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TID #: TIDA-01388

# TIDA-01388 REV E1 Bill of Materials

| Item # | Designator | Quantity | Value | PartNumber | Manufacturer | Description | PackageReference |
|---|---|---|---|---|---|---|---|
| 1 | !PCB1 | 1 | | TIDA-01388 | Any | Printed Circuit Board | |
| 2 | C1, C8, C9, C10, C11 | 5 | 4.7uF | GRM32ER71H475KA88L | MuRata | CAP, CERM, 4.7 µF, 50 V, +/- 10%, X7R, 1210 | 1210 |
| 3 | C2, C7, C12, C13 | 4 | 0.1uF | C1005X7R1H104K050BB | TDK | CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0402 | 0402 |
| 4 | C3, C4, C16, C21 | 4 | 0.1uF | C1005X7R1H104K050BB | TDK | CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0402 | 0402 |
| 5 | C5, C6 | 2 | 10uF | GRM32ER71H106KA12L | MuRata | CAP, CERM, 10 µF, 50 V, +/- 10%, X7R, 1210 | 1210 |
| 6 | C14, C15 | 2 | 100uF | JMK316BJ107ML-T | Taiyo Yuden | CAP, CERM, 100uF, 6.3V, +/-20%, X5R, 1206 | 1206 |
| 7 | C17, C18, C19, C20 | 4 | 22uF | JMK212BJ226KG-T | Taiyo Yuden | CAP, CERM, 22uF, 6.3V, +/-10%, X5R, 0805 | 0805 |
| 8 | Cbias1 | 1 | 0.1uF | GCM188R71C104KA37J | MuRata | CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603 | 0603 |
| 9 | Cboot1 | 1 | 0.47uF | GRM188R71E474KA12D | MuRata | CAP, CERM, 0.47 µF, 25 V, +/- 10%, X7R, 0603 | 0603 |
| 10 | Cvcc1 | 1 | 4.7uF | GCM21BR71C475KA73L | MuRata | CAP, CERM, 4.7 µF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805 | 0805 |
| 11 | D1 | 1 | 30V | 1SMB30CAT3G | ON Semiconductor | Diode, TVS, Bi, 30 V, 600 W, SMB | SMB |
| 12 | D2 | 1 | 18V | MMSZ4705T1G | ON Semiconductor | Diode, Zener, 18 V, 500 mW, SOD-123 | SOD-123 |
| 13 | FID4, FID5, FID6 | 3 | | N/A | N/A | Fiducial mark. There is nothing to buy or mount. | Fiducial |
| 14 | H1 | 1 | | CAGE15x15x10 | Molex | Surface Mount Shield , 15x10x15mm | 15.0x10.0x15.0mm |
| 15 | J1 | 1 | | TSW-104-08-G-S-RA | Samtec | Header, 100mil, 4x1, Gold, R/A, TH | 4x1 R/A Header |
| 16 | J2, J3 | 2 | | UB225-F04S6BY-B | Yuqiu Electronics | Receptacle, USB Type A, Gold, SMT | Receptacle, USB Type A, SMT |
| 17 | L1 | 1 | 2.2uH | SRP5030T-2R2M | Bourns | Inductor, Shielded, Ferrite, 2.2 µH, 5.5 A, 0.035 ohm, SMD | Inductor, 5.7x2.8x5.2mm |
| 18 | L2 | 1 | 800 ohm | HR2220V801R-10 | Laird-Signal Integrity Products | Ferrite Bead, 800 ohm @ 100 MHz, 8 A, 1206 | 1206 |
| 19 | L3 | 1 | 10uH | 7443251000 | Wurth Elektronik | Inductor, Shielded Drum Core, WE-Superflux200, 10 µH, 7.5 A, 0.0163 ohm, SMD | 10.2x4.7x10.2mm |
| 20 | LBL1 | 1 | | THT-14-423-10 | Brady | Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll | PCB Label 0.650"H x 0.200"W |
| 21 | Q1 | 1 | -40V | SQJ463EP-T1-GE3 | Vishay-Siliconix | MOSFET, P-CH, -40 V, -30 A, PowerPAK_SO-8L | PowerPAK_SO-8L |
| 22 | R2 | 1 | 100k | CRCW0603100KJNEA | Vishay-Dale | RES, 100 k, 5%, 0.1 W, 0603 | 0603 |
| 23 | R3, R4, R6, R7 | 4 | 10.0k | CRCW040210K0FKED | Vishay-Dale | RES, 10.0k ohm, 1%, 0.063W, 0402 | 0402 |
| 24 | R5 | 1 | 24.3k | CRCW040224K3FKED | Vishay-Dale | RES, 24.3k ohm, 1%, 0.063W, 0402 | 0402 |
| 25 | R8 | 1 | 100k | CRCW0603100KFKEA | Vishay-Dale | RES, 100 k, 1%, 0.1 W, 0603 | 0603 |
| 26 | Rbias1 | 1 | 3.0 | CRCW04023R00JNED | Vishay-Dale | RES, 3.0, 5%, 0.063 W, 0402 | 0402 |
| 27 | U1 | 1 | | LMS3655LQRNLRQ1 | Texas Instruments | 5.5A Synchronous Buck Regulator for Automotive Applications, RNL0022A (VQFN-HR-22) | RNL0022A |
| 28 | U2 | 1 | | TPS2561AQDRCRQ1 | Texas Instruments | Automotive Catalog Dual Channel Precision Adjustable Current-Limited Power Switch, 0.25 to 2.5 A Current Limit, -40 to 125 degC, 10-pin SON (DRC), Green (RoHS & no Sb/Br) | DRC0010A |
| 29 | U3 | 1 | | TPS2513AQDBVRQ1 | Texas Instruments | USB Dedicated Charging Port Controller, DBV0006A (SOT-6) | DBV0006A |
| 30 | FID1, FID2, FID3 | 0 | | N/A | N/A | Fiducial mark. There is nothing to buy or mount. | Fiducial |

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