

Xilinx® Spartan®-6 FPGA LX9 MicroBoard

| # | Quantity | Designator | Description | Preferred Part Number | Footprint | Notes |
|----|----------|--|---|-------------------------|------------------------|-------|
| | | | 200011-11011 | | | |
| 1 | 34 | C1, C2, C9, C12, C18, C19, C24, C25, C27, C34, C42, C45, C49, C53, C56, C58, C66, C68, C70, C71, C72, C73, C74, C75, C76, C83, C85, C86, C87, C90, C91, C92, C94, C97 | Ceramic Chip Capacitor 0402 2.2uF 6.3V 20% X5R | TY RM JMK105 BJ225MV-F | CAPC.0402 | |
| 2 | 1 | C3 | Ceramic Chip Capacitor 0201 0.22uF 6.3V 20% X5R | TY JMK063BJ224MP-F | CAPC.0201 | DNP |
| _ | | 00 | Octamio omp oapaoloi 0201 0.22ai 0.04 2070 Note | T T GIVINGOODGEE-HVII T | 0/11 0.0201 | DIVI |
| 3 | 48 | C4, C5, C7, C8, C13, C14, C15, C16, C17, C20, C26, C28, C29, C30, C31, C35, C36, C37, C38, C39, C40, C41, C48, C50, C51, C52, C57, C59, C60, C61, C62, C63, C64, C67, C89, C77, C78, C79, C80, C61, C62, C63, C64, C67, C69, C77, C78, C79, C80, C81, C84, C88, C95, C98 | Ceramic Chip Capacitor 0201 0.22uF 6.3V 20% X5R | TY JMK063BJ224MP-F | CAPC.0201 | |
| 4 | 7 | C6, C21, C22, C23, C55, C82, C96 | Ceramic Chip Capacitor 1206 100uF 6.3V 20% X5R | MUR GRM31CR60J107ME39L | CAPC.1206 | |
| 5 | 2 | C10, C11 | Cap 15pF 50VDC C0G 5% SMD 0402 | AVX 04025A150JAT2A | CAPC.0402 | |
| 6 | 2 | C32, C33 | Ceramic Chip Capacitor 0402 27pF 25V 10% COG | AVX 04023A270KAT2A | CAPC.0402 | |
| 7 | 4 | C54, C65, C89, C93 | Ceramic Chip Capacitor 0402 2.2uF 6.3V 20% X5R | 'TY RM JMK105 BJ225MV-F | CAPC.0402 | DNP |
| 8 | 1 | D1 | Blue LED Vf=2.7V 0603 SMD | LTP LTST-C193TBKT-5A | LED_LITE-LTST-C191TBKT | |
| 9 | 4 | D2, D3, D9, D10 | LED, Red, LTST-C190CKT, 0603 | LTP LTST-C190CKT | LED_LITE-LTST-C191TBKT | |
| 10 | 4 | D4, D5, D12, D15 | Polymer ESD 0402 | TE PESD0402-140 | RESC.0402 | |
| 11 | 1 | D6 | Yellow LED | LTP LTST-C190YKT | LED_LITE-LTST-C191TBKT | |
| 12 | 1 | D7 | Green LED | LTP LTST-C190GKT | LED_LITE-LTST-C191TBKT | |
| 13 | 1 | D8 | Silicon Switching Diode for High-Speed Switching | INF BAS16 | SOT-23 | |
| 14 | 2 | D11, D14 | PolyZen Polymer Protected Zener Diode 5.6V 1.3A | TE ZEN056V130A24LS | PolyZen | |
| 15 | 2 | D13, D16 | DFLS130L-7 in a PowerDI_123 Vf=.3 | Diodes Inc. DFLS130L-7 | PowerDI_123 | |
| 16 | 1 | FB1 | Chip Ferrite Bead 0603 75 ohm, 300mA | MUR BLM18BA750SN1D | FBC.0603 | |
| 17 | 3 | G1, G2, TP1 | Test Pad | N/A | TP | |
| 18 | 1 | J1 | RJ45 10/100 , Integrated Magnetics, G/Y LEDs | AMP 5-1840406-8 | PULSE_J0006D21BNL | |
| 19 | 1 | J2 | 0.1" 0.230"post 2-Pin Header, Surface Mount | SAT TSM-102-01-L-SV | CON_SAM-TSM-102-SV | DNP |
| 20 | 1 | J3 | CONN RCPT MICRO USB TYPE AB RA | TYCO 1981584-1 | USB_AB_1981584 | |
| 21 | 2 | J4, J5 | Conn Socket Strip RCP 12 POS 2.54mm Solder ST SMD | TYCO 5-147105-6 | 2.54x2.54_12POS_SMT | |
| 22 | 1 | J6 | 2.0mm 7x2 shrouded header | MLX 87832-1420 | CON_MLX-87332-1420 | |
| 23 | 2 | L1, L2 | INDUCTOR CER ML 2.2UH 600MA 0805 | MUR LQM21PN2R2MC0D | CAPC.0805 | |
| 24 | 1 | P1 | Connector Type A USB RA SMT | TE 1734080 | USB_A_RA | |
| 25 | 9 | R1, R4, R20, R21, R32, R36, | Chip Resistor 0402 4K87 1/16W | DAL CRCW04024K87FKED | RESC.0402 | |
| 26 | 4 | R2, R10, R16, R27 | Chip Resistor 0402 300R 1/16W, Chip Resistor 0402 300R 1/16W 1% | DAL CRCW0402300RJNED | RESC.0402 | |
| 27 | 2 | R3, R5 | Chip Resistor 0402 100R 1/16W 5% | DAL CRCW0402100RJNED | RESC.0402 | |
| 28 | 1 | R6 | Chip Resistor 0402 1.50K 1/16W 1% | DAL CRCW04021K50FKED | RESC.0402 | |
| 29 | 6 | R7, R9, R12, R13, R14, R22 | Chip Resistor 0402 22.1R 1/16W | DAL CRCW040222R1FKED | RESC.0402 | |
| 30 | 13 | R8, R24, R25, R26, R28, R29, R30, R31, R34, R35, R37, R38, R39 | Chip Resistor 0402 0R0 1/16W | DAL CRCW04020000Z0ED | RESC.0402 | |
| 31 | 1 | R11 | Chip Resistor 0402 681R 1/16W | DAL CRCW0402681RFKED | RESC.0402 | |
| 32 | 2 | R15, R17 | Chip Resistor 0402 100K 1/16W 1% | DAL CRCW0402100KFKED | RESC.0402 | |
| 33 | 3 | R18, R19, R40 | Chip Resistor 0402 4K87 1/16W | DAL CRCW04024K87FKED | RESC.0402 | DNP |
| 34 | 1 | R23 | Chip Resistor 0402 22.1R 1/16W | DAL CRCW040222R1FKED | RESC.0402 | DNP |
| 35 | 1 | R33 | Chip Resistor 0402 0R0 1/16W | DAL CRCW04020000Z0ED | RESC.0402 | DNP |
| 36 | 1 | RP1 | 4-Resistor Array 3.2x1.6mm Not Populated | Bourns CAY16-472J4LF | RPAK4\LCC | DNP |
| 37 | 1 | RP2 | 4-Resistor Array 3.2x1.6mm 49.9 ohm | BNS CAT16-49R9F4LF | RPAK4\LCC | |
| 38 | 1 | RP3 | 4-Resistor Array 3.2x1.6mm | Bourns CAY16-472J4LF | RPAK4\LCC | |
| 39 | 1 | SW1 | 4CH SMT DIP SW | TE 1571983-4 | 4CH SMT DIP SW | |
| 40 | 2 | SW4, SW5 | SW_PB_SPST_4POS_SMT | TYCO 8-1437565-0 | SW_PB_SPST_4POS_SMT | |

| 41 | 1 | U1 | Programmable 1-PLL VCXO Clock Synthesizer | CDCE913PW | TSSOP65P640X120-14N | |
|----|---|----------|---|---|-------------------------|-----|
| 42 | 1 | U2 | 128Mbit SPI NOR in SO8W | NUM N25Q128A13BSE40F | SO8W | |
| 43 | 1 | U3 | USB to JTAG controller | ATL ATMEGA16U2-MUR | QFN50P500X500X100-32N | |
| 44 | 1 | U4 | Xilinx Spartan-6 FPGA, CS324 BGA, speed-grade 2 | XLX XC6SLX9-2CSG324 | CSG324 | |
| 45 | 1 | U5 | 512Mb 32M x 16 Mobile Low-Power DDR SDRAM | MIC MT46H32M16LFBF-5 IT:C | VFBGA-60 | |
| 46 | 1 | U6 | Single Port 10/100 Ethernet Transceiver | NSC DP83848jSQ/NOPB | QFN127P600-8N | |
| 47 | 1 | U7 | Pow Man Unit w/2 .4A Step-Down & 2 LDO | TI TPS65708YZH | BGA16C50P4X4_230X230X62 | |
| 48 | 1 | U8 | Single-Chip USB to UART Bridge | SLL CP2102-GM | QUAD-MLP28 | |
| 49 | 1 | X1 | Crystal 27MHz 12pF 50 Ohm 2-Pin HC-49/US | Kyocera HC49SFWB27000H | XTAL_M5032X10N | |
| 50 | 1 | X2 | CRYSTAL 8.0 MHZ 20PF SMD | FOX FQ7050B-8.000 | FOX FQ7050 | |
| 51 | 1 | Х3 | XTAL 3.2 x 2.5mm Body, pins 1 & 3 connect, 18pF, Ftolerance = 20ppm | FOX FX325BS-25.000MHZ (Order # 603-25-13) | XTAL3225 | |
| 52 | 1 | X4 | Low-Cost Fixed-Frequency EconOscillator | MAX DS1088LU-66+ | uSOP8 | DNP |
| 53 | 1 | PCB | S6MB-LX9 RevB PCB | SB-S6MB-LX9-PCB-B | | |
| 54 | 1 | BAG | Anti-static Bag 2"x4" minimum | N/A | | |
| 55 | 1 | LABEL-BC | White exterior Label for Serial Num and Part Num (~2"x3") | N/A | | |
| 56 | 1 | LABEL-SN | Small for Serial number only, placed directly on finished PCB | N/A | - | |