

Bill of Materials

TI DESIGNS
TIDA-00160
Automotive LED Dome Light

| Designator | Quantity | Value | Description | PackageReference | PartNumber | Manufacturer | Alternate PartNumber | Alternate Manufacturer |
|---------------|----------|------------------|-----------------------------------------------------------------------------------|------------------|--------------------|--------------|----------------------|------------------------|
| C9 | 1.00 | 0.01 uF | Capacitor, Ceramic, 50V, X7R, 10% | 603 | std | Std | - | - |
| C13 | 1.00 | 0.01uF | Capacitor, Ceramic, 16V, X7R, 10% | 603 | std | Std | - | - |
| C2 C5 C14 | 3.00 | 0.1uF | Capacitor, Ceramic, 50V, X7R, 10% | 603 | std | Std | - | - |
| C7 C15 | 2.00 | 0.1uF | Capacitor, Ceramic, 50V, X7R, 15% | 603 | std | Std | - | - |
| C12 | 1.00 | 0.47uF | Capacitor, Ceramic, 50V, X7R, 15% | 603 | std | Std | - | - |
| C8 | 1.00 | 100pF | Capacitor, Ceramic, 50V, NPO, 10% | 603 | std | Std | - | - |
| C16 | 1.00 | 1uF | Capacitor, Ceramic, 16V, X7R, 10% | 603 | std | Std | - | - |
| C6 | 1.00 | 270 pF | Capacitor, Ceramic, 50V, NPO, 15% | 603 | std | Std | - | - |
| C22 | 1.00 | 2700 pF | Capacitor, Ceramic, 16V, X7R, 10% | 603 | std | Std | - | - |
| C21 | 1.00 | Open | Capacitor, Ceramic, 50V, X7R, 15% | 603 | std | Std | - | - |
| C3 | 1.00 | 10uF | CAP CER 10UF 6.3V 10% X7R 0805 | 805 | GRM21BR70J106KE76K | murata | | |
| C1 | 1.00 | 2.2 uF | CAP CER 2.2UF 50V 10% X7R 1206 | 1206 | std | murata | | |
| C10 C11 | 2.00 | 150 uF | Capacitor, Tant, Low ESR, 10V, ±10% | 7343 (D) | 10TPVE150ML | Sanyo | - | - |
| C4 | 1.00 | 220 uF | CAP ALUM 220UF 25V 20% RADIAL | 0.492 inch | UBT1E221MPD1TD | Nichicon | | |
| J1 | 1.00 | 48037-1000 | CONN PLUG USB 4POS RT ANG SMD | 0.354 X 0.307 In | 48037-1000 | Molex Inc | | |
| J2 | 1.00 | 2.54mm | 2.54mm jumper | | | | | |
| J3 | 1.00 | C-292303-x | Connector, USB TH | 14.0 x 14.0 mm | 61400416021 | wurth | | |
| D3 | 1.00 | SML-LX2832SGC-TR | Diode, LED, Red, 1.7-V, 40-mcd, SM | 1210 | SML-LX2832SGC-TR | Lumex | | |
| J6 | 1.00 | | Dell female connector | | | Dell | | |
| D4 | 1.00 | ZHCS400 | Diode, Schottky, 400-mA, 40-V | SOD323 | ZHCS400 | Zetex | | |
| U4 | 1.00 | INA213DCK | IC, Voltage Output, High or Low Side Measurement Bi-Directional Zero-Drift Series | SC-70 | INA213DCK | TI | | |
| L2 | 1.00 | 0805USB-421MI | Inductor, Coupled | 0.050 x 0.080 in | 0805USB-421MI | Coilcraft | | |
| L1 | 1.00 | 15uH | Inductor, SMT, 10.3A, 9.4 milliohms | 0.543"x 0.516" | IHLP5050FDER15R0M5 | Vishay | | |
| U1 | 1.00 | LM25117PSQ | with Analog Current Monitor | LLP-24 | LM25117PSQ | TI | | |
| R23 | 1.00 | 0 | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R15 | 1.00 | 1.21K | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R22 | 1.00 | 100 | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R6 | 2.00 | 100K | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R9 | 1.00 | 20K | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R10 R34 | 2.00 | 10K | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R2 | 1.00 | 50K | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R16 | 1.00 | 8.25K | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R7 | 1.00 | 2.2 | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R11 | 3.00 | 22.1k | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R24 | 1.00 | 2K | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R1 | 1.00 | 48.7k | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R17 | 1.00 | 49.9 | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R4 | 1.00 | 10K | Resistor, Chip, 1/10-W, 1% | 603 | std | Std | | |
| R21 | 1.00 | Open | Resistor, Metal Film, 1/4 watt, ± 5% | 1206 | std | Std | | |
| R8 | 1.00 | 0.015 | Resistor, Chip, 1/2W, 5% | 2010 | std | Std | | |
| R20 | 1.00 | 0 | Resistor, Chip, 1/4W, 1% | 1206 | std | Std | | |
| R3 R5 R30 R32 | 4.00 | 100K | Resistor, Chip, 1/10W, 1% | 603 | std | Std | | |
| R13 R28-29 | 3.00 | 10K | Resistor, Chip, 1/10W, 1% | 603 | std | Std | | |
| R19 | 1.00 | 2.2 | Resistor, Chip, 1/4W, 1% | 1206 | std | Std | | |
| R37-39 | 2.00 | 200K | Resistor, Chip, 1/10W, 1% | 603 | std | Std | | |
| R26 | 1.00 | 13K | Resistor, Chip, 1/10W, 1% | 603 | std | Std | | |
| R27 R31 | 2.00 | NA | Resistor, Chip, 1/10W, 1% | 603 | std | Std | | |
| R12 | 1.00 | 0.01 | Resistor, Chip, 1W, 1% | 2512 | std | Std | | |
| U2 | 1.00 | TPD2E001DZDR | ±15-kV ESD-Protection Array | SQP | TPD2E001DZDR | TI | | |
| U3 | 1.00 | TPS2546RTE | Switch & Controller with Load Detect Feature. | QFN-16 | TPS2546RTE | TI | | |
| Q2-3 | 2.00 | CSD18503Q5A | MOSFET, N-Chan, 40V, 19A, 4.3 mOhm | QFN-8 POWER | CSD18503Q5A | TI | | |

| Designator | Quantity | Value | Description | PackageReference | PartNumber | Manufacturer | Alternate PartNumber | Alternate Manufacturer |
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Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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