

TIDA-00365 REV E1 Bill of Materials



| Item # | Designator | Quantity | Value | PartNumber | Manufacturer | Description | PackageReference |
|--------|---|----------|--------|---------------------|-------------------|---|------------------------------------|
| 1 | IPC8 | 1 | | TIDA-00365 | Any | Printed Circuit Board | |
| 2 | 3.3V, 12V | 2 | Green | 150060GS75000 | Wurth Elektronik | LED, Green, SMD | LED_0603 |
| 3 | C1, C6, C40, C50, C57 | 5 | 0.1uF | C1005X7R1E104M050B8 | TDK | CAP, CERM, 0.1 uF, 25 V, +/- 20%, X7R, 0402 | 0402 |
| 4 | C2, C9 | 2 | 0.01uF | 885012205031 | Wurth Elektronik | CAP, CERM, 0.01 uF, 16 V, +/- 10%, X7R, 0402 | 0402 |
| 5 | C3 | 1 | 0.1uF | 885012205044 | Wurth Elektronik | CAP, CERM, 1000 pF, 25 V, +/- 10%, X7R, 0402 | 0402 |
| 6 | C4, C8 | 2 | 1uF | 885012106017 | Wurth Elektronik | CAP, CERM, 1 uF, 16 V, +/- 20%, X5R, 0603 | 0603 |
| 7 | C5, C17 | 2 | 100uF | 860040875005 | Wurth Elektronik | CAP, AL, 100 uF, 100 V, +/- 20%, 0.2 ohm, TH | D10xL25mm |
| 8 | C7 | 1 | 4700pF | GRM156R72A472KA01D | MuRata | CAP, CERM, 4700 pF, 100 V, +/- 10%, X7R, 0402 | 0402 |
| 9 | C10, C13, C33, C66, C67, C68, C69, C70, C71, C72, C73 | 11 | 100pF | CC0402KRX7R9B8101 | Yageo America | CAP, CERM, 100 pF, 50 V, +/- 10%, X7R, 0402 | 0402 |
| 10 | C11, C14 | 2 | 1uF | C2012X7S2A105K125AB | TDK | CAP, CERM, 1 uF, 100 V, +/- 10%, X7S, 0805 | 0805 |
| 11 | C12, C21 | 2 | 0.01uF | 06031C103KA72A | AVX | CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603 | 0603 |
| 12 | C15, C16, C26, C32 | 4 | 3.3uF | C3216X7S2A335M160AB | TDK | CAP, CERM, 3.3 uF, 100 V, +/- 20%, X7S, 1206, 190 | 1206, 190 |
| 13 | C19, C20 | 2 | 0.1uF | C2012X7R2A104K125AA | TDK | CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0805 | 0805 |
| 14 | C22, C23, C25 | 3 | 100pF | 885012205055 | Wurth Elektronik | CAP, CERM, 100 pF, 50 V, +/- 10%, X7R, 0402 | 0402 |
| 15 | C27, C28, C51, C52 | 4 | 2200pF | 06031C222JAT2A | AVX | CAP, CERM, 2200 pF, 100 V, +/- 5%, X7R, 0603 | 0603 |
| 16 | C29, C64 | 2 | 4.7uF | GRM188R61E479KE11D | MuRata | CAP, CERM, 4.7 uF, 25 V, +/- 10%, X5R, 0603 | 0603 |
| 17 | C34, C39, C62 | 3 | 1uF | C1608X5R1C105K | TDK | CAP, CERM, 1 uF, 16 V, +/- 10%, X5R, 0603 | 0603 |
| 18 | C36 | 1 | 3300pF | GRM188R72A332KA01D | MuRata | CAP, CERM, 3300 pF, 100 V, +/- 10%, X7R, 0603 | 0603 |
| 19 | C37 | 1 | 0.1uF | GRM188R72A104K435D | MuRata | CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0603 | 0603 |
| 20 | C41 | 1 | 1000pF | 885012205044 | Wurth Elektronik | CAP, CERM, 1000 pF, 25 V, +/- 10%, X7R, 0402 | 0402 |
| 21 | CLR, FLT | 1 | | TL101SAF160CG | E-Switch | Switch, Tactile, SPST-NO, 0.05A, 12V, SMT | Switch, 4.4x2x2.9 mm |
| 22 | D1 | 1 | 75V | BAV99W-Z-F | Diodes Inc. | Diode, Switching, 75 V, 0.15 A, SOT-323 | SOT-323 |
| 23 | D3, D4, D5, D8, D13 | 5 | 100V | BA5316.115 | NXP Semiconductor | Diode, Ultrafast, 100 V, 0.25 A, SOD-323 | SOD-323 |
| 24 | D6 | 1 | 3.9V | BZT52C3V9T-7 | Diodes Inc. | Diode, Zener, 3.9 V, 300 mW, SOD-523 | SOD-523 |
| 25 | D9, D10 | 2 | 91V | MMS25270B11G | ON Semiconductor | Diode, Zener, 91 V, 500 mW, SOD-123 | SOD-123 |
| 26 | FAULT, PGOOD, TRIP | 3 | Red | 150060RS75000 | Wurth Elektronik | LED, Red, SMD | LED_0603 |
| 27 | FID1, FID2, FID3, FID4, FID5, FID6 | 6 | | N/A | N/A | Fiducial mark. There is nothing to buy or mount. | N/A |
| 28 | H1, H2, H3, H13 | 4 | | 1514409 | Farnell | Will add component to BOM. Useful for cables, nuts, etc. not in libraries | Screw, M3, 6mm, Nylon |
| 29 | H4, H5, H6, H7 | 4 | | 1902C | Standoff | Will add component to BOM. Useful for cables, nuts, etc. not in libraries | Hexagon Spacer |
| 30 | H9 | 1 | | 691351500003 | Wurth Elektronik | TERM BLOCK PLUG 3POS 5.08MM | |
| 31 | H10 | 1 | | 691352510002 | Wurth Elektronik | TERM BLOCK PLUG 2POS 5.08MM | |
| 32 | J1 | 1 | | 691311500103 | Wurth Elektronik | Header (Shrouded), 5.08mm, 3x1, Tin, TH | Header (Shrouded), 5.08mm, 3x1, TH |
| 33 | J2, J5 | 2 | | 61030421121 | Wurth Elektronik | Header, 2.54mm, 2x2, Gold, SMT | Header, 2.54mm, 2x2, Gold, TH |
| 34 | J4 | 1 | | 691311500002 | Wurth Elektronik | Header (Shrouded), 5.08mm, 2x1, Tin, TH | Header (Shrouded), 5.08mm, 2x1, TH |
| 35 | J7 | 1 | | 61031221121 | Wurth Elektronik | Header, 2.54mm, 6x2, Gold, SMT | Header, 2.54mm, 6x2, Gold, TH |
| 36 | L2 | 1 | 10uH | 74479887310 | Wurth Elektronik | Inductor, Shielded Drum Core, Metal Composite, 10 uH, 0.35 A, 0.7 ohm, SMD | 2.5x1x2mm |
| 37 | L5 | 1 | 100uH | 74404041101 | Wurth Elektronik | Inductor, Wirewound, Ferrite, 100 uH, 0.35 A, 1.697 ohm, SMD | 3.7x4mm |
| 38 | Q5, Q6, Q7, Q8 | 4 | 100V | CSD19534Q5A | Texas Instruments | MOSFET, N-CH, 100 V, 10 A, SON 5x6mm | SON 5x6mm |
| 39 | R1 | 1 | 475 | CRCW0402475RPFKED | Vishay-Dale | RES, 475, 1%, 0.063 W, 0402 | 0402 |
| 40 | R2, R3, R4, R5, R16, R16, R27, R36 | 8 | 22 | CRCW040222R0JUNED | Vishay-Dale | RES, 22, 5%, 0.063 W, 0402 | 0402 |
| 41 | R6 | 1 | 806 | CRCW0402806RPFKED | Vishay-Dale | RES, 806, 1%, 0.063 W, 0402 | 0402 |
| 42 | R7 | 1 | 487k | CRCW0402487KPFKED | Vishay-Dale | RES, 487 k, 1%, 0.063 W, 0402 | 0402 |
| 43 | R8 | 1 | 100k | CRCW0402100KPFKED | Vishay-Dale | RES, 100 k, 1%, 0.063 W, 0402 | 0402 |
| 44 | R10, R50, R78 | 3 | 10 | CRCW060310R0JUNEA | Vishay-Dale | RES, 10, 5%, 0.1 W, 0603 | 0603 |
| 45 | R13, R14, R20 | 3 | 1.2k | CRCW04021K20JUNED | Vishay-Dale | RES, 1.2 k, 5%, 0.063 W, 0402 | 0402 |
| 46 | R17 | 1 | 100k | CRCW0402100KJUNED | Vishay-Dale | RES, 100 k, 5%, 0.063 W, 0402 | 0402 |
| 47 | R18, R19, R23, R24, R40, R76, R93, R126 | 8 | 51k | CRCW040251K0JUNED | Vishay-Dale | RES, 51 k, 5%, 0.063 W, 0402 | 0402 |
| 48 | R21, R35, R40, R81, R83, R91 | 6 | 49.9k | CRCW040249K9PFKED | Vishay-Dale | RES, 49.9 k, 1%, 0.063 W, 0402 | 0402 |
| 49 | R22 | 1 | 1.00k | CRCW04021K00PFKED | Vishay-Dale | RES, 1.00 k, 1%, 0.063 W, 0402 | 0402 |
| 50 | R25 | 1 | 820 | CRCW0402820R0JUNED | Vishay-Dale | RES, 820, 5%, 0.063 W, 0402 | 0402 |
| 51 | R26 | 1 | 6.8k | CRCW040268K0JUNED | Vishay-Dale | RES, 6.8 k, 5%, 0.063 W, 0402 | 0402 |
| 52 | R28, R29, R95, R96 | 4 | 2.7 | CRCW080527R0JUNEA | Vishay-Dale | RES, 2.7, 5%, 0.125 W, 0805 | 0805 |
| 53 | R51, R53 | 2 | 1.50k | CRCW04021K50PFKED | Vishay-Dale | RES, 1.50 k, 1%, 0.063 W, 0402 | 0402 |
| 54 | R57 | 1 | 100 | CRCW0402100R0JUNED | Vishay-Dale | RES, 100, 5%, 0.063 W, 0402 | 0402 |
| 55 | R58, R67, R68, R74 | 4 | 47 | CRCW060347R0JUNEA | Vishay-Dale | RES, 47, 5%, 0.1 W, 0603 | 0603 |
| 56 | R61, R62 | 2 | 3.0 | CRCW06033R00JUNEA | Vishay-Dale | RES, 3.0, 5%, 0.1 W, 0603 | 0603 |
| 57 | R64 | 1 | 0.01 | CRA2512-FZ-R010ELF | Bourns | RES, 0.01, 1%, 3 W, 2512 | 2512 |
| 58 | R66 | 1 | 1.8k | CRCW04021K80JUNED | Vishay-Dale | RES, 1.8 k, 5%, 0.063 W, 0402 | 0402 |
| 59 | R69 | 1 | 23.2k | CRCW040223K2PFKED | Vishay-Dale | RES, 23.2 k, 1%, 0.063 W, 0402 | 0402 |
| 60 | R71, R97 | 2 | 180k | CRCW0402180KJUNED | Vishay-Dale | RES, 180 k, 5%, 0.063 W, 0402 | 0402 |
| 61 | R72 | 1 | 16.5k | CRCW040216K5PFKED | Vishay-Dale | RES, 16.5 k, 1%, 0.063 W, 0402 | 0402 |
| 62 | R73, R98 | 2 | 10k | CRCW040210K0JUNED | Vishay-Dale | RES, 10 k, 5%, 0.063 W, 0402 | 0402 |
| 63 | R77 | 1 | 9.1k | CRCW04029K10JUNED | Vishay-Dale | RES, 9.1 k, 5%, 0.063 W, 0402 | 0402 |
| 64 | R79, R80 | 2 | 200k | CRCW0402200KJUNED | Vishay-Dale | RES, 200 k, 5%, 0.063 W, 0402 | 0402 |
| 65 | R82 | 1 | 7.5k | CRCW04027K50JUNED | Vishay-Dale | RES, 7.5 k, 5%, 0.063 W, 0402 | 0402 |
| 66 | R85 | 1 | 3.24k | CRCW04023K24PFKED | Vishay-Dale | RES, 3.24 k, 1%, 0.063 W, 0402 | 0402 |
| 67 | R92 | 1 | 2.2k | CRCW04022K20PFKED | Vishay-Dale | RES, 2.2 k, 1%, 0.063 W, 0402 | 0402 |
| 68 | R101 | 1 | 3.0 | CRCW04023R00JUNED | Vishay-Dale | RES, 3.0, 5%, 0.063 W, 0402 | 0402 |
| 69 | R102, R103 | 2 | 3.32k | CRCW04023K32PFKED | Vishay-Dale | RES, 3.32 k, 1%, 0.063 W, 0402 | 0402 |
| 70 | R113 | 1 | 3.09k | CRCW04023K09PFKED | Vishay-Dale | RES, 3.09 k, 1%, 0.063 W, 0402 | 0402 |
| 71 | R118 | 1 | 10.0k | CRCW040210K0PFKED | Vishay-Dale | RES, 10.0 k, 1%, 0.063 W, 0402 | 0402 |
| 72 | R125 | 1 | 20.0k | CRCW040220K0PFKED | Vishay-Dale | RES, 20.0 k, 1%, 0.063 W, 0402 | 0402 |
| 73 | TP1 | 1 | | 5002 | KeyStone | Test Point, Miniature, White, TH | White Miniature Testpoint |
| 74 | U1 | 1 | | LM789DCKR | Texas Instruments | 2.4V, 10uA, SC70, DS8GA Temperature Sensor, DCK0005A | DCK0005A |
| 75 | U2 | 1 | | SM72295MAX/NCPB | Texas Instruments | Photovoltaic Full Bridge Driver, DW0028A | DW0028A |
| 76 | U3 | 1 | | ATL431BQDB2R | Texas Instruments | 2.5V Low IQ Adjustable Precision Shunt Regulator, DBZ0003A | DBZ0003A |
| 77 | U5 | 1 | | LM5018MRX/NCPB | Texas Instruments | 100V, 300mA Constant On-Time Synchronous Buck Regulator, DDA0008B | DDA0008B |
| 78 | U6 | 1 | | LM2901VQD | Texas Instruments | Quad Comparator, D0014A | D0014A |
| 79 | U7 | 1 | | LM317LJPK | Texas Instruments | 3-Terminal Adjustable Regulator, PK0003A | PK0003A |
| 80 | U9 | 1 | | SN74LVC1G175DCKR | Texas Instruments | SINGLE D-TYPE FLIP-FLOP WITH ASYNCHRONOUS CLEAR, DCK0006A | DCK0006A |
| 81 | U10 | 1 | | TL431QDBZT | Texas Instruments | Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mA, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br) | DBZ0003A |
| 82 | C18, C24 | 0 | 0.01uF | 885012205031 | Wurth Elektronik | CAP, CERM, 0.01 uF, 16 V, +/- 10%, X7R, 0402 | 0402 |
| 83 | Q1 | 0 | 160 V | DMT5551-7-F | Diodes Inc. | Transistor, Dual NPN, 160 V, 0.2 A, SOT-26 | SOT-26 |
| 84 | R9 | 0 | 0 | CRCW040200020ED | Vishay-Dale | RES, 0, 5%, 0.063 W, 0402 | 0402 |
| 85 | R11 | 0 | 24k | CRCW040224K0JUNED | Vishay-Dale | RES, 24 k, 5%, 0.063 W, 0402 | 0402 |
| 86 | R12 | 0 | 33.2k | CRCW040233K2PFKED | Vishay-Dale | RES, 33.2 k, 1%, 0.063 W, 0402 | 0402 |