

Dual Buck with Pre-Boost

| Quantity | Designator | Value | Description | Package | PartNumber | Manufacturer |
|----------|---|-------------|---|-------------------------|--------------------|-----------------------|
| 3 | C1, C7, C8 | 220uF | CAP, AL, 220uF, 50V, +/-20%, 0.18 ohm, SMD | SMT Radial G | EEE-FK1H221P | Panasonic |
| 2 | C2, C19 | 4.7uF | CAP, CERM, 4.7uF, 50V, +/-10%, X7R, 1210 | 1210 | GRM32ER71H475KA88L | MuRata |
| 3 | C4, C32, C33 | 0.01uF | CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603 | 0603 | GRM188R71H103KA01D | MuRata |
| 2 | C5, C11 | 1uF | CAP, CERM, 1uF, 50V, +/-10%, X7R, 0805 | 0805 | GRM21BR71H105KA12L | MuRata |
| 1 | C6 | 0.068uF | CAP, CERM, 0.068uF, 50V, +/-10%, X7R, 0603 | 0603 | GRM188R71H683KA93D | MuRata |
| 1 | C10 | 470pF | CAP, CERM, 470pF, 50V, +/-10%, X7R, 0603 | 0603 | GRM188R71H471KA01D | MuRata |
| 2 | C13, C28 | 1000pF | CAP, CERM, 1000pF, 50V, +/-10%, X7R, 0603 | 0603 | GRM188R71H102KA01D | MuRata |
| 4 | C14, C16, C25, C27 | 22uF | CAP, CERM, 22uF, 10V, +/-10%, X7R, 1206 | 1206 | GRM31CR71A226KE15L | MuRata |
| 2 | C18, C24 | 150pF | CAP, CERM, 150pF, 50V, +/-5%, C0G/NP0, 0603 | 0603 | GRM1885C1H151JA01D | MuRata |
| 1 | C21 | 1uF | CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603 | 0603 | GRM188R71C105KA12D | MuRata |
| 2 | C22, C23 | 0.22uF | CAP, CERM, 0.22uF, 25V, +/-10%, X7R, 0603 | 0603 | GRM188R71E224KA88D | MuRata |
| 1 | C26 | 3300pF | CAP, CERM, 3300pF, 50V, +/-10%, X7R, 0603 | 0603 | GRM188R71H332KA01D | MuRata |
| 2 | C29, C30 | 0.022uF | CAP, CERM, 0.022uF, 50V, +/-10%, X7R, 0603 | 0603 | GRM188R71H223KA01D | MuRata |
| 2 | D1, D2 | 60V | Diode, Schottky, 60V, 3A, DPAK | DPAK | MBRD360T4G | ON Semiconductor |
| 2 | D101, D102 | 50V | Diode, Schottky, 50V, 0.5A, SOD-123 | SOD-123 | MBR0560 | ON Semiconductor |
| 3 | J1, J2, J3 | 2x1 | Conn Term Block, 2POS, 3.5mm, TH | 11x8.5x7.3mm | 1751248 | Phoenix Contact |
| 6 | JP1, JP2, JP3, JP4, JP5, JP6 | | Header, TH, 100mil, 3x1, Gold plated, 230 mil above insulator | 3x1 Header | TSW-103-07-G-S | Samtec |
| 1 | JP7 | | Header, TH, 100mil, 2x1, Gold plated, 230 mil above insulator | 2x1 Header | TSW-102-07-G-S | Samtec |
| 1 | L1 | 3.3uH | Inductor, Shielded, Composite, 3.3uH, 8.1A, 0.02 ohm, SMD | 5.3x31.x5.5mm | XAL5030-332MEB | Coilcraft |
| 2 | L2, L3 | 10uH | Inductor, Shielded, Composite, 10uH, 4.9A, 0.05 ohm, SMD | XAL5050 | XAL5050-103MEB | Coilcraft |
| 8 | PGA, PGB, PHA, PHB, VBAT, VIN, VOUTA, VOUTB | Red | Test Point, Miniature, Red, TH | Red Miniature Testpoint | 5000 | Keystone |
| 1 | Q1 | -60V | MOSFET, P-CH, -100V, -38A, DPAK | DPAK | SUD50P10-43 | Vishay-Semiconductor |
| 4 | Q2, Q4, Q6, Q7 | 100V | MOSFET, N-CH, 60V, 4.5A, SO-8 | SO-8 | SP8K32 | Infineon Technologies |
| 1 | Q3 | 60V | MOSFET, N-CH, 60V, 6.2A, PowerPAK SO-8 | PowerPAK SO-8 | SI7850DP-E3 | Vishay-Siliconix |
| 3 | R1, R10, R12 | 0 | RES, 0 ohm, 5%, 0.1W, 0603 | 0603 | CRCW06030000Z0EA | Vishay-Dale |
| 2 | R2, R13 | 0.015 | RES, 0.015 ohm, 1%, 1W, 2010 | 2010 | WSL2010R0150FEA18 | Vishay-Dale |
| 1 | R3 | 4.99k | RES, 4.99k ohm, 1%, 0.1W, 0603 | 0603 | CRCW06034K99FKEA | Vishay-Dale |
| 1 | R4 | 0.025 | RES, 0.025 ohm, 1%, 1W, 2010 | 2010 | CSRN2010FK25L0 | Stackpole Electronics |
| 2 | R5, R16 | 49.9 | RES, 49.9 ohm, 1%, 0.1W, 0603 | 0603 | CRCW060349R9FKEA | Vishay-Dale |
| 1 | R6 | 1.50k | RES, 1.50k ohm, 1%, 0.1W, 0603 | 0603 | CRCW06031K50FKEA | Vishay-Dale |
| 2 | R8, R20 | 100k | RES, 100k ohm, 1%, 0.1W, 0603 | 0603 | CRCW0603100KFKEA | Vishay-Dale |
| 2 | R11, R17 | 31.6k | RES, 31.6k ohm, 1%, 0.1W, 0603 | 0603 | CRCW060331K6FKEA | Vishay-Dale |
| 2 | R18, R19 | 3.74k | RES, 3.74k ohm, 1%, 0.1W, 0603 | 0603 | CRCW06033K74FKEA | Vishay-Dale |
| 1 | U1 | TPS43330-Q1 | Dual Synchronous Buck Controller with Pre-Boost | DAP0038B | TPS43330QDAPRQ1 | Texas Instruments |

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