

**Linear Technology Corporation**  
**12-PORT IEEE802.3at PSE MOTHER BOARD**

**Bill Of Materials**  
**Demo Bd. #1680B-2**  
9/8/2015

| Item | Qty | Reference                           | Part Description                         | Manufacturer / Part #                | Kit Qty    |
|------|-----|-------------------------------------|--|--------------------------------------|------------|
|      |     |                                     |  | <b>NUMBER OF BOARDS =</b>            | <b>225</b> |
| 1    | 28  | CA1-CA12, CB1-CB12,C6-C9            | CAP., X7R, 1000pF 2000V, 10%, 1808       | TDK, C4520X7R3D102K130KA             | 6300       |
| 2    | 48  | CW1-CW12,CX1-CX12,CY1-CY12,CZ1-CZ12 | CAP., X7R, 0.01uF 100V, 10%, 0805        | AVX, 08051C103KAT2A                  | 10800      |
| 3    | 1   | C1                                  | CAP., Alum., 47uF, 100V H13 size         | Panasonic, EEEFK2A470AQ              | 225        |
| 4    | 3   | C2,C13,C14                          | CAP., X7R, 0.1uF 25V, 10% 0603           | AVX, 06033C104KAT2A                  | 675        |
| 5    | 3   | C3,C11,C12                          | CAP., X7R, 1uF 16V, 10% 0603             | TDK, C1608X7R1C105K                  | 675        |
| 6    | 1   | C4                                  | CAP., X7R, 0.01uF 50V, 10% 0603          | AVX, 06035C103KAT2A                  | 225        |
| 7    | 1   | C5                                  | CAP., X5R, 10uF, 16V, 10% 0805           | AVX, 0805YD106KAT2A                  | 225        |
| 8    | 1   | C10                                 | CAP., X7R, 1uF, 100V, 10% 1210           | AVX, 12101C105KAT2A                  | 225        |
| 9    | 24  | DP1-DP12,DN1-DN12                   | RECTIFIERS,S1B, 100V, SMA-DIODE          | FAIRCHILD, S1B                       | 5400       |
| 10   | 1   | D1                                  | DIODE, ZENER, 6.2V, SOD123               | On Semi., MMSZ4691T1G                | 225        |
| 11   | 2   | D2,D3                               | DIODE, RECTIFIER,5.0A,SMC-DIODE          | DIODES, S5BC-13-F                    | 450        |
| 12   | 2   | D4,D5                               | Voltage Suppressors,1.5SMC62A,SMC-DIODE  | VISHAY, 1.5SMC62A                    | 450        |
| 13   | 1   | D31                                 | DIODE, ZENER, 4.7V, 500MW, SOD123        | DIODES., DDZ9688-7                   | 225        |
| 14   | 17  | E1-E17                              | TESTPOINT, TURRET, .064"                 | MILL-MAX, 2308-2-00-80-00-00-07-0    | 3825       |
| 15   | 9   | E18-E20,E22-E27                     | TESTPOINT, TURRET, .094"                 | MILL-MAX, 2501-2-00-80-00-00-07-0    | 2025       |
| 16   | 2   | F1,F2                               | FUSE, 10A, 154 SERIES                    | Littlefuse, 0154010.DR               | 450        |
| 17   | 1   | J1                                  | CONNECTOR, 2MM BOX SOCKET, 34 PIN        | SAMTEC, MMS-134-02-T-SV              | 225        |
| 18   | 1   | PK                                  | Connector POLARIZATION KEY PIN-J1 PIN 12 | SAMTEC, PK-01-07                     | 225        |
| 19   | 0   | J2                                  | HEADER, POWER,                           | OPT                                  | 0          |
| 20   | 2   | J3,J4                               | CONNECTOR, SS-73100-046, RJ45            | Bel Stewart Connector, SS-73100-046F | 450        |
| 21   | 2   | J5,J6                               | CONNECTOR, HD2X7-079                     | MOLEX, 87831-1420                    | 450        |
| 22   | 2   | J7,J8                               | JACK,BANANA                              | KEYSTONE, 575-4                      | 450        |
| 23   | 13  | LED1-LED13                          | LED, GREEN, LED-ROHM-SML-01              | ROHM, SML-012P8TT86                  | 2925       |
| 24   | 1   | LED14                               | LED, RED, LED-ROHM-SML-01                | ROHM, SML-012V8TT86                  | 225        |
| 25   | 1   | LED15                               | LED, ORANGE, LED-ROHM-SML-01             | ROHM, SML-012D8TT86                  | 225        |
| 26   | 12  | Q1-Q12                              | MOSFET, P-CH, 30V, SOT23                 | VISHAY, Si2343CDS                    | 2700       |
| 27   | 2   | Q13,Q14                             | XTOR, 100V PNP, SOT223                   | ZETEX, ZXTP19100CGTA                 | 450        |
| 28   | 12  | RD1-RD12                            | RES., CHIP, 2M, 1/16W, 5%, 0603          | VISHAY, CRCW06032M00JNEA             | 2700       |
| 29   | 3   | REP1,REP2,R6                        | RES., CHIP, 5.1K, 1/16W, 5%, 0603        | VISHAY CRCW06035K10JNEA              | 675        |
| 30   | 12  | RE1-RE12                            | RES., CHIP, 10M, 1/16W, 5%, 0603         | YAGEO, RC0603FR-0710ML               | 2700       |
| 31   | 12  | RL1-RL12                            | RES., CHIP, 1.5K, 1/16W, 5%, 0603        | VISHAY CRCW06031K50JNEA              | 2700       |
| 32   | 96  | RO1-RO12,RP1-RP12,RQ1-RQ12,RR1-RR12 | RES., CHIP, 75, 1/16W, 5%, 0603          | VISHAY, CRCW060375R0JNEA             | 21600      |
|      |     | RW1-RW12,RX1-RX12,RY1-RY12,RZ1-RZ12 |  |                                      | 0          |
| 33   | 2   | R1,R2                               | RES., CHIP, 470, 1/16W, 5%, 0805         | VISHAY, CRCW0805470RJNEA             | 450        |

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| 34   | 0   | R3,R4,R16,R17         | RES., 0603                        | OPT                               | 0          |
| 35   | 1   | R5                    | RES., CHIP, 100K, 1/8W, 5%, 0805  | VISHAY, CRCW0805100KJNEA          | 225        |
| 36   | 1   | R7                    | RES., CHIP, 20K, 1/4W, 5%, 1206   | VISHAY, CRCW120620K0JNEA          | 225        |
| 37   | 8   | R8-R15                | RES., CHIP, 3.9K, 1/4W, 5%, 1206  | VISHAY, CRCW12063K90JNEA          | 1800       |
| 38   | 2   | R18,R19               | RES., CHIP, 0, 1/16W, 0603        | VISHAY, CRCW06030000Z0EA          | 450        |
| 39   | 2   | R20,R21               | RES., CHIP, 1K, 1/8W, 5%, 0805    | VISHAY, CRCW08051K00JNEA          | 450        |
| 40   | 0   | R22,R23               | RES., 0805                        | OPT                               | 0          |
| 41   | 2   | SW1,SW2               | SWITCH, PUSH BOTTOM               | Würth Elektronik, 434 123 050 816 | 450        |
| 42   | 1   | SW3                   | SWITCH, 219-3MST                  | CTS Electronic, 219-3MST          | 225        |
| 43   | 12  | T1-T12                | TRANSFORMER,SMT,720mA             | Würth Elektronik, 749022017       | 2700       |
| 44   | 1   | U4                    | I.C., EEPROM 2KBIT 400KHz, TSSOP8 | MICROCHIP, 24LC025-I /ST          | 225        |
| 45   | 1   | U5                    | IC., LT1761ES5-3.3, SOT23-5       | LINEAR, LT1761ES5-3.3#TRPBF       | 225        |
| 46   | 7   | MH1-MH7               | STAND-OFF, NYLON 0.75"            | KEystone, 8834(SNAP ON)           | 1575       |
| 46   | 0   | (FOR INVENTORY ONLY). | CABLE ASSY., 8" STRIP             | MMT PRECISION CORP., CA-2440      | 0          |
| 47   | 2   | STENCILS              | STENCILS, TOP AND BOTTOM          | STENCIL, DC1680B-1                | 2          |