

KSZ9031RNX Evaluation-Socket Board Rev 1.1, Schematic Rev 1.1

Bill Of Materials

Revision History

v1.0 08/16/12 BOM for board assembly - unpopulated components are not listed

| Item | Quantity | Reference | Description | Package | Manufacturer / Part Number |
|------|----------|---|---|-------------------------------|---|
| 1 | 2 | C4,C5 | 22pF, 50V 5% COG ceramic | 0603 | |
| 2 | 2 | C102,C106 | 27pF, 50V 5% COG ceramic | 0603 | |
| 3 | 2 | C117,C122 | 470pF, 50V 5% COG ceramic | 0603 | |
| 4 | 15 | C41,C42,C43,C55,C56,C62,C63,C64,C65,C66,C72,C76,C77,C78,C125 | 10nF, 50V 10% X7R ceramic | 0402 | |
| 5 | 1 | C2 | 10nF, 50V 10% X7R ceramic | 0603 | |
| 6 | 1 | C111 | 33nF, 50V 10% X7R ceramic | 0603 | |
| 7 | 2 | C71,C126 | 0.1uF, 25V 10% X5R ceramic | 0402 | |
| 8 | 22 | C1,C7,C9,C11,C15,C40,C54,C61,C75,C88,C89,C94,C95,C104,C105,C107,C109,C110,C116,C119,C121,C124 | 0.1uF, 50V 10% X7R ceramic | 0603 | |
| 9 | 3 | C13,C14,C16 | 0.1uF, 50V 10% X7R ceramic | 0805 | |
| 10 | 13 | C3,C39,C53,C60,C70,C74,C85,C86,C103,C108,C115,C118,C120 | 10uF / 16V Tantalum | B-size | |
| 11 | 1 | C123 | 10uF / 16V Tantalum | C-size | |
| 12 | 7 | C69,C92,C97,C98,C99,C100,C101 | 47uF/16V Tantalum | C-size | |
| 13 | 1 | C93 | 220uF / 16V, straight leads 3.5mm spacing | Al Electrolytic / radial lead | Panasonic EEUF1C221 |
| 14 | 1 | C96 | 1000pF / 2kV, Y5P Ceramic Disc | radial lead | Panasonic ECK-A3D102KBP |
| 15 | 1 | CN1 | USB Connector | thru hole / right-angle | TYCO / AMP 292304-1 |
| 16 | 3 | D1,D2,D8 | LED / 565nm Green | 0805 SMD | Lumex SML-LXT0805GW |
| 17 | 1 | D10 | Tri-color Dual LED (green / red) | 1210 SMD | Dialight 598-8610-207F |
| 18 | 1 | D7 | Switching Diode | SOD-123 | Diodes BAV16W-7-F |
| 19 | 12 | FB1,FB2,FB3,FB4,FB5,FB6,FB10,FB11,FB12,FB13,FB14,FB15 | Ferrite Bead | 1206 | Steward HI1206N101R-10 |
| 20 | 1 | J13 | Power Jack | thru hole | Switchcraft RAPC712X |
| 21 | 12 | JP1,JP2,JP3,JP4,JP9,JP10,JP16,JP19,JP20,JP23,JP26,JP27 | Header 3X1 | thru hole / 0.1" pitch | |
| 22 | 1 | RJ1 | RJ-45 Connector ("traditional jack" cable-to-pin configuration) | thru hole / right-angle | Cherng Weei Technology Corp CAJ-008SH-F-X-B1-N1 |
| 23 | 7 | R17,R18,R140,R141,R142,R143,R145 | 0 Ohm | 0402 | |
| 24 | 1 | R130 | 0 Ohm | 0603 | |
| 25 | 2 | R132,R133 | 27 Ohm 5% | 0805 | |
| 26 | 6 | R14,R16,R136,R137,R138,R139 | 49.9 Ohm 1% | 0402 | |
| 27 | 4 | R90,R91,R92,R93 | 75 Ohm 5% | 0603 | |
| 28 | 3 | R87,R146,R147 | 220 Ohm 5% | 0603 | |
| 29 | 2 | R124,R148 | 470 Ohm 5% | 0603 | |
| 30 | 2 | R149,R150 | 1.00K 1% | 0603 | |
| 31 | 10 | R6,R7,R8,R9,R33,R34,R114,R121,R122,R123 | 1K 5% | 0603 | |
| 32 | 3 | R89,R95,R131 | 1.50K 1% | 0603 | |
| 33 | 1 | R88 | 2.49K 1% | 0603 | |
| 34 | 1 | R96 | 3.92K 1% | 0603 | |
| 35 | 6 | R11,R125,R153,R154,R156,R157 | 4.7K 5% | 0603 | |
| 36 | 1 | R12 | 12.1K 1% | 0603 | |
| 37 | 14 | R1,R2,R3,R4,R5,R24,R25,R113,R117,R118,R126,R127,R128,R129 | 10K 5% | 0603 | |
| 38 | 1 | R155 | 200K 5% | 0603 | |
| 39 | 1 | S1 | Switch (push button) | SMT | Panasonic EVQ-PHV03T |
| 40 | 1 | T1 | Ethernet Transformer | SMT | Pulse Engineering H5007NL |
| 41 | 5 | TP17,TP18,TP19,TP20,TP24 | TestPoint: GND | thru hole / 0.1" pitch | |
| 42 | 1 | TP4 | TestPoint: INT_N | thru hole / 0.1" pitch | |

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|--------------------|----------|-----------|---|--------------|---|
| 43 | 1 | Y1 | 25MHz +/-30ppm | cylinder | Epson CA-301 25.0000M-C:PBFREE / Digikey SER3441-ND |
| 44 | 1 | Y2 | 6MHz +/-50ppm | cylinder | CSA309-6.000MABJ-UB |
| 45 | 1 | Q2 | P-channel MOSFET (Pb-free) | SOT-223 | Fairchild FDT434P |
| 46 | 1 | U8 | USB UART/FIFO I.C. | 48-LQFP | FTDI FT2232D |
| 47 | 1 | U13 | Dual Bidirectional Voltage Level Translator | US8, 8-VSSOP | TI PCA9306DCUR |
| 48 | 14 | | Jumper Block (for 0.1" pitch headers) | | |
| Micrel Components: | | | | | |
| 49 | 1 | U1 | KSZ9031RNX | 48-QFN | Micrel KSZ9031RNX |
| 50 | 1 | U5 | 1.2V LDO Regulator (Adj.) | 5-pin S-PAK | Micrel MIC49150WR |
| 51 | 1 | U7 | 3.3V LDO Regulator (Adj.) | TO-263-5 | Micrel MIC29302WU |
| 52 | 1 | U9 | 5.0V LDO Regulator (Fixed) | 5-Pin SOT-23 | Micrel MIC5207-5.0YM5 |
| 53 | 1 | U10 | 2.5V LDO Regulator (Adj.) | 5-Pin SOT-23 | Micrel MIC5207YM5 |