/ALS 2-TO-1-LINE	28480	1820-3438
U14	1826-0412	1	IC COMPARATOR PRCN DUAL 8 PIN DIP-P	28480	1826-0412
U15	1820-0810	1	IC RCVR ECL LINE RCVR TPL 2-INP	28480	1820-0810
U16	1820-3079	1	IC DCDR-DEMUXR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U17	08711-80010	1	PAL U17	28480	08711-80010
U18	1820-3785	1	IC CNTR CMOS/HC BIN SYNCHRO	28480	1820-3785
U19	1820-3785	1	IC CNTR CMOS/HC BIN SYNCHRO	28480	1820-3785
U20	1820-3330	1	IC TRANSCEIVER CMOS/HC BUS OCTL	28480	1820-3330
U21	1820-3399	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3399
U22	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U23	1820-3330	1	IC TRANSCEIVER CMOS/HC BUS OCTL	28480	1820-3330

**Indicates factory-selected value*

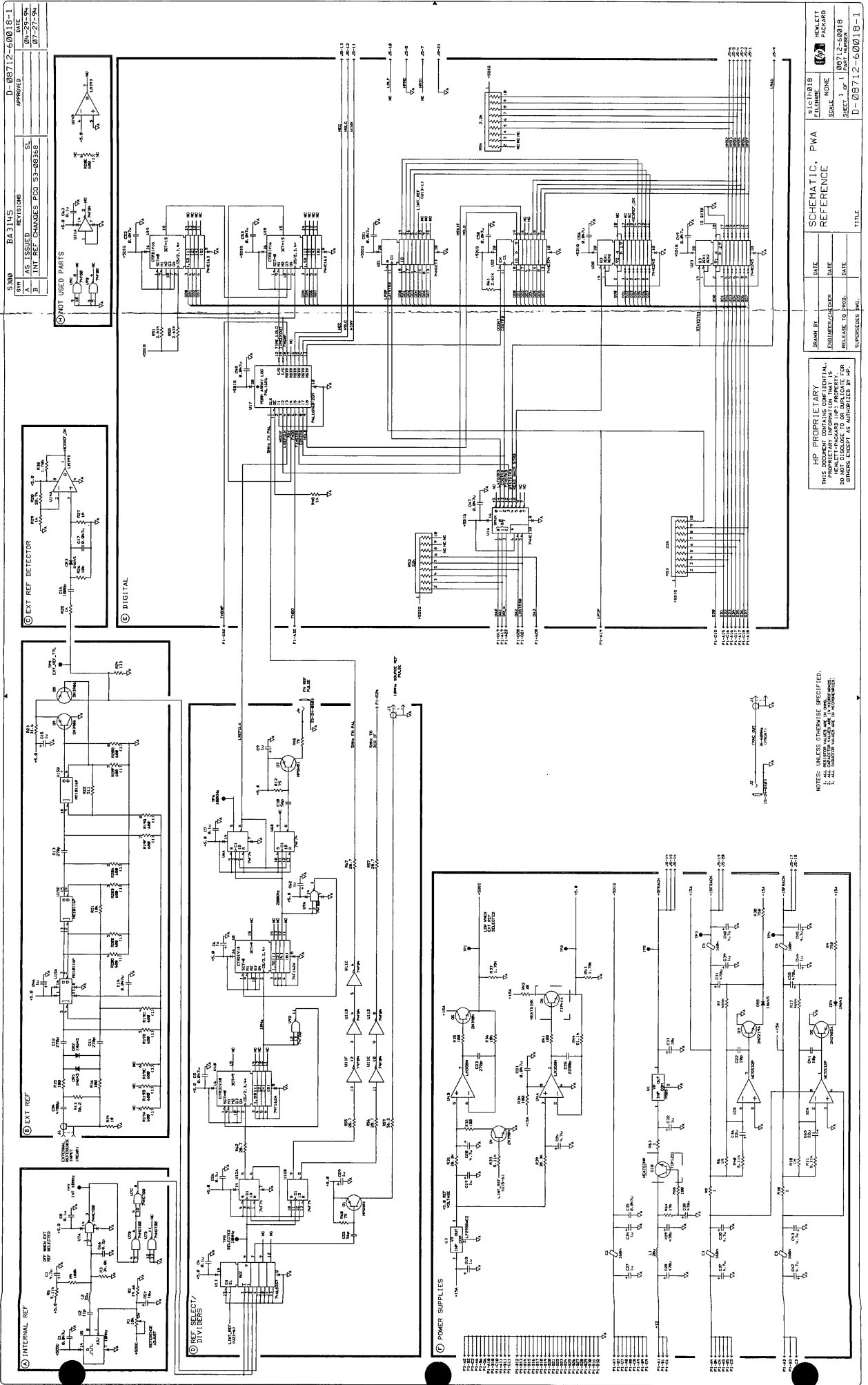
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5TH	REVISED	REVISED	APPROVED
4	AS ISSUED	04-29-94	04-29-94
3	CHANGED HANDLE VIEW ICM 11743	04-29-94	04-29-94
2		04-29-94	04-29-94
1		04-29-94	04-29-94



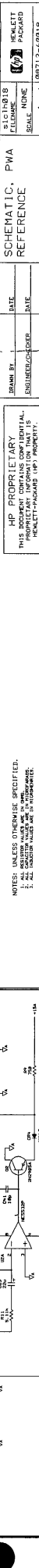
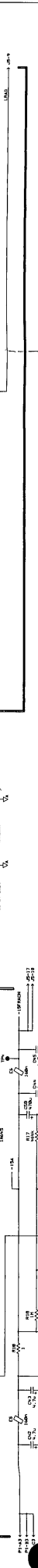
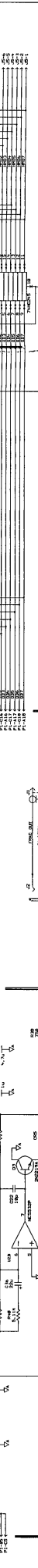
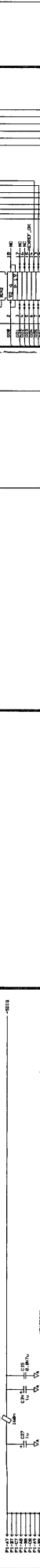
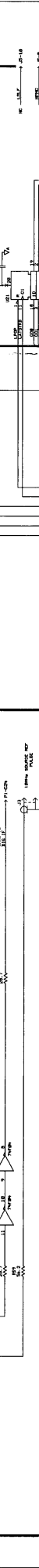
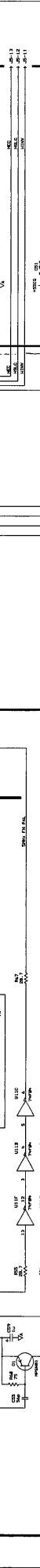
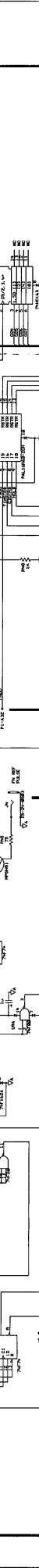
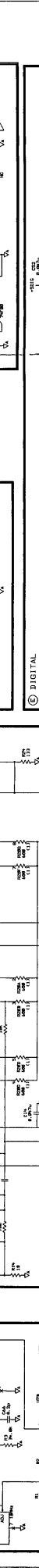
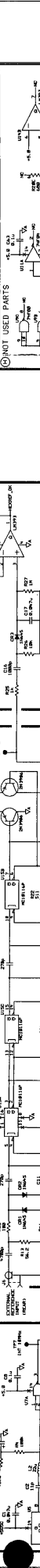
NOTES: UNLESS OTHERWISE SPECIFIED
 1. USE RAW BOARD PART NUMBER 08711-20103

SEE MATERIAL LIST 08712-60018

UNLESS OTHERWISE SPECIFIED, THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION THAT IS PROPRIETARY TO THE COMPANY AND IS NOT TO BE RELEASED TO THE PUBLIC OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE COMPANY.	04-29-94	04-29-94	04-29-94	04-29-94	04-29-94
DESIGNED BY	DESIGNED/CHECKED	RELEASE TO PROD.	DATE	DATE	DATE
ASSEMBLY - PWB REFERENCE					
SCALE: FULL					
SHEET 1 OF 1					
DRAWING NO. 08712-60018					
PART NUMBER					
D-08712-60018-2					



5300 BA3145		D-08712-60018-1	
REV.	REVISIONS	DATE	APPROVED
A	AS ISSUED		SL
B	INT. REF. CHANGES, P.O.D. 57-89369	09-29-58	
		07-27-74	



5300 BA3145		D-08712-60018-1	
REV.	REVISIONS	DATE	APPROVED
A	AS ISSUED		SL
B	INT. REF. CHANGES, P.O.D. 57-89369	09-29-58	
		07-27-74	

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DESIGNED BY	DATE	HEWLETT PACKARD
ENGINEER/DESIGNER	DATE	88712-60018
RELEASE TO FIELD	DATE	SHEET 1 OF 1 PART NUMBER
SUPPLIERS, INC.	DATE	D-08712-60018-1

SCHEMATIC, PWA
 REFERENCE

**HP Part Number 03325-66521
Fractional N**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
BB001	03325-26521	1		28480	03325-26521
C001	0160-6638	1	CAP-FXD 56pF +-5% 300 V MICA	28480	0160-6638
C002	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C003	0180-1861	1	CAP-FXD 27uF +-10% 10 V TA	28480	0180-1861
C004	0180-4133	1	CAP-FXD 15uF +-10% 20 V TA	28480	0180-4133
C006	0160-6638	1	CAP-FXD 56pF +-5% 300 V MICA	28480	0160-6638
C007	0160-4571	1	CAP-FXD 0.1uF +80% -20% 50 V CER Z5U	28480	0160-4571
C008	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C009	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C010	0160-4571	1	CAP-FXD 0.1uF +80% -20% 50 V CER Z5U	28480	0160-4571
C011	0180-1861	1	CAP-FXD 27uF +-10% 10 V TA	28480	0180-1861
C012	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C013	0160-6865	1	CAP-FXD 5.1pF +-4.9% 500 V CER	28480	0160-6865
C014	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C015	P0160-2222C	1		28480	P0160-2222C
C016	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C017	P0160-4461A	1		28480	P0160-4461A
C018	P0160-2257A	1		28480	P0160-2257A
C019	0180-4133	1	CAP-FXD 15uF +-10% 20 V TA	28480	0180-4133
C021	0180-4133	1	CAP-FXD 15uF +-10% 20 V TA	28480	0180-4133
C022	P0160-4640B	1		28480	P0160-4640B
C023	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C024	P0140-0149A	1		28480	P0140-0149A
C026	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C027	P0160-2243A	1		28480	P0160-2243A
C028	0160-2208	1	CAP-FXD 330pF +-5% 300 V MICA	28480	0160-2208
C029	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C031	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C032	0160-4571	1	CAP-FXD 0.1uF +80% -20% 50 V CER Z5U	28480	0160-4571
C131	0160-6638	1	CAP-FXD 56pF +-5% 300 V MICA	28480	0160-6638
C132	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C133	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C134	0160-4571	1	CAP-FXD 0.1uF +80% -20% 50 V CER Z5U	28480	0160-4571
C135	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C136	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832

**Indicates factory-selected value*

HP Part Number 03325-66521
Fractional N (continued)

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C137	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C138	0140-0206	1	CAP-FXD 270pF +5% 500 V MICA	28480	0140-0206
C139	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C140	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C141	0180-4133	1	CAP-FXD 15uF +10% 20 V TA	28480	0180-4133
C142	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C143	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C144	0180-1861	1	CAP-FXD 27uF +10% 10 V TA	28480	0180-1861
C145	0180-4133	1	CAP-FXD 15uF +10% 20 V TA	28480	0180-4133
C162	0160-6505	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-6505
C163	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C164	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C167	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C168	0160-6662	1	CAP-FXD 100pF +5% 300 V MICA	28480	0160-6662
C169	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C171	0180-4133	1	CAP-FXD 15uF +10% 20 V TA	28480	0180-4133
C173	0180-4134	1	CAP-FXD 22uF +10% 15 V TA	28480	0180-4134
C174	0160-6662	1	CAP-FXD 100pF +5% 300 V MICA	28480	0160-6662
C176	0160-6519	1	CAP-FXD 470pF +20% 100 V CER X7R	28480	0160-6519
C177	0160-6505	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-6505
C178	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C179	0160-6522	1	CAP-FXD 1000pF +5% 100 V CER C0G	28480	0160-6522
C181	0160-6662	1	CAP-FXD 100pF +5% 300 V MICA	28480	0160-6662
C182	P0160-4441A	1		28480	P0160-4441A
C183	0160-6688	1	CAP-FXD 1uF +20% 50 V CER Z5U	28480	0160-6688
C184	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C185	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C186	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C187	0160-4832	1	CAP-FXD 0.01uF +10% 100 V CER X7R	28480	0160-4832
C188	0160-6688	1	CAP-FXD 1uF +20% 50 V CER Z5U	28480	0160-6688
C190	0160-4571	1	CAP-FXD 0.1uF +80% -20% 50 V CER Z5U	28480	0160-4571
C195	P0160-3876A	1		28480	P0160-3876A
C196	P0160-4283B	1		28480	P0160-4283B
C197	P0160-4283B	1		28480	P0160-4283B
C301	0160-6505	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-6505

**HP Part Number 03325-66521
Fractional N (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C302	P0160-4832A	1		28480	P0160-4832A
C0331	0160-4571		CAP-FXD 0.1uF +80% -20% 50 V CER Z5U	28480	0160-4571
CR001	1901-0040	1	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
CR002	1901-0040	1	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
CR003	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR004	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR005	1901-0040	1	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
CR006	1902-0777	1	DIODE-ZNR 1N825 6.2V 5% DO-7 PD=.4W	28480	1902-0777
CR007	1902-0777	1	DIODE-ZNR 1N825 6.2V 5% DO-7 PD=.4W	28480	1902-0777
CR008	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR009	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR011	1901-0040	1	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
CR012	1901-0040	1	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
CR013	1901-0040	1	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
CR016	1901-0040	1	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
CR017	1902-3054	1	DIODE-ZNR 3.65V 5% DO-35 PD=.4W	28480	1902-3054
CR018	1902-0064	1	DIODE-ZNR 7.5V 5% DO-35 PD=.4W TC=+.05%	28480	1902-0064
CR019	1902-0064	1	DIODE-ZNR 7.5V 5% DO-35 PD=.4W TC=+.05%	28480	1902-0064
CR020	1901-0040	1	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
CR131	1902-3030	1	DIODE-ZNR 3.01V 5% DO-7 PD=.4W TC=-.067%	28480	1902-3030
CR161	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR162	P1901-0040B	1		28480	P1901-0040B
CR163	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR164	P0122-0162A	1		28480	P0122-0162A
CR165	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR166	P0122-0162A	1		28480	P0122-0162A
J001	1252-2407	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2407
J007	1251-2969	1	CONNECTOR-PHONO SINGLE PHONO JACK; DIP	28480	1251-2969
J008	1251-2969	1	CONNECTOR-PHONO SINGLE PHONO JACK; DIP	28480	1251-2969
J015	1251-2969	1	CONNECTOR-PHONO SINGLE PHONO JACK; DIP	28480	1251-2969
J016	1251-2969	1	CONNECTOR-PHONO SINGLE PHONO JACK; DIP	28480	1251-2969
J017	1251-2969	1	CONNECTOR-PHONO SINGLE PHONO JACK; DIP	28480	1251-2969
J018	1251-2969	1	CONNECTOR-PHONO SINGLE PHONO JACK; DIP	28480	1251-2969
J0181	1251-2969	1	CONNECTOR-PHONO SINGLE PHONO JACK; DIP	28480	1251-2969
L001	9100-1622	1	INDUCTOR RF-CH-MLD 24uH +-5%	28480	9100-1622

**Indicates factory-selected value*

**HP Part Number 03325-66521
Fractional N (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
L002	9100-1622	1	INDUCTOR RF-CH-MLD 24uH +-5%	28480	9100-1622
L003	P9100-1791C	1		28480	P9100-1791C
L132	P9100-1791C	1		28480	P9100-1791C
L133	P7175-0057A	1		28480	P7175-0057A
L161	P9100-1791C	1		28480	P9100-1791C
L162	9140-0460	1	COIL-VAR 351nH-429nH Q=120 PC-MTG	08123	HP.39T
L163	9100-0539	1	INDUCTOR RF-CH-MLD 10uH +-5%	28480	9100-0539
L165	9140-0349	1	INDUCTOR RF-CH-MLD 1.1UH +-5%	05524	15A1R1J
Q001	1853-0639	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0639
Q002	1853-0639	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0639
Q003	P1854-0345D	1		28480	P1854-0345D
Q004	1853-0639	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0639
Q006	1853-0640	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0640
Q007	1853-0640	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0640
Q008	1853-0640	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0640
Q009	1854-1140	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-1140
Q010	1853-0640	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0640
Q011	1854-1140	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-1140
Q012	1853-0640	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0640
Q013	1854-1140	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-1140
Q014	1854-1140	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-1140
Q016	1854-1140	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-1140
Q017	P1855-0308D	1		28480	P1855-0308D
Q018	P1855-0081A	1		28480	P1855-0081A
Q019	P1855-0081A	1		28480	P1855-0081A
Q021	P1855-0689A	1		28480	P1855-0689A
Q022	1854-1028	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-1028
Q023	1854-1028	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-1028
Q024	1854-1028	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-1028
Q025	1853-0640	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0640
Q026	1854-1028	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-1028
Q027	P1855-0081A	1		28480	P1855-0081A
Q028	1854-0809	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0809
Q029	1854-0809	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0809
Q031	1853-0640	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0640

**HP Part Number 03325-66521
Fractional N (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
Q032	P1854-0830A	1		28480	P1854-0830A
Q033	P1855-0689A	1		28480	P1855-0689A
Q037	1854-1028	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-1028
Q038	1853-0569	1	TRANSISTOR PNP SI TO-92 PD=310MW	28480	1853-0569
Q039	P1855-0081A	1		28480	P1855-0081A
Q041	1854-1140	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-1140
Q042	1854-1140	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-1140
Q043	1853-0640	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0640
Q044	1853-0640	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0640
Q131	1853-0639	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0639
Q132	1854-1024	1	TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-1024
Q161	1853-0639	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0639
Q162	P1854-0215C	1		28480	P1854-0215C
Q163	P1854-0345D	1		28480	P1854-0345D
Q164	P1854-0345D	1		28480	P1854-0345D
Q165	P1854-0345D	1		28480	P1854-0345D
Q166	1853-0639	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0639
R001	0757-0395	1	RESISTOR 56.2 +1% .125W TF TC=0+-100	28480	0757-0395
R002	0757-0419	1	RESISTOR 681 +1% .25W TF TC=0+-100	28480	0757-0419
R003	0757-0419	1	RESISTOR 681 +1% .25W TF TC=0+-100	28480	0757-0419
R004	0683-4705	1	RESISTOR 47 +5% .25W CF TC=0-400	28480	0683-4705
R006	0757-0421	1	RESISTOR 825 +1% .125W TF TC=0+-100	28480	0757-0421
R007	0683-4715	1	RESISTOR 470 +5% .25W CF TC=0-400	28480	0683-4715
R008	0683-4705	1	RESISTOR 47 +5% .25W CF TC=0-400	28480	0683-4705
R009	0698-3440	1	RESISTOR 196 +1% .125W TF TC=0+-100	28480	0698-3440
R011	0683-2205	1	RESISTOR 22 +5% .25W CF TC=0-400	28480	0683-2205
R012	0757-0438	1	RESISTOR 5.11K +1% .125W TF TC=0+-100	28480	0757-0438
R013	0757-0438	1	RESISTOR 5.11K +1% .125W TF TC=0+-100	28480	0757-0438
R014	0757-0418	1	RESISTOR 619 +1% .125W TF TC=0+-100	28480	0757-0418
R016	0757-0440	1	RESISTOR 7.5K +1% .125W TF TC=0+-100	28480	0757-0440
R017	0698-3152	1	RESISTOR 3.48K +1% .125W TF TC=0+-100	28480	0698-3152
R018	0757-0444	1	RESISTOR 12.1K +1% .125W TF TC=0+-100	28480	0757-0444
R019	0757-0278	1	RESISTOR 1.78K +1% .125W TF TC=0+-100	28480	0757-0278
R021	0683-4705	1	RESISTOR 47 +5% .25W CF TC=0-400	28480	0683-4705
R022	0683-1525	1	RESISTOR 1.5K +5% .25W CF TC=0-400	28480	0683-1525

**Indicates factory-selected value*

HP Part Number 03325-66521
Fractional N (continued)

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R023	0683-6815	1	RESISTOR 680 +5% .25W CF TC=0-400	28480	0683-6815
R024	0683-1825	1	RESISTOR 1.8K +5% .25W CF TC=0-400	28480	0683-1825
R026	0757-0395	1	RESISTOR 56.2 +-1% .125W TF TC=0+-100	28480	0757-0395
R027	0757-0317	1	RESISTOR 1.33K +-1% .125W TF TC=0+-100	28480	0757-0317
R028	0757-0317	1	RESISTOR 1.33K +-1% .125W TF TC=0+-100	28480	0757-0317
R029	0683-4705	1	RESISTOR 47 +-5% .25W CF TC=0-400	28480	0683-4705
R031	0683-3325	1	RESISTOR 3.3K +-5% .25W CF TC=0-400	28480	0683-3325
R032	0683-4715	1	RESISTOR 470 +-5% .25W CF TC=0-400	28480	0683-4715
R033	0683-4705	1	RESISTOR 47 +-5% .25W CF TC=0-400	28480	0683-4705
R034	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	28480	0757-0438
R036	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R037	0698-3153	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	28480	0698-3153
R038	0698-0083	1	RESISTOR 1.96K +-1% .125W TF TC=0+-100	28480	0698-0083
R039	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R041	0683-6815	1	RESISTOR 680 +5% .25W CF TC=0-400	28480	0683-6815
R042	0698-3153	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	28480	0698-3153
R043	0698-3153	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	28480	0698-3153
R044	0698-0083	1	RESISTOR 1.96K +-1% .125W TF TC=0+-100	28480	0698-0083
R046	0683-1015	1	RESISTOR 100 +-5% .25W CF TC=0-400	28480	0683-1015
R047	0683-3325	1	RESISTOR 3.3K +-5% .25W CF TC=0-400	28480	0683-3325
R048	0683-1015	1	RESISTOR 100 +-5% .25W CF TC=0-400	28480	0683-1015
R049	0698-3443	1	RESISTOR 287 +-1% .125W TF TC=0+-100	28480	0698-3443
R051	0757-0418	1	RESISTOR 619 +-1% .125W TF TC=0+-100	28480	0757-0418
R052	0757-0444	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	28480	0757-0444
R053	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R054	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R056	0698-0083	1	RESISTOR 1.96K +-1% .125W TF TC=0+-100	28480	0698-0083
R057	0683-5105	1	RESISTOR 51 +-5% .25W CF TC=0-400	28480	0683-5105
R058	0683-4715	1	RESISTOR 470 +-5% .25W CF TC=0-400	28480	0683-4715
R059	0683-1015	1	RESISTOR 100 +-5% .25W CF TC=0-400	28480	0683-1015
R061	0683-1035	1	RESISTOR 10K +-5% .25W CF TC=0-400	28480	0683-1035
R062	0683-1015	1	RESISTOR 100 +-5% .25W CF TC=0-400	28480	0683-1015
R063	0757-0419	1	RESISTOR 681 +-1% .25W TF TC=0+-100	28480	0757-0419
R064	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R065	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401

**HP Part Number 03325-66521
Fractional N (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R066	0683-4705	1	RESISTOR 47 +5% .25W CF TC=0-400	28480	0683-4705
R067	0698-0083	1	RESISTOR 1.96K +1% .125W TF TC=0+-100	28480	0698-0083
R068	0698-3156	1	RESISTOR 14.7K +1% .125W TF TC=0+-100	28480	0698-3156
R069	0698-3156	1	RESISTOR 14.7K +1% .125W TF TC=0+-100	28480	0698-3156
R070	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R071	0698-4207	1	RESISTOR 44.2K +1% .125W TF TC=0+-100	28480	0698-4207
R072	0683-1025	1	RESISTOR 1K +-5% .25W CF TC=0-400	28480	0683-1025
R073	0683-4705	1	RESISTOR 47 +5% .25W CF TC=0-400	28480	0683-4705
R074	2100-3211	1	RESISTOR-TRMR 1K 10% TKF TOP-ADJ 1-TRN	28480	2100-3211
R075	0757-0442	1	RESISTOR 10K +1% .125W TF TC=0+-100	28480	0757-0442
R076	2100-3096	1	RESISTOR-TRMR 50K 10% TKF TOP-ADJ 17-TRN	28480	2100-3096
R077	0683-1065	1	RESISTOR 10M +-5% .25W CC TC=-900/+1100	28480	0683-1065
R078	0757-0488	1	RESISTOR 909K +-1% .125W TF TC=0+-100	28480	0757-0488
R079	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R081	0683-1035	1	RESISTOR 10K +-5% .25W CF TC=0-400	28480	0683-1035
R082	0683-5625	1	RESISTOR 5.6K +-5% .25W CF TC=0-400	28480	0683-5625
R083	0683-2025	1	RESISTOR 2K +-5% .25W CF TC=0-400	28480	0683-2025
R084	0757-0289	1	RESISTOR 13.3K +-1% .125W TF TC=0+-100	28480	0757-0289
R086	0757-0289	1	RESISTOR 13.3K +-1% .125W TF TC=0+-100	28480	0757-0289
R087	0683-4705	1	RESISTOR 47 +5% .25W CF TC=0-400	28480	0683-4705
R088	2100-3383	1	RESISTOR-TRMR 50 10% TKF TOP-ADJ 1-TRN	28480	2100-3383
R089	0683-4705	1	RESISTOR 47 +5% .25W CF TC=0-400	28480	0683-4705
R091	0698-0083	1	RESISTOR 1.96K +1% .125W TF TC=0+-100	28480	0698-0083
R092	0683-1025	1	RESISTOR 1K +-5% .25W CF TC=0-400	28480	0683-1025
R093	0683-1015	1	RESISTOR 100 +-5% .25W CF TC=0-400	28480	0683-1015
R094	0683-1015	1	RESISTOR 100 +-5% .25W CF TC=0-400	28480	0683-1015
R096	0757-0421	1	RESISTOR 825 +-1% .125W TF TC=0+-100	28480	0757-0421
R097	0683-2225	1	RESISTOR 2.2K +-5% .25W CF TC=0-400	28480	0683-2225
R098	0683-2225	1	RESISTOR 2.2K +-5% .25W CF TC=0-400	28480	0683-2225
R099	0698-3154	1	RESISTOR 4.22K +-1% .125W TF TC=0+-100	28480	0698-3154
R101	0683-1025	1	RESISTOR 1K +-5% .25W CF TC=0-400	28480	0683-1025
R102	0683-2225	1	RESISTOR 2.2K +-5% .25W CF TC=0-400	28480	0683-2225
R103	0683-4705	1	RESISTOR 47 +5% .25W CF TC=0-400	28480	0683-4705
R104	0683-2235	1	RESISTOR 22K +-5% .25W CF TC=0-400	28480	0683-2235
R106	0683-1035	1	RESISTOR 10K +-5% .25W CF TC=0-400	28480	0683-1035

**Indicates factory-selected value*

**HP Part Number 03325-66521
Fractional N (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R107	2100-0567	1	RESISTOR-TRMR 2K 10% TKF TOP-ADJ 1-TRN	28480	2100-0567
R108	0698-0083	1	RESISTOR 1.96K +1% .125W TF TC=0+-100	28480	0698-0083
R109	0683-1015	1	RESISTOR 100 +-5% .25W CF TC=0-400	28480	0683-1015
R111	0683-1015	1	RESISTOR 100 +-5% .25W CF TC=0-400	28480	0683-1015
R112	0757-0421	1	RESISTOR 825 +-1% .125W TF TC=0+-100	28480	0757-0421
R113	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R114	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R116	0683-4705	1	RESISTOR 47 +-5% .25W CF TC=0-400	28480	0683-4705
R117	0757-0439	1	RESISTOR 6.81K +-1% .125W TF TC=0+-100	28480	0757-0439
R118	0683-1025	1	RESISTOR 1K +-5% .25W CF TC=0-400	28480	0683-1025
R119	0683-1835	1	RESISTOR 18K +-5% .25W CF TC=0-400	28480	0683-1835
R121	0683-1025	1	RESISTOR 1K +-5% .25W CF TC=0-400	28480	0683-1025
R122	0698-3162	1	RESISTOR 46.4K +-1% .125W TF TC=0+-100	28480	0698-3162
R123	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R124	0683-1525	1	RESISTOR 1.5K +-5% .25W CF TC=0-400	28480	0683-1525
R126	0683-1025	1	RESISTOR 1K +-5% .25W CF TC=0-400	28480	0683-1025
R130	0683-2225	1	RESISTOR 2.2K +-5% .25W CF TC=0-400	28480	0683-2225
R132	0757-0398	1	RESISTOR 75 +-1% .125W TF TC=0+-100	28480	0757-0398
R133	0698-3432	1	RESISTOR 26.1 +-1% .125W TF TC=0+-100	28480	0698-3432
R134	0683-1035	1	RESISTOR 10K +-5% .25W CF TC=0-400	28480	0683-1035
R135	0683-2205	1	RESISTOR 22 +-5% .25W CF TC=0-400	28480	0683-2205
R136	0683-1025	1	RESISTOR 1K +-5% .25W CF TC=0-400	28480	0683-1025
R137	0683-1035	1	RESISTOR 10K +-5% .25W CF TC=0-400	28480	0683-1035
R138	0698-4443	1	RESISTOR 4.53K +-1% .125W TF TC=0+-100	28480	0698-4443
R140	0683-1035	1	RESISTOR 10K +-5% .25W CF TC=0-400	28480	0683-1035
R141	0698-4422	1	RESISTOR 1.27K +-1% .125W TF TC=0+-100	28480	0698-4422
R142	0683-1025	1	RESISTOR 1K +-5% .25W CF TC=0-400	28480	0683-1025
R143	0683-1015	1	RESISTOR 100 +-5% .25W CF TC=0-400	28480	0683-1015
R144	0683-3325	1	RESISTOR 3.3K +-5% .25W CF TC=0-400	28480	0683-3325
R145	0683-4725	1	RESISTOR 4.7K +-5% .25W CF TC=0-400	28480	0683-4725
R146	0683-1035	1	RESISTOR 10K +-5% .25W CF TC=0-400	28480	0683-1035
R147	0683-1035	1	RESISTOR 10K +-5% .25W CF TC=0-400	28480	0683-1035
R148	0683-7515	1	RESISTOR 750 +-5% .25W CF TC=0-400	28480	0683-7515
R149	0683-1035	1	RESISTOR 10K +-5% .25W CF TC=0-400	28480	0683-1035
R150	0683-3325	1	RESISTOR 3.3K +-5% .25W CF TC=0-400	28480	0683-3325

**HP Part Number 03325-66521
Fractional N (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R151	0683-1035	1	RESISTOR 10K +5% .25W CF TC=0-400	28480	0683-1035
R152	0683-1035	1	RESISTOR 10K +5% .25W CF TC=0-400	28480	0683-1035
R161	P0683-2415A	1		28480	P0683-2415A
R162	0699-2098	1	RESISTOR 192.5 +0.5% .125W TF TC=0+-50	28480	0699-2098
R163	0683-1045	1	RESISTOR 100K +5% .25W CF TC=0-400	28480	0683-1045
R164	0683-4735	1	RESISTOR 47K +5% .25W CF TC=0-400	28480	0683-4735
R165	0683-1045	1	RESISTOR 100K +5% .25W CF TC=0-400	28480	0683-1045
R166	0683-4735	1	RESISTOR 47K +5% .25W CF TC=0-400	28480	0683-4735
R167	0683-4725	1	RESISTOR 4.7K +5% .25W CF TC=0-400	28480	0683-4725
R168	0683-1035	1	RESISTOR 10K +5% .25W CF TC=0-400	28480	0683-1035
R169	0698-3518	1	RESISTOR 7.32K +1% .125W TF TC=0+-100	28480	0698-3518
R170	0683-2425	1	RESISTOR 2.4K +5% .25W CF TC=0-400	28480	0683-2425
R171	0757-1094	1	RESISTOR 1.47K +1% .125W TF TC=0+-100	28480	0757-1094
R172	0683-1025	1	RESISTOR 1K +5% .25W CF TC=0-400	28480	0683-1025
R173	0683-1045	1	RESISTOR 100K +5% .25W CF TC=0-400	28480	0683-1045
R174	0683-5125	1	RESISTOR 5.1K +5% .25W CF TC=0-400	28480	0683-5125
R176	0683-4705	1	RESISTOR 47 +5% .25W CF TC=0-400	28480	0683-4705
R177	0757-0417	1	RESISTOR 562 +1% .125W TF TC=0+-100	28480	0757-0417
R178	0699-2101	1	RESISTOR 350 +0.1% .125W TF TC=0+-25	28480	0699-2101
R179	0683-3915	1	RESISTOR 390 +5% .25W CF TC=0-400	28480	0683-3915
R181	0683-3915	1	RESISTOR 390 +5% .25W CF TC=0-400	28480	0683-3915
R182	0683-1525	1	RESISTOR 1.5K +5% .25W CF TC=0-400	28480	0683-1525
R183	0683-1025	1	RESISTOR 1K +5% .25W CF TC=0-400	28480	0683-1025
R184	0757-0280	1	RESISTOR 1K +1% .125W TF TC=0+-100	28480	0757-0280
R186	0757-0416	1	RESISTOR 511 +1% .125W TF TC=0+-100	28480	0757-0416
R187	0698-4123	1	RESISTOR 499 +1% .125W TF TC=0+-100	28480	0698-4123
R188	0757-0280	1	RESISTOR 1K +1% .125W TF TC=0+-100	28480	0757-0280
R189	0757-0401	1	RESISTOR 100 +1% .125W TF TC=0+-100	28480	0757-0401
R191	0757-0280	1	RESISTOR 1K +1% .125W TF TC=0+-100	28480	0757-0280
R192	0757-0442	1	RESISTOR 10K +1% .125W TF TC=0+-100	28480	0757-0442
R193	0698-3279	1	RESISTOR 4.99K +1% .125W TF TC=0+-100	28480	0698-3279
R194	0757-0401	1	RESISTOR 100 +1% .125W TF TC=0+-100	28480	0757-0401
R196	0757-0452	1	RESISTOR 27.4K +1% .125W TF TC=0+-100	28480	0757-0452
R197	0698-3440	1	RESISTOR 196 +1% .125W TF TC=0+-100	28480	0698-3440
R198	0698-4474	1	RESISTOR 8.45K +1% .125W TF TC=0+-100	28480	0698-4474

**Indicates factory-selected value*

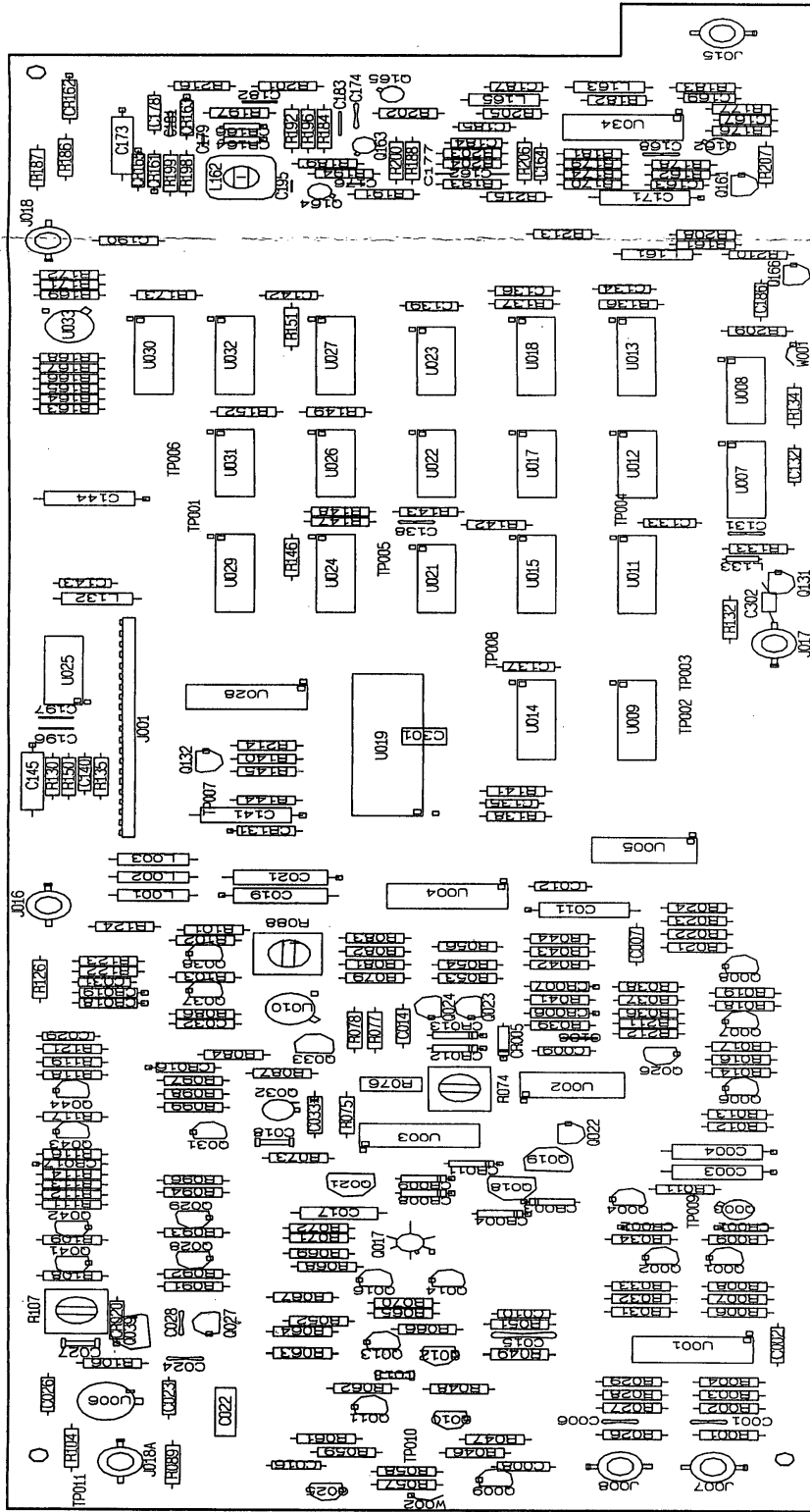
**HP Part Number 03325-66521
Fractional N (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R199	0757-0439	1	RESISTOR 6.81K +-1% .125W TF TC=0+-100	28480	0757-0439
R200	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R201	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R202	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R203	0698-3279	1	RESISTOR 4.99K +-1% .125W TF TC=0+-100	28480	0698-3279
R204	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R205	0757-0283	1	RESISTOR 2K +-1% .125W TF TC=0+-100	28480	0757-0283
R206	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R207	0683-3315	1	RESISTOR 330 +-5% .25W CF TC=0-400	28480	0683-3315
R208	0683-4325	1	RESISTOR 4.3K +-5% .25W CF TC=0-400	28480	0683-4325
R209	0683-3915	1	RESISTOR 390 +-5% .25W CF TC=0-400	28480	0683-3915
R210	0699-2098	1	RESISTOR 192.5 +-0.5% .125W TF TC=0+-50	28480	0699-2098
R211	0683-4705	1	RESISTOR 47 +-5% .25W CF TC=0-400	28480	0683-4705
R212	0757-0289	1	RESISTOR 13.3K +-1% .125W TF TC=0+-100	28480	0757-0289
R213	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R214	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R215	0683-2205	1	RESISTOR 22 +-5% .25W CF TC=0-400	28480	0683-2205
R216	0757-0279	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	28480	0757-0279
TP001	1252-2897	1	CONNECTOR-SGL CONT PIN .044-IN-BSC-SZ	11627	7-22751-8
TP002	1252-2897	1	CONNECTOR-SGL CONT PIN .044-IN-BSC-SZ	11627	7-22751-8
TP003	1252-2897	1	CONNECTOR-SGL CONT PIN .044-IN-BSC-SZ	11627	7-22751-8
TP004	1252-2897	1	CONNECTOR-SGL CONT PIN .044-IN-BSC-SZ	11627	7-22751-8
TP005	1252-2897	1	CONNECTOR-SGL CONT PIN .044-IN-BSC-SZ	11627	7-22751-8
TP006	1252-2897	1	CONNECTOR-SGL CONT PIN .044-IN-BSC-SZ	11627	7-22751-8
TP007	1252-2897	1	CONNECTOR-SGL CONT PIN .044-IN-BSC-SZ	11627	7-22751-8
TP008	1252-2897	1	CONNECTOR-SGL CONT PIN .044-IN-BSC-SZ	11627	7-22751-8
TP009	1252-2897	1	CONNECTOR-SGL CONT PIN .044-IN-BSC-SZ	11627	7-22751-8
TP010	1252-2897	1	CONNECTOR-SGL CONT PIN .044-IN-BSC-SZ	11627	7-22751-8
TP011	1252-2897	1	CONNECTOR-SGL CONT PIN .044-IN-BSC-SZ	11627	7-22751-8
U001	1820-0817	1	IC FF ECL D-M/S DUAL	28480	1820-0817
U002	1821-0001	1	TRANSISTOR ARRAY 14-PIN PLSTC DIP	28480	1821-0001
U003	1810-0294	1	NETWORK-RESISTOR 16 PIN DIP; RES	28480	1810-0294
U004	1820-1196	1	IC FF TTL/LS D-TYPE POS-EDGE-TRIG COM	28480	1820-1196
U005	1820-1112	1	IC FF TTL/LS D-TYPE POS-EDGE-TRIG	28480	1820-1112
U006	P1826-0021E	1		28480	P1826-0021E

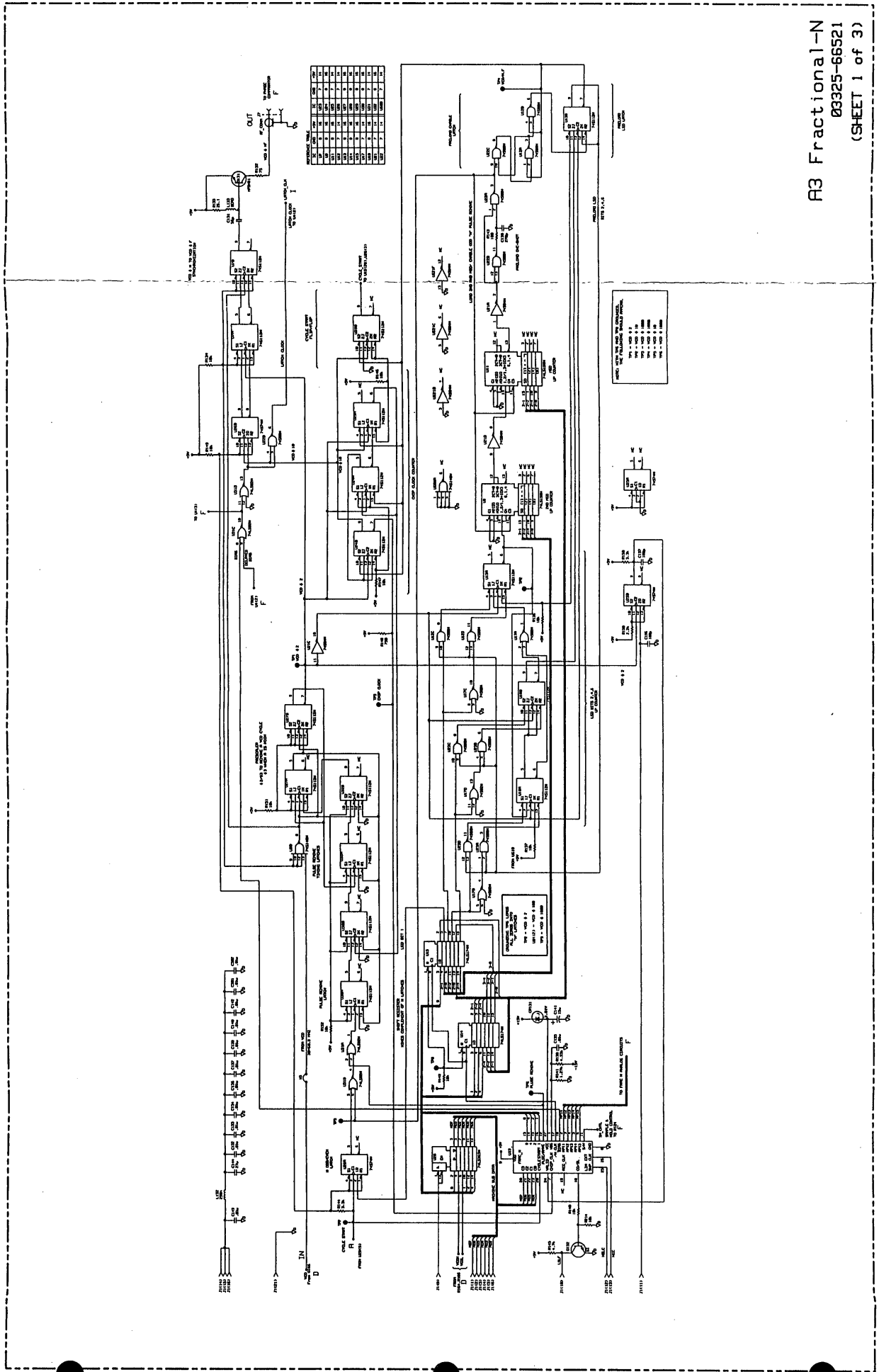
**HP Part Number 03325-66521
Fractional N (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U007	1820-0629	1	IC FF TTL/S J-K NEG-EDGE-TRIG	28480	1820-0629
U008	1820-0697	1	IC DRVR TTL/S NAND LINE DUAL 4-INP	28480	1820-0697
U009	1820-1279	1	IC CNTR TTL/LS BCD UP/DOWN SYNCHRO	28480	1820-1279
U010	P1826-0043A	1		28480	P1826-0043A
U011	1820-1279	1	IC CNTR TTL/LS BCD UP/DOWN SYNCHRO	28480	1820-1279
U012	1820-0681	1	IC GATE TTL/S NAND QUAD 2-INP	28480	1820-0681
U013	1820-0629	1	IC FF TTL/S J-K NEG-EDGE-TRIG	28480	1820-0629
U014	1820-1196	1	IC FF TTL/LS D-TYPE POS-EDGE-TRIG COM	28480	1820-1196
U015	1820-1196	1	IC FF TTL/LS D-TYPE POS-EDGE-TRIG COM	28480	1820-1196
U017	1820-1322	1	IC GATE TTL/S NOR QUAD 2-INP	28480	1820-1322
U018	1820-0629	1	IC FF TTL/S J-K NEG-EDGE-TRIG	28480	1820-0629
U019	1SD6-0001	1	IC1SD6 C FRCNN	28480	1SD6-0001
U021	1820-0683	1	IC INV TTL/S HEX 1-INP	28480	1820-0683
U022	1820-0681	1	IC GATE TTL/S NAND QUAD 2-INP	28480	1820-0681
U023	1820-0681	1	IC GATE TTL/S NAND QUAD 2-INP	28480	1820-0681
U024	1820-0629	1	IC FF TTL/S J-K NEG-EDGE-TRIG	28480	1820-0629
U025	1820-0693	1	IC FF TTL/S D-TYPE POS-EDGE-TRIG	28480	1820-0693
U026	1820-0693	1	IC FF TTL/S D-TYPE POS-EDGE-TRIG	28480	1820-0693
U027	1820-0629	1	IC FF TTL/S J-K NEG-EDGE-TRIG	28480	1820-0629
U028	1820-1641	1	IC DRVR TTL/LS BUS HEX 1-INP	28480	1820-1641
U029	1820-0629	1	IC FF TTL/S J-K NEG-EDGE-TRIG	28480	1820-0629
U030	1820-0629	1	IC FF TTL/S J-K NEG-EDGE-TRIG	28480	1820-0629
U031	1820-1144	1	IC GATE TTL/LS NOR QUAD 2-INP	28480	1820-1144
U032	1820-0629	1	IC FF TTL/S J-K NEG-EDGE-TRIG	28480	1820-0629
U033	P1826-0111A	1		28480	P1826-0111A
U034	1820-0802	1	IC GATE ECL NOR QUAD 2-INP	28480	1820-0802

**Indicates factory-selected value*



R3 Fractional-N
 03325-66521



IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
00	00	01	01	10	10	11	11	00	00	01	01	10	10	11	11
01	01	00	00	01	01	10	10	11	11	00	00	01	01	10	10
02	02	01	01	10	10	11	11	00	00	01	01	10	10	11	11
03	03	00	00	01	01	10	10	11	11	00	00	01	01	10	10
04	04	01	01	10	10	11	11	00	00	01	01	10	10	11	11
05	05	00	00	01	01	10	10	11	11	00	00	01	01	10	10
06	06	01	01	10	10	11	11	00	00	01	01	10	10	11	11
07	07	00	00	01	01	10	10	11	11	00	00	01	01	10	10
08	08	01	01	10	10	11	11	00	00	01	01	10	10	11	11
09	09	00	00	01	01	10	10	11	11	00	00	01	01	10	10
10	10	01	01	10	10	11	11	00	00	01	01	10	10	11	11
11	11	00	00	01	01	10	10	11	11	00	00	01	01	10	10
12	12	01	01	10	10	11	11	00	00	01	01	10	10	11	11
13	13	00	00	01	01	10	10	11	11	00	00	01	01	10	10
14	14	01	01	10	10	11	11	00	00	01	01	10	10	11	11
15	15	00	00	01	01	10	10	11	11	00	00	01	01	10	10
16	16	01	01	10	10	11	11	00	00	01	01	10	10	11	11
17	17	00	00	01	01	10	10	11	11	00	00	01	01	10	10
18	18	01	01	10	10	11	11	00	00	01	01	10	10	11	11
19	19	00	00	01	01	10	10	11	11	00	00	01	01	10	10
20	20	01	01	10	10	11	11	00	00	01	01	10	10	11	11
21	21	00	00	01	01	10	10	11	11	00	00	01	01	10	10
22	22	01	01	10	10	11	11	00	00	01	01	10	10	11	11
23	23	00	00	01	01	10	10	11	11	00	00	01	01	10	10
24	24	01	01	10	10	11	11	00	00	01	01	10	10	11	11
25	25	00	00	01	01	10	10	11	11	00	00	01	01	10	10
26	26	01	01	10	10	11	11	00	00	01	01	10	10	11	11
27	27	00	00	01	01	10	10	11	11	00	00	01	01	10	10
28	28	01	01	10	10	11	11	00	00	01	01	10	10	11	11
29	29	00	00	01	01	10	10	11	11	00	00	01	01	10	10
30	30	01	01	10	10	11	11	00	00	01	01	10	10	11	11
31	31	00	00	01	01	10	10	11	11	00	00	01	01	10	10

CONTROL SIGNALS:
 IN - 0000 1000 0000 0000
 OUT - 0000 1000 0000 0000
 IN - 0000 1000 0000 0000
 OUT - 0000 1000 0000 0000
 IN - 0000 1000 0000 0000
 OUT - 0000 1000 0000 0000

