

Variant: 001
 Generated: 1/21/2019 4:33:28 PM
 TID #: 01535



TIDA-01535 REV E1 Bill of Materials

| Item # | Designator | Quantity | Value | PartNumber | Manufacturer | Description | PackageReference |
|--------|--|----------|---------|----------------------|------------------------|---|--|
| 1 | C1 | 1 | 1000pF | GRM31BR73A102KW01L | MuRata | CAP, CERM, 1000 pF, 1000 V, +/- 10%, X7R, 1206 | 1206 |
| 2 | C3 | 1 | 0.1uF | 06035C104KAT2A | AVX | CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603 | 0603 |
| 3 | C4, C5 | 2 | 10uF | GRM32ER71H106KA12L | MuRata | CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1210 | 1210 |
| 4 | C7, C8 | 2 | 22uF | GRM32ER71E226KE15L | MuRata | CAP, CERM, 22 uF, 25 V, +/- 10%, X7R, 1210 | 1210 |
| 5 | C9 | 1 | 0.047uF | GCM188R71E473KA37D | MuRata | CAP, CERM, 0.047 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603 | 0603 |
| 6 | C10, C13, C15, C22, C23, C24, C25, C27, C30, C31 | 10 | 1uF | UMK107AB7105KA-T | Taiyo Yuden | CAP, CERM, 1uF, 50V, +/-10%, X7R, 0603 | 0603 |
| 7 | C11, C12, C14, C16, C20, C21, C26 | 7 | 0.1uF | GRM188R71H104KA93D | MuRata | CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603 | 0603 |
| 8 | C17, C18, C29 | 3 | 10uF | UMK325AB7106KM-T | Taiyo Yuden | CAP, CERM, 10uF, 50V, +/-10%, X7R, 1210 (H=2.5mm) | 1210 (H=2.5mm) |
| 9 | C19 | 1 | | | | | 0603 |
| 10 | C28 | 1 | 0.22uF | C1608X7R1H224K080AB | TDK | CAP, CERM, 0.22 uF, 50 V, +/- 10%, X7R, 0603 | 0603 |
| 11 | D1 | 1 | 24V | DFLZ24-7 | Diodes Inc. | Diode, Zener, 24 V, 1 W, PowerDI123 | PowerDI123 |
| 12 | D2 | 1 | 100V | DFLS1100-7 | Diodes Inc. | Diode, Schottky, 100 V, 1 A, PowerDI123 | PowerDI123 |
| 13 | D3 | 1 | 75V | CMDD4448 | Central Semiconductor | Diode, Ultrafast, 75 V, 0.25 A, SOD-323 | SOD-323 |
| 14 | D4 | 1 | 15V | CZRU52C15 | Comchip Technology | Diode, Zener, 15 V, 150 mW, SOD-523F | SOD-523F |
| 15 | D5 | 1 | 75V | BAV99-7-F | Diodes Inc. | Diode, Switching, 75V, 0.3A, SOT-23 | SOT-23 |
| 16 | D6, D7 | 2 | 80V | MBR180S1 | Diodes Incorporated | Diode, Schottky, 60 V, 1 A, SOD-123 | SOD-123 |
| 17 | D8, D9, D10 | 3 | 36V | CDSOD323-T36SC | Bourns | Diode, TVS, Bi, 36V, 400W, SOD323, 2-Leads, Body 1.9x1.45mm, No Polarity Mark | SOD323, 2-Leads, Body 1.9x1.45mm, No Polarity Mark |
| 18 | FB1 | 1 | 600 ohm | FBMH3225HM601NT | Taiyo Yuden | Ferrite Bead, 600 ohm @ 100MHz, 3A, 1210 (H=2.5mm) | 1210 (H=2.5mm) |
| 19 | J1 | 1 | | 691214310002 | Würth Elektronik | Terminal Block, 2x1, 3.81mm, 24-16 AWG, 10A, 300VAC, TH | 2x1 Terminal Block |
| 20 | J2 | 1 | | 851-43-010-20-001000 | Mill-Max | Receptacle, 50mil 10x1, R/A, TH | receptacle 10x1, 50mil |
| 21 | J3 | 1 | 2x1 | 1727010 | Phoenix Contact | Conn Term Block, 2POS, 3.81mm, TH | 2POS Terminal Block |
| 22 | L1 | 1 | 22 ohm | 742792021 | Würth Elektronik | Ferrite Bead, 22 ohm @ 100 MHz, 6 A, 0805 | 0805 |
| 23 | L2 | 1 | 22uH | LPD6235-223MRB | Coilcraft | Coupled inductor, 22 uH, 1.73 A, 0.3 ohm, SMD | 6x6mm |
| 24 | L3 | 1 | 100uH | 74408943101 | Würth Elektronik eiSos | Inductor, Shielded Drum Core, Ferrite, 100uH, 0.52A, 0.77 ohm, SMD | 4.8x3.8x4.8mm |
| 25 | R3 | 1 | 536k | RC0603FR-07536KL | Yageo | RES, 536 k, 1%, 0.1 W, 0603 | 0603 |
| 26 | R4, R5 | 2 | 130k | CRCW0603130KFKEA | Vishay-Dale | RES, 130 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603 | 0603 |
| 27 | R6 | 1 | 100k | CRCW0603100KFKEA | Vishay-Dale | RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603 | 0603 |
| 28 | R7 | 1 | 12.1k | CRCW060312K1FKEA | Vishay-Dale | RES, 12.1 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603 | 0603 |
| 29 | R8, R9 | 2 | 10k | CRCW060310K0JNEA | Vishay-Dale | RES, 10k ohm, 5%, 0.1W, 0603 | 0603 |
| 30 | R10, R13, R16 | 3 | 15 | CRCW060315R0JNEA | Vishay-Dale | RES, 15 ohm, 5%, 0.1W, 0603 | 0603 |
| 31 | R11, R12, R14, R15 | 4 | 10.0 | CRCW060310R0FKEA | Vishay-Dale | RES, 10.0 ohm, 1%, 0.1W, 0603 | 0603 |
| 32 | U1 | 1 | | LM5180NGUR | Texas Instruments | 70-VIN PSR Flyback DC/DC Converter With 100-V, 1.5-A Integrated Power MOSFET, NGU0008C (WSON-8) | NGU0008C |
| 33 | U2 | 1 | | ISO7741DBQR | Texas Instruments | High Speed, Robust EMC Quad-Channel Digital Isolators, DBQ0016A (SSOP-16) | DBQ0016A |
| 34 | U3 | 1 | | DAC8771RGZ | Texas Instruments | DAC8771RGZ, RGZ0048D | RGZ0048D |
| 35 | U4 | 1 | | ISO7721DR | Texas Instruments | High Speed, Robust EMC Dual-Channel Digital Isolator, D0008B (SOIC-8) | D0008B |
| 36 | C2, C6 | 0 | 220pF | 06031C221KAT2A | AVX | CAP, CERM, 220 pF, 100 V, +/- 10%, X7R, 0603 | 0603 |
| 37 | FID1, FID2, FID3 | 0 | | N/A | N/A | Fiducial mark. There is nothing to buy or mount. | Fiducial |
| 38 | R1, R2 | 0 | 100 | CRCW0603100RJNEA | Vishay-Dale | RES, 100, 5%, 0.1 W, AEC-Q200 Grade 0, 0603 | 0603 |

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