

Bill of Materials

TI DESIGNS
TIDA-00237
Ultra Low Profile 1.5W Isolating Power Supply

Item	Qty	Reference	Description	Manufacturer	Manufacturer Part Number	PCB Footprint
1	1	C1	CAP, CERM, 1.5 μ F, 25 V, +/- 10%, X7R, 0805	MuRata	GRM21BR71E155KA88L	0805
2	6	C2, C18, C19, C28, C29, C30	CAP, CERM, 0.1 μ F, 50 V, +/- 10%, X7R, 0603	TDK	C1608X7R1H104K	0603
3	2	C3, C14	CAP, CERM, 2.2 μ F, 50 V, +/- 10%, X7R, 1206	Taiyo Yuden	UMK316B7225KD-T	1206
4	5	C4, C20, C21, C22, C23	CAP, CERM, 0.01 μ F, 50 V, +/- 5%, X7R, 0603	Kemet	C0603C103J5RACTU	0603
5	1	C5	CAP, CERM, 1 μ F, 25 V, +/- 10%, X7R, 0603	MuRata	GRM188R71E105KA12D	0603
6	1	C6	CAP, CERM, 0.1 μ F, 50 V, +/- 10%, X7R, 0603	MuRata	GCM188R71H104KA57D	0603
7	1	C7	CAP, CERM, 0.022 μ F, 50 V, +/- 10%, X7R, 0603	MuRata	GRM188R71H223KA01D	0603
8	2	C8, C9	CAP, CERM, 4.7 μ F, 25 V, +/- 10%, X7R, 1206	MuRata	GRM31CR71E475KA88L	1206
9	1	C10	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, 0603	Kemet	C0603C471K5RACTU	0603
10	1	C11	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, 1206_190	Johanson Technology	202R18W102KV4E	1206_190
11	2	C15, C16	CAP, CERM, 1 μ F, 25 V, +/- 10%, X7R, 0603 950	Kemet	C0603C105K3RACTU	0603_950
12	1	C17	CAP, CERM, 2.2 μ F, 35 V, +/- 10%, X7R, 0805	TDK	C2012X7R1V225K085AC	0805
13	1	C24	CAP, CERM, 1000 pF, 25 V, +/- 10%, X7R, 0603	MuRata	GRM188R71E102KA01D	0603
14	2	C25, C26	CAP, CERM, 4.7 μ F, 25 V, +/- 10%, X7R, 1206	TDK	C3216X7R1E475K085AB	1206
15	1	C27	CAP, CERM, 10 μ F, 10 V, +/- 20%, X7R, 1206	TDK	C3216X7R1A106M085AC	1206
16	1	D1	Diode, Schottky, 45 V, 0.2 A, SOD-523F	Comchip Technology	CDBU0245	SOD-523F
17	2	D2, D3	Diode, Fast Rectifier, 200 V, 0.8 A, SOD-123	Rohm	RF081M2STR	SOD-123
18	1	D4	Diode, Zener, 24 V, 300 mW, SOD-523	Diodes Inc.	BZT52C24T-7	SOD-523
19	4	J1, J2, J3, J4	Conn Term Block, 2POS, 3.5mm, TH	Phoenix Contact	1751248	11x8.5x7.3mm
20	1	L1	Inductor, Ferrite, 2.2 μ H, 0.35 A, 0.38 ohm, SMD	MuRata	LQM18PN2R2MFH	0603
21	6	L2, L3, L4, L6, L7, L8	Ferrite Bead, 600 ohm @ 100 MHz, 1.3 A, 0603	MuRata	BLM18KG601SN1D	0603
22	1	L5	Inductor, Shielded, Ferrite, 22 μ H, 0.38 A, 0.9 ohm, SMD	TDK	VLS3010ET-220M	Inductor, 3x1x3mm
23	2	R1, R10	RES, 1.00, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06031R00FKEA	0603
24	1	R2	RES, 169 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW0603169KFKEA	0603
25	1	R3	RES, 14.3 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060314K3FKEA	0603
26	1	R4	RES, 453 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW0603453KFKEA	0603
27	1	R5	RES, 27.4 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060327K4FKEA	0603
28	3	R6, R15, R16	RES, 2.00 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06032K00FKEA	0603
29	1	R7	RES, 42.2, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060342R2FKEA	0603
30	1	R8	RES, 12.7 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060312K7FKEA	0603
31	4	R9, R12, R13, R14	RES, 0, 5%, 0.1 W, 0603	Vishay-Dale	CRCW06030000Z0EA	0603
32	2	R17, R18	RES, 23.2 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060323K2FKEA	0603
33	1	R19	RES, 53.6 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060353K6FKEA	0603
34	1	R20	RES, 10.0 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060310K0FKEA	0603
35	1	T1	Transformer, 80 uH, SMT	Würth Elektronik eiSos	750315144	SMD, Body 9.7x10mm
36	1	U1	100V, 600mA Constant On-Time Synchronous Buck Regulator, NGU0008B	Texas Instruments	LM5017SDXNOPB	NGU0008B
37	1	U2	+36V, +150mA, Ultralow-Noise, Positive LINEAR REGULATOR, DGN0008D	Texas Instruments	TPS7A4901DGN	DGN0008D
38	1	U3	-36V, -200mA, Ultralow-Noise, High PSRR, Adjustable -1.18 to -33 V Output, Negative Linear Regulator, 8-pin MSOP (DGN), -40 to 125 degC, Green (RoHS & no Sb/Br)	Texas Instruments	TPS7A3001DGN	DGN0008D
39	1	U4	28V, 0.5A Step-Down Converter with Sleep Mode, DQC0010A	Texas Instruments	TPS62175DQC	DQC0010A

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