

ISE4040 REV E2 Bill of Materials

| Item # | Designator | Quantity | Value | PartNumber | Manufacturer | Description | PackageReference |
|--------|--|----------|--------|--------------------|-----------------------------|---|--|
| 1 | IPCB | 1 | | ISE4040 | Any | Printed Circuit Board | |
| 2 | C1, C3 | 2 | 0.1uF | 06033C104JAT2A | AVX | CAP, CERM, 0.1 µF, 25 V, +/- 5%, X7R, 0603 | 0603 |
| 3 | C2, C4, C5 | 3 | 100uF | C1210C107M8PACTU | Würth Elektronik | CAP, CERM, 100 µF, 10 V, +/- 20%, X5R, 1210 | 1210 |
| 4 | C6, C7, C8, C9, C10, C11, C12, C13, C20, C23, C35, C36, C39, C42 | 14 | 0.1uF | GRM155R71C104KA88D | MuRata | CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402 | 0402 |
| 5 | C14 | 1 | 2.2uF | C0805C225K8RACTU | Kemet | CAP, CERM, 2.2 µF, 10 V, +/- 10%, X7R, 0805 | 0805 |
| 6 | C15 | 1 | 1uF | GRM188R71C105KA12D | MuRata | CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, 0603 | 0603 |
| 7 | C18 | 1 | 1pF | GRM1555C1H1R0BA01D | MuRata | CAP, CERM, 1 pF, 50 V, +/- 10%, C0G/NP0, 0402 | 0402 |
| 8 | C21, C22 | 2 | 24pF | GRM1555C1H240JA01D | MuRata | CAP, CERM, 24 pF, 50 V, +/- 5%, C0G/NP0, 0402 | 0402 |
| 9 | C33, C34 | 2 | 20pF | GRM1885C1H200JA01D | MuRata | CAP, CERM, 20 pF, 50 V, +/- 5%, C0G/NP0, 0603 | 0603 |
| 10 | C38, C40 | 2 | 4.7uF | GRM155R60J475ME87D | MuRata | CAP, CERM, 4.7 µF, 6.3 V, +/- 20%, X5R, 0402 | 0402 |
| 11 | C41 | 1 | 4700pF | C1005X7R1E472K | TDK | CAP, CERM, 4700 pF, 25 V, +/- 10%, X7R, 0402 | 0402 |
| 12 | D1 | 1 | 5V | SMAJ5.0CA | Littelfuse | Diode, TVS, Bi, 5 V, 400 W, SMA | SMA |
| 13 | D4, D6, D7, D8, D9, D10, D11, D12, D13, D15, D16 | 11 | | TPD1E10B06DPYR | Texas Instruments | ESD in 0402 Package with 10 pF Capacitance and 6 V Breakdown, 1 Channel, -40 to +125 degC, 2-pin X2SON (DPY), Green (RoHS & no Sb/Br) | DPY0002A |
| 14 | D5 | 1 | Green | LG L29K-G2J1-24-Z | OSRAM | LED, Green, SMD | 1.7x0.65x0.8mm |
| 15 | D14 | 1 | 24V | NUP2105LT1G | ON Semiconductor | Diode, TVS, Bi, 24 V, 350 W, SOT-23 | SOT-23 |
| 16 | E1 | 1 | | AH316M245001-T | Taiyo Yuden | ANT BLUETOOTH W-LAN ZIGBEE WIMAX, SMD | 3.2x1.6mm |
| 17 | H1, H2, H3, H4 | 4 | | NY PMS 440 0025 PH | B&F Fastener Supply | Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead | Screw |
| 18 | H5, H6, H7, H8 | 4 | | 1902C | Keystone | Standoff, Hex, 0.5"L #4-40 Nylon | Standoff |
| 19 | J1 | 1 | | 0473460001 | Molex | Connector, Receptacle, Micro-USB Type B, R/A, Bottom Mount SMT | 7.5x2.45x5mm |
| 20 | J2 | 1 | | 90120-0122 | Molex | Header, 100mil, 2x1, Tin, TH | Header 2x1 |
| 21 | J3 | 1 | | PEC07DAAN | Sullins Connector Solutions | Header, 100mil, 7x2, Tin, TH | Header, 7x2, 100mil, Tin |
| 22 | J4 | 1 | | MM8030-2610RJ3 | MuRata | Coaxial Connectors with Switch, 50 Ohm, SMD | Coaxial Connector with Switch |
| 23 | J5, J10 | 2 | 1x3 | PBC03SAAN | Sullins Connector Solutions | Header, 100mil, 3x1, Gold, TH | PBC03SAAN |
| 24 | J8 | 1 | | 9651627813 | Harting | D-Sub-9, 11Pos, Female, TH | D-Sub-9, 2rows, Male, TH |
| 25 | J11 | 1 | | PBC02SAAN | Sullins Connector Solutions | Header, 100mil, 2x1, Gold, TH | Sullins 100mil, 1x2, 230 mil above insulator |
| 26 | L4 | 1 | 3.6nH | LQP15MN3N6B02D | MuRata | Inductor, Film, 3.6 nH, 0.17 A, 0.5 ohm, SMD | SMD, 2-Leads, Body 1.1x0.6mm |
| 27 | R1 | 1 | 0 | CRCW20100000Z0EF | Vishay-Dale | RES, 0, 5%, 0.75 W, 2010 | 2010 |
| 28 | R2, R12, R14, R15, R17 | 5 | 0 | CRCW04020000Z0ED | Vishay-Dale | RES, 0, 5%, 0.063 W, 0402 | 0402 |
| 29 | R11 | 1 | 10.0k | CRCW040210K0FKED | Vishay-Dale | RES, 10.0 k, 1%, 0.063 W, 0402 | 0402 |
| 30 | R16 | 1 | 200k | CRCW0402200KFKED | Vishay-Dale | RES, 200 k, 1%, 0.063 W, 0402 | 0402 |
| 31 | R18, R19 | 2 | 60.4 | CRCW060360R4FKEA | Vishay-Dale | RES, 60.4, 1%, 0.1 W, 0603 | 0603 |
| 32 | R20, R22, R23, R25, R26, R30 | 6 | 100k | CRCW0402100KFKED | Vishay-Dale | RES, 100 k, 1%, 0.063 W, 0402 | 0402 |
| 33 | R21 | 1 | 402 | CRCW0402402RFBED | Vishay-Dale | RES, 402, 1%, 0.063 W, 0402 | 0402 |
| 34 | R27 | 1 | 2.67k | CRCW04022K67FKED | Vishay-Dale | RES, 2.67 k, 1%, 0.063 W, 0402 | 0402 |
| 35 | R28 | 1 | 270 | CRCW0402270RJNED | Vishay-Dale | RES, 270, 5%, 0.063 W, 0402 | 0402 |
| 36 | S1, S2 | 2 | | B3U-1000P | Omron Electronic Component | SWITCH TACTILE SPST-NO 0.05A 12V | 3x1.6x2.5mm |

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|--------|------------------|----------|-------|----------------------------|----------------------|---|--------------------------------------|
| 37 | SH-J2, SH-J11 | 2 | 1x2 | 2SN-BK-G | Samtec | Shunt, 2mm, Gold plated, Black | 2mm Shunt, Closed Top |
| 38 | TP1, TP2, TP3 | 3 | Red | 5000 | Keystone | Test Point, Miniature, Red, TH | Red Miniature Testpoint |
| 39 | TP4, TP5 | 2 | Grey | 5128 | Keystone | Test Point, Multipurpose, Grey, TH | Grey Multipurpose Testpoint |
| 40 | U1 | 1 | | TLV1117LV33DCYR | Texas Instruments | Single Output LDO, 1 A, Fixed 3.3 V Output, 2 to 5.5 V Input, 4-pin SOT-223 (DCY), -40 to 125 degC, Green (RoHS & no Sb/Br) | DCY0004A |
| 41 | U2 | 1 | | TPD2E2U06DRL | Texas Instruments | DUAL CHANNEL HIGH SPEED ESD PROTECTION DEVICE, DRL0005A | DRL0005A |
| 42 | U3 | 1 | | TM4C123GH6PMI7R | Texas Instruments | Tiva C Series Microcontroller, PM0064A | PM0064A |
| 43 | U4 | 1 | | CC3100MODR11MAMOBR | Texas Instruments | SimpleLink™ Certified Wi-Fi® Network Processor Internet-of-Things Module Solution for MCU Applications, MOB0063A | MOB0063A |
| 44 | U5 | 1 | | SN65HVD256D | Texas Instruments | CAN Transceiver with Fast Loop Times for Highly Loaded Networks, 85 mA, 5 V, -40 to 125 degC, 8-pin SOIC (D), Green (RoHS & no Sb/Br) | D0008A |
| 45 | Y1 | 1 | | NX3215SA-32.768K-STD-MUA-8 | NDK | Crystal, 32.768kHz, 12.5pF, SMD | 2-SMD |
| 46 | Y2 | 1 | | ABM3-16.000MHZ-D2Y-T | Abracon Corportation | Crystal, 16 MHz, 18 pF, SMD | ABM3 |
| 47 | C17 | 0 | 10pF | GRM1555C1H100JA01D | MuRata | CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0402 | 0402 |
| 48 | C19 | 0 | 1pF | GRM1555C1H1R0BA01D | MuRata | CAP, CERM, 1 pF, 50 V, +/- 10%, C0G/NP0, 0402 | 0402 |
| 49 | FID1, FID2, FID3 | 0 | | N/A | N/A | Fiducial mark. There is nothing to buy or mount. | Fiducial |
| 50 | J6 | 0 | | 5-1814832-1 | TE Connectivity | SMA Straight PCB Socket Die Cast, 50 Ohm, TH | SMA Straight PCB Socket Die Cast, TH |
| 51 | L3 | 0 | 3.6nH | LQG15HS3N6S02D | MuRata | Inductor, Multilayer, Air Core, 3.6 nH, 0.3 A, 0.18 ohm, SMD | 0402 polarized |
| 52 | R13 | 0 | 0 | CRCW04020000Z0ED | Vishay-Dale | RES, 0, 5%, 0.063 W, 0402 | 0402 |
| 53 | R24, R29 | 0 | 100k | CRCW0402100KFKED | Vishay-Dale | RES, 100 k, 1%, 0.063 W, 0402 | 0402 |

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