

**Component-Level Information Packet  
for 08712-60018**

**Reference**



HP Part No. 08712-90035  
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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*



**Component-Level Information Packet  
for 03325-66521**

**Fractional N**



HP Part No. 08712-90032  
Printed in USA January 1996

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**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	1854-1140	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-1140
Q029	1854-1140	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-1140
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*

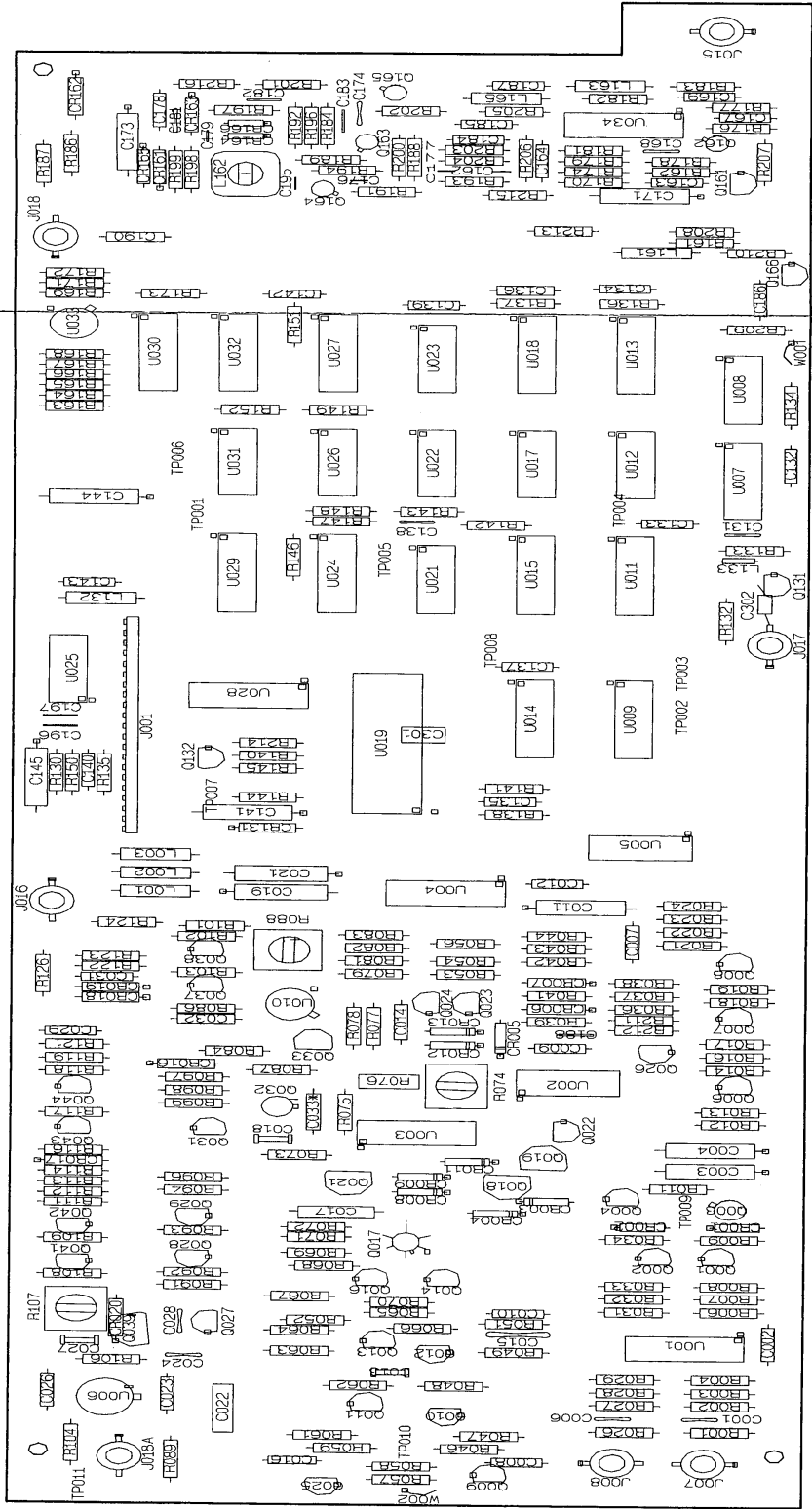
**HP Part Number 03325-66521**  
**Fractional N (continued)**

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*



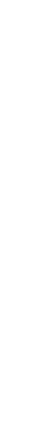
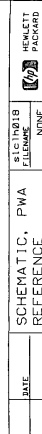
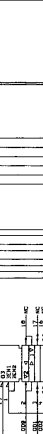
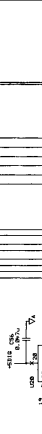
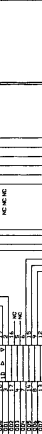
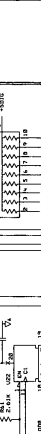
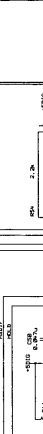


5340 BA3145 D-08712-60018-1

DATE: 07-27-54  
APPROVED: [Signature]

REVISIONS: [Table with columns for revision, date, and description]

NOT USED PARTS: [List of components not used in this version]

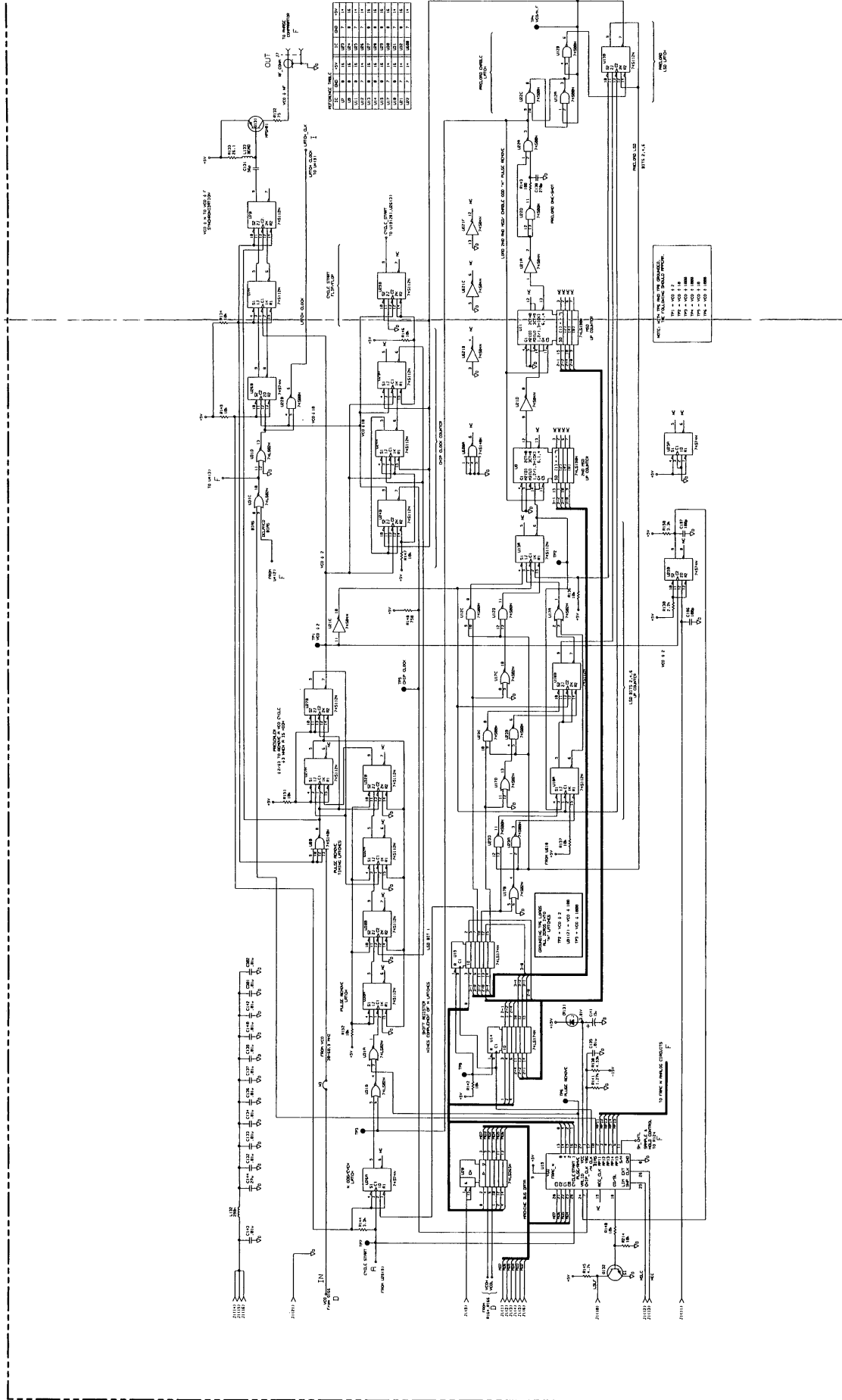


HP PROPRIETARY  
THIS DOCUMENT IS UNCLASSIFIED  
DATE 07-27-54 BY 60322 JAL

NOTES: UNLESS OTHERWISE SPECIFIED,  
1. ALL DIMENSIONS ARE IN MILLIMETERS.  
2. ALL TOLERANCES ARE IN MILLIMETERS.

DATE: [Blank]  
DRAWN BY: [Blank]  
CHECKED BY: [Blank]  
APPROVED BY: [Blank]

SHEET NO. 1  
TOTAL SHEETS 1  
TITLE: SCHEMATIC, PWA REFERENCE  
PROJECT: D-08712-60018-1



NOTE: LAYOUT IS FOR PRELIMINARY  
 CONSTRUCTION. THE FINAL LAYOUT  
 WILL BE DETERMINED BY THE  
 FINAL DESIGN.

