

**Agilent N3300A
Agilent N3301A
Component
Level Information**



Agilent Technologies

Agilent N3300A 1800W e-Load Mainframe (Full Rack)

Agilent N3301A 600W e-Load Mainframe (Half Rack)

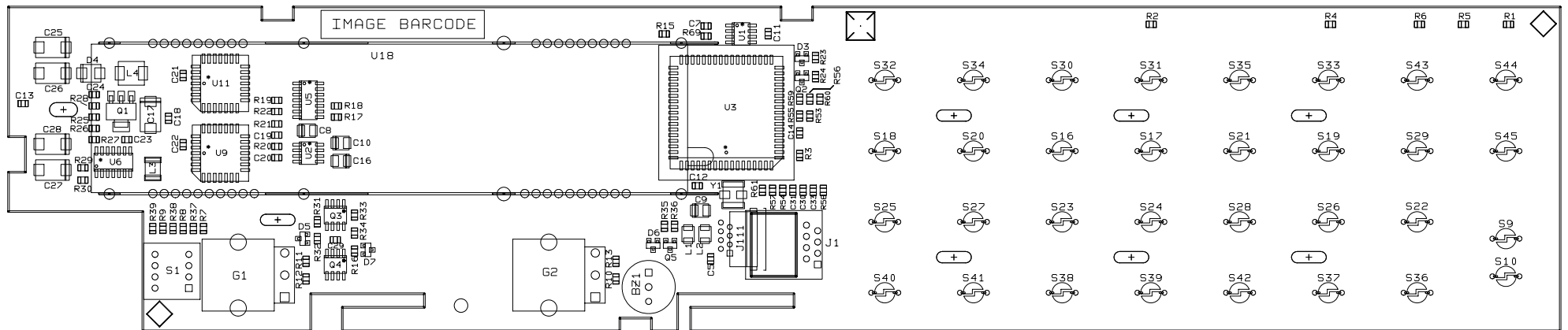
Component Level Information

Information in this packet applies to the following assemblies:

1. N3300-60005 Assembly - 5020-2864 Front Panel Board (N3300A)
2. N3300-61010 Assembly - 5020-2945 GPIB Board (N3300A and N3301A)
3. N3301-60001 Assembly - 5064-0137 Front Panel/5020-2972 Display Board (N3301A)
4. N3301-60001 Assembly - 5020-2974 Keypad (N3301A)

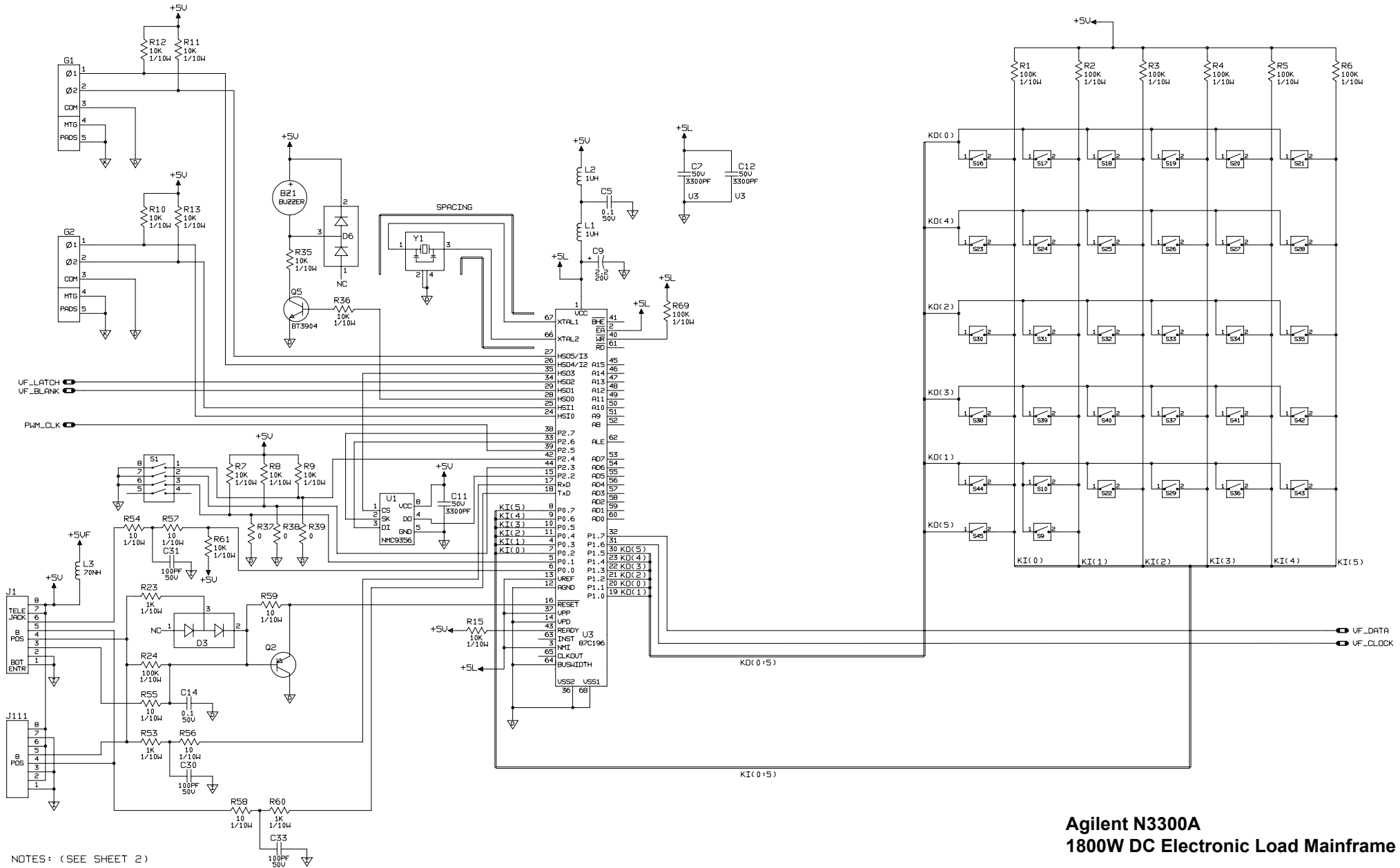
The following is included in this packet:

1. Component Locators
2. Schematics
3. Parts lists with Agilent and manufacturer's part numbers



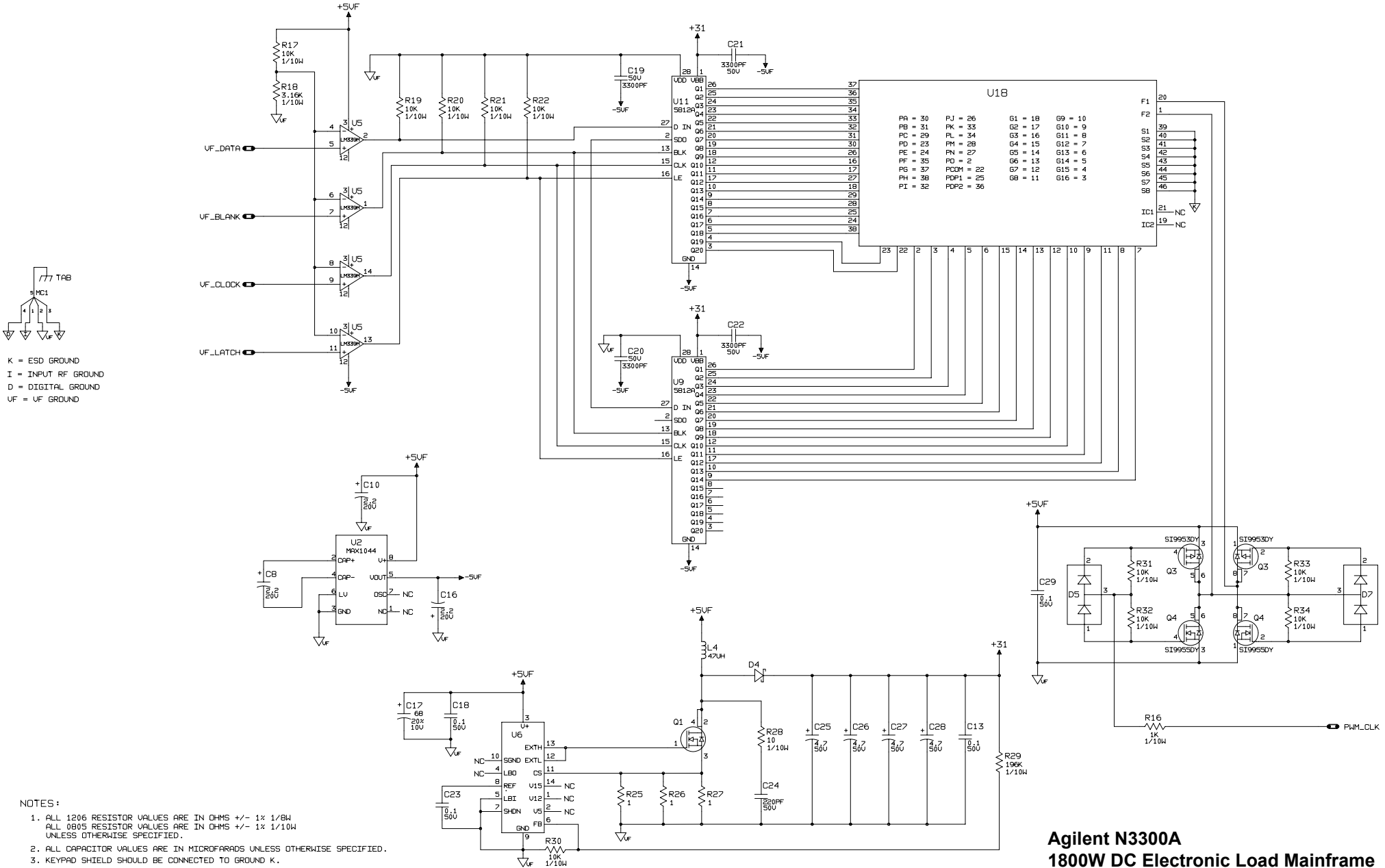
**Agilent N3300A
1800W DC Electronic Load Mainframe**

**5020-2864
Front Panel PC Assembly
Component Locator**



NOTES: (SEE SHEET 2)

**Agilent N3300A
1800W DC Electronic Load Mainframe**



**Agilent N3300A
1800W DC Electronic Load Mainframe**

**5020-2864
Front Panel PC Assembly
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5020-2864 Front Panel Parts List (N3300A)

Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
C10,C16,C8,C9	4	0180-3975	CAP-FXD 2.2uF +-20PCT 20V TA	TAJB225M020 293D225X0020B2E3 49MC225B020M0AS ESVB21D225M T491B225M020AS	AVX VISHAY VISHAY BC COMPONENTS NEC ELECTRONICS KEMET ELECTRONICS
C12,C19,C20,C21,C22,C7	6	0160-5946	CAP-FXD 3300pF +-10pct 50 V CER X7R	08055C332KAT_A C0805C332K5RAC C2012X7R1H332K GRM2165C1H332JA01D	AVX KEMET ELECTRONICS TDK MURATA MANUFACTURING
C14,C18,C23,C29,C5	5	0160-7798	CAP-FXD 0.1uF +-10PCT 50V CER X7R	GRM21BR71H104KA11L VJ0805Y104KXAMT 08055C104KAT_A C0805C104K5RAC C2012X7R1H104K	MURATA MANUFACTURING VISHAY AVX KEMET ELECTRONICS TDK
C17	1	0180-4559	CAP-FXD 68uF +-20pct 10 V TA	TAJD686M010R 293D686X0010D2E3 T491D686M010AS TCSCS1A686MDA	AVX VISHAY KEMET ELECTRONICS SAMSUNG
C24	1	0160-5954	CAP-FXD 220pF +-5pct 50 V CER C0G	08055A221JAT A 223858016605 C0805C221J5GAC C2012COG1H221J GRM2165C1H221JA01D	AVX YAGEO KEMET ELECTRONICS TDK MURATA MANUFACTURING
C25,C26,C27,C28	4	0180-4274	CAP-FXD 4.7uF +-20PCT 50V TA	TAJD475M050 ESVD1H475M	AVX NEC ELECTRONICS
C30,C33	2	0160-5967	CAP-FXD 100pF +-5pct 50 V CER C0G	08055A101JAT A C0805C101J5GAC C2012COG1H101J GRM2165C1H101JA01D VJ0805A101JXAMT	AVX KEMET ELECTRONICS TDK MURATA MANUFACTURING VISHAY

5020-2864 Front Panel Parts List (N3300A)

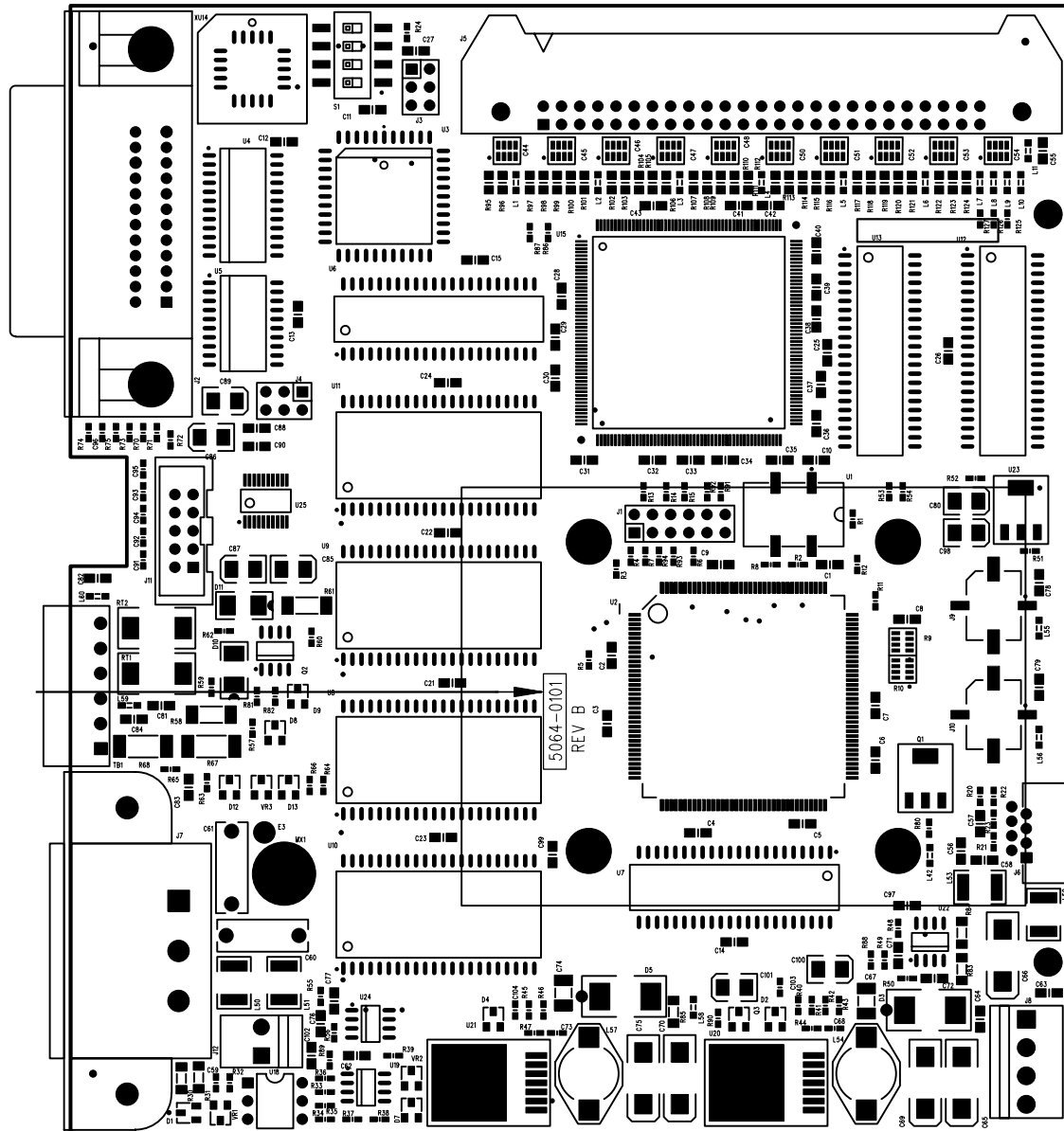
Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
D3,D5,D7	3	1906-0291	DIODE-DUAL 70V 100MA T0-236AA	BAV99 BAV99 BAV99LT1G BAV99____X_ BAV99	PHILIPS FAIRCHILD SEMICONDUCTOR ON SEMICONDUCTOR INFINEON TECHNOLOGIES NXP
D4	1	1901-1332	DIODE-PWR-S 40V 1A D0-214AA	10BQ040PBF SK14 SS24 STPS140U MBRS140T3G	INTERNATIONAL RECTIFIER MICROSEMI VISHAY STMICROELECTRONICS ON SEMICONDUCTOR
J111	1	1252-7643	CONN-POST TYPE 1-PIN-SPCG-MTG-END 8-CONT	08FMZ-ST	J S T ELECTRONIC PRODUCTS
L1,L2	2	9140-1236	INDUCTOR 1uH +-5pct 2.8W-mmX3.4LG-mm Q=30	NLV32T-1R0J-PF KL32T___1R0J	TDK KOA
L3	1	9170-1476	CORE-SHIELDING BEAD	4330-030-36291 28F0121-0SR-10 2743019447	FERROXCUBE USA STEWART FAIR RITE PRODUCTS
L4	1	9140-4835	INDUCTOR 47uH +-10pct 4.8LG-mm-X-3.4W-mm	NLFC453232T-470K-PF	TDK
Q1	1	1855-1864	TRANSISTOR MOSFET N-CHAN E-MODE SI SOT-223	NTF3055L108__G	ON SEMICONDUCTOR
Q2	1	1853-0568	TRANSISTOR PNP SI TO-236AA PD=350MW	MMBT5087LT1G	ON SEMICONDUCTOR
Q3	1	1855-1101	TRANSISTOR-MOSFET DUAL P-CHAN E-MODE SI SO-8	NDS9953A MMDF2P02ER2G SI4943BDY-__-E3	FAIRCHILD SEMICONDUCTOR ON SEMICONDUCTOR VISHAY
Q4	1	1855-0926	TRANSISTOR-MOSFET DUAL N-CHAN E-MODE N/S	PHN210T MMDF1N05E__G PHN210T	PHILIPS ON SEMICONDUCTOR NXP
R1,R2,R24,R3, R4,R5,R6,R69	8	0699-3053	RESISTOR 100K +-1pct .1W TKF TC=0+-100	CRCW0805100KFKE_ RK73H2AT_1003F MCR10__F1003 232273461004 MC08051003-FT	VISHAY KOA ROHM YAGEO RCD COMPONENTS

5020-2864 Front Panel Parts List (N3300A)

Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
R10,R11,R12,R13,R15,R17, R19,R20,R21,R22,R30,R31, R32,R33, R34,R61,R7,R8	18	0699-3051	RESISTOR 10K +-1pct .1W TKF TC 0+-100	232273461003L CRCW080510K0FKE_ RK73H2AT_1002F MC08051002-FTW MCR10___F1002	YAGEO VISHAY KOA RCD COMPONENTS ROHM
R16,R23,R53,R60	4	0699-3034	RESISTOR 1K +-1pct .1W TKF TC 0+-100	CRCW08051K00FKE_ RK73H2AT_1001F 232273461002L MCR10___F1001 MC08051001-FT	VISHAY KOA YAGEO ROHM RCD COMPONENTS
R18	1	0699-3040	RESISTOR 3.16K +-1pct .1W TKF TC=0+-100	CRCW08053K16FKE_ RK73H2AT_3161F MCR10___F3161 232273463162 MC08053161-FT	VISHAY KOA ROHM YAGEO RCD COMPONENTS
R25,R26,R27	3	0699-3671	RESISTOR 1 +-5pct .1W TKF	CRCW08051R00JNE_ RK73B2AT_1R0J MCR10___J1R0	VISHAY KOA ROHM
R28,R56,R58	3	0699-3698	RESISTOR 10 +-1pct .1W TKF TC=0+-100	CRCW080510R0FKE_ RK73H2AT_10R0F MCR10___F10R0 MC080510R0-FT	VISHAY KOA ROHM RCD COMPONENTS
R29	1	0699-3000	RESISTOR 196K +-1pct .1W TKF TC=0+-100	CRCW0805196KFKE_ RK73H2AT_1963F MCR10___F1963 232273461964 MC08051963-FT	VISHAY KOA ROHM YAGEO RCD COMPONENTS
R39	1	0699-2643	RES-FXD 0 OHM +-5PCT .1W TC 0+-300	CRCW08050000ZSE_ CR21-000-ZL MCR10___J000 RK73Z2AT 232273091002L ZC0805-TW	VISHAY ASJ ROHM KOA YAGEO RCD COMPONENTS
U11,U9	2	1820-8574	IC INTFC DRVR CMOS DISPLAY 20-BIT 28-PLCC	A6812SEP	ALLEGRO MICROSYSTEMS
U18	1	5188-4211	VFD Display		
U2	1	1826-2326	IC PWR MGT-VOLTAGE CONVERTER 1.5/10V 8	ICL7660CSA+	MAXIM INTEGRATED PRODUCTS

5020-2864 Front Panel Parts List (N3300A)

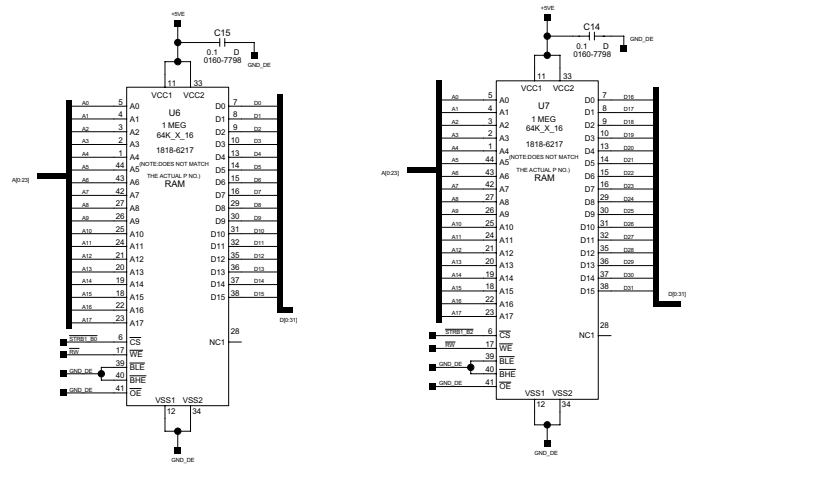
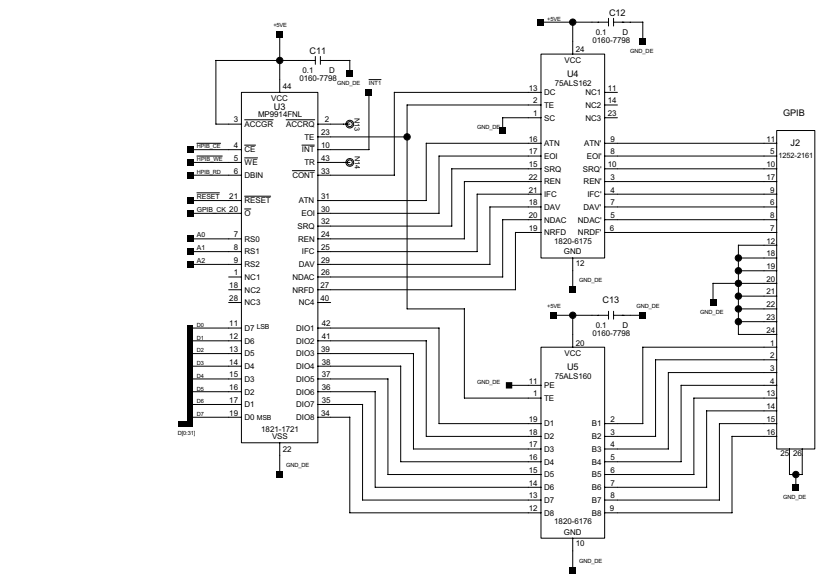
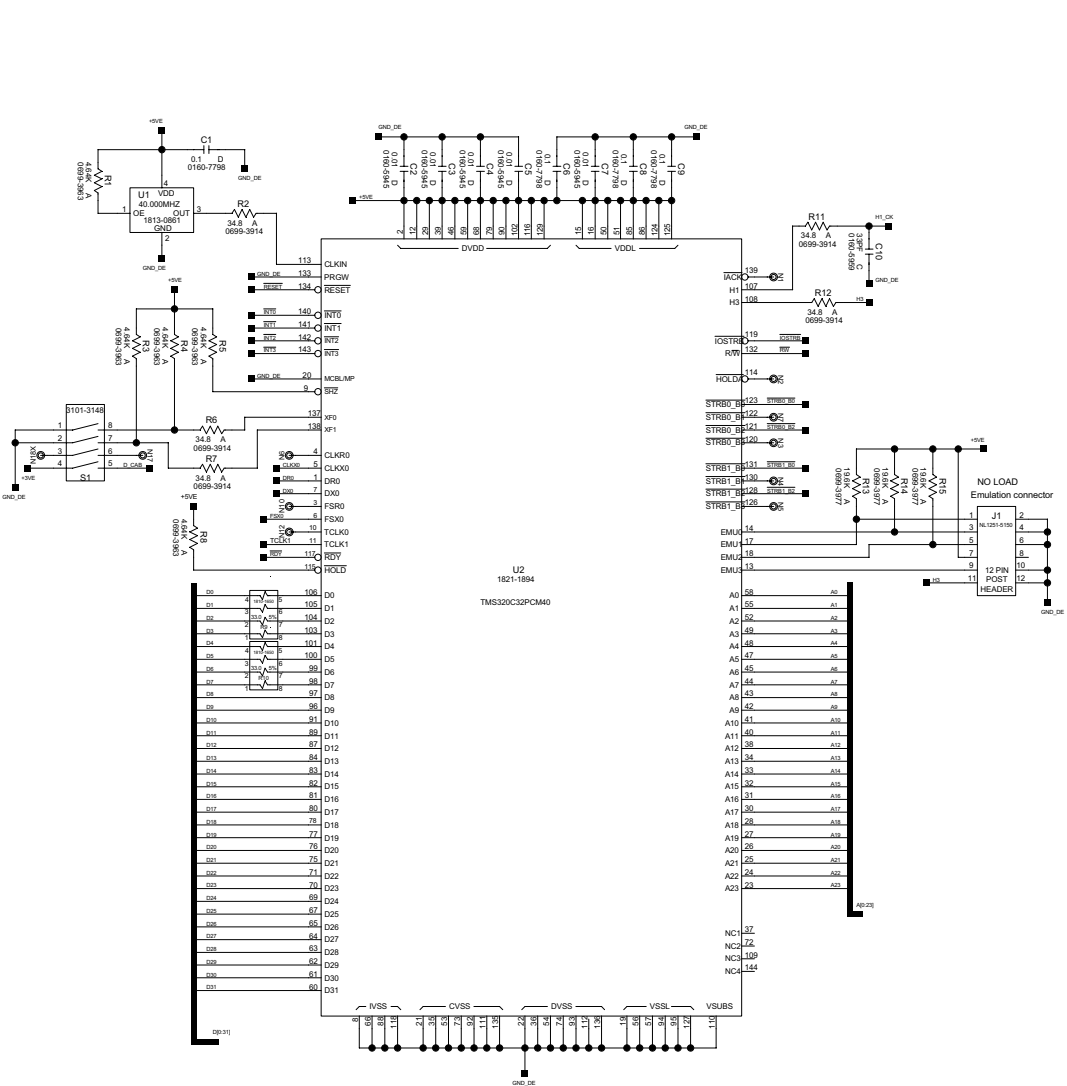
Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
U3	1	5080-2517	MPU-PROGRAMMED - 1820-7300	EE87C196KC20	INTEL
U3a	1	1820-7300	IC	N87C196KC-20	INTEL
U5	1	1826-1528	IC COMPARATOR LOW-POWER QUAD 14-SOIC	LM339DR LM339DT LM339DR2G LM339MNOB	TEXAS INSTRUMENTS STMICROELECTRONICS ON SEMICONDUCTOR NATIONAL SEMICONDUCTOR
U6	1	1826-3326	IC PWR MGT-DC-DC-CONV 3/16.5V 14 PINS	MAX773CSD+	MAXIM INTEGRATED PRODUCTS
Y1	1	0410-4009	RESONATOR-CERAMIC 12.0MHZ; STABILITY=.1	PBRC-12.00HR07	KYOCERA
	1	5002-2831	Sheet Metal ESD Shield	5002-2831	PARADIGM METAL INDUSTRIES



NOTE: Magnify to see component reference designators.

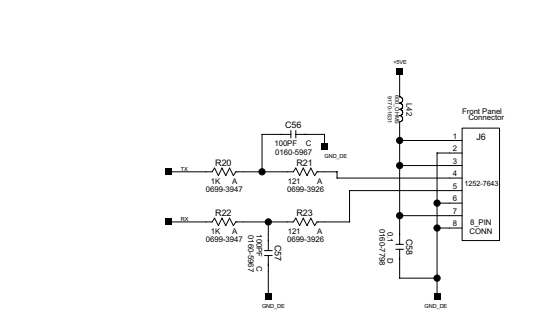
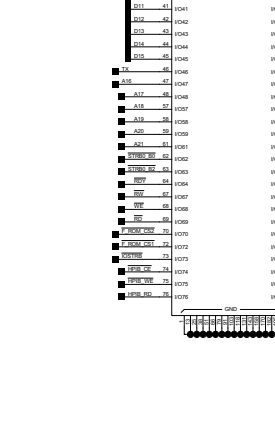
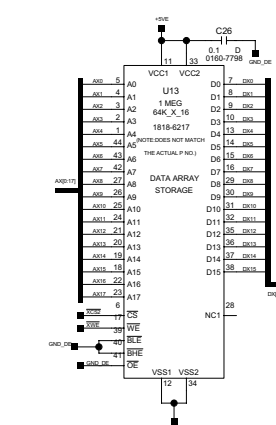
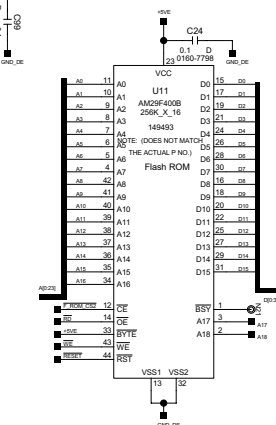
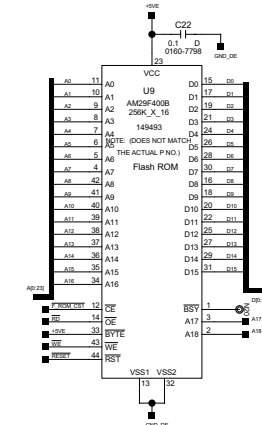
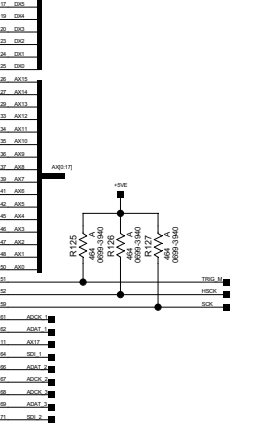
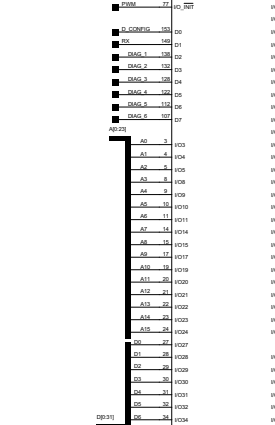
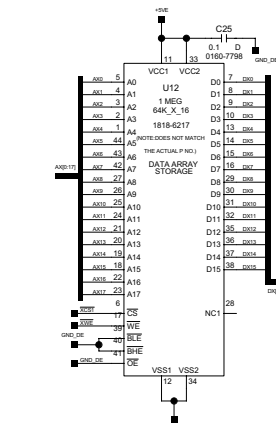
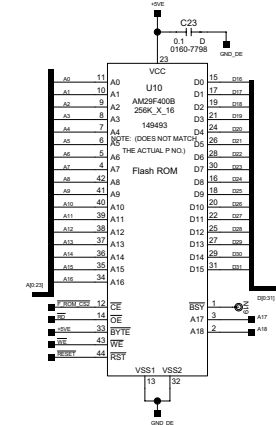
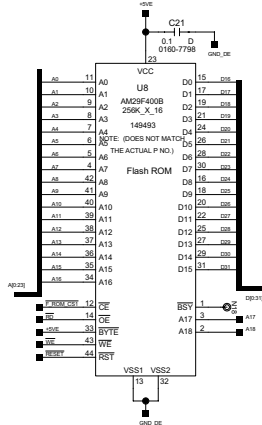
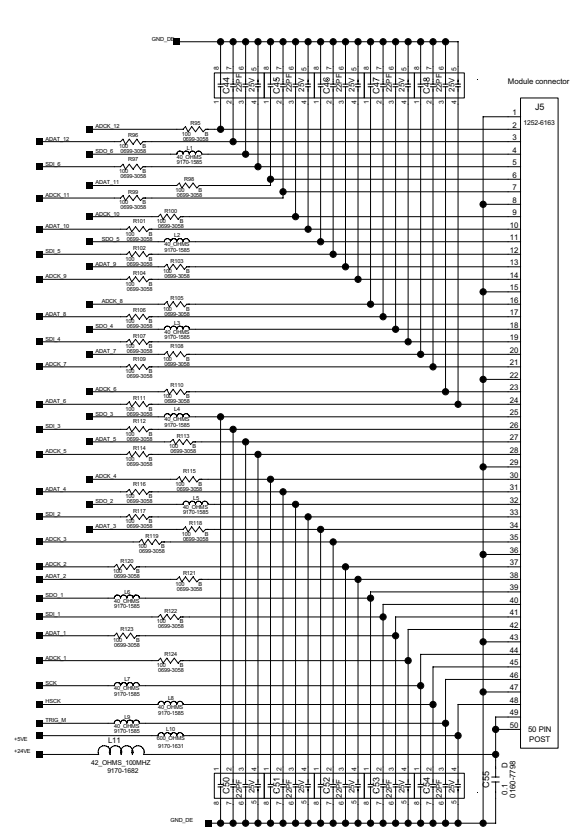
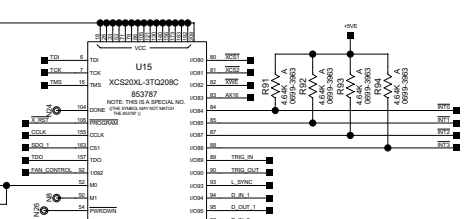
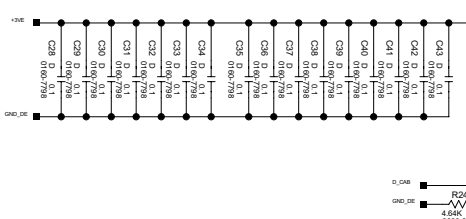
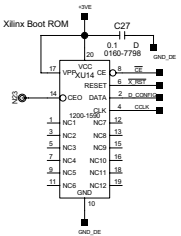
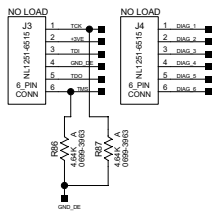
**Agilent N3300A/N3301A
DC Electronic Load Mainframes**

**5020-2945
GPIB PC Assembly
Component Locator**



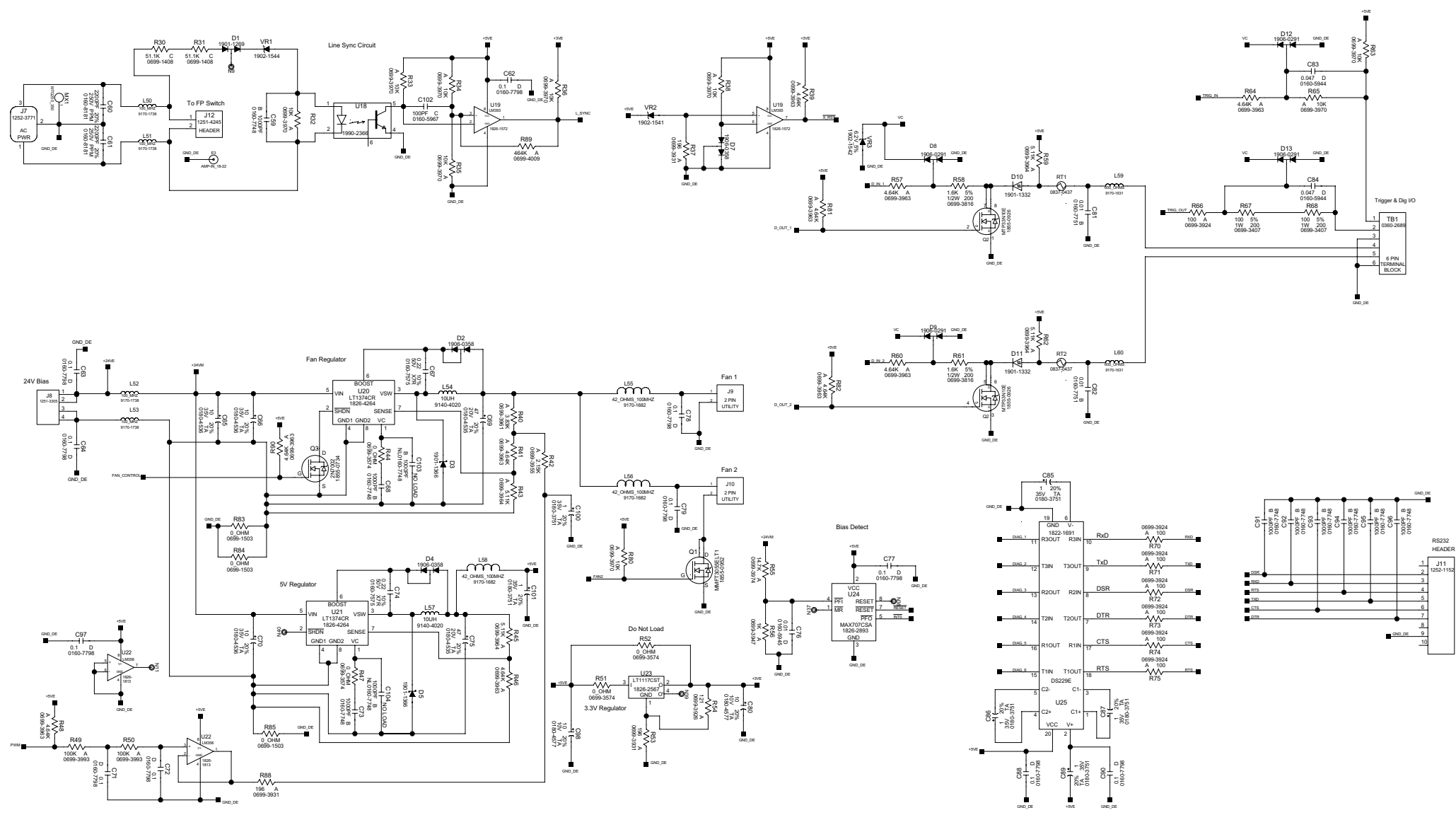
Agilent N3300A/N3301A DC Electronic Load Mainframes

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GPIB PC Assembly
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**Agilent N3300A/N3301A
DC Electronic Load Mainframes**

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GPIB PC Assembly
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**Agilent N3300A/N3301A
DC Electronic Load Mainframes**

**5020-2945
GPIB PC Assembly
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5020-2945 GPIB Parts List

Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
	1	5064-0101	PCA-SMT, GPIB	5064-0101	KENNERLEY-SPRATLING INC
C1, C6, C8, C9, C11-C15, C21-C43, C55, C58, C62, C63, C64, C71, C72, C77, C78, C79, C88, C90, C97, C99	46	0160-7798	CAP-FXD 0.1uF +-10PCT 50V CER X7R	GRM21BR71H104KA11L VJ0805Y104KXAMT 08055C104KAT_A C0805C104K5RAC C2012X7R1H104K	MURATA MANUFACTURING VISHAY AVX KEMET ELECTRONICS TDK
C10	1	0160-5959	CAP-FXD 33pF +-5pct 50 V CER C0G	08055A330JAT A C0805C330J5GAC C2012COG1H330J GRM2165C1H330JD01D	AVX KEMET ELECTRONICS TDK MURATA MANUFACTURING
C100, C101, C85-C87, C89	6	0180-3751	CAP-FXD 1uF +-20PCT 35V TA	TAJB105M035 293D105X0035B2E3 ESVB21V105M SK-1V105M-RB	AVX VISHAY NEC ELECTRONICS ELNA
C102, C56, C57	3	0160-5967	CAP-FXD 100pF +-5pct 50 V CER C0G	08055A101JAT A C0805C101J5GAC C2012COG1H101J GRM2165C1H101JA01D VJ0805A101JXAMT	AVX KEMET ELECTRONICS TDK MURATA MANUFACTURING VISHAY
C2, C3, C4, C5, C7, C76	6	0160-5945	CAP-FXD 0.01uF +-10pct 50 V CER X7R	08055C103KAT A 223858016627 C0805C103K5RAC C2012X7R1H103K GRM216R71H103KA01J VJ0805Y103KXAMT	AVX YAGEO KEMET ELECTRONICS TDK MURATA MANUFACTURING VISHAY
C44-C48, C50-C54	10	0160-8825	CAP-FXD 22pF +-10pct 25 V CER C0G	C1632C220K3GAC W3A4A220KATA	KEMET ELECTRONICS AVX
C59, C68, C73, C91-C96	9	0160-7748	CAP-FXD 1000pF +-10PCT 50V CER X7R 0603	06035C102KAT 223858615614 C0603C102K5RAC C1608X7R1H102KT GRM188R71H102KA01D VJ0603Y102KXA	AVX YAGEO KEMET ELECTRONICS TDK MURATA MANUFACTURING VISHAY
C60, C61	2	0160-8181	CAP-FXD 2200pF +-20PCT 250V PPR-POLYE-MET	PME271Y422MR05	EVOX/RIFA
C65, C66, C70	3	0180-4536	CAP-FXD 10uF +-20PCT 35V TA	TPSE106M035R0200	AVX

5020-2945 GPIB Parts List

Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
C67, C74	2	0160-7575	CAP-FXD 0.22uF +-10pct 50 V CER X7R	12105C224KAT A C1210C224K5RAC	AVX KEMET ELECTRONICS
C69, C75	2	0180-4535	CAP-FXD 47uF +-20pct 20 V TA	593D476X0020E2S072 T495X476M020ASE150 TPSE476M020R0150	VISHAY KEMET ELECTRONICS AVX
C80, C98	2	0180-4577	CAPACITOR-FIXED 10uF +-20PCT 10V TA	TAJB106M010R 293D106X0010B2E3 ESVB21A106M T491B106M010AS	AVX VISHAY NEC ELECTRONICS KEMET ELECTRONICS
C81, C82	2	0160-7751	CAP-FXD 0.01uF +-10pct 50 V CER X7R	06035C103KAT C0603C103K5RAC C1608X7R1H103KT GRM188R71H103KA01D	AVX KEMET ELECTRONICS TDK MURATA MANUFACTURING
C83, C84	2	0160-5944	CAP-FXD 0.047uF +-10pct 50 V CER X7R	08055C473KAT A C0805C473K5RAC C2012X7R1H473K	AVX KEMET ELECTRONICS TDK
D1	1	1901-1269	DIODE-SWITCHING 400V 120MA 50NS T0-236AB	BAV23S BAV23S	PHILIPS NXP
D10, D11	2	1901-1332	DIODE-PWR-S 40V 1A D0-214AA	10BQ040PBF SK14 SS24 STPS140U MBRS140T3G	INTERNATIONAL RECTIFIER MICROSEMI VISHAY STMICROELECTRONICS ON SEMICONDUCTOR
D12, D13, D8, D9	4	1906-0291	DIODE-DUAL 70V 100MA T0-236AA	BAV99 BAV99 BAV99LT1G BAV99 ____X_ BAV99	PHILIPS FAIRCHILD SEMICONDUCTOR ON SEMICONDUCTOR INFINEON TECHNOLOGIES NXP
D2, D4, D7	3	1906-0358	DIODE-DUAL 100V 100MA TO-236AB (SOT-23)	MMBD1203	FAIRCHILD SEMICONDUCTOR
D3, D5	2	1901-1366	DIODE-PWR-S 40V 4A	SS34-E3/57T SK34 MBRS340T3G	VISHAY VISHAY LITEON DIODES ON SEMICONDUCTOR
J10, J9	2	1252-8944	CONN-UTIL 2-CONT-POS 2-CONT	43045-0218	MOLEX
J11	1	1252-1152	CONN-POST TYPE .100-PIN-SPCG-MTG-END	68794-118	FCI FRAMATOME BERG

5020-2945 GPIB Parts List

Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
J12	1	1251-4245	CONN-HDR VERT 2-PIN 3.96MM 1-ROW	640388-2 3160-8-202-22W	TYCO ELECTRONICS AMP METHODE ELECTRONICS
J2	1	1252-2161	CONN-RECT MICRORBN 24-CKT 24-CONT	5554923-2	TYCO ELECTRONICS AMP
J5	1	1252-6163	CONN-POST TYPE .100-PIN-SPCG-MTG-END	N3433-5202RB	3M
J6	1	1252-7643	CONN-POST TYPE 1-PIN-SPCG-MTG-END 8-CONT	08FMZ-ST	J S T ELECTRONIC PRODUCTS
J7	1	1253-6310	CONN-AC PWR MALE RA 3-PINS PCB MOUNT	GSP1.9103.1	SCHURTER
J8	1	1251-3305	CONN-HDR VERT 4PINS 3.96 MM 1 ROW	3160-8-204-22W	METHODE ELECTRONICS
L1-L9	9	9170-1585	CORE-SHIELDING BEAD	FCM2012V-400 MMZ2012S400A_ MI0805K400R-10	TAI-TECH ADVANCED TDK STEWART
L10, L42, L59, L60	4	9170-1631	CORE-SHIELDING BEAD	MMZ2012S601A	TDK
L11, L55, L56, L58	4	9170-1682	CORE-SHIELDING BEAD	FBMJ2125HS420	TAIYO YUDEN
L50, L51, L52, L53	4	9170-1738	CORE-SHIELDING BEAD	HI1812T800	STEWART
L54, L57	2	9140-4020	IDCTR-FXD 10uH +-20PCT 9.4W-MMX12.95L-MM	DO3316P-103ML_	COILCRAFT
Q1	1	1855-1864	TRANSISTOR MOSFET N-CHAN E-MODE SI SOT-223	NTF3055L108__G	ON SEMICONDUCTOR
Q2	1	1855-0926	TRANSISTOR-MOSFET DUAL N-CHAN E-MODE N/S	PHN210T MMDF1N05E__G PHN210T	PHILIPS ON SEMICONDUCTOR NXP
Q3	1	1855-0734	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	2N7002-T1-E3 2N7002 2N7002 SN7002N____X_ 2N7002	VISHAY FAIRCHILD SEMICONDUCTOR PHILIPS INFINEON TECHNOLOGIES NXP
R1, R4, R24, R3, R39, R43, R46, R48, R5, R57, R60, R64, R8, R81, R82, R86, R87, R90, R91, R92, R93, R94	22	0699-3963	RESISTOR 4.64K +-1pct .063W TKF TC=0+-200	CRCW06034K64FKE_ RK73H1JT_4641F 232270464642L MCR03__FX4641	VISHAY KOA YAGEO ROHM
R10, R9	2	1810-1650	NET-RES 4 33.0 OHM 8-PIN	CN1J4T_330J RAC164D330JB 742083330J CRA06S0803330J MNR14E0APJ330	KOA KAMAYA CTS VISHAY ROHM

5020-2945 GPIB Parts List

Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
R95-R99, R100-R124	30	0699-3058	RESISTOR 100 +-1pct .1W TKF TC 0+-100	CRCW0805100RFKE_ RK73H2AT_1000F 232273461001L MCR10___F1000	VISHAY KOA YAGEO ROHM
R11, R12, R2, R6, R7	5	0699-3914	RESISTOR 34.8 +-1pct .063W TKF TC=0+-200	CRCW060334R8FKE_ RK73H1JT_34R8F MCR03___FX34R8 232270463489	VISHAY KOA ROHM YAGEO
R125, R126, R127	3	0699-3940	RES-FXD 464 +-1PCT .063W TKF TC 0+-200	CRCW0603464RFKE_ RK73H1JT_4640F 232270464641L MCR03___FX4640	VISHAY KOA YAGEO ROHM
R13, R14, R15	3	0699-3977	RESISTOR 19.6K +-1pct .063W TKF TC=0+-200	CRCW060319K6FKE_ RK73H1JT_1962F MCR03___FX1962	VISHAY KOA ROHM
R20, R22, R56	3	0699-3947	RESISTOR 1K +-1pct .063W TKF TC=0+-200	CRCW06031K00FKE_ CR16-1001-FL RK73H1JT_1001F 2322704_1002L MCR03___FX1001 MC06031001-FT	VISHAY ASJ KOA YAGEO ROHM RCD COMPONENTS
R21, R23, R54	3	0699-3926	RESISTOR 121 +-1pct .063W TKF TC=0+-200	CRCW0603121RFKE_ RK73H1JT_1210F 232270461211L MCR03___FX1210 CR16-1210-FF	VISHAY KOA YAGEO ROHM ASJ
R30, R31	2	0699-1408	RESISTOR 51.1K +-1pct .125W TKF TC=0+-100	CRCW120651K1FKE_ RK73H2BT_5112F MCR18___F5112 232272465113L	VISHAY KOA ROHM YAGEO
R32-R36, R38, R63, R65, R80	9	0699-3970	RESISTOR 10K +-1pct .063W TKF TC=0+-200	CRCW060310K0FKE_ RK73H1JT_1002F 232270461003L MCR03___FX1002	VISHAY KOA YAGEO ROHM

5020-2945 GPIB Parts List

Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
R37, R53, R88	3	0699-3931	RESISTOR 196 +-1pct .063W TKF TC=0+-200	CRCW0603196RFKE_ RK73H1JT_1960F 232270461961L MCR03___FX1960	VISHAY KOA YAGEO ROHM
R40	1	0699-3961	RESISTOR 3.83K +-1pct .063W TKF TC=0+-200	CRCW06033K83FKE_ RK73H1JT_3831F 232270463832L MCR03___FX3831	VISHAY KOA YAGEO ROHM
R41, R45, R59, R62	4	0699-3964	RESISTOR 5.11K +-1pct .063W TKF TC=0+-200	CRCW06035K11FKE_ RK73H1JT_5111F 232270465112L MCR03___FX5111	VISHAY KOA YAGEO ROHM
R42	1	0699-3955	RESISTOR 2.15K +-1pct .063W TKF TC=0+-200	CRCW06032K15FKE_ RK73H1JT_2151F MCR03___FX2151 232270462152	VISHAY KOA ROHM YAGEO
R44, R47, R51	3	0699-3574	RESISTOR 0 .0625W TKF	CRCW06030000ZSE_ RK73Z1JT 232270296001L MCR03___J000 CJ10-000	VISHAY KOA YAGEO ROHM KYOCERA
R49, R50	2	0699-3993	RESISTOR 100K +-1pct .063W TKF TC=0+-200	CRCW0603100KFKE_ RK73H1JT_1003F 232270461004L MCR03___FX1003	VISHAY KOA YAGEO ROHM
R55	1	0699-3974	RESISTOR 14.7K +-1pct .063W TKF TC=0+-200	CRCW060314K7FKE_ CR16-1472-FL RK73H1JTDD1472F RK73H1JTDD1472F 232270461473	VISHAY ASJ KOA ROHM YAGEO
R58, R61	2	0699-3816	RESISTOR 1.6K +-5pct .5W TKF TC=0+-200	CRCW20101K60JNE_ RK73B2HT_162J MCR50___J162	VISHAY KOA ROHM

5020-2945 GPIB Parts List

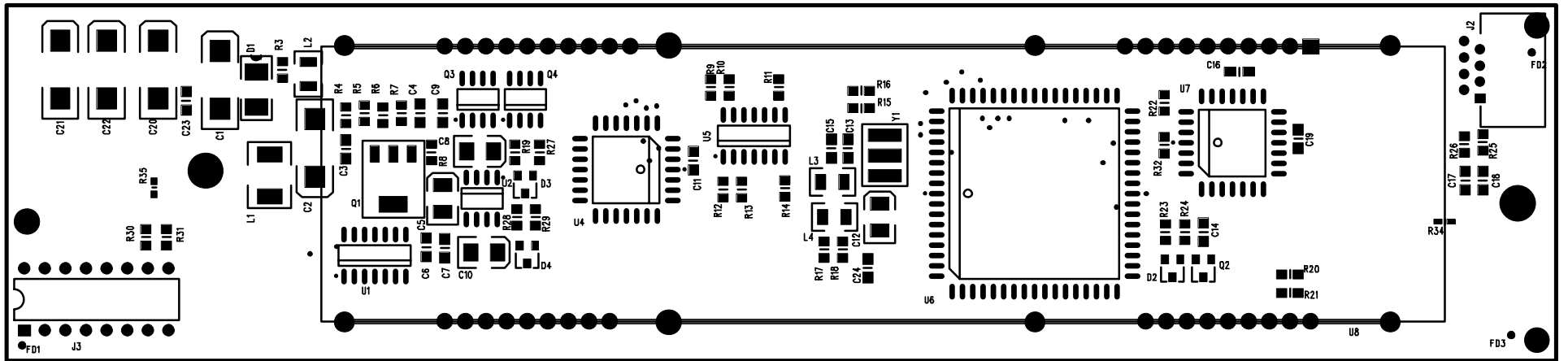
Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
R66, R70-R75	7	0699-3924	RES-FXD 100 +-1PCT .063W TKF TC=0+-200	CRCW0603100RFKE_ CR16-1000-JL RK73H1JT_1000F MCR03__FX1000 232270461001 MC06031000-FT	VISHAY ASJ KOA ROHM YAGEO RCD COMPONENTS
R67, R68	2	0699-3407	RES-FXD 100 OHM +-5PCT 1W TC 0+-200 2512	CRCW2512100RJNE_ RK73B3AT_101J MCR100__J101	VISHAY KOA ROHM
R83, R84, R85	3	0699-1503	RESISTOR 0 CWM	CRCW12060000ZSE_ RK73Z2BT MCR18__J000 232271191005	VISHAY KOA ROHM YAGEO
R89	1	0699-4009	RESISTOR 464K +-1pct .063W TKF TC=0+-200	CRCW0603464KFKE_ RK73H1JT_4643F MCR03__FX4643 232270464644	VISHAY KOA ROHM YAGEO
RT1, RT2	2	0837-0437	THERMISTOR-SWITCHING	SMD050	TYCO INTERNATIONAL
S1	1	3101-3148	SWITCH-DIP SURF-MT-SL SPST 0.05A 6VDC	90YY3274SGWT 219-4LPST_P	GRAYHILL CTS
TB1	1	0360-2689	TERMINAL BLOCK-HEADER	18-44-25-2	PHOENIX CONTACT & CO
U1	1	1813-0861	CRYSTAL OSC 40.000MHZ 0.01pct	SG-615PH 40.000MC Q33615021000700	EPSON TOYOCOM SEIKO EPSON
U10, U11	2	1818-8362	IC 4M-BIT FLASH 90-NS CMOS	MBM29F400BC-90PF AM29F400BB-90SD	FUJITSU SPANSION
U12, U13, U6, U7	4	1818-6217	IC 1M-BIT SRAM 15-NS CMOS 44-SOJ	IDT71016S15Y	IDT
U14	1	5182-9100	ROM-PRGMD - 1818-7857		
U14a	1	1818-7857	IC 512K-BIT PROM 20-NS CMOS	XC17512LPC20C	XILINX
U15	1	1821-8768	IC PLD FPGA UNPROGRAMMED CMOS S40XL	XCS40XL-4PQ208C	XILINX
U18	1	1990-2366	OPTO-ISOLATOR LED-PXSTR IF=50MA-MAX	TLP632	TOSHIBA
U19	1	1826-1572	IC COMPARATOR PRCN DUAL 8 PIN PLSTC-SOIC	LM393D LM393DR2G	TEXAS INSTRUMENTS ON SEMICONDUCTOR
U2	1	1821-1894	IC 16-/32-BIT INTEGER AND 32-/40-BIT	TMS320C32PCM40	TEXAS INSTRUMENTS
U20, U21	2	1826-7001	IC PWR MGT-V-REG-SWG 7-PIN-PWR- PLSTC-SM	LT1374HVCR	LINEAR TECHNOLOGY

5020-2945 GPIB Parts List

Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
U22	1	1826-1813	IC OP AMP GP DUAL 8-SOIC	LM358D LM358MNOB	TEXAS INSTRUMENTS NATIONAL SEMICONDUCTOR
U23	1	1826-2567	IC PWR MGT-V-REG-ADJ-POS 4 PINS TO-261AA	LD1117S LT1117CST REG1117	STMICROELECTRONICS LINEAR TECHNOLOGY TEXAS INSTRUMENTS
U24	1	1826-2893	IC PWR MGT-VS-SUPVR/CONT 8 PINS P-SOIC	MAX707CSA ADM707ARZ	MAXIM INTEGRATED PRODUCTS ANALOG DEVICES
U25	1	1822-1691	IC INTFC DRVR/RCVR RS-232 TPL 20-TSSOP	DS229E+	MAXIM INTEGRATED PRODUCTS
U3	1	1822-0639	IC GPIB CONTROLLER	14063-501	AMIS SEMICONDUCTOR
U4	1	1820-6175	IC INTERFACE XCVR BIPOLAR BUS OCTL	SN75ALS162DW	TEXAS INSTRUMENTS
U5	1	1820-6176	IC INTERFACE XCVR BIPOLAR BUS OCTL	SN75ALS160DW	TEXAS INSTRUMENTS
U8	1	5182-9101	IC-PRGMD - 1818-8362		
U8a	1	1818-8362	IC 4M-BIT FLASH 90-NS CMOS	MBM29F400BC-90PF AM29F400BB-90SD	FUJITSU SPANSION
U9	1	5182-9102	IC-PRGMD - 1818-8362		
U9a	1	1818-8362	IC 4M-BIT FLASH 90-NS CMOS	MBM29F400BC-90PF AM29F400BB-90SD	FUJITSU SPANSION
VR1	1	1902-1544	DIODE-ZNR 10V 5PCT TO-236(SOT-23) PD-.35W	BZX84C10 BZX84C10LT1G BZX84C10	PHILIPS ON SEMICONDUCTOR NXP
VR2	1	1902-1541	DIODE-ZNR 3.3V 5pct TO-236 (SOT-23)	BZX84C3V3LT1G BZX84C3V3 BZX84C3V3	ON SEMICONDUCTOR PHILIPS NXP
VR3	1	1902-1542	DIODE-ZNR 6.2V 5pct TO-236 (SOT-23)	BZX84C6V2 BZX84C6V2LT1G BZX84C6V2	PHILIPS ON SEMICONDUCTOR NXP
XU14	1	1200-1590	SOCKET-IC-PLCC 20-CONT SQUARE J-LEAD	3-822516-3	TYCO ELECTRONICS AMP
	1	0380-4764	STANDOFF-RVT-ON 24-MM-LG M4.0 X 0.7-THD	BR5118SPB-24.0-43	LYN-TRON
	1	0515-0911	SCREW-MACH M3 X 0.5 12MM-LG PAN-HD ; SCREW-MACHINE ; M3.0 X 0.50; 12 MM LONG	0515-0911 0515-0911 0515-0911 0515-0911	ILLINOIS TOOL WORKS LINFAS FASTENERS MID-CONTINENT SCREW PROD TEXTRON

5020-2945 GPIB Parts List

Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
	1	3050-0891	WASHER-FL MTLC 3.0 3.3-MM-ID 6.85-MM-OD; WASHER-FLAT ; FITS SCREW SIZE: 3.0 MM	3050-0891	HOUSE OF METRICS
	1	0535-0031	NUT-HEX; W/LOCKWASHER M3 X 0.5 2.4MM-THK; M3 X 0.5 THREAD; 5	0535-0031	HOUSE OF METRICS



5020-2972

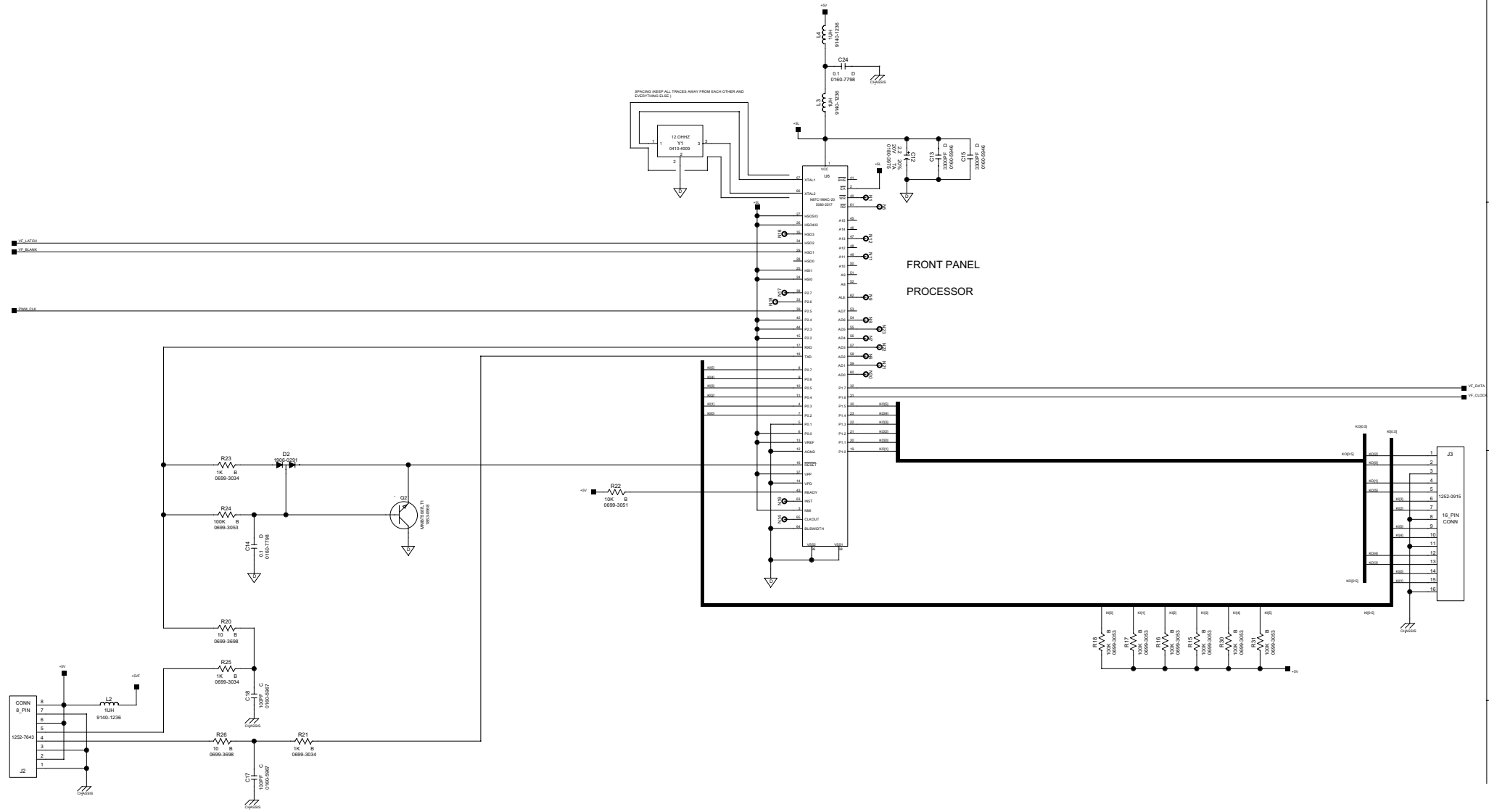
COMPONENT SIDE

REV A2 07/10/00

NOTE: Magnify to see component reference designators.

**Agilent N3301A
600W DC Electronic Load Mainframe**

**5020-2972
Display PC Assembly
Component Locator**



**Agilent N3301A
600W DC Electronic Load Mainframe**

**5020-2972
Display PC Assembly
Page 1 of 2**

5064-0137 (5020-2972) Display Parts List (N3301A)

Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
C1, C20, C21, C22	4	0180-4274	CAP-FXD 4.7uF +-20PCT 50V TA	TAJD475M050 ESVD1H475M	AVX NEC ELECTRONICS
C10, C12, C5, C8	4	0180-3975	CAP-FXD 2.2uF +-20PCT 20V TA	TAJB225M020 293D225X0020B2E3 49MC225B020M0AS ESVB21D225M T491B225M020AS	AVX VISHAY VISHAY BC COMPONENTS NEC ELECTRONICS KEMET ELECTRONICS
C11, C13, C15, C16, C19, C7	6	0160-5946	CAP-FXD 3300pF +-10pct 50 V CER X7R	08055C332KAT_A C0805C332K5RAC C2012X7R1H332K GRM2165C1H332JA01D	AVX KEMET ELECTRONICS TDK MURATA MANUFACTURING
C14, C23, C24, C3, C6, C9	6	0160-7798	CAP-FXD 0.1uF +-10PCT 50V CER X7R	GRM21BR71H104KA11L VJ0805Y104KXAMT 08055C104KAT_A C0805C104K5RAC C2012X7R1H104K	MURATA MANUFACTURING VISHAY AVX KEMET ELECTRONICS TDK
C17, C18	2	0160-5967	CAP-FXD 100pF +-5pct 50 V CER C0G	08055A101JAT A C0805C101J5GAC C2012COG1H101J GRM2165C1H101JA01D VJ0805A101JXAMT	AVX KEMET ELECTRONICS TDK MURATA MANUFACTURING VISHAY
C2	1	0180-4559	CAP-FXD 68uF +-20pct 10 V TA	TAJD686M010R 293D686X0010D2E3 T491D686M010AS TCSCS1A686MDA	AVX VISHAY KEMET ELECTRONICS SAMSUNG
C4	1	0160-5954	CAP-FXD 220pF +-5pct 50 V CER C0G	08055A221JAT A 223858016605 C0805C221J5GAC C2012COG1H221J GRM2165C1H221JA01D	AVX YAGEO KEMET ELECTRONICS TDK MURATA MANUFACTURING

5064-0137 (5020-2972) Display Parts List

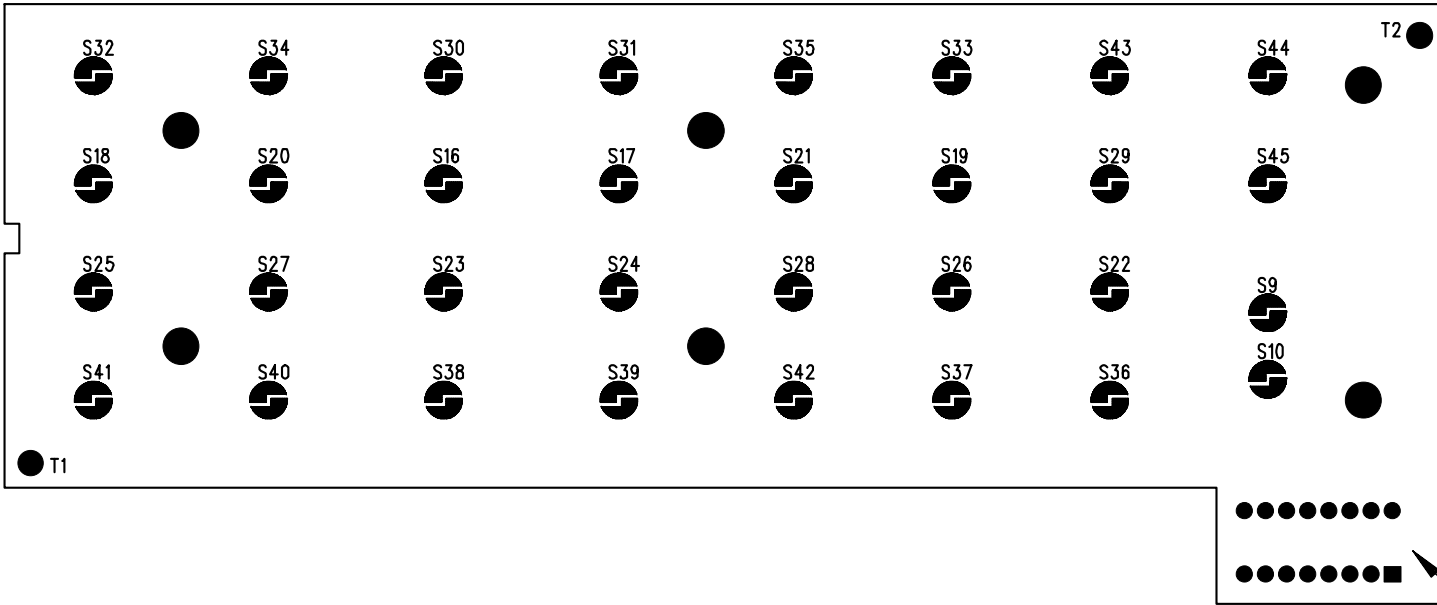
Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
D1	1	1901-1332	DIODE-PWR-S 40V 1A D0-214AA	10BQ040PBF SK14 SS24 STPS140U MBRS140T3G	INTERNATIONAL RECTIFIER MICROSEMI VISHAY STMICROELECTRONICS ON SEMICONDUCTOR
D2, D3, D4	3	1906-0291	DIODE-DUAL 70V 100MA T0-236AA	BAV99 BAV99 BAV99LT1G BAV99____X_ BAV99	PHILIPS FAIRCHILD SEMICONDUCTOR ON SEMICONDUCTOR INFINEON TECHNOLOGIES NXP
J2	1	1252-7643	CONN-POST TYPE 1-PIN-SPCG-MTG-END 8-C	08FMZ-ST	J S T ELECTRONIC PRODUCTS
J3	1	1200-0607	SOCKET-IC-DIP 16-CONT DIP DIP-SLDR	1-390261-4 DILB16P-223T 1200-0607	TYCO ELECTRONICS AMP FCI FRAMATOME BERG AGILENT TECHNOLOGIES
L1	1	9140-1759	INDUCTOR 47uH +10pct -10pct	NLC565050T-470K-PF	TDK
L2, L3, L4	3	9140-1236	INDUCTOR 1uH +-5pct 2.8W-mmX3.4LG-mm Q=	NLV32T-1R0J-PF KL32T____1R0J	TDK KOA
Q1	1	1855-1864	TRANSISTOR MOSFET N-CHAN E-MODE SI SC	NTF3055L108__G	ON SEMICONDUCTOR
Q2	1	1853-0568	TRANSISTOR PNP SI TO-236AA PD=350MW	MMBT5087LT1G	ON SEMICONDUCTOR
Q3	1	1855-1101	TRANSISTOR-MOSFET DUAL P-CHAN E-MODE	NDS9953A MMDF2P02ER2G SI4943BDY-__-E3	FAIRCHILD SEMICONDUCTOR ON SEMICONDUCTOR VISHAY
Q4	1	1855-0926	TRANSISTOR-MOSFET DUAL N-CHAN E-MODE	PHN210T MMDF1N05E__G PHN210T	PHILIPS ON SEMICONDUCTOR NXP
R10, R12, R13, R14, R19, R22, R27, R28, R29, R9	10	0699-3051	RESISTOR 10K +-1pct .1W TKF TC 0+-100	232273461003L CRCW080510K0FKE_ RK73H2AT_1002F MC08051002-FTW MCR10____F1002	YAGEO VISHAY KOA RCD COMPONENTS ROHM
R11	1	0699-3040	RESISTOR 3.16K +-1pct .1W TKF TC=0+-100	CRCW08053K16FKE_ RK73H2AT_3161F MCR10____F3161 232273463162 MC08053161-FT	VISHAY KOA ROHM YAGEO RCD COMPONENTS

5064-0137 (5020-2972) Display Parts List

Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
R15, R16, R17, R18, R24, R30, R31	7	0699-3053	RESISTOR 100K +-1pct .1W TKF TC=0+-100	CRCW0805100KFKE_ RK73H2AT_1003F MCR10__F1003 232273461004 MC08051003-FT	VISHAY KOA ROHM YAGEO RCD COMPONENTS
R20, R26, R8	3	0699-3698	RESISTOR 10 +-1pct .1W TKF TC=0+-100	CRCW080510R0FKE_ RK73H2AT_10R0F MCR10__F10R0 MC080510R0-FT	VISHAY KOA ROHM RCD COMPONENTS
R21, R23, R25, R32	4	0699-3034	RESISTOR 1K +-1pct .1W TKF TC 0+-100	CRCW08051K00FKE_ RK73H2AT_1001F 232273461002L MCR10__F1001 MC08051001-FT	VISHAY KOA YAGEO ROHM RCD COMPONENTS
R3	1	0699-3000	RESISTOR 196K +-1pct .1W TKF TC=0+-100	CRCW0805196KFKE_ RK73H2AT_1963F MCR10__F1963 232273461964 MC08051963-FT	VISHAY KOA ROHM YAGEO RCD COMPONENTS
R34, R35	2	0699-3574	RESISTOR 0 .0625W TKF	CRCW06030000ZSE_ RK73Z1JT 232270296001L MCR03__J000 CJ10-000	VISHAY KOA YAGEO ROHM KYOCERA
R4	1	0699-3049	RESISTOR 8.25K +-1pct .1W TKF TC=0+-100	CRCW08058K25FKE_ RK73H2AT_8251F MCR10__F8251 232273478252 MC08058251-FT	VISHAY KOA ROHM YAGEO RCD COMPONENTS
R5, R6, R7	3	0699-3671	RESISTOR 1 +-5pct .1W TKF	CRCW08051R00JNE_ RK73B2AT_1R0J MCR10__J1R0	VISHAY KOA ROHM
U1	1	1826-3326	IC PWR MGT-DC-DC-CONV 3/16.5V 14 PINS	MAX773CSD+	MAXIM INTEGRATED PRODUCTS
U4, U7	2	1820-8574	IC INTFC DRVR CMOS DISPLAY 20-BIT 28-PLC	A6812SEP	ALLEGRO MICROSYSTEMS

5064-0137 (5020-2972) Display Parts List (N3301A)

Reference Designator	Qty	Agilent P/N	Description	MPN	Manufacturer
U5	1	1826-1528	IC COMPARATOR LOW-POWER QUAD 14-SOI	LM339DR LM339DT LM339DR2G LM339MNOB	TEXAS INSTRUMENTS STMICROELECTRONICS ON SEMICONDUCTOR NATIONAL SEMICONDUCTOR
U6	1	5080-2517	MPU-PROGRAMMED: 1820-7300	EE87C196KC20	INTEL
U6a	1	1820-7300	IC	N87C196KC-20	INTEL
U8	1	5188-4211	VFD Display		
Y1	1	0410-4009	RESONATOR-CERAMIC 12.0MHZ; STABILITY=	PBRC-12.00HR07	KYOCERA
	1	5002-2831	Sheet Metal ESD Shield	5002-2831	PARADIGM METAL INDUSTRIES



5020-2974

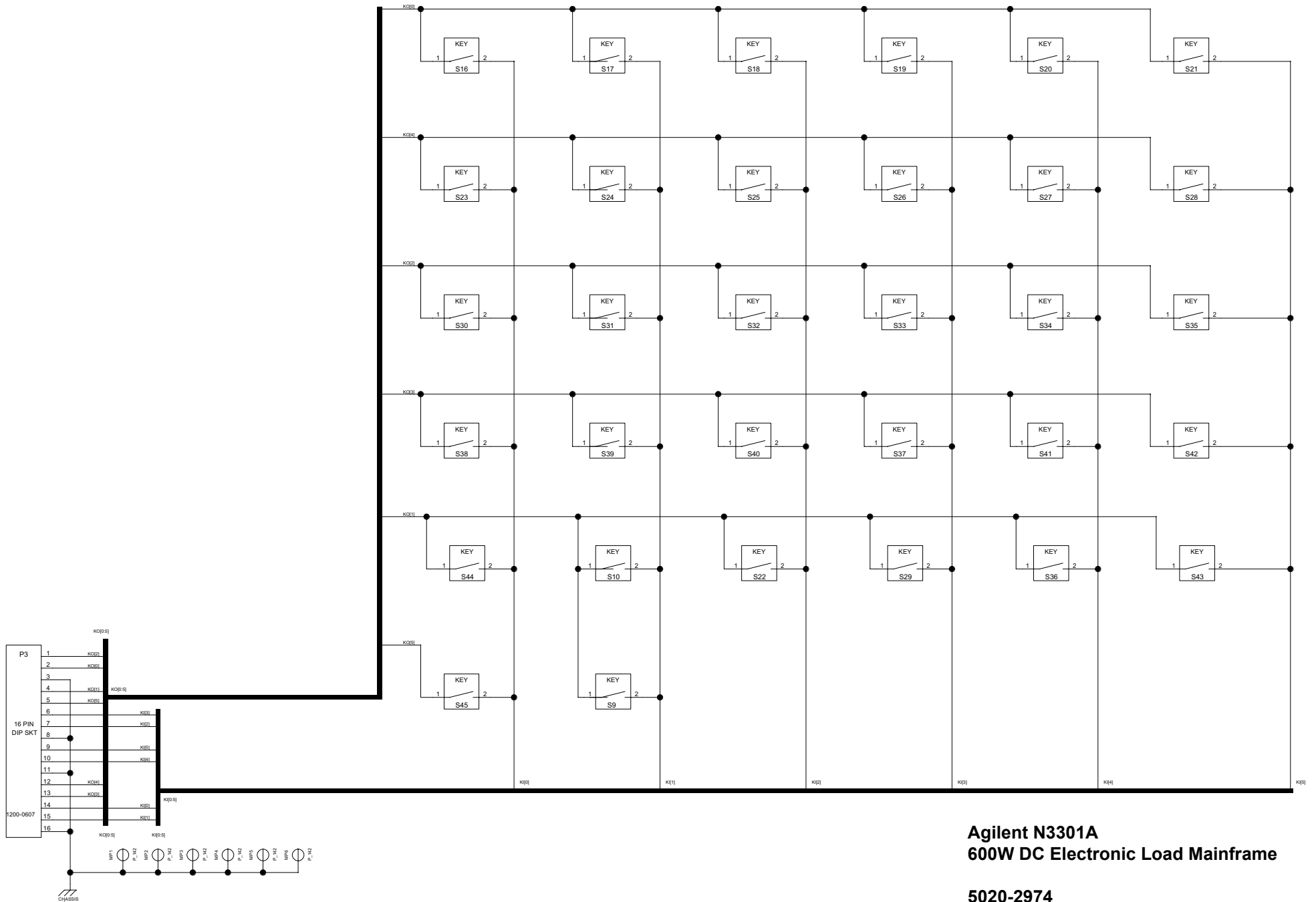
COMPONENT SIDE

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P3 TO BE LOADED ON SOLDER SIDE

**Agilent N3301A
600W DC Electronic Load Mainframe**

**5020-2974
Keypad PC Assembly
Component Locator**



**Agilent N3301A
600W DC Electronic Load Mainframe**

**5020-2974
Keypad PC Assembly
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