

**Agilent N3307A  
Component Level  
Information**

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# Agilent N3307A

## 250W Electronic Load Module

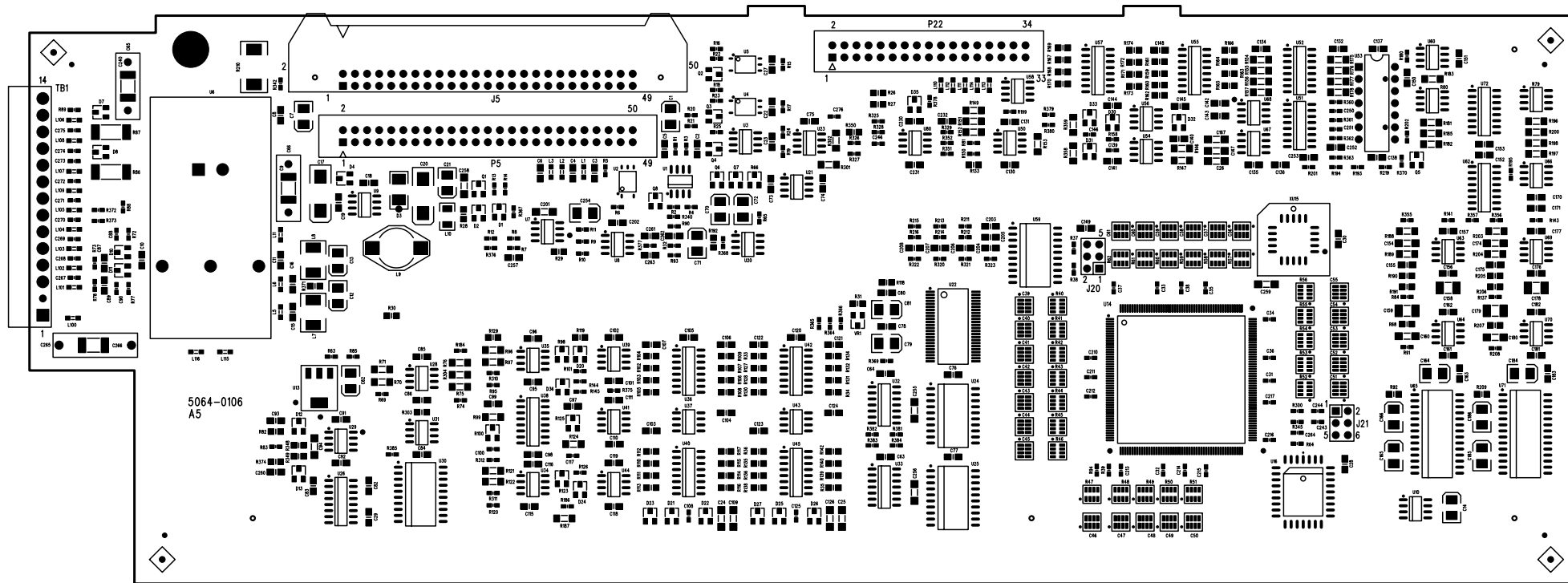
### Component Level Information

**Information in this packet applies to the following assemblies:**

- 1. 5064-0106 Control Board**
- 2. 5065-0615 250W Power Board**

**The following is included in this packet:**

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

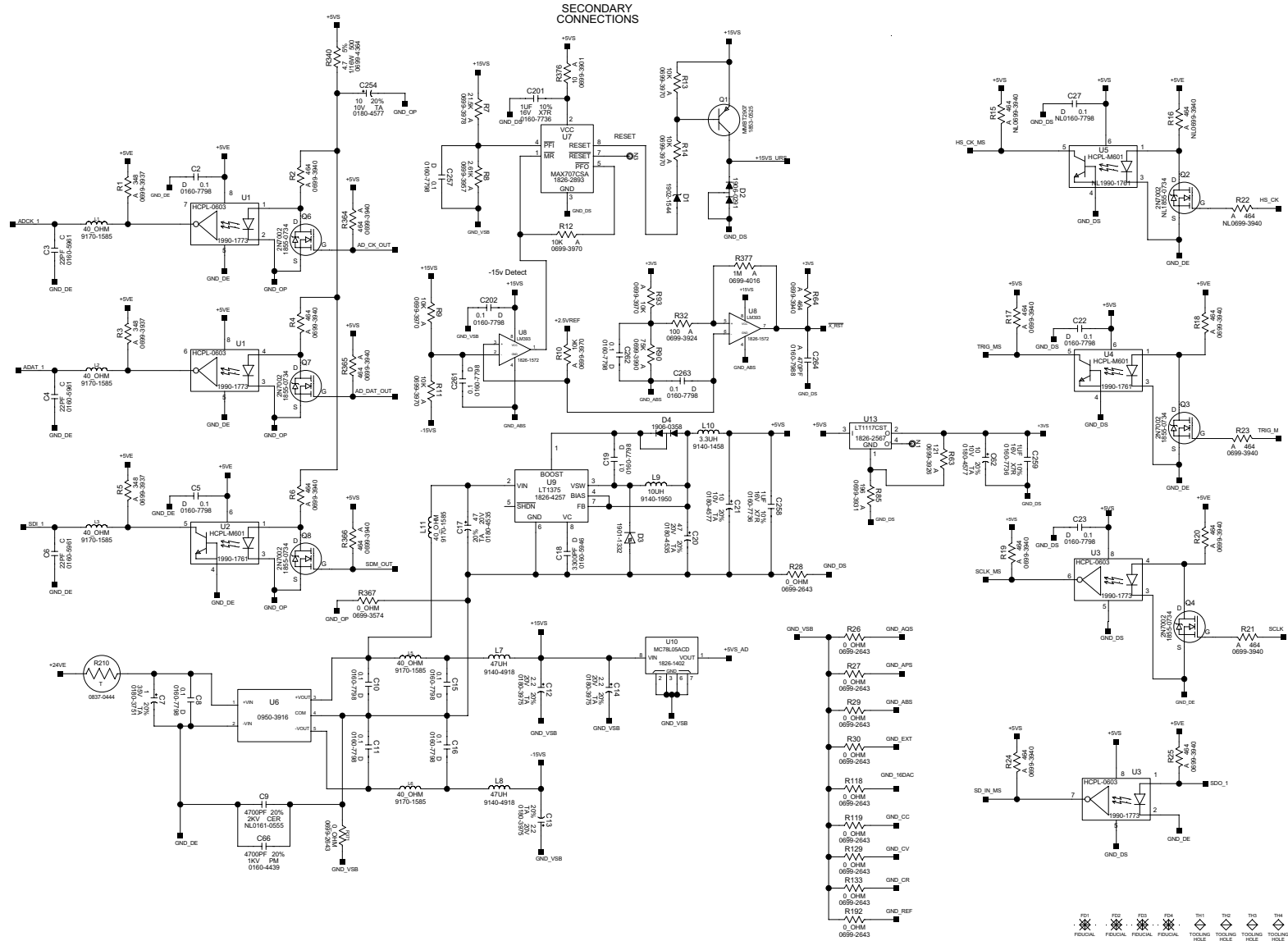
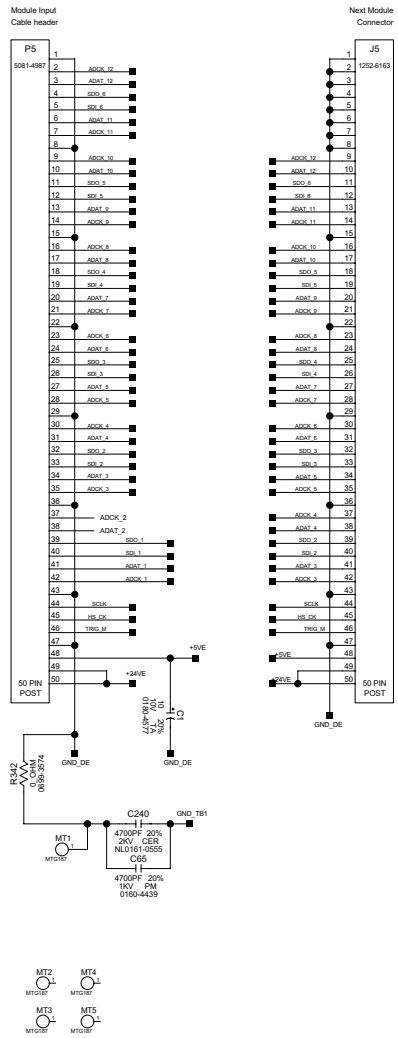


GRAPHICS (TOP SIDE)

**NOTE: Magnify to see component reference designators.**

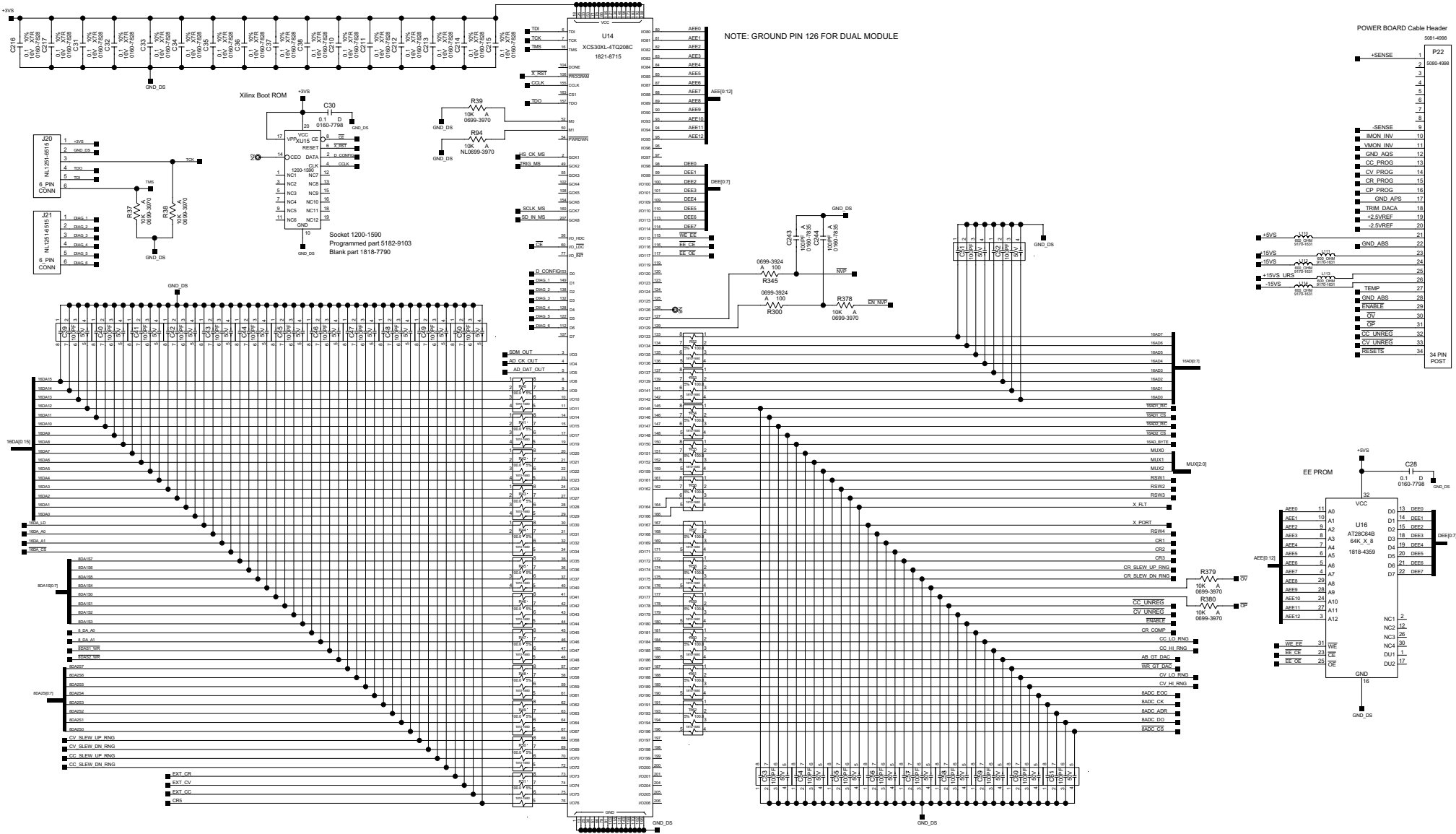
**Agilent N3307A  
250W Electronic Load Module**

**5064-0106  
Control Board PC Assembly  
Component Locator**



**Agilent N3307A**  
**250W Electronic Load Module**

**5064-0106**  
**Control Board PC Assembly**  
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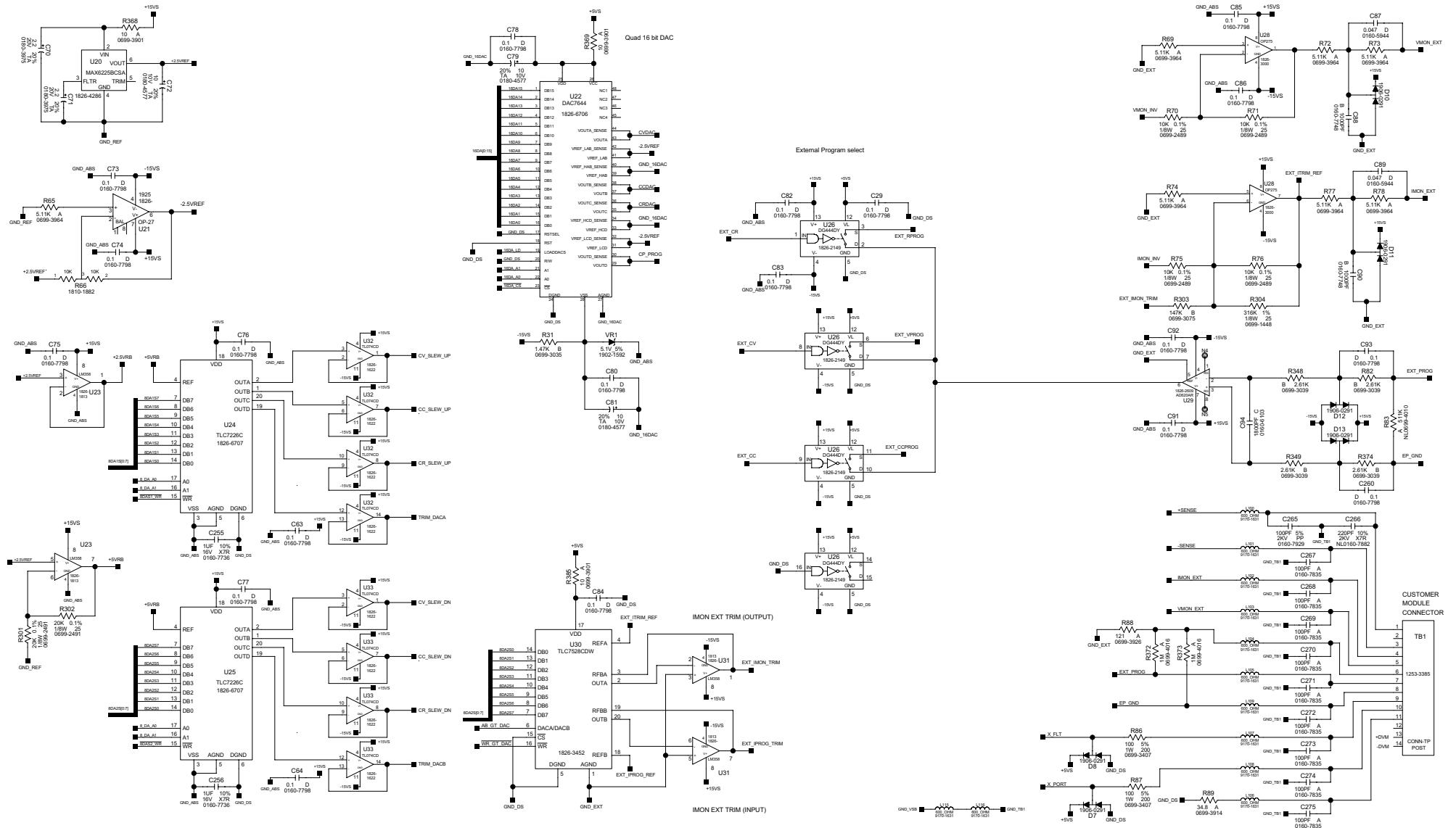
NOTE: GROUND PIN 126 FOR DUAL MODULE

POWER BOARD Cable Header

| Pin | Function  | Connection |
|-----|-----------|------------|
| 1   | +SENSE    | P22        |
| 2   |           | 506-498    |
| 3   |           |            |
| 4   |           |            |
| 5   |           |            |
| 6   |           |            |
| 7   |           |            |
| 8   |           |            |
| 9   |           |            |
| 10  | -SENSE    |            |
| 11  | VMON_INV  |            |
| 12  | GND_AGS   |            |
| 13  | CV_PROG   |            |
| 14  | CV_PROG   |            |
| 15  | CR_PROG   |            |
| 16  | CP_PROG   |            |
| 17  | GND_APS   |            |
| 18  | TEMP_DATA |            |
| 19  | +2.5VREF  |            |
| 20  | -2.5VREF  |            |
| 21  |           |            |
| 22  | GND_ABS   |            |
| 23  |           |            |
| 24  |           |            |
| 25  |           |            |
| 26  | TEMP      |            |
| 27  |           |            |
| 28  | GND_ABS   |            |
| 29  | ENABLE    |            |
| 30  | CV        |            |
| 31  | CP        |            |
| 32  | CV_UNREG  |            |
| 33  | CV_UNREG  |            |
| 34  | RESETS    |            |

34 PIN POST

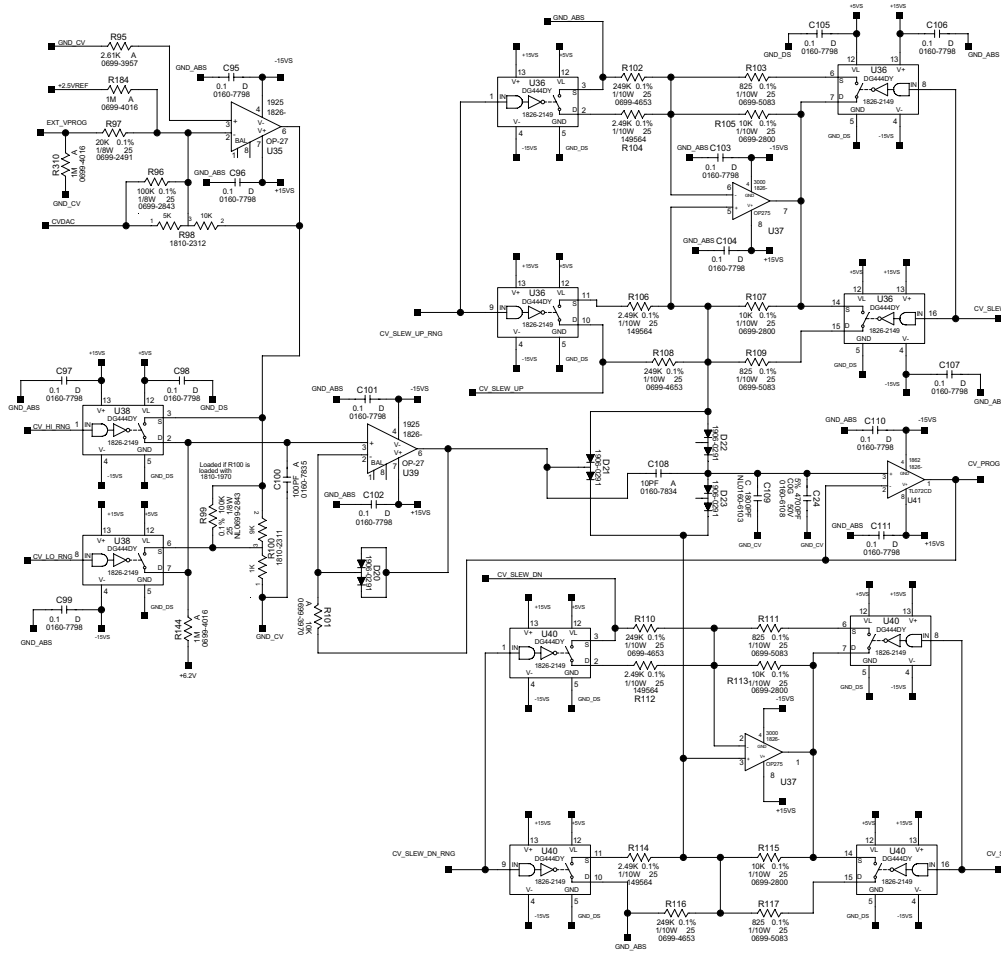
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 5064-0106  
 Control Board PC Assembly  
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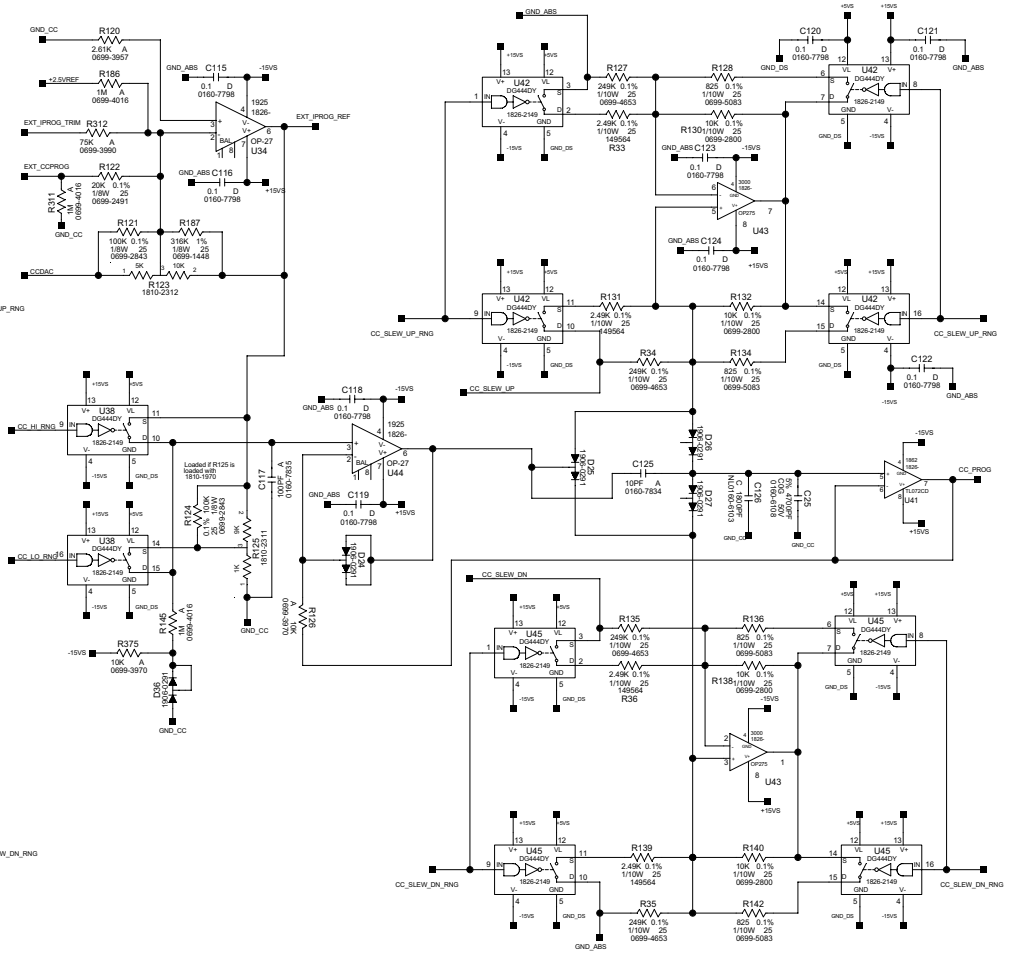
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Control Board PC Assembly  
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CV RANGE AND SLEW CIRCUITS

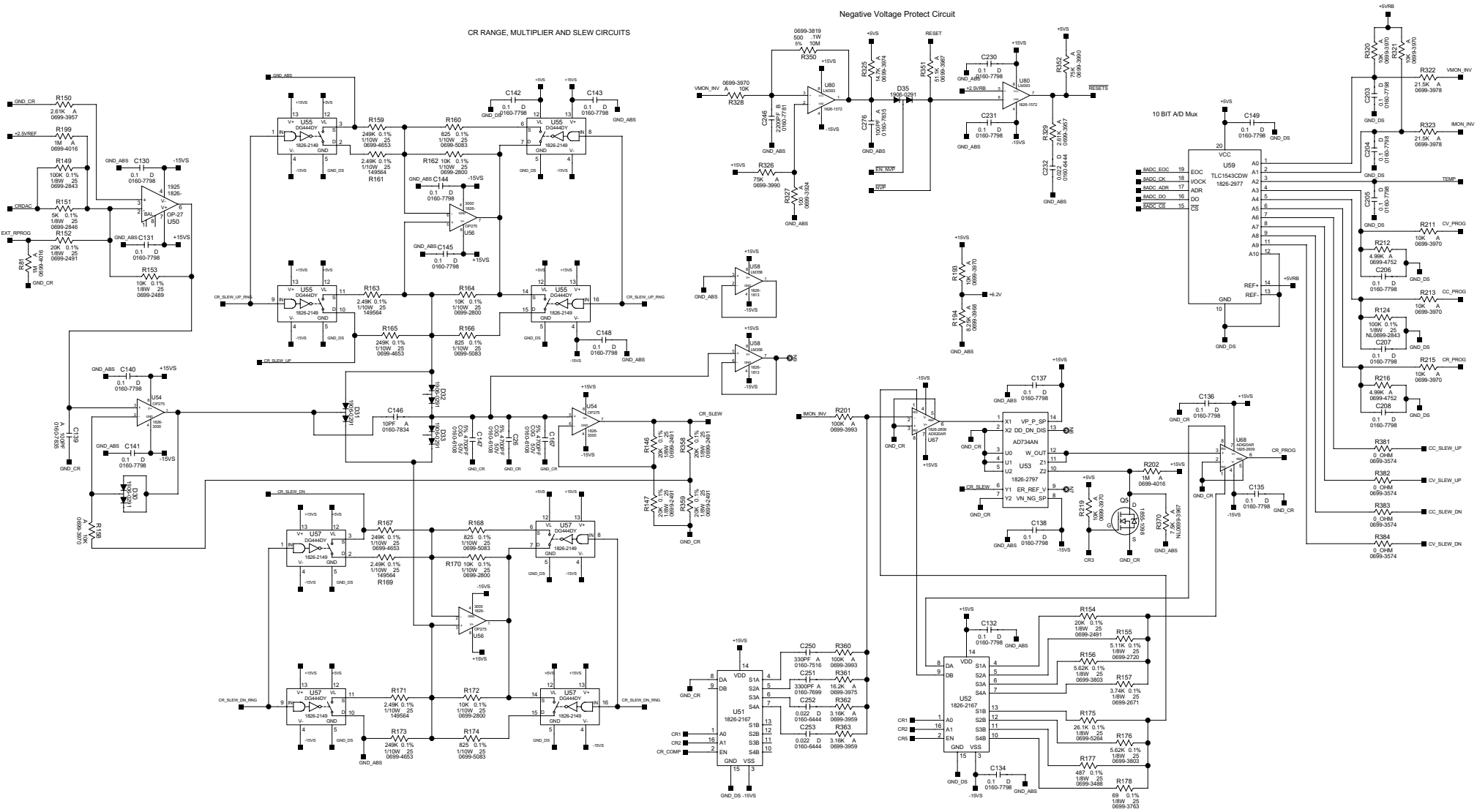


CC RANGE AND SLEW CIRCUITS



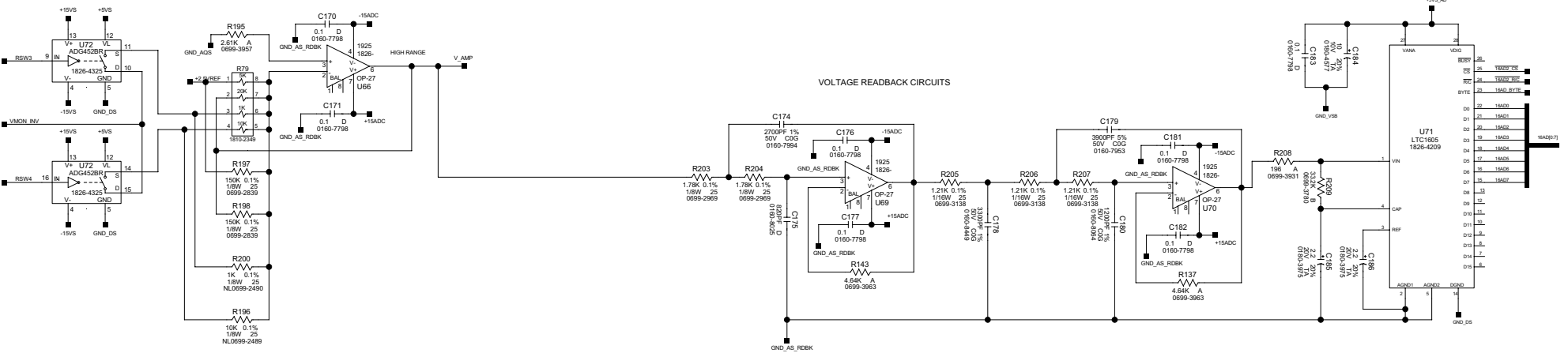
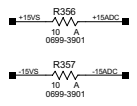
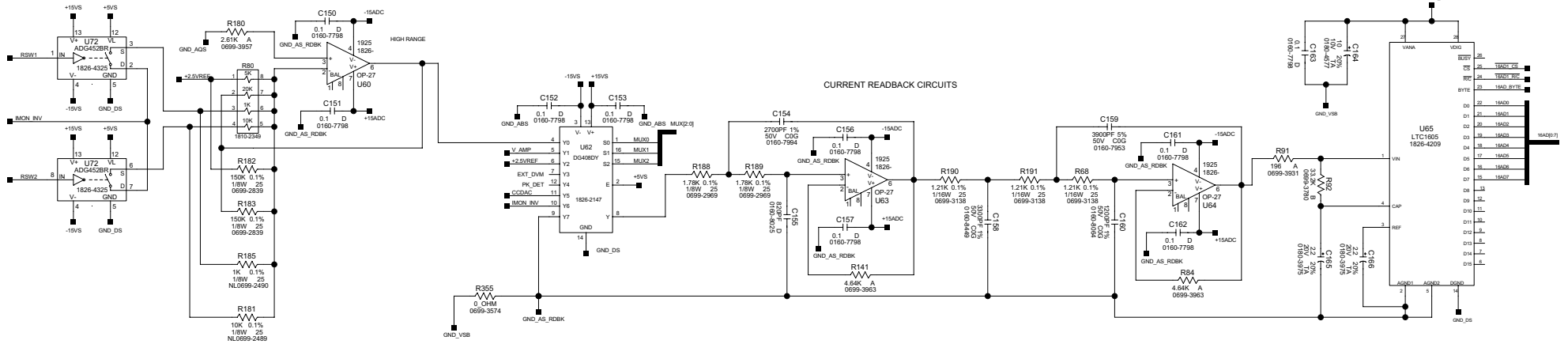
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Control Board PC Assembly  
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250W Electronic Load Module**

**5064-0106  
Control Board PC Assembly  
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**5064-0106 Control Board Parts List (Electronic Load Module)**

| Reference Designator  | Qty | Agilent P/N | Description                         | MPN   | Manufacturer  |
|---|-----|-------------|-------------------------------------|---|---|
| C1, C164, C184, C21, C254, C62, C72, C79, C81   | 9   | 0180-4577   | CAPACITOR-FIXED 10uF +-20PCT 10V TA | TAJB106M010R<br>293D106X0010B2E3<br>ESVB21A106M<br>T491B106M010AS                           | AVX<br>VISHAY<br>NEC ELECTRONICS<br>KEMET ELECTRONICS                         |
| C10, C101-C107, C11, C110, C111, C115, C116, C118-C124, C130-C132, C134-C138, C140-C145, C148, C149, C15, C150-C153, C156, C157, C16, C161-C163, C170, C171, C176, C177, C181-C183, C19, C2, C202-C208, C22, C23, C230, C231, C257, C260-C263, C28, C29, C30, C5, C63, C64, C73-C78, C8, C80, C82-C86, C91-C93, C95-C99 | 99  | 0160-7798   | CAP-FXD 0.1uF +-10PCT 50V CER X7R   | GRM21BR71H104KA11L<br>VJ0805Y104KXAMT<br>08055C104KAT_A<br>C0805C104K5RAC<br>C2012X7R1H104K | MURATA MANUFACTURING<br>VISHAY<br>AVX<br>KEMET ELECTRONICS<br>TDK             |
| C100, C117, C139, C243, C244, C267, C268, C269, C270, C271, C272, C273, C274, C275, C276  | 15  | 0160-7835   | CAP-FXD 100pF +-5PCT 50V CER C0G    | GRM1885C1H101JA01D<br>C1608C0G1H101J<br>06035A101JAT<br>C0603C101J5GAC<br>VJ0603A101JXA     | MURATA MANUFACTURING<br>TDK<br>AVX<br>KEMET ELECTRONICS<br>VISHAY             |
| C108, C125, C146  | 3   | 0160-7834   | CAP-FXD 10pF +-5PCT 50 V CER C0G    | C1608COG1H100D<br>06035A100JAT<br>GRM1885C1H100JD01D<br>C0603C100J5GAC                      | TDK<br>AVX<br>MURATA MANUFACTURING<br>KEMET ELECTRONICS                       |
| C12, C13, C14, C165, C166, C167   | 9   | 0180-3975   | CAP-FXD 2.2uF +-20PCT 20V TA        | TAJB225M020<br>293D225X0020B2E3<br>49MC225B020M0AS<br>ESVB21D225M<br>T491B225M020AS         | AVX<br>VISHAY<br>VISHAY BC COMPONENTS<br>NEC ELECTRONICS<br>KEMET ELECTRONICS |
| C147, C167, C24, C25, C26   | 5   | 0160-6108   | CAP-FXD 4700pF +-5pct 50 V CER C0G  | C1206C472J5GAC<br>GRM3195C1H472JA01D  | KEMET ELECTRONICS<br>MURATA MANUFACTURING                                     |
| C154, C174  | 2   | 0160-7994   | CAP-FXD 2700pF +-1pct 50 V CER C0G  | 12065A272FAT_A<br>C1206C272F5GAC  | AVX<br>KEMET ELECTRONICS  |

**5064-0106 Control Board Parts List (Electronic Load Module)**

| Reference Designator            | Qty | Agilent P/N | Description                          | MPN  | Manufacturer   |
|---------------------------------|-----|-------------|--------------------------------------|--|--|
| C155, C175                      | 2   | 0160-8025   | CAP-FXD 820pF +-1pct 50 V CER C0G    | 08055A821FATA<br>500R15N821FV2<br>C0805C821F5GAC   | AVX<br>JOHANSON DIELECTRICS<br>KEMET ELECTRONICS                 |
| C158, C178                      | 2   | 0160-8449   | CAP-FXD 3300pF +-1pct 50 V CER C0G   | C1210C332F5GAC   | KEMET ELECTRONICS  |
| C159, C179                      | 2   | 0160-7953   | CAP-FXD 3900pF +-1pct 50 V CER C0G   | C1210C392F5GAC<br>12105A392FAT_A   | KEMET ELECTRONICS<br>AVX   |
| C160, C180                      | 2   | 0160-8064   | CAP-FXD 1200pF +-1pct 50 V CER C0G   | C1206C122F5GAC<br>12065A122FAT_A<br>GRM3195C1H122FD01D                                       | KEMET ELECTRONICS<br>AVX<br>MURATA MANUFACTURING                 |
| C17, C20                        | 2   | 0180-4535   | CAP-FXD 47uF +-20pct 20 V TA         | 593D476X0020E2S072<br>T495X476M020ASE150<br>TPSE476M020R0150                                 | VISHAY<br>KEMET ELECTRONICS<br>AVX                               |
| C18                             | 1   | 0160-5946   | CAP-FXD 3300pF +-10pct 50 V CER X7R  | 08055C332KAT_A<br>C0805C332K5RAC<br>C2012X7R1H332K<br>GRM2165C1H332JA01D                     | AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING          |
| C201, C255, C256,<br>C258, C259 | 5   | 0160-7736   | CAP-FXD 1uF +-10PCT 16 V CER X7R     | 1206YC105KAT<br>C1206C105K4RAC<br>GRM31MR71C105KA01L   | AVX<br>KEMET ELECTRONICS<br>MURATA MANUFACTURING                 |
| C210-C217, C31-C38              | 16  | 0160-7828   | CAP-FXD 0.1uF +-10PCT 16 V CER X7R   | CC0603KRX7R7BB104<br>0603YC104KATA<br>C0603C104K4RAC<br>C1608X7R1C104K<br>GRM188R71C104KA01J | YAGEO<br>AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING |
| C232, C252, C253                | 3   | 0160-6444   | CAP-FXD 0.022uF +-10pct 50 V CER X7R | 08055C223KAT<br>C0805C223K5RAC<br>C2012X7R1H223K<br>GRM40X7R223K50                           | AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING          |
| C246                            | 1   | 0160-7781   | CAP-FXD 2200pF +-10pct 50 V CER X7R  | 06035C222KAT<br>C0603C222K5RAC<br>C1608X7R1H222KT  | AVX<br>KEMET ELECTRONICS<br>TDK                                  |
| C250                            | 1   | 0160-7516   | CAP-FXD 330pF +-5pct 50 V CER C0G    | C0603C331J5GAC<br>C1608COG1H331J<br>GRM1885C1H331JA01D                                       | KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING                 |

**5064-0106 Control Board Parts List (Electronic Load Module)**

| Reference Designator | Qty | Agilent P/N | Description                             | MPN  | Manufacturer   |
|----------------------|-----|-------------|---|--|--|
| C251                 | 1   | 0160-7699   | CAP-FXD 3300pF +-10pct 50 V CER X7R     | 06035C332KAT<br>C0603C332K5RAC<br>C1608X7R1H332K<br>GRM188R71H332KA01D                                   | AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING                    |
| C264                 | 1   | 0160-7988   | CAP-FXD 470pF +-5PCT 50 V CER C0G 0603  | 06035A471JAT_A<br>C0603C471J5GAC<br>C1608COG1H471J<br>GRM1885C1H471JA01                                  | AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING                    |
| C265                 | 1   | 0160-7929   | CAP-FXD 100pF +-5pct 2 kV POLYP-FL      | FKP1 100PF/+5%/2000VDC   | WIMA   |
| C3, C4, C6           | 3   | 0160-5961   | CAP-FXD 22pF +-5pct 50 V CER C0G        | 08055A220JAT A<br>C0805C220J5GAC<br>C2012COG1H220J<br>GRM2165C1H220JD01D<br>VJ0805A220JXAMT              | AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING<br>VISHAY          |
| C39-C61              | 23  | 0160-8497   | CAP-FXD 100pF +-10pct 50 V CER C0G      | CKCA43COG1H101K<br>221461636<br>W3A45A101KAT<br>221461636  | TDK<br>PHILIPS<br>AVX<br>NXP   |
| C65, C66             | 2   | 0160-4439   | CAP-FXD 4700pF +-20pct 1 kV PPR-MET     | PME271Y447MR30   | EVOX/RIFA  |
| C7                   | 1   | 0180-3751   | CAP-FXD 1uF +-20PCT 35V TA              | TAJB105M035<br>293D105X0035B2E3<br>ESVB21V105M<br>SK-1V105M-RB   | AVX<br>VISHAY<br>NEC ELECTRONICS<br>ELNA                                   |
| C87, C89             | 2   | 0160-5944   | CAP-FXD 0.047uF +-10pct 50 V CER X7R    | 08055C473KAT A<br>C0805C473K5RAC<br>C2012X7R1H473K   | AVX<br>KEMET ELECTRONICS<br>TDK  |
| C88, C90             | 2   | 0160-7748   | CAP-FXD 1000pF +-10PCT 50V CER X7R 0603 | 06035C102KAT<br>223858615614<br>C0603C102K5RAC<br>C1608X7R1H102KT<br>GRM188R71H102KA01D<br>VJ0603Y102KXA | AVX<br>YAGEO<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING<br>VISHAY |
| C94                  | 1   | 0160-6103   | CAP-FXD 1800pF +-5pct 50 V CER C0G      | 12065A182JATRA<br>C1206C182J5GAC<br>C3216CH1H182J<br>GRM3195C1H182JD01D                                  | AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING                    |

**5064-0106 Control Board Parts List (Electronic Load Module)**

| Reference Designator                                   | Qty | Agilent P/N | Description                               | MPN  | Manufacturer   |
|--|-----|-------------|---|--|--|
| D1   | 1   | 1902-1544   | DIODE-ZNR 10V 5PCT TO-236(SOT-23) PD-.35V | BZX84C10<br>BZX84C10LT1G<br>BZX84C10                 | PHILIPS<br>ON SEMICONDUCTOR<br>NXP   |
| D2, D7, D8, D10-D13,<br>D20-D27, D30-D33, D35,<br>D36, | 21  | 1906-0291   | DIODE-DUAL 70V 100MA T0-236AA             | BAV99<br>BAV99<br>BAV99LT1G<br>BAV99____X_<br>BAV99  | PHILIPS<br>FAIRCHILD SEMICONDUCTOR<br>ON SEMICONDUCTOR<br>INFINEON TECHNOLOGIES<br>NXP   |
| D3   | 1   | 1901-1332   | DIODE-PWR-S 40V 1A D0-214AA               | 10BQ040PBF<br>SK14<br>SS24<br>STPS140U<br>MBRS140T3G | INTERNATIONAL RECTIFIER<br>MICROSEMI<br>VISHAY<br>STMICROELECTRONICS<br>ON SEMICONDUCTOR |
| D4   | 1   | 1906-0358   | DIODE-DUAL 100V 100MA TO-236AB (SOT-23)   | MMBD1203   | FAIRCHILD SEMICONDUCTOR  |
| J5   | 1   | 1252-6163   | CONN-POST TYPE .100-PIN-SPCG-MTG-END      | N3433-5202RB   | 3M   |
| L1, L11, L2, L3, L5, L6                                | 6   | 9170-1585   | CORE-SHIELDING BEAD                       | FCM2012V-400<br>MMZ2012S400A_<br>MI0805K400R-10      | TAI-TECH ADVANCED<br>TDK<br>STEWART  |
| L10  | 1   | 9140-1458   | INDUCTOR 3.3uH +-5pct 2.8W-mmX3.4LG-mm    | NLV32T-3R3J -PF<br>KL32T___3R3J                      | TDK<br>KOA   |
| L100-L116  | 17  | 9170-1631   | CORE-SHIELDING BEAD                       | MMZ2012S601A   | TDK  |
| L7, L8   | 2   | 9140-4918   | INDUCTOR 47uH +20pct -20pct               | UP0.4C-470<br>P0770.473                              | COOPER INDUSTRIES<br>TECHNITROL  |
| L9   | 1   | 9140-1950   | INDUCTOR 10uH +20pct -20pct               | DT3316P-103ML  | COILCRAFT  |
| P22  | 1   | 5081-4998   | CABLE-RIBBON                              | 5081-4998<br>5081-4998                               | FREEDOM ELECTRONICS<br>MICROTEK  |
| P5   | 1   | 5081-4987   | CABLE-RIBBON                              |  |  |
| Q1   | 1   | 1853-0525   | TRANSISTOR PNP SI TO-236AA PD=200MW       | MMBT2907<br>PMBT2907A<br>MMBT2907ALT1G<br>PMBT2907A  | FAIRCHILD SEMICONDUCTOR<br>PHILIPS<br>ON SEMICONDUCTOR<br>NXP                            |

**5064-0106 Control Board Parts List (Electronic Load Module)**

| Reference Designator   | Qty | Agilent P/N | Description                                    | MPN  | Manufacturer   |
|--|-----|-------------|--|--|--|
| Q3, Q4, Q6, Q7, Q8   | 5   | 1855-0734   | TRANSISTOR MOSFET 2N7002 N-CHAN E-MO           | 2N7002-T1-E3<br>2N7002<br>2N7002<br>SN7002N____X_<br>2N7002                              | VISHAY<br>FAIRCHILD SEMICONDUCTOR<br>PHILIPS<br>INFINEON TECHNOLOGIES<br>NXP |
| Q5   | 1   | 1855-1098   | TRANSISTOR MOSFET N-CHAN E-MODE<br>SOT-23      | MMBF0201NLT1G  | ON SEMICONDUCTOR   |
| R1, R3, R5   | 3   | 0699-3937   | RES-FXD 348 +-1PCT .063W TKF TC=0+-200         | CRCW0603348RFKE_<br>RK73H1JT_3480F<br>MCR03__FX3480<br>232270463481                      | VISHAY<br>KOA<br>ROHM<br>YAGEO   |
| R10, R101, R11, R12, R126,<br>R13, R14, R158, R193, R211,<br>R213, R215, R219, R320,<br>R321, R328, R37, R375,<br>R378, R379, R38, R380, R39,<br>R9, R93 | 25  | 0699-3970   | RESISTOR 10K +-1pct .063W TKF TC=0+-200        | CRCW060310K0FKE_<br>RK73H1JT_1002F<br>232270461003L<br>MCR03__FX1002                     | VISHAY<br>KOA<br>YAGEO<br>ROHM   |
| R100, 125  | 2   | 1810-2311   | NET-RES 2 1K OHM 3-PIN MULTI-VAL               | MPM1001/9001F  | VISHAY   |
| R102, R108, R110, R116,<br>R127, R135, R159, R165,<br>R167, R173, R34, R35   | 12  | 0699-4653   | RES 249K .1pct .1W                             | PTN0805E2493BB<br>W0805R032493B  | VISHAY<br>TT ELECTRONICS   |
| R103, R109, R111, R117,<br>R128, R134, R136, R142,<br>R160, R166, R168, R174   | 12  | 0699-5083   | RES-FXD 825 OHM +-0.1PCT 0.1W TC 0+-25<br>0805 | TNPW08058250BT-9<br>RN732AT_8250B25  | VISHAY<br>KOA  |
| R104, R106, R112, R114,<br>R131, R139, R161, R163,<br>R169, R171, R33, R36   | 12  | 0699-6699   | RES-FXD 2.49K +-0.1PCT 0.1W TC 0+-25 0805      | RN732AT_2491B25<br>2312-241-72492<br>2312-241-72492<br>PFC-W0805R-03-2491-B              | KOA<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS                      |
| R105, R107, R113, R115,<br>R130, R132, R138, R140,<br>R162, R164, R170, R172   | 12  | 0699-2800   | RES-FXD 10K OHM +- 0.1PCT 0.1W TC 0+-25        | TNPW08051002BT-9<br>RN732AT_1002B25<br>RG2012P-103-B-__                                  | VISHAY<br>KOA<br>SUSUMU  |
| R118, R119, R129, R133,<br>R192, R26, R27, R28, R29,<br>R30, R371  | 11  | 0699-2643   | RES-FXD 0 OHM +-5PCT .1W TC 0+-300             | CRCW08050000ZSE_<br>CR21-000-ZL<br>MCR10__J000<br>RK73Z2AT<br>232273091002L<br>ZC0805-TW | VISHAY<br>ASJ<br>ROHM<br>KOA<br>YAGEO<br>RCD COMPONENTS                      |

**5064-0106 Control Board Parts List (Electronic Load Module)**

| Reference Designator  | Qty | Agilent P/N | Description                                  | MPN  | Manufacturer   |
|---|-----|-------------|--|--|--|
| R120, R150, R180, R195, R329, R8, R95                           | 7   | 0699-3957   | RESISTOR 2.61K +-1pct .063W TKF<br>TC=0+-200 | CRCW06032K61FKE_<br>RK73H1JT_2611F<br>232270462612L<br>MCR03__FX2611   | VISHAY<br>KOA<br>YAGEO<br>ROHM   |
| R122, R146, R147, R152, R154, R301, R302, R358, R359, R97       | 10  | 0699-2491   | RESISTOR 20K +-0.1pct .125W TF TC=0+-25      | RN732BT_2002B25<br>BLU-1206 20K .1% 25PPM<br>MCA1206-25 0, 1% P5 20K<br>MCA1206-25 0, 1% P5 20K<br>PCF-W1206LF-03-2002-B_-<br>-        | KOA<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS          |
| R123, R98   | 2   | 1810-2312   | NET-RES 2 10.0K OHM 3-PIN MULTI-VAL          | MPM5001/1002F  | VISHAY   |
| R137, R141, R143, R84   | 4   | 0699-3963   | RESISTOR 4.64K +-1pct .063W TKF<br>TC=0+-200 | CRCW06034K64FKE_<br>RK73H1JT_4641F<br>232270464642L<br>MCR03__FX4641   | VISHAY<br>KOA<br>YAGEO<br>ROHM   |
| R144, R145, R184, R186, R199, R310, R311, R372, R373, R377, R81 | 11  | 0699-4016   | RES-FXD 1MOHM +-1PCT .063W TC 0+-200         | RK73H1JT__1004F<br>RC0603F_-__1ML<br>CRCW06031M00FKE<br>MCR03__FX1004  | KOA<br>YAGEO<br>VISHAY<br>ROHM   |
| R151  | 1   | 0699-2846   | RESISTOR 5K +-0.1pct .125W TF TC=0+-25       | RN732BT_5001B25<br>2322741X5002<br>BLU-1206 5K .1% 25PPM<br>MCA1206-25 0, 1% P5 5K<br>TNPW12065001BT-9<br>PCF-W1206LF-03-5001-B_-<br>- | KOA<br>YAGEO<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS |
| R153, R70, R71, R75, R76  | 5   | 0699-2489   | RESISTOR 10K +-0.1pct .125W TF TC=0+-25      | RN732BT_1002B25<br>BLU-1206 10K .1% 25PPM<br>MCA1206-25 0, 1% P5 10K<br>MCA1206-25 0, 1% P5 10K<br>PCF-W1206LF-03-1002-B_-<br>-        | KOA<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS          |
| R155  | 1   | 0699-2720   | RESISTOR 5.11K +-0.1pct .125W TF TC=0+-25    | RN732BT_5111B25<br>BLU-1206 5110 .1% 25PPM<br>PCF-W1206LF-03-5111-B_-<br>-   | KOA<br>RCD COMPONENTS<br>TT ELECTRONICS  |

**5064-0106 Control Board Parts List (Electronic Load Module)**

| Reference Designator  | Qty | Agilent P/N | Description                                   | MPN  | Manufacturer  |
|---|-----|-------------|---|--|---|
| R156, R176  | 2   | 0699-3803   | RES-FXD 5.62K +-0.1PCT .125W TC 0+-25         | RN732BT_5621B25<br>MCA1206-25 0, 1% P5 5.62K<br>MCA1206-25 0, 1% P5 5.62K<br>PCF-W1206LF-03-5621-B_-<br>-                            | KOA<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS                   |
| R157  | 1   | 0699-2671   | RESISTOR 3.74K +-0.1pct .125W TF TC=0+-25     | RN732BT_3741B25<br>BLU-1206 3K74 .1% 25PPM<br>MCA1206-25 0, 1% P5 3.74K<br>MCA1206-25 0, 1% P5 3.74K<br>PCF-W1206LF-03-3741-B_-<br>- | KOA<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS |
| R17, R18, R19, R2, R20,<br>R21, R23, R24, R25, R364,<br>R365, R366, R4, R6, R64 | 15  | 0699-3940   | RES-FXD 464 +-1PCT .063W TKF TC 0+-200        | CRCW0603464RFKE_<br>RK73H1JT_4640F<br>232270464641L<br>MCR03___FX4640  | VISHAY<br>KOA<br>YAGEO<br>ROHM  |
| R175  | 1   | 0699-5264   | RESISTOR 26.1K +-0.1pct .125W TKF<br>TC=0+-25 | RN73E2B2612B   | KOA   |
| R177  | 1   | 0699-3488   | RESISTOR 487 +-0.1pct .125W TF TC=0+-25       | RN732BT_4870B25<br>MCA1206-25 0, 1% P5 487R<br>PTN1206E4870BB<br>PCF-W1206LF-03-4870-B_-<br>-  | KOA<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS                   |
| R178  | 1   | 0699-3763   | RESISTOR 69 +-0.1pct .125W TF TC=0+-25        | RN732BT_69R0B25<br>2322741X6909<br>BLU-1206 69R0 .1% 25PPM<br>TNPW1206690BT-9<br>PCF-W1206LF-03-69R0- B                              | KOA<br>YAGEO<br>RCD COMPONENTS<br>VISHAY<br>TT ELECTRONICS                |



**5064-0106 Control Board Parts List (Electronic Load Module)**

| Reference Designator                 | Qty | Agilent P/N | Description                               | MPN   | Manufacturer  |
|--------------------------------------|-----|-------------|---|---|---|
| R182, R183, R197, R198               | 4   | 0699-2839   | RESISTOR 150K +-0.1pct .125W TF TC=0+-25  | RN732BT_1503B25<br>BLU-1206 150K .1% 25PPM<br>MCA1206-25 0, 1% P5 150K<br>PTN1206E1503BB<br>PCF-W1206LF-03-1503-B-_-<br>- | KOA<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS |
| R187, R304                           | 2   | 0699-1448   | RESISTOR 316K +-1pct .125W TKF TC=0+-100  | CRCW1206316KFKE_<br>RK73H2BT_3163F<br>MCR18__F3163<br>232272463164  | VISHAY<br>KOA<br>ROHM<br>YAGEO  |
| R188, R189, R203, R204               | 4   | 0699-2969   | RESISTOR 1.78K +-0.1pct .125W TF TC=0+-25 | RN732BT_1781B25<br>MCA1206-25 0, 1% P5 1.78K<br>PTN1206E1781BB<br>PCF-W1206LF-03-1781-B-_-<br>-                           | KOA<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS                   |
| R190, R191, R205, R206,<br>R207, R68 | 6   | 0699-3138   | RES-FXD 1.21K .1PCT 0.1W TC 0+-25 0805    | TNPW0805 1211BT9<br>RN732AT_1211B25<br>RR1220P-1211-B-M   | VISHAY<br>KOA<br>SUSUMU   |
| R194                                 | 1   | 0699-3968   | RESISTOR 8.25K +-1pct .063W TKF TC=0+-200 | CRCW06038K25FKE_<br>RK73H1JT_8251F<br>MCR03__FX8251<br>232270468252   | VISHAY<br>KOA<br>ROHM<br>YAGEO  |
| R201, R360                           | 2   | 0699-3993   | RESISTOR 100K +-1pct .063W TKF TC=0+-200  | CRCW0603100KFKE_<br>RK73H1JT_1003F<br>232270461004L<br>MCR03__FX1003  | VISHAY<br>KOA<br>YAGEO<br>ROHM  |
| R202                                 | 1   | 0699-4003   | RESISTOR 261K +-1pct .063W TKF TC=0+-200  | RK73H1JT_2613F<br>MCR03__FX2613<br>MC06032613-FT<br>RC0603F_-__261KL  | KOA<br>ROHM<br>RCD COMPONENTS<br>YAGEO                                    |

**5064-0106 Control Board Parts List (Electronic Load Module)**

| Reference Designator  | Qty | Agilent P/N | Description                               | MPN  | Manufacturer  |
|-----------------------|-----|-------------|---|--|---|
| R208, R85, R91        | 3   | 0699-3931   | RESISTOR 196 +-1pct .063W TKF TC=0+-200   | CRCW0603196RFKE_<br>RK73H1JT_1960F<br>232270461961L<br>MCR03__FX1960                                 | VISHAY<br>KOA<br>YAGEO<br>ROHM                          |
| R209, R92             | 2   | 0699-3780   | RESISTOR 33.2K +-1pct .1W TKF TC=0+-100   | CRCW080533K2FKE_<br>RK73H2AT_3322F<br>232273463323L<br>MCR10__F3322<br>MC08053322-FT                 | VISHAY<br>KOA<br>YAGEO<br>ROHM<br>RCD COMPONENTS        |
| R210                  | 1   | 0837-0444   | THERMISTOR-SWITCHING SMT, PTC RESISTOR    | SMD075F-2<br>MF-SM075-99   | TYCO INTERNATIONAL<br>BOURNS                            |
| R212, R214, R216      | 3   | 0699-4752   | RESISTOR 4.99K +-1PCT .063W TKF TC=0+-200 | CRCW06034K99FKE_<br>RK73H1JT_4991F<br>MCR03__FX4991<br>232270464992<br>MC06034991-FT                 | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS        |
| R300, R32, R327, R345 | 4   | 0699-3924   | RES-FXD 100 +-1PCT .063W TKF TC=0+-200    | CRCW0603100RFKE_<br>CR16-1000-JL<br>RK73H1JT_1000F<br>MCR03__FX1000<br>232270461001<br>MC06031000-FT | VISHAY<br>ASJ<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R303                  | 1   | 0699-3075   | RESISTOR 147K +-1pct .1W TKF TC=0+-100    | CRCW0805147KFKE_<br>RK73H2AT_1473F<br>MCR10__F1473<br>232273461474<br>MC08051473-FT                  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS        |
| R31                   | 1   | 0699-3035   | RESISTOR 1.47K +-1pct .1W TKF TC=0+-100   | CRCW08051K47FKE_<br>RK73H2AT_1471F<br>MCR10__F1471<br>232273461472                                   | VISHAY<br>KOA<br>ROHM<br>YAGEO                          |
| R312, R326, R352, R90 | 4   | 0699-3990   | RES-FXD 75K +-1PCT 0.063W TC 0+-200 0603  | CRCW060375K0FKE_<br>RK73H1JT_7502F<br>MCR03__FX7502<br>2322704_7503                                  | VISHAY<br>KOA<br>ROHM<br>YAGEO                          |

**5064-0106 Control Board Parts List (Electronic Load Module)**

| Reference Designator                        | Qty | Agilent P/N | Description                                   | MPN  | Manufacturer                                     |
|---|-----|-------------|---|--|--|
| R322, R323, R7                              | 3   | 0699-3978   | RESISTOR 21.5K +-1pct .063W TKF<br>TC=0+-200  | CRCW060321K5FKE_<br>RK73H1JT_2152F<br>232270462153L<br>MCR03__FX2152                   | VISHAY<br>KOA<br>YAGEO<br>ROHM                   |
| R325  | 1   | 0699-3974   | RESISTOR 14.7K +-1pct .063W TKF<br>TC=0+-200  | CRCW060314K7FKE_<br>CR16-1472-FL<br>RK73H1JTDD1472F<br>RK73H1JTDD1472F<br>232270461473 | VISHAY<br>ASJ<br>KOA<br>ROHM<br>YAGEO            |
| R340  | 1   | 0699-4364   | RESISTOR 4.7 +-5PCT .063W TKF TC=0+-500       | RK73B1JT_4R7J<br>MCR03__J4R7<br>232270260478<br>MC06034R70-JT                          | KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS           |
| R342, R355, R367, R381,<br>R382, R383, R384 | 7   | 0699-3574   | RESISTOR 0 .0625W TKF                         | CRCW06030000ZSE_<br>RK73Z1JT<br>232270296001L<br>MCR03__J000<br>CJ10-000               | VISHAY<br>KOA<br>YAGEO<br>ROHM<br>KYOCERA        |
| R348, R349, R374, R82                       | 4   | 0699-3039   | RESISTOR 2.61K +-1pct .1W TKF TC=0+-100       | CRCW08052K61FKE_<br>RK73H2AT_2611F<br>MCR10__F2611<br>232273462612<br>MC08052611-FT    | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R350  | 1   | 0699-3819   | RESISTOR 10M +-5PCT .1W TKF TC 0+-500<br>0805 | CRCW080510M0JNE_<br>RK73B2AT_106J<br>MCR10__J106<br>MC08051005-JTW                     | VISHAY<br>KOA<br>ROHM<br>RCD COMPONENTS          |
| R351  | 1   | 0699-3987   | RESISTOR 51.1K +-1pct .063W TKF<br>TC=0+-200  | CRCW060351K1FKE_<br>CR16-5112-FL<br>RK73H1JT_5112F<br>232270465113L<br>MCR03__FX5112   | VISHAY<br>ASJ<br>KOA<br>YAGEO<br>ROHM            |

**5064-0106 Control Board Parts List (Electronic Load Module)**

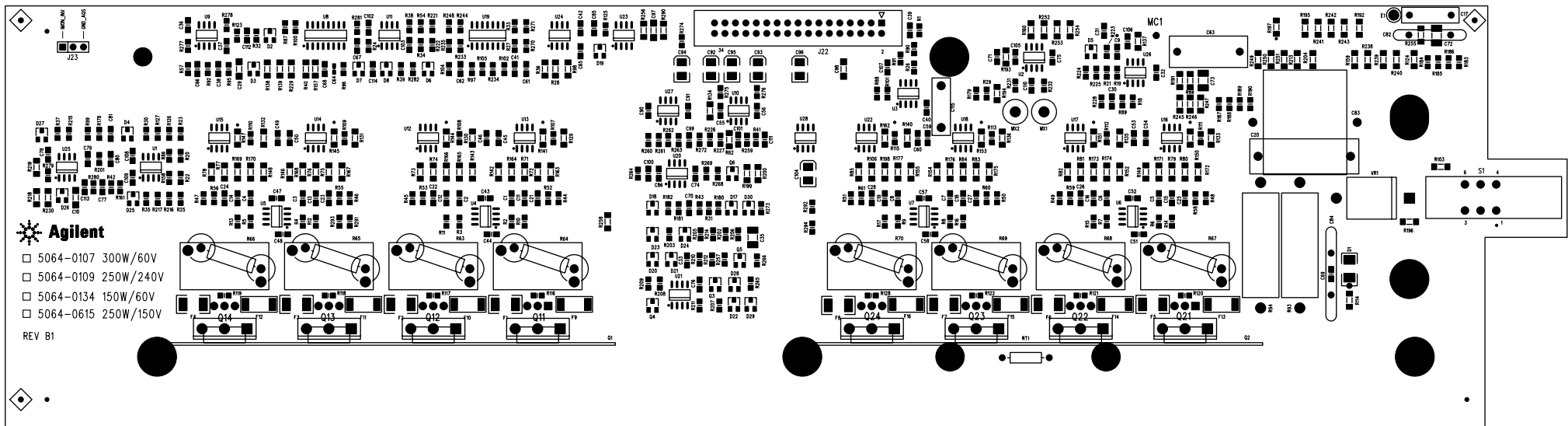
| Reference Designator               | Qty | Agilent P/N | Description                                  | MPN   | Manufacturer                                     |
|------------------------------------|-----|-------------|--|---|--|
| R356, R357, R368, R369, R376, R385 | 6   | 0699-3901   | RES-FXD 10 +-1PCT .063W TKF TC=0+-200        | CRCW060310R0FKE_<br>RK73H1JT_10R0F<br>232270461009L<br>MCR03__FX10R0<br>MC060310R0-FT | VISHAY<br>KOA<br>YAGEO<br>ROHM<br>RCD COMPONENTS |
| R361                               | 1   | 0699-3975   | RESISTOR 16.2K +-1pct .063W TKF<br>TC=0+-200 | CRCW060316K2FKE_<br>RK73H1JT_1622F<br>232270461623L<br>MCR03__FX1622                  | VISHAY<br>KOA<br>YAGEO<br>ROHM                   |
| R362, R363                         | 2   | 0699-3959   | RESISTOR 3.16K +-1PCT .063W TKF<br>TC=0+-200 | CRCW06033K16FKE_<br>RK73H1JT_3161F<br>232270463162L<br>MCR03__FX3161                  | VISHAY<br>KOA<br>YAGEO<br>ROHM                   |
| R40-R62                            | 23  | 1810-1680   | NET-RES 4 100.0 OHM                          | CN1J4T_101J<br>MNR14__J101<br>235003410101<br>742083101J<br>CRA06S0803101J            | KOA<br>ROHM<br>YAGEO<br>CTS<br>VISHAY            |
| R63, R88                           | 2   | 0699-3926   | RESISTOR 121 +-1pct .063W TKF TC=0+-200      | CRCW0603121RFKE_<br>RK73H1JT_1210F<br>232270461211L<br>MCR03__FX1210<br>CR16-1210-FF  | VISHAY<br>KOA<br>YAGEO<br>ROHM<br>ASJ            |
| R65, R69, R72-R74, R77, R78        | 7   | 0699-3964   | RESISTOR 5.11K +-1pct .063W TKF<br>TC=0+-200 | CRCW06035K11FKE_<br>RK73H1JT_5111F<br>232270465112L<br>MCR03__FX5111                  | VISHAY<br>KOA<br>YAGEO<br>ROHM                   |
| R66                                | 1   | 1810-1882   | NET-RES 2 10.0K OHM                          | MPM2002F  | VISHAY   |
| R79, R80                           | 2   | 1810-2349   | NET-RES                                      | 108-095   | VISHAY   |
| R86, R87                           | 2   | 0699-3407   | RES-FXD 100 OHM +-5PCT 1W TC 0+-200<br>2512  | CRCW2512100RJNE_<br>RK73B3AT_101J<br>MCR100__J101                                     | VISHAY<br>KOA<br>ROHM                            |
| R89                                | 1   | 0699-3914   | RESISTOR 34.8 +-1pct .063W TKF TC=0+-200     | CRCW060334R8FKE_<br>RK73H1JT_34R8F<br>MCR03__FX34R8<br>232270463489                   | VISHAY<br>KOA<br>ROHM<br>YAGEO                   |

**5064-0106 Control Board Parts List (Electronic Load Module)**

| Reference Designator   | Qty | Agilent P/N | Description                                 | MPN  | Manufacturer  |
|--|-----|-------------|---|--|---|
| R96,R149,R121  | 3   | 0699-2843   | RESISTOR 100K +-0.1pct .125W TF TC=0+-25    | RN732BT_1003B25<br>BLU-1206 100K .1% 25PPM<br>MCA1206-25 0, 1% P5 100K<br>TNPW12061003BT-9<br>PCF-W1206LF-03-1003-B_-<br>- | KOA<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS |
| TB1  | 1   | 1253-3385   | CONN-POST TYPE 3.5MM-PIN-SPCG-MTG-END       | 1844333  | PHOENIX TECHNOLOGIES  |
| U1, U3   | 2   | 1990-1773   | OPTO-ISOLATOR LED-IC GATE IF=15MA-MAX       | HCPL-0630-500E   | AVAGO TECHNOLOGIES  |
| U10  | 1   | 1826-1402   | IC PWR MGT-V-REG-FXD-POS 4.8/5.2V<br>8 PINS | UA78L05ACD<br>MC78L05ACDR2G<br>LM78L05ACM NOPB   | TEXAS INSTRUMENTS<br>ON SEMICONDUCTOR<br>NATIONAL SEMICONDUCTOR           |
| U13  | 1   | 1826-2567   | IC PWR MGT-V-REG-ADJ-POS 4 PINS<br>TO-261AA | LD1117S<br>LT1117CST<br>REG1117  | STMICROELECTRONICS<br>LINEAR TECHNOLOGY<br>TEXAS INSTRUMENTS              |
| U14  | 1   | 1821-8715   | IC PLD FPGA UNPROGRAMMED CMOS<br>S30XL      | XCS30XL-4PQ208C  | XILINX  |
| U15  | 1   | 5182-9103   | ROM-PRGMD: 1818-7790                        |  |   |
| U15a   | 1   | 1818-7790   | IC 256K-BIT OTP 60-NS CMOS                  | XC17256ELPC20C   | XILINX  |
| U16  | 1   | 1818-4359   | IC 64K-BIT EEPROM 250-NS CMOS               | AT28C64B-15JU  | ATMEL   |
| U2, U4   | 2   | 1990-1761   | OPTO-ISOLATOR LED-IC GATE IF=50MA-MAX       | HCPL-M601-500E   | AVAGO TECHNOLOGIES  |
| U20  | 1   | 1826-4286   | IC PWR MGT-V-REF-FXD 2.497/2.503V 8 PINS    | MAX6225BCSA+   | MAXIM INTEGRATED PRODUCTS   |
| U21, U34, U35, U39, U44,<br>U50, U60, U63, U64, U66,<br>U69, U70 | 12  | 1826-1925   | IC OP AMP LOW-NOISE SINGLE 8 PIN            | OPA27GU/___E4<br>OP27GSZ   | TEXAS INSTRUMENTS<br>ANALOG DEVICES                                       |
| U22  | 1   | 1826-6706   | D/A 16-BIT 48-PIN-SSOP CMOS                 | DAC7644EB  | TEXAS INSTRUMENTS   |
| U23, U31, U58  | 3   | 1826-1813   | IC OP AMP GP DUAL 8-SOIC                    | LM358D<br>LM358MNOB  | TEXAS INSTRUMENTS<br>NATIONAL SEMICONDUCTOR                               |
| U24, U25   | 2   | 1826-6707   | D/A 8-BIT 20-P-SOIC BICMOS                  | TLC7226CDW   | TEXAS INSTRUMENTS   |
| U26, U36, U38, U40,<br>U42, U45, U55, U57                        | 8   | 1826-2149   | ANALOG SWITCH 4 SPST 16 -P-SOIC             | DG444DY-E3   | VISHAY  |
| U28, U37, U43, U54, U56  | 5   | 1826-3000   | IC AUDIO AMPL LOW-NOISE DUAL 8 PIN          | OP275GSZ   | ANALOG DEVICES  |
| U29, U67, U68  | 3   | 1826-2609   | IC INSTM AMPL LP 8 PIN PLSTC-SOIC           | AD620ARZ   | ANALOG DEVICES  |
| U30  | 1   | 1826-3452   | D/A 8-BIT 20-P-SOIC CMOS                    | TLC7528CDW   | TEXAS INSTRUMENTS   |
| U32, U33   | 2   | 1826-1622   | IC OP AMP LOW-BIAS-H-IMPQ QUAD 14 PIN       | TL074CD  | TEXAS INSTRUMENTS   |
| U41  | 1   | 1826-1862   | IC OP AMP LOW-BIAS-H-IMPQ DUAL 8-SOIC       | TL072CD<br>TL072CD   | STMICROELECTRONICS<br>TEXAS INSTRUMENTS                                   |

**5064-0106 Control Board Parts List (Electronic Load Module)**

| Reference Designator | Qty   | Agilent P/N | Description                                 | MPN                                     | Manufacturer                                |
|----------------------|-------|-------------|---|---|---|
| U51, U52             | 2     | 1826-2167   | ANALOG MULTIPLEXER 8 CHNL 16-SOIC           | DG409DY-E3<br>DG409DY                   | VISHAY<br>INTERSIL                          |
| U53                  | 1     | 1826-2797   | IC MULTIPLIER HS 14 PIN DIP-P               | AD734ANZ                                | ANALOG DEVICES                              |
| U59                  | 1     | 1826-2977   | A/D 10-BIT 20-P-SOIC CMOS                   | TLC1543CDW                              | TEXAS INSTRUMENTS                           |
| U6                   | 1     | 0950-3916   | DC-DC-CONV 18-36 VDC INP                    | FDC10-24D15                             | ASTRODYNE                                   |
| U62 pin 4 to pin 8   | 0.014 | 8150-3431   | WIRE 30AWG BL 42V KYNAR-PVF                 | 5951-6<br>BR212/1-30-021                | ALPHA WIRE<br>CORNISH WIRE                  |
| U65, U71             | 2     | 1826-4209   | A/D 16-BIT 28-P-SOIC                        | LTC1605CSW<br>AD976ARZ                  | LINEAR TECHNOLOGY<br>ANALOG DEVICES         |
| U7                   | 1     | 1826-2893   | IC PWR MGT-VS-SUPVR/CONT 8 PINS<br>P-SOIC   | MAX707CSA<br>ADM707ARZ                  | MAXIM INTEGRATED PRODUCTS<br>ANALOG DEVICES |
| U72                  | 1     | 1826-4325   | ANLG SW 4 SPST 16-PIN SOIC                  | ADG452BRZ                               | ANALOG DEVICES                              |
| U8, U80              | 2     | 1826-1572   | IC COMPARATOR PRCN DUAL 8 PIN<br>PLSTC-SOIC | LM393D<br>LM393DR2G                     | TEXAS INSTRUMENTS<br>ON SEMICONDUCTOR       |
| U9                   | 1     | 1826-4257   | IC PWR MGT-V-REG-SWG 4.94/5.06V 8 PINS      | LT1376CS8-5                             | LINEAR TECHNOLOGY                           |
| VR1                  | 1     | 1902-1592   | DIODE-ZNR 5.1V 5pct TO-236 (SOT-23)         | BZX84C5V1<br>BZX84C5V1LT1G<br>BZX84C5V1 | PHILIPS<br>ON SEMICONDUCTOR<br>NXP          |
| XU15                 | 1     | 1200-1590   | SOCKET-IC-PLCC 20-CONT SQUARE J-LEAD        | 3-822516-3                              | TYCO ELECTRONICS AMP                        |

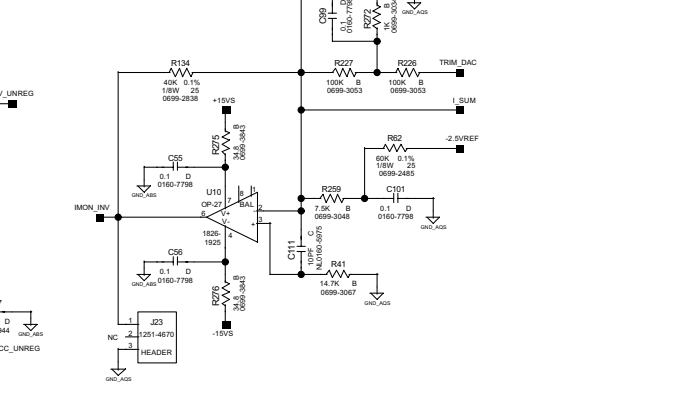
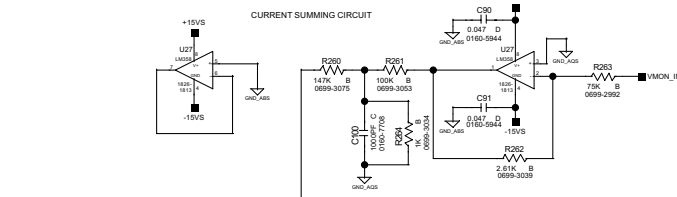
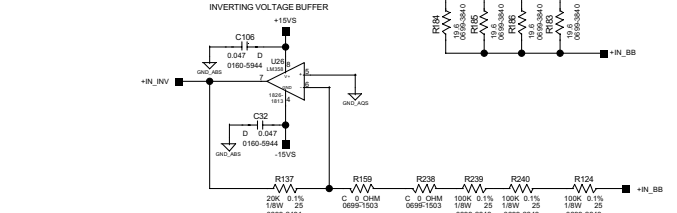
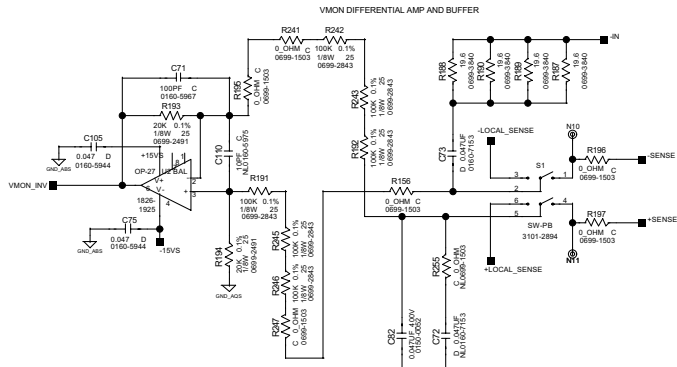
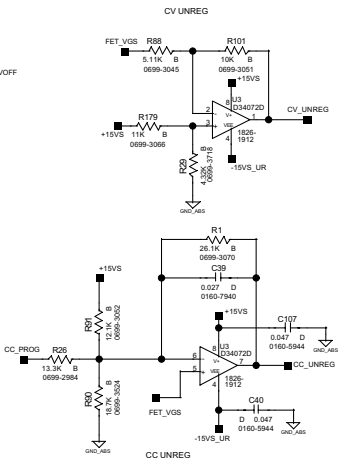
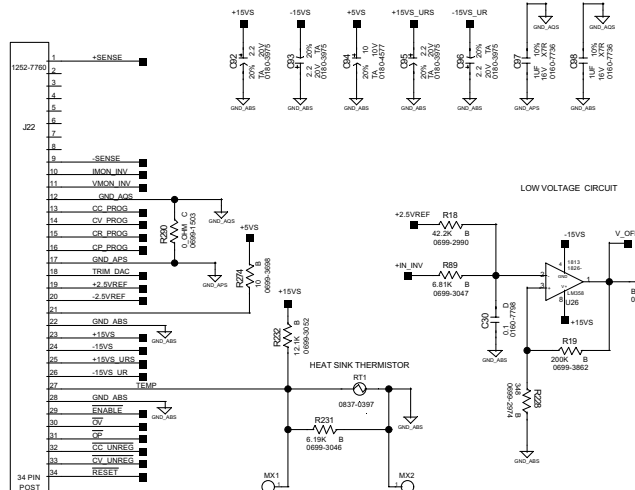
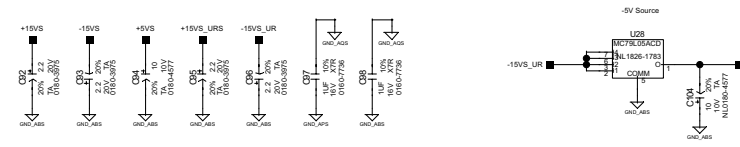
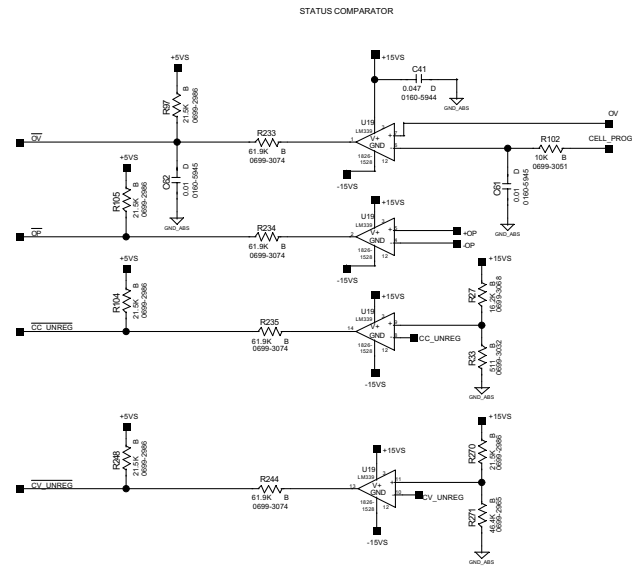


GRAPHICS - TOP SIDE

**NOTE: Magnify to see component reference designators.**

**Agilent N3307A  
250W Electronic Load Module**

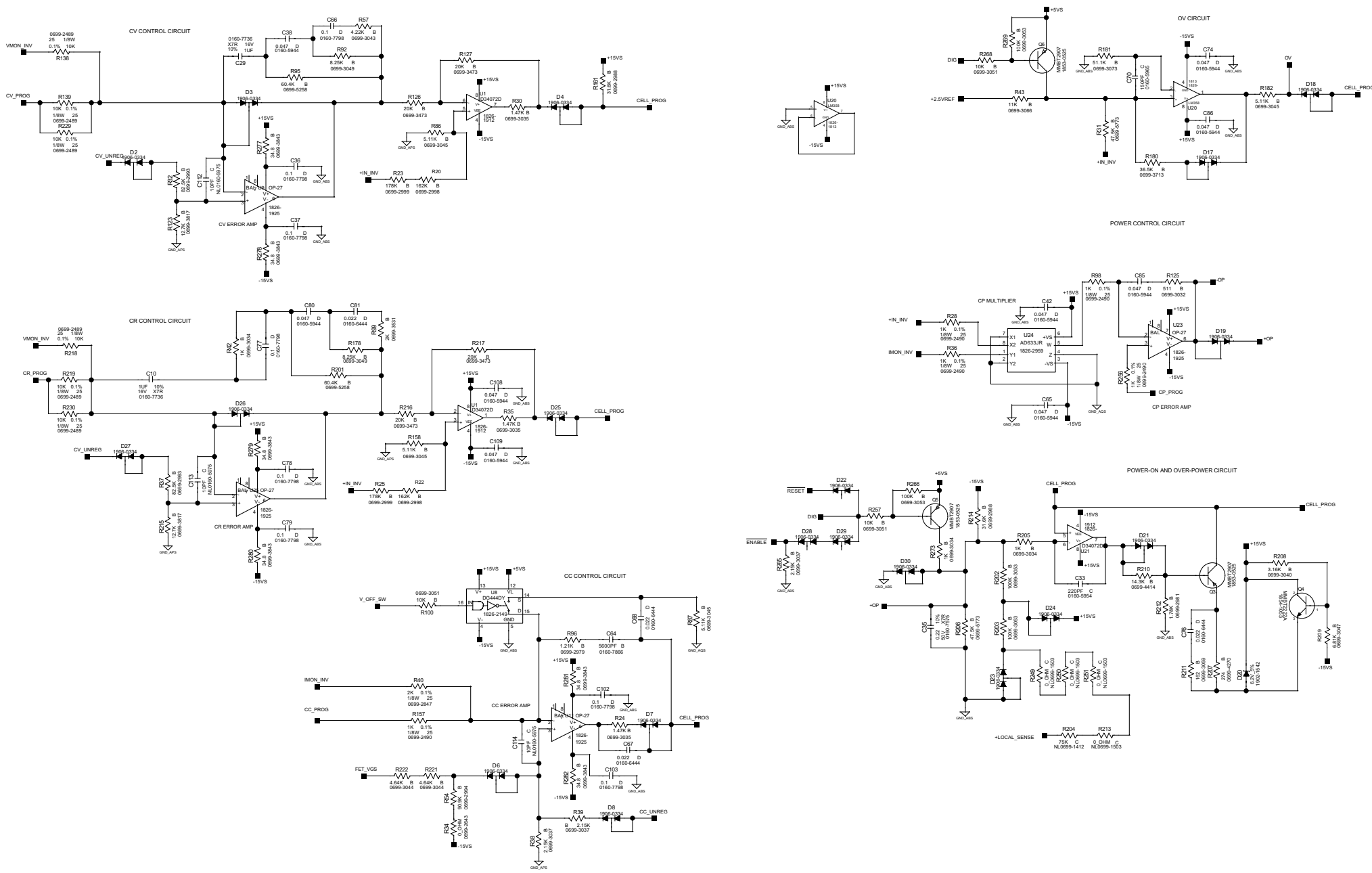
**5065-0615  
250W Power Board PC Assembly  
Component Locator**



Agilent N3307A  
250W Electronic Load Module

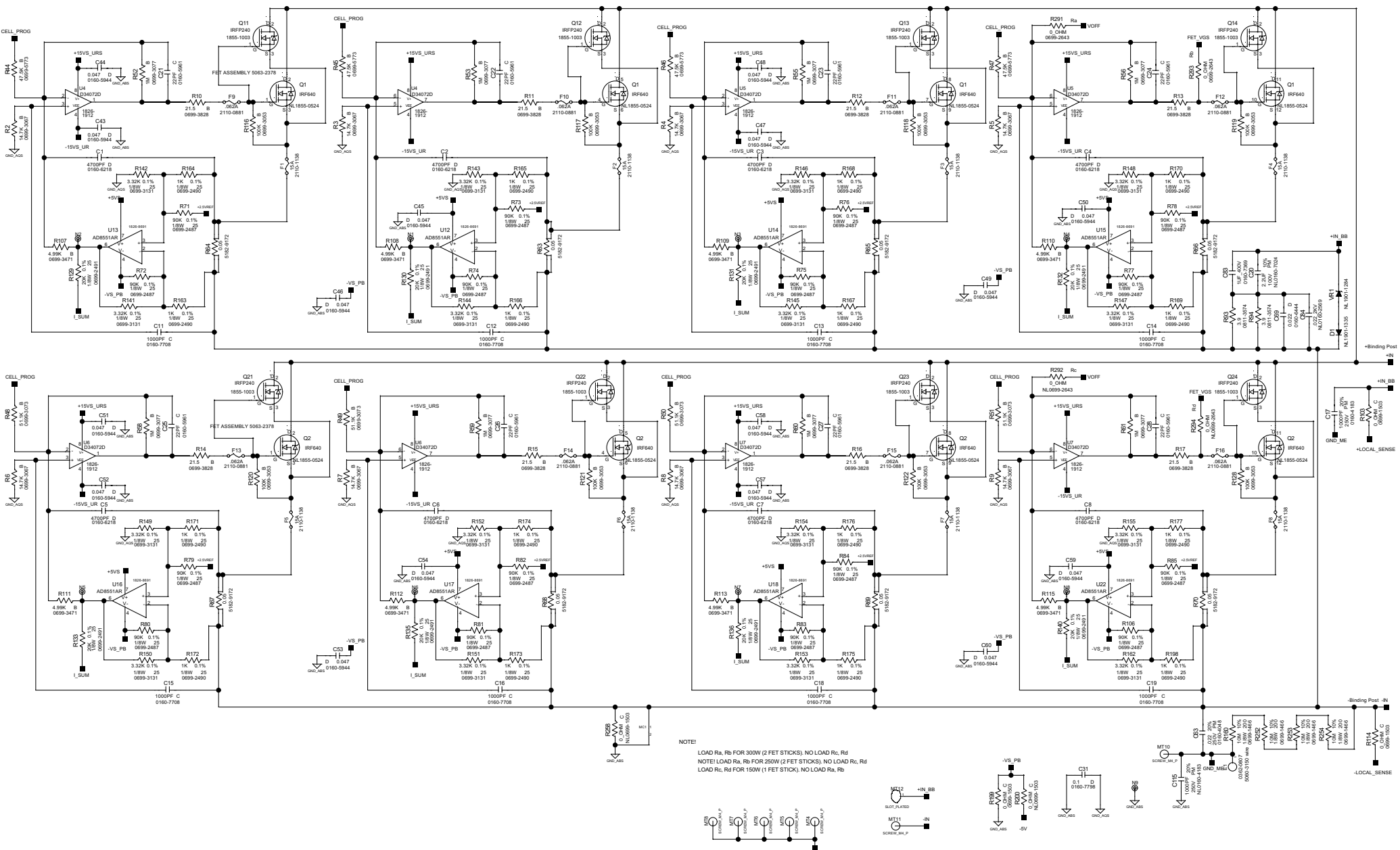
5065-0615  
250W Power Board PC Assembly  
Page 1 of 3



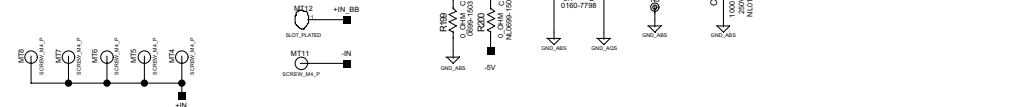


**Agilent N3307A  
250W Electronic Load Module**

**5065-0615  
250W Power Board PC Assembly  
Page 2 of 3**



NOTE!  
 LOAD Ra, Rb FOR 300W (2 FET STICKS), NO LOAD Rc, Rd  
 NOTE! LOAD Ra, Rb FOR 250W (2 FET STICKS), NO LOAD Rc, Rd  
 LOAD Rc, Rd FOR 150W (1 FET STICK), NO LOAD Ra, Rb



## Agilent N3307A 250W Electronic Load Module

5065-0615  
 250W Power Board PC Assembly  
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### 5065-0615 Power Board 250W Parts List

| Reference Designator   | QTY | Agilent P/N | Description                          | MPN   | Manufacturer  |
|--|-----|-------------|--------------------------------------|---|---|
| C1-C8  | 8   | 0160-6218   | CAP-FXD 4700pF +-10pct 50 V CER X7R  | 08055C472KATRA<br>C0805C472K5RAC<br>C2012X7R1H472K<br>GRM216R71H472KA01D                    | AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING           |
| C10, C29, C97, C98   | 4   | 0160-7736   | CAP-FXD 1uF +-10PCT 16 V CER X7R     | 1206YC105KAT<br>C1206C105K4RAC<br>GRM31MR71C105KA01L  | AVX<br>KEMET ELECTRONICS<br>MURATA MANUFACTURING                  |
| C100, C-C16, C18, C19  | 9   | 0160-7708   | CAP-FXD 1000pF +-5pct 50 V CER C0G   | 08055A102JATRA<br>C0805C102J5GAC<br>C2012COG1H102JT   | AVX<br>KEMET ELECTRONICS<br>TDK                                   |
| C30, C31, C36, C37,<br>C55, C56, C66, C77, C78,<br>C79, C99, C101, C102, C103          | 14  | 0160-7798   | CAP-FXD 0.1uF +-10PCT 50V CER X7R    | GRM21BR71H104KA11L<br>VJ0805Y104KXAMT<br>08055C104KAT_A<br>C0805C104K5RAC<br>C2012X7R1H104K | MURATA MANUFACTURING<br>VISHAY<br>AVX<br>KEMET ELECTRONICS<br>TDK |
| C32, C38, C40-C54,<br>C57-C60, C65, C74, C75,<br>C80, C85, C86, C90, C91,<br>C105-C109 | 34  | 0160-5944   | CAP-FXD 0.047uF +-10pct 50 V CER X7R | 08055C473KAT A<br>C0805C473K5RAC<br>C2012X7R1H473K  | AVX<br>KEMET ELECTRONICS<br>TDK                                   |
| C17  | 1   | 0160-4183   | CAP-FXD 1000pF +-20pct 250 V PPR-MET | PME271Y410MR30  | EVOX/RIFA   |
| C21-C28  | 8   | 0160-5961   | CAP-FXD 22pF +-5pct 50 V CER C0G     | 08055A220JAT A<br>C0805C220J5GAC<br>C2012COG1H220J<br>GRM2165C1H220JD01D<br>VJ0805A220JXAMT | AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING<br>VISHAY |
| C33  | 1   | 0160-5954   | CAP-FXD 220pF +-5pct 50 V CER C0G    | 08055A221JAT A<br>223858016605<br>C0805C221J5GAC<br>C2012COG1H221J<br>GRM2165C1H221JA01D    | AVX<br>YAGEO<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING  |
| C35  | 1   | 0160-7575   | CAP-FXD 0.22uF +-10pct 50 V CER X7R  | 12105C224KAT A<br>C1210C224K5RAC  | AVX<br>KEMET ELECTRONICS  |
| C39  | 1   | 0160-7940   | CAP-FXD 0.027uF +-10pct 50 V CER X7R | 08055C273KATA<br>C0805C273K5RAC<br>C2012X7RC273K<br>GRM219R71H273KD01D                      | AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING           |

**5065-0615 Power Board 250W Parts List**

| Reference Designator    | QTY | Agilent P/N | Description                           | MPN   | Manufacturer   |
|-------------------------|-----|-------------|---------------------------------------|---|--|
| C61, C62                | 2   | 0160-5945   | CAP-FXD 0.01uF +-10pct 50 V CER X7R   | 08055C103KAT A<br>223858016627<br>C0805C103K5RAC<br>C2012X7R1H103K<br>GRM216R71H103KA01J<br>VJ0805Y103KXAMT | AVX<br>YAGEO<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING<br>VISHAY |
| C63                     | 1   | 0160-4048   | CAP-FXD 0.022uF +-20PCT 250V PPR-MET  | PME271Y522MR30<br>MP3-Y2 0.022/20/250   | EVOX/RIFA<br>WIMA  |
| C64                     | 1   | 0160-7866   | CAP-FXD 5600pF +-10pct 50 V CER X7R   | 06035C562KAT<br>C0603C562K5RAC<br>C1608X7R1H562K  | AVX<br>KEMET ELECTRONICS<br>TDK  |
| C67, C68, C69, C76, C81 | 5   | 0160-6444   | CAP-FXD 0.022uF +-10pct 50 V CER X7R  | 08055C223KAT<br>C0805C223K5RAC<br>C2012X7R1H223K<br>GRM40X7R223K50  | AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING                    |
| C70                     | 1   | 0160-5965   | CAP-FXD 150pF +-5pct 50 V CER C0G     | 08055A151JAT A<br>C0805C151J5GAC<br>C2012COG1H151J<br>GRM2165C1H151JA01D                                    | AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING                    |
| C71                     | 1   | 0160-5967   | CAP-FXD 100pF +-5pct 50 V CER C0G     | 08055A101JAT A<br>C0805C101J5GAC<br>C2012COG1H101J<br>GRM2165C1H101JA01D<br>VJ0805A101JXAMT                 | AVX<br>KEMET ELECTRONICS<br>TDK<br>MURATA MANUFACTURING<br>VISHAY          |
| C73                     | 1   | 0160-7153   | CAP-FXD 0.047uF +-10pct 100 V CER X7R | C1210C473K1RAC<br>GRM32MR72A473KA15L  | KEMET ELECTRONICS<br>MURATA MANUFACTURING                                  |
| C82                     | 1   | 0150-0052   | CAP-FXD 0.05uF +-20pct 400 V CER Z5U  | 847-005 Z5U 503M<br>565RBA401AW503MA19  | TUSONIX<br>VISHAY  |
| C83                     | 1   | 0160-7369   | CAP-FXD 1uF +-10pct 400 V POLYP-MET   | 5MP-9993K   | ELECTRONIC CONCEPTS  |
| C9                      | 1   | 0160-8006   | CAP-FXD 1200pF +-5pct 50 V CER C0G    | 08055A122JATA<br>C0805C122J5GAC<br>GRM2195C1H122JA01D   | AVX<br>KEMET ELECTRONICS<br>MURATA MANUFACTURING                           |

**5065-0615 Power Board 250W Parts List**

| Reference Designator    | QTY | Agilent P/N | Description                             | MPN   | Manufacturer   |
|-------------------------|-----|-------------|---|---|--|
| C92, C93, C95, C96      | 4   | 0180-3975   | CAP-FXD 2.2uF +-20PCT 20V TA            | TAJB225M020<br>293D225X0020B2E3<br>49MC225B020M0AS<br>ESVB21D225M<br>T491B225M020AS | AVX<br>VISHAY<br>VISHAY BC COMPONENTS<br>NEC ELECTRONICS<br>KEMET ELECTRONICS                  |
| C94                     | 1   | 0180-4577   | CAPACITOR-FIXED 10uF +-20PCT 10V TA     | TAJB106M010R<br>293D106X0010B2E3<br>ESVB21A106M<br>T491B106M010AS                   | AVX<br>VISHAY<br>NEC ELECTRONICS<br>KEMET ELECTRONICS  |
| D2-D8, D17-D19, D21-D30 | 20  | 1906-0334   | DIODE-DUAL 200V 200MA T0-236AA          | MMBD1503A   | FAIRCHILD SEMICONDUCTOR  |
| D20                     | 1   | 1902-1542   | DIODE-ZNR 6.2V 5pct TO-236 (SOT-23)     | BZX84C6V2<br>BZX84C6V2LT1G<br>BZX84C6V2   | PHILIPS<br>ON SEMICONDUCTOR<br>NXP   |
| F1-F8                   | 8   | 2110-1138   | FUSE-SURFACE MOUNT 15A 65V NTD BI       | 0451015. RL   | LITTELFUSE   |
| F9-F16                  | 8   | 2110-0881   | FUSE-SURFACE MOUNT .0625A 125V NTD BI   | 0459.062  | LITTELFUSE   |
| J22                     | 1   | 1252-7760   | CONN-POST TYPE 2.54-PIN-SPCG-MTG-END    | N2534-6002RB  | 3M   |
| J23                     | 1   | 1251-4670   | CONN-HDR VERT 3-PIN 2.54MM 1-ROW        | 68000-103HLF  | FCI FRAMATOME BERG   |
| Q11-Q14, Q21-Q24        | 8   | 1855-1003   | TRANSISTOR MOSFET N-CHAN E-MODE TO-2    | IRFP240PBF  | INTERNATIONAL RECTIFIER  |
| Q3,Q5,Q6                | 3   | 1853-0525   | TRANSISTOR PNP SI TO-236AA PD=200MW     | MMBT2907<br>PMBT2907A<br>MMBT2907ALT1G<br>PMBT2907A                                 | FAIRCHILD SEMICONDUCTOR<br>PHILIPS<br>ON SEMICONDUCTOR<br>NXP                                  |
| Q4                      | 1   | 1854-1053   | TRANSISTOR NPN SI SOT-23 (TO-236AB)     | CMPT2222A<br>MMBT2222A<br>PMBT2222A<br>SST2222A<br>MMBT2222ALT1G<br>PMBT2222A       | CENTRAL SEMICONDUCTOR<br>FAIRCHILD SEMICONDUCTOR<br>PHILIPS<br>ROHM<br>ON SEMICONDUCTOR<br>NXP |
| R1                      | 1   | 0699-3070   | RESISTOR 26.1K +-1pct .1W TKF TC=0+-100 | CRCW080526K1FKE_<br>RK73H2AT_2612F<br>MCR10__F2612<br>232273462613<br>MC08052612-FT | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS   |

### 5065-0615 Power Board 250W Parts List

| Reference Designator  | QTY | Agilent P/N | Description                             | MPN   | Manufacturer  |
|---|-----|-------------|---|---|---|
| R10-R17   | 8   | 0699-3828   | RES-FXD 21.5 OHM +-1PCT 0.1W TC 0+-100  | CRCW080521R5FKE_<br>RK73H2AT__21R5F<br>MCR10__F21R5<br>232273462159L<br>MC080521R5-FT   | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS                          |
| R100-R102, R257, R268   | 5   | 0699-3051   | RESISTOR 10K +-1pct .1W TKF TC 0+-100   | 232273461003L<br>CRCW080510K0FKE_<br>RK73H2AT_1002F<br>MC08051002-FTW<br>MCR10__F1002   | YAGEO<br>VISHAY<br>KOA<br>RCD COMPONENTS<br>ROHM                          |
| R103, R114, R156, R159,<br>R195-R197, R199, R238,<br>R241, R247, R290 | 12  | 0699-1503   | RESISTOR 0 CWM                          | CRCW12060000ZSE_<br>RK73Z2BT<br>MCR18__J000<br>232271191005   | VISHAY<br>KOA<br>ROHM<br>YAGEO  |
| R97, R104, R105, R248,<br>R270  | 5   | 0699-2986   | RESISTOR 21.5K +-1pct .1W TKF TC=0+-100 | CRCW080521K5FKE_<br>RK73H2AT_2152F<br>MCR10__F2152<br>232273462153<br>CR21-2152-FF<br>MC08052152-FT                           | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>ASJ<br>RCD COMPONENTS                   |
| R71-R85, R106   | 16  | 0699-2487   | RESISTOR 90K +-0.1pct .125W TF TC=0+-25 | RN732BT_9002B25<br>BLU-1206 90K .1% 25PPM<br>MCA1206-25 0, 1% P5 90K<br>MCA1206-25 0, 1% P5 90K<br>PCF-W1206LF-03-9002-B-_-_- | KOA<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS |
| R107-R113, R115   | 8   | 0699-3471   | RESISTOR 4.99K +-1pct .1W TKF TC=0+-100 | 2322 734 64992<br>MC08054991-FT<br>CRCW08054K99FKE_<br>RK73H2AT_4991F<br>MCR10__F4991   | YAGEO<br>RCD COMPONENTS<br>VISHAY<br>KOA<br>ROHM                          |
| R116-R122, R128, R202,<br>R203, R226, R227, R261,<br>R266, R269       | 15  | 0699-3053   | RESISTOR 100K +-1pct .1W TKF TC=0+-100  | CRCW0805100KFKE_<br>RK73H2AT_1003F<br>MCR10__F1003<br>232273461004<br>MC08051003-FT   | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS                          |

**5065-0615 Power Board 250W Parts List**

| Reference Designator                                       | QTY | Agilent P/N | Description                               | MPN   | Manufacturer  |
|--|-----|-------------|---|---|---|
| R123, R215   | 2   | 0699-3817   | RESISTOR 12.7K +-1pct .1W TKF TC=0+-100   | CRCW080512K7FKE_<br>RK73H2AT_1272F<br>MCR10___F1272<br>232273461273   | VISHAY<br>KOA<br>ROHM<br>YAGEO  |
| R124, R191, R192, R239,<br>R240, R242, R243, R245,<br>R246 | 9   | 0699-2843   | RESISTOR 100K +-0.1pct .125W TF TC=0+-25  | RN732BT_1003B25<br>BLU-1206 100K .1% 25PPM<br>MCA1206-25 0, 1% P5 100K<br>TNPW12061003BT-9<br>PCF-W1206LF-03-1003-B-_-_-      | KOA<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS |
| R125, R33  | 2   | 0699-3032   | RESISTOR 511 +-1pct .1W TKF TC=0+-100     | CRCW0805511RFKE_<br>RK73H2AT_5110F<br>MCR10___F5110<br>232273465111<br>MC08055110-FT  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS                          |
| R126,R127,R216,R217  | 4   | 0699-3473   | RESISTOR 20K +-1pct .1W TKF TC=0+-100     | CRCW080520K0FKE_<br>RK73H2AT_2002F<br>MCR10___F2002   | VISHAY<br>KOA<br>ROHM   |
| R129-R133, R135-R137,<br>R140, R193, R194                  | 11  | 0699-2491   | RESISTOR 20K +-0.1pct .125W TF TC=0+-25   | RN732BT_2002B25<br>BLU-1206 20K .1% 25PPM<br>MCA1206-25 0, 1% P5 20K<br>MCA1206-25 0, 1% P5 20K<br>PCF-W1206LF-03-2002-B-_-_- | KOA<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS |
| R134   | 1   | 0699-2838   | RESISTOR 40K +-0.1pct .125W TF TC=0+-25   | RN732BT_4002B25<br>BLU-1206 40K .1% 25PPM<br>MCA1206-25 0, 1% P5 40K<br>PTN1206E4002BB<br>PCF-W1206LF-03-4002-B-_-_-          | KOA<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS |
| R138, R139, R218, R219,<br>R229, R230                      | 6   | 0699-2489   | RESISTOR 10K +-0.1pct .125W TF TC=0+-25   | RN732BT_1002B25<br>BLU-1206 10K .1% 25PPM<br>MCA1206-25 0, 1% P5 10K<br>MCA1206-25 0, 1% P5 10K<br>PCF-W1206LF-03-1002-B-_-_- | KOA<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS |
| R141-R155, R162  | 16  | 0699-3131   | RESISTOR 3.32K +-0.1pct .125W TF TC=0+-25 | RN732BT_3321B25<br>BLU-1206 3K32 .1% 25PPM<br>PTN1206E3321BB<br>PCF-W1206LF-03-3321-B-_-_-                                    | KOA<br>RCD COMPONENTS<br>VISHAY<br>TT ELECTRONICS                         |

**5065-0615 Power Board 250W Parts List**

| Reference Designator                          | QTY | Agilent P/N | Description                              | MPN  | Manufacturer  |
|---|-----|-------------|--|--|---|
| R28, R36, R98, R157,<br>R163-R177, R198, R256 | 21  | 0699-2490   | RESISTOR 1K +-0.1pct .125W TF TC=0+-25   | RN732BT_1001B25<br>BLU-1206 1K .1% 25PPM<br>MCA1206-25 0, 1% P5 1K<br>MCA1206-25 0, 1% P5 1K<br>PCF-W1206LF-03-1001-B-_-_- | KOA<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS |
| R158, R182, R86, R87, R88                     | 5   | 0699-3045   | RESISTOR 5.11K +-1pct .1W TKF TC=0+-100  | CRCW08055K11FKE_<br>RK73H2AT_5111F<br>MCR10__F5111<br>232273465112<br>MC08055111-FT  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS                          |
| R160, R252, R253, R254                        | 4   | 0699-1466   | RESISTOR 10M +-10pct .125W TKF TC=0+-200 | CRCW1206106KJNE_<br>RK73B2BT_106J<br>MCR18__K106<br>232271161106   | VISHAY<br>KOA<br>ROHM<br>YAGEO  |
| R161, R214                                    | 2   | 0699-2988   | RESISTOR 31.6K +-1pct .1W TKF TC=0+-100  | CRCW080531K6FKE_<br>RK73H2AT_3162F<br>MCR10__F3162<br>232273463163<br>MC08053162-FT  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS                          |
| R178, R92                                     | 2   | 0699-3049   | RESISTOR 8.25K +-1pct .1W TKF TC=0+-100  | CRCW08058K25FKE_<br>RK73H2AT_8251F<br>MCR10__F8251<br>232273478252<br>MC08058251-FT  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS                          |
| R18   | 1   | 0699-2990   | RESISTOR 42.2K +-1pct .1W TKF TC=0+-100  | CRCW080542K2FKE_<br>2322734_4223<br>RK73H2AT_4222F<br>MCR10__F4222<br>MC08054222-FT  | VISHAY<br>YAGEO<br>KOA<br>ROHM<br>RCD COMPONENTS                          |
| R180  | 1   | 0699-3713   | RESISTOR 36.5K +-1pct .1W TKF TC=0+-100  | RK73H2AT_3652F<br>MCR10__F3652<br>MC08053652-FT  | KOA<br>ROHM<br>RCD COMPONENTS   |



**5065-0615 Power Board 250W Parts List**

| Reference Designator           | QTY | Agilent P/N | Description                             | MPN  | Manufacturer                                     |
|--------------------------------|-----|-------------|---|--|--|
| R181, R48, R49, R50, R51       | 5   | 0699-3073   | RESISTOR 51.1K +-1pct .1W TKF TC=0+-100 | CRCW080551K1FKE_<br>RK73H2AT_5112F<br>MCR10__F5112<br>232273465113<br>MC08055112-FT  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R183-R190                      | 8   | 0699-3840   | RES-FXD 19.6 OHM +-1PCT 0.1W TC 0+-100  | RK73H2AT__19R6F<br>232273461969<br>MCR10__F19R6<br>CRCW080519R6FKE_<br>MC080519R6-FT | KOA<br>YAGEO<br>ROHM<br>VISHAY<br>RCD COMPONENTS |
| R19                            | 1   | 0699-3862   | RESISTOR 200K +-1PCT .1W TKF TC=0+-100  | CRCW0805200KFKE_<br>RK73H2AT_2003F<br>MCR10__F2003<br>232273462004<br>MC08052003-FT  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R2-R9, R41                     | 9   | 0699-3067   | RESISTOR 14.7K +-1pct .1W TKF TC=0+-100 | CRCW080514K7FKE_<br>RK73H2AT_1472F<br>MCR10__F1472<br>232273461473<br>MC08051472-FT  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R20, R22                       | 2   | 0699-2998   | RESISTOR 162K +-1pct .1W TKF TC=0+-100  | CRCW0805162KFKE_<br>RK73H2AT_1623F<br>MCR10__F1623<br>232273461624                   | VISHAY<br>KOA<br>ROHM<br>YAGEO                   |
| R201, R95                      | 2   | 0699-5258   | RESISTOR 60.4K +-1pct .1W TKF TC=0+-100 | ERJ6ENF6042  | MATSUSHITA                                       |
| R205, R264, R272, R273,<br>R42 | 5   | 0699-3034   | RESISTOR 1K +-1pct .1W TKF TC 0+-100    | CRCW08051K00FKE_<br>RK73H2AT_1001F<br>232273461002L<br>MCR10__F1001<br>MC08051001-FT | VISHAY<br>KOA<br>YAGEO<br>ROHM<br>RCD COMPONENTS |
| R206, R31, R44-R47             | 6   | 0699-5773   | RESISTOR 47.5K +-1pct .1W TC=0+-100     | CRCW080547K5FKE_<br>MCR10__F4752   | VISHAY<br>ROHM                                   |

**5065-0615 Power Board 250W Parts List**

| Reference Designator  | QTY | Agilent P/N | Description                                | MPN   | Manufacturer                                     |
|-----------------------|-----|-------------|--|---|--|
| R207                  | 1   | 0699-4270   | RESISTOR 274 +-1pct .1W TKF TC=0+-100      | CRCW0805274RFKE_<br>RK73H2AT_2740F<br>MCR10___F2740<br>232273462741<br>MC08052740-FT  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R208                  | 1   | 0699-3040   | RESISTOR 3.16K +-1pct .1W TKF TC=0+-100    | CRCW08053K16FKE_<br>RK73H2AT_3161F<br>MCR10___F3161<br>232273463162<br>MC08053161-FT  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R209, R89             | 2   | 0699-3047   | RESISTOR 6.81K +-1PCT .1W TKF TC=0+-100    | CRCW08056K81FKE_<br>RK73H2AT_6811F<br>MCR10___F6811<br>232273466812<br>MC08056811-FT  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R21, R223, R224, R225 | 4   | 0699-3012   | RESISTOR 750K +-1pct .1W TKF TC=0+-100     | CRCW0805750KFKE_<br>RK73H2AT_7503F<br>MCR10___F7503<br>232273467504<br>MC08057503-FT  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R210                  | 1   | 0699-4414   | RES-FXD 14.3K +-1PCT 0.125W TC 0+-100 2012 | MCR10___F1432<br>ERJ6ENF1432<br>RK73H2AT___1432F                                      | ROHM<br>MATSUSHITA<br>KOA                        |
| R211                  | 1   | 0699-3059   | RESISTOR 162 +-1pct .1W TKF TC=0+-100      | CRCW0805162RFKE_<br>RK73H2AT_1620F<br>232273461621L<br>MCR10___F1620<br>MC08051620-FT | VISHAY<br>KOA<br>YAGEO<br>ROHM<br>RCD COMPONENTS |
| R212                  | 1   | 0699-2981   | RESISTOR 1.78K +-1pct .1W TKF TC=0+-100    | CRCW08051K78FKE_<br>RK73H2AT_1781F<br>MCR10___F1781<br>232273461782<br>MC08051781-FT  | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |

**5065-0615 Power Board 250W Parts List**

| Reference Designator   | QTY | Agilent P/N | Description                             | MPN   | Manufacturer  |
|------------------------|-----|-------------|---|---|---|
| R221, R222             | 2   | 0699-3044   | RESISTOR 4.64K +-1pct .1W TKF TC=0+-100 | CRCW08054K64FKE_<br>RK73H2AT_4641F<br>232273464642L<br>MCR10__F4641<br>MC08054641-FT                | VISHAY<br>KOA<br>YAGEO<br>ROHM<br>RCD COMPONENTS        |
| R228                   | 1   | 0699-2974   | RESISTOR 348 +-1pct .1W TKF TC=0+-100   | CRCW0805348RFKE_<br>RK73H2AT_3480F<br>MCR10__F3480<br>232273463481                                  | VISHAY<br>KOA<br>ROHM<br>YAGEO                          |
| R23, R25               | 2   | 0699-2999   | RESISTOR 178K +-1pct .1W TKF TC=0+-100  | CRCW0805178KFKE_<br>RK73H2AT_1783F<br>MCR10__F1783<br>232273461784<br>MC08051783-FT                 | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS        |
| R231                   | 1   | 0699-3046   | RESISTOR 6.19K +-1pct .1W TKF TC=0+-100 | CRCW08056K19FKE_<br>RK73H2AT_6191F<br>MCR10__F6191<br>2322734X6192<br>MC08056191-FT                 | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS        |
| R232, R91              | 2   | 0699-3052   | RESISTOR 12.1K +-1pct .1W TKF TC=0+-100 | CRCW080512K1FKE_<br>CR21-1212-FL<br>RK73H2AT_1212F<br>MCR10__F1212<br>232273461213<br>MC08051212-FT | VISHAY<br>ASJ<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R233, R234, R235, R244 | 4   | 0699-3074   | RESISTOR 61.9K +-1pct .1W TKF TC=0+-100 | CRCW080561K9FKE_<br>RK73H2AT_6192F<br>MCR10__F6192<br>232273466193                                  | VISHAY<br>KOA<br>ROHM<br>YAGEO                          |
| R24, R30, R35          | 3   | 0699-3035   | RESISTOR 1.47K +-1pct .1W TKF TC=0+-100 | CRCW08051K47FKE_<br>RK73H2AT_1471F<br>MCR10__F1471<br>232273461472                                  | VISHAY<br>KOA<br>ROHM<br>YAGEO                          |

**5065-0615 Power Board 250W Parts List**

| Reference Designator | QTY | Agilent P/N | Description                             | MPN   | Manufacturer                                     |
|----------------------|-----|-------------|---|---|--|
| R259                 | 1   | 0699-3048   | RESISTOR 7.5K +-1pct .1W TKF TC=0+-100  | CRCW08057K50FKE_<br>RK73H2AT_7501F<br>MCR10__F7501<br>2322734X7502<br>MC08057501-FT | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R26                  | 1   | 0699-2984   | RESISTOR 13.3K +-1pct .1W TKF TC=0+-100 | CRCW080513K3FKE_<br>RK73H2AT_1332F<br>MCR10__F1332<br>232273461333<br>MC08051332-FT | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R260                 | 1   | 0699-3075   | RESISTOR 147K +-1pct .1W TKF TC=0+-100  | CRCW0805147KFKE_<br>RK73H2AT_1473F<br>MCR10__F1473<br>232273461474<br>MC08051473-FT | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R262                 | 1   | 0699-3039   | RESISTOR 2.61K +-1pct .1W TKF TC=0+-100 | CRCW08052K61FKE_<br>RK73H2AT_2611F<br>MCR10__F2611<br>232273462612<br>MC08052611-FT | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R263                 | 1   | 0699-2992   | RESISTOR 75K +-1pct .1W TKF TC=0+-100   | CRCW080575K0FKE_<br>RK73H2AT_7502F<br>MCR10__F7502<br>232273467503<br>MC08057502-FT | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R265, R38, R39       | 3   | 0699-3037   | RESISTOR 2.15K +-1pct .1W TKF TC=0+-100 | CRCW08052K15FKE_<br>RK73H2AT_2151F<br>MCR10__F2151<br>232273462152<br>MC08052151-FT | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |
| R27                  | 1   | 0699-3068   | RESISTOR 16.2K +-1pct .1W TKF TC=0+-100 | CRCW080516K2FKE_<br>RK73H2AT_1622F<br>MCR10__F1622<br>232273461623<br>MC08051622-FT | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS |

**5065-0615 Power Board 250W Parts List**

| Reference Designator | QTY | Agilent P/N | Description                             | MPN  | Manufacturer  |
|----------------------|-----|-------------|---|--|---|
| R271                 | 1   | 0699-2965   | RESISTOR 46.4K +-1pct .1W TKF TC=0+-100 | CRCW080546K4FKE_<br>RK73H2AT_4642F<br>MCR10__F4642<br>232273474643<br>MC08054642-FT        | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS        |
| R274                 | 1   | 0699-3698   | RESISTOR 10 +-1pct .1W TKF TC=0+-100    | CRCW080510R0FKE_<br>RK73H2AT_10R0F<br>MCR10__F10R0<br>MC080510R0-FT                        | VISHAY<br>KOA<br>ROHM<br>RCD COMPONENTS                 |
| R275-R282            | 8   | 0699-3843   | RESISTOR 34.8 +-1pct .1W TKF TC=0+-100  | RK73H2AT_34R8F<br>232273463489L<br>MCR10__F34R8<br>CRW080534R8F<br>MC080534R8-FT           | KOA<br>YAGEO<br>ROHM<br>VISHAY<br>RCD COMPONENTS        |
| R29                  | 1   | 0699-3718   | RESISTOR 4.32K +-1PCT .1W TKF TC=0+-100 | RK73H2AT_4321F<br>MCR10__F4321   | KOA<br>ROHM   |
| R291, R293, R34      | 3   | 0699-2643   | RES-FXD 0 OHM +-5PCT .1W TC 0+-300      | CRCW08050000ZSE_<br>CR21-000-ZL<br>MCR10__J000<br>RK73Z2AT<br>232273091002L<br>ZC0805-TW   | VISHAY<br>ASJ<br>ROHM<br>KOA<br>YAGEO<br>RCD COMPONENTS |
| R32, R37             | 2   | 0699-2993   | RESISTOR 82.5K +-1pct .1W TKF TC=0+-100 | CRCW080582K5FKE_<br>RK73H2AT_8252F<br>MCR10__F8252<br>232273468253<br>MC08058252-FT        | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS        |
| R40                  | 1   | 0699-2847   | RESISTOR 2K +-0.1pct .125W TF TC=0+-25  | RN732BT_2001B25<br>BLU-1206 2K .1% 25PPM<br>TNPW12062001BT-9<br>PCF-W1206LF-03-2001-B-_-_- | KOA<br>RCD COMPONENTS<br>VISHAY<br>TT ELECTRONICS       |
| R43,R179             | 2   | 0699-3066   | RESISTOR 11K +-1pct .1W TKF TC=0+-100   | CRCW080511K0FKE_<br>RK73H2AT_1102F<br>232273461103L<br>MCR10__F1102<br>MC08051102-FT       | VISHAY<br>KOA<br>YAGEO<br>ROHM<br>RCD COMPONENTS        |

**5065-0615 Power Board 250W Parts List**

| Reference Designator           | QTY | Agilent P/N | Description                             | MPN   | Manufacturer  |
|--------------------------------|-----|-------------|---|---|---|
| R52, R53, R55, R56,<br>R58-R61 | 8   | 0699-3077   | RESISTOR 1M +-1pct .1W TKF TC=0+-100    | CRCW08051M00FKE_<br>RK73H2AT_1004F<br>MCR10__F1004<br>232273471005<br>MC08051004-FT   | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS                          |
| R54                            | 1   | 0699-2994   | RESISTOR 90.9K +-1pct .1W TKF TC=0+-100 | CRCW080590K9FKE_<br>RK73H2AT_9092F<br>MCR10__F9092<br>232273469093<br>MC08059092-FT   | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS                          |
| R57                            | 1   | 0699-3043   | RESISTOR 4.22K +-1pct .1W TKF TC=0+-100 | CRCW08054K22FKE_<br>RK73H2AT_4221F<br>MCR10__F4221<br>232273464222<br>MC08054221-FT   | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS                          |
| R62                            | 1   | 0699-2485   | RESISTOR 60K +-0.1pct .125W TF TC=0+-25 | RN732BT_6002B25<br>BLU-1206 60K .1% 25PPM<br>MCA1206-25 0, 1% P5 60K<br>MCA1206-25 0, 1% P5 60K<br>PCF-W1206LF-03-6002-B-_-_- | KOA<br>RCD COMPONENTS<br>VISHAY BC COMPONENTS<br>VISHAY<br>TT ELECTRONICS |
| R63-R70                        | 8   | 5182-9172   | RESISTOR-SHUNT                          |   |   |
| R90                            | 1   | 0699-3524   | RESISTOR 18.7K +-1pct .1W TKF TC=0+-100 | RK73H2AT_1872F<br>MCR10__F1872  | KOA<br>ROHM   |
| R93, R94                       | 2   | 0699-6748   | RESISTOR 3.9 OHM +-5PCT 5W MO TC=0+-100 | RSF3B 3R90-J  | RCD COMPONENTS  |
| R96                            | 1   | 0699-2979   | RESISTOR 1.21K +-1pct .1W TKF TC=0+-100 | CRCW08051K21FKE_<br>RK73H2AT_1211F<br>MCR10__F1211<br>232273461212<br>MC08051211-FT   | VISHAY<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS                          |
| R99                            | 1   | 0699-3531   | RESISTOR 2K +-1pct .1W TKF TC=0+-100    | CRCW08052K00FKE_<br>CR21-2001-FL<br>RK73H2AT_2001F<br>MCR10__F2001<br>232273462002<br>MC08052001-FT                           | VISHAY<br>ASJ<br>KOA<br>ROHM<br>YAGEO<br>RCD COMPONENTS                   |
| RT1                            | 1   | 0837-0397   | THERMISTOR CYL CHIP 10K-OHM             | 135-103LFW-J01  | HONEYWELL   |
| S1                             | 1   | 3101-2894   | SWITCH-PB DPDTALTNG .01A 100 VAC        | F2UEE AU  | ITT INDUSTRIES  |

### 5065-0615 Power Board 250W Parts List

| Reference Designator        | QTY | Agilent P/N | Description                              | MPN                      | Manufacturer                                |
|-----------------------------|-----|-------------|--|--------------------------|---|
| U1, U21, U3, U4, U5, U6, U7 | 7   | 1826-1912   | IC OP AMP H-SLEW-RATE DUAL 8 PIN         | MC34072DR2G              | ON SEMICONDUCTOR                            |
| U10, U11, U2, U23, U25, U9  | 6   | 1826-1925   | IC OP AMP LOW-NOISE SINGLE 8 PIN         | OPA27GU/___E4<br>OP27GSZ | TEXAS INSTRUMENTS<br>ANALOG DEVICES         |
| U12-U18, U22                | 8   | 1826-8691   | IC OP AMP HIGH-CUR DUAL 8 PIN PLSTC-SOIC | AD8551ARZ                | ANALOG DEVICES                              |
| U19                         | 1   | 1826-1775   | IC COMPARATOR LP QUAD 14 PIN PLSTC-SOIC  | LM339AD                  | TEXAS INSTRUMENTS                           |
| U20, U26, U27               | 3   | 1826-1813   | IC OP AMP GP DUAL 8-SOIC                 | LM358D<br>LM358MNOB      | TEXAS INSTRUMENTS<br>NATIONAL SEMICONDUCTOR |
| U24                         | 1   | 1826-2959   | IC MULTIPLIER 4-QUAD SINGLE 8 PIN        | AD633JRZ                 | ANALOG DEVICES                              |
| U8                          | 1   | 1826-2149   | ANALOG SWITCH 4 SPST 16 -P-SOIC          | DG444DY-E3               | VISHAY                                      |

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