TIDA-01592 REV E1 Bill of Materials



| Item # | Designator | Quantity | Value | PartNumber | Manufacturer | Description | PackageReference |
|----------|--|----------|--------------|--------------------------------------|------------------------------|--|------------------------------|
| 1 | IPCB1 | 1 | 00 F | TIDA-01592 | Any | Printed Circuit Board | 4000 |
| 2 | C1, C10, C22, C31, C43, C52 | 6 | 33pF | 12067A330JAT2A | AVX | CAP, CERM, 33 pF, 500 V,+/- 5%, C0G/NP0, 1206 | 1206 |
| 3 | C2, C23, C44 | 3 | 180uF | 35TXW180MEFC6.3X25 | Rubycon | CAP, AL, 180 µF, 35 V, +/- 20%, TH | |
| 4 | C3, C4, C24, C25, C45, C46 | 6 | 10uF | GRM31CR61H106KA12L | MuRata | CAP, CERM, 10 μF, 50 V,+/- 10%, X5R, 1206 | 1206 |
| 5 | C5, C6, C11, C12, C26, C27, C32, C33, C47, C48, C53, C54 | 12 | 1uF | C4532X7T2E105M250KE | TDK Corporation | CAP, CERM, 1 μF, 250 V,+/- 20%, X7T, 1812 | 1812 |
| 6 | C7, C13, C28, C34, C49, C55 | 6 | 82uF | UCY2C820MPD9 | Nichicon | CAP, AL, 82 μF, 160 V, +/- 20%, TH | 10x20mm |
| 7 | C8, C29, C50 | 3 | 1uF | GRM31CR72A105KA01L | MuRata | CAP, CERM, 1 µF, 100 V,+/- 10%, X7R, 1206 | 1206 |
| 8 | C9, C15, C17, C20, C30, C36, C38, C41, C51, C57, C59, C62, C67, C68, C69 | 15 | 0.1uF | GRM188R71H104KA93D | MuRata | CAP, CERM, 0.1 μF, 50 V,+/- 10%, X7R, 0603 | 0603 |
| 9 | C14, C35, C56 | 3 | 22uF | C2012X5R1V226M125AC | TDK Corporation | CAP, CERM, 22 µF, 35 V,+/- 20%, X5R, 0805 | 0805 |
| 10 | C16, C37, C58 | 3 | 1uF | UMK107AB7105KA-T | Taiyo Yuden | CAP, CERM, 1 µF, 50 V,+/- 10%, X7R, 0603 | 0603 |
| 11 | C18, C39, C60 | 3 | 2200pF | GRM155R61H222KA01D | MuRata | CAP, CERM, 2200 pF, 50 V,+/- 10%, X5R, 0402 | 0402 |
| 12 | C19, C40, C61 | 3 | 4.7uF | 0603ZD475KAT2A | AVX | CAP, CERM, 4.7 μF, 10 V,+/- 10%, X5R, 0603 | 0603 |
| 13 | C21, C42, C63, C64, C65, C66 | 6 | 1uF | C0603C105K3RACTU | Kemet | CAP, CERM, 1 µF, 25 V,+/- 10%, X7R, 0603 | 0603 |
| 14 | D1, D4, D6, D9, D11, D14 | 6 | 600V | VS-6ESH06HM3/86A | Vishay-Semiconductor | Diode, Hyperfast, 600 V, 6 A, AEC-Q101, TO-277A | TO-277A |
| 15 | D2, D7, D12 | 3 | 100V | DFLS1100-7 | Diodes Inc. | Diode, Schottky, 100 V, 1 A, PowerDI123 | PowerDI123 |
| 16 | D3, D8, D13 | 3 | 30V | BAT42W-7-F | Diodes Inc. | Diode, Schottky, 30 V, 0.2 A, SOD-123 | SOD-123 |
| 17 | D5, D10, D15 | 3 | 12V | MMSZ5242BS-7-F | Diodes Inc. | Diode, Zener, 12 V, 200 mW, SOD-323 | SOD-323 |
| 18 | J1, J2, J3, J5, J6, J8, J9 | 7 | | 1727010 | Phoenix Contact | Conn Term Block, 2POS, 3.81mm, TH | 2POS Terminal Block |
| 19 | Q1, Q5, Q9 | 3 | 100V | CSD19532Q5B | Texas Instruments | MOSFET, N-CH, 100 V, 17 A, DNK0008A (VSON-CLIP-8) | DNK0008A |
| 20 | Q2, Q6, Q10 | 3 | 60 V | MMBT2907ALT1G | ON Semiconductor | Transistor, PNP, 60 V, 0.6 A, SOT-23 | SOT-23 |
| 21 | Q3, Q4, Q7, Q8, Q11, Q12 | 6 | 60 V | DNBT8105-7 | Diodes Inc. | Transistor, NPN, 60 V, 1 A, AEC-Q101, SOT-23 | SOT-23 |
| 22 | R2, R31, R60 | 3 | 5.11k | TNPW06035K11BEEA | Vishay-Dale | RES, 5.11 k, 0.1%, 0.1 W, AEC-Q200 Grade 1, 0603 | 0603 |
| 23 | R3, R32, R61 | 3 | 2.61k | CRCW20102K61FKEF | Vishay-Dale | RES, 2.61 k, 1%, 0.75 W, AEC-Q200 Grade 0, 2010 | 2010 |
| 24 | R4, R33, R62 | 3 | 402k | CRCW0603402KFKEA | Vishay-Dale | RES, 402 k, 1%, 0.1 W, 0603 | 0603 |
| 25 | R5, R34, R63 | 3 | 10.0 | CRCW060310R0FKEAHP | Vishay-Dale | RES, 10.0, 1%, 0.25 W, 0603 | 0603 |
| 26 | R6, R35, R64 | 3 | 1.0Meg | CRCW06031M00JNEA | Vishay-Dale | RES, 1.0 M, 5%, 0.1 W, 0603 | 0603 |
| 27 | R8, R37, R66 | 3 | 66.5k | CRCW060366K5FKEA | Vishay-Dale | RES, 66.5 k, 1%, 0.1 W, 0603 | 0603 |
| 28 | R9, R38, R67 | 3 | 4.7 | CRCW06034R70JNEA | Vishay-Dale | RES, 4.7, 5%, 0.1 W, 0603 | 0603 |
| 29 | R10, R39, R68 | 3 | 191k | CRCW0603191KFKEA | Vishay-Dale | RES, 191 k, 1%, 0.1 W, 0603 | 0603 |
| 30 | R11, R40, R69 | 3 | 300 | CRCW0603300RJNEA | Vishay-Dale | RES, 300, 5%, 0.1 W, 0603 | 0603 |
| 31 | R12, R41, R70 | 3 | 2.2k | ERJ-3GEYJ222V | Panasonic | RES, 2.2 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603 | 0603 |
| 32 | R13, R42, R71 | 3 | 0.015 | WSL2010R0150FEA18 | Vishay-Dale | RES, 0.015, 1%, 1 W, 2010 | 2010 |
| 33 34 | R14, R43, R72 R15, R44, R73 | 3 | 172k 22k | RT0603DRE07172KL CRCW060322K0JNEA | Yageo America Vishay-Dale | RES, 172 k, 0.5%, 0.1 W, 0603 RES, 22 k, 5%, 0.1 W, 0603 | 0603 0603 |
| 34 | R15, R44, R73 | 3 | 22K 10.0k | CRCW060322K0JNEA CRCW060310K0FKEA | Vishay-Dale | RES, 10.0 k, 1%, 0.1 W, 0603 | 0603 |
| 35 | R16, R45, R74 | 3 | 390k | CRCW0603390KJNEA | Vishay-Dale | RES, 390 k, 5%, 0.1 W, 0603 | 0603 |
| 37 | R18, R47, R76 | 3 | 1.0k | CRCW0603350KJNEA | Vishay-Dale | RES, 1.0 k, 5%, 0.1 W, 0603 | 0603 |
| 38 | R19, R23, R26 | 3 | 0 | CRCW04020000Z0ED | Vishay-Dale | RES, 0, 5%, 0.063 W, 0402 | 0402 |
| 39 | R20, R24, R27, R49, R53, R56, R78, R82, R85 | 9 | 0 | CRCW20100000Z0EF | Vishay-Dale | RES, 0, 5%, 0.75 W, AEC-Q200 Grade 0, 2010 | 2010 |
| 40 | R22, R51, R80 | 3 | 47k | CRCW120647K0JNEA | Vishay-Dale | RES, 47 k, 5%, 0.25 W, 1206 | 1206 |
| 40 | R28, R29, R57, R58, R86, R87 | 6 | 47k | RC0603JR-0747KL | Yageo America | RES, 47 k, 5%, 0.1 W, 0603 | 0603 |
| 42 | T1, T2, T3 | 3 | 13uH | 750343772 | Wurth Elektronik | Transformer, 13 uH, TH | 16.5x18.5mm |
| 43 | TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12 | 12 | | 5002 | Keystone | Test Point, Miniature, White, TH | White Miniature Testpoint |
| 44 | U1, U4, U7 | 3 | | LM3481MMX/NOPB | Texas Instruments | High Efficiency Low-Side N-Channel Controller for Switching Regulators, 10-pin MSOP, Pb-Free | MUB10A |
| 45 | U2, U5, U8 | 3 | | TLV171IDBVR | Texas Instruments | 36V, Low-Power, RRO, General-Purpose Operational Amplifier, DBV0005A (SOT-23-5) | DBV0005A |
| 46 | FID1, FID2, FID3, FID4, FID5, FID6 | 0 | | N/A | N/A | Fiducial mark. There is nothing to buy or mount. | N/A |
| | R1, R7, R30, R36, | 0 | 470 | CRCW1206470RJNEA | Vishay-Dale | RES, 470, 5%, 0.25 W, 1206 | 1206 |

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