

Bill of Materials

TI DESIGNS

TIDA-00401

10W Isolated Power Supply

Item	Qty	Reference	Description	Manufacturer	Manufacturer Part Number	PCB Footprint
1	1	PCB1	Printed Circuit Board	Any	TIDA-00401	
2	5	C1, C2, C31, C39, C42	CAP, CERM, 4.7uF, 50V, +/-10%, X7R, 1206	MuRata	GRM31CR71H475KA12L	1206
3	1	C3	CAP, CERM, 1000pF, 1000V, +/-5%, C0G/NP0, 1206	Vishay-Vitramon	VJ1206A102JXGAT5Z	1206
4	3	C4, C14, C15	CAP, CERM, 10uF, 16V, +/-10%, X5R, 0805	Taiyo Yuden	EMK212B106KG-T	0805_HV
5	2	C5, C8	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	Kemet	C0603C104J3RAC	0603
6	1	C6	CAP, CERM, 2200pF, 50V, +/-10%, X7R, 0603	Kemet	C0603C222K5RAC	0603
7	1	C7	CAP, CERM, 0.022uF, 16V, +/-10%, X7R, 0603	MuRata	GRM188R71C223KA01D	0603
8	4	C11, C12, C17, C18	CAP, CERM, 10uF, 50V, +/-10%, X7R, 1210	MuRata	GRM32ER71H106KA12L	1210
9	1	C13	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	MuRata	GRM188R71E105KA12D	0603
10	1	C16	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0805	Kemet	C0805C104K1RACTU	0805
11	7	C38, C45, C46	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	AVX	06035C104KAT2A	0603
12	2	C20, C44	CAP, CERM, 22uF, 16V, +/-20%, X5R, 0805	MuRata	GRM21BR61C226ME44	0805_HV
13	3	C21, C27, C35	CAP, CERM, 4.7uF, 50V, +/-10%, X5R, 0805	TDK	C2012X5R1H475K125AB	0805_HV
14	1	C25	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	TDK	C1608X7R1E105K080AB	0603
15	6	C37, C41	CAP, CERM, 0.01uF, 100V, +/-5%, X7R, 0603	AVX	06031C103JAT2A	0603
16	2	C32, C40	CAP, CERM, 10uF, 25V, +/-10%, X7R, 1206	MuRata	GRM31CR71E106KA12L	1206
17	1	C47	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	Taiyo Yuden	EMK107B7105KA-T	0603
18	2	D1, D2	Diode, Schottky, 60 V, 1 A, SMA	Diodes Inc.	B160-13-F	SMA
19	1	D3	Diode, Schottky, 50 V, 3 A, SMC	Diodes Inc.	B350-13-F	SMC
20	3	D5, D7, D9	LED SmartLED Green 570NM	OSRAM	LG L29K-G2J1-24-Z	LED0603AA
21	2	D6, D8	Diode, Zener, 18V, 1W, SOD-123	Panasonic	DZ2W18000L	SOD-123
22	1	D15	Diode, Zener, 5.1 V, 500 mW, SOD-123	Vishay-Semiconductor	BZT52C5V1-G3-08	SOD-123
23	1	D16	Diode, Schottky, 30 V, 0.2 A, SOT-323	Components	BAT54AWT-TP	SOT-323
24	1	D24	DIODE ZENER 5.9V 1W PMDS	Rohm Semiconductor	PTZTE255.6B	powerDI123
25	1	F1	PTC RESTTBLE 0.05A 60V CHIP 1210	Bel Fuse Inc	OZCB0020FF2E	1210
26	3	FID1, FID2, FID3	Fiducial mark. There is nothing to buy or mount.	N/A	N/A	Fiducial10-20
27	4	H1, H2, H3, H4	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	B&F Fastener Supply	NY PMS 440 0025 PH	NY PMS 440 0025 PH
28	4	H5, H6, H7, H8	Standoff, Hex, 0.5"L #4-40 Nylon	Keystone	1902C	Keystone_1902C
29	1	J2	Conn Term Block, 2POS, 3.81mm, TH	Phoenix Contact	1727010	PhoenixConact_1727010
30	1	J3	Terminal Block, 6A, 3.5mm Pitch, 4-Pos, TH	On-Shore Technology	ED555/4DS	TERM_BLK_ED555-4DS
31	1	J4	Conn Term Block, 2POS, 3.81mm, TH	Phoenix Contact	1727010	PhoenixConact_1727010
32	1	J5	Conn Term Block, 2POS, 3.81mm, TH	Phoenix Contact	1727010	PhoenixConact_1727010
33	1	J6	Conn Term Block, 2POS, 3.81mm, TH	Phoenix Contact	1727010	PhoenixConact_1727010
34	1	L1	Inductor, Chip, ±10%	EPCOS INC.	B82422H1332K	IND_B82422H

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TIDA-00401 10W Isolated Power Supply

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35	3	L2, L3, L4	FERRITE CHIP 1000 OHM 1500MA 0805, FERRITE CHIP 1000 OHM 300MA 0603, FERRITE CHIP 1000 OHM 300MA 0603	TDK Corporation	MPZ2012S102A1000, MMZ1608B102C, MMZ1608B102C	FB0603
36	1	LBL1	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	Brady	THT-14-423-10	Label_650x200
37	1	R2	RES, 487k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW0603487KFKEA	0603
38	2	R3, R6	RES, 100 k, 1%, 0.1 W, 0603, RES, 100k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW0603100KFKEA	0603
39	5	R23	RES, 0, 5%, 0.1 W, 0603	Vishay-Dale	CRCW06030000Z0EA	0603
40	1	R5	RES, 0, 5%, 0.125 W, 0805	Vishay-Dale	CRCW08050000Z0EA	0805_HV
41	1	R7	RES, 10.0k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060310K0FKEA	0603
42	1	R8	RES, 2.7 k, 5%, 0.1 W, 0603	Vishay-Dale	CRCW06032K70JNEA	0603
43	1	R9	RES, 18.2k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060318K2FKEA	0603
44	3	R14, R15, R24	RES, 4.7k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW06034K70JNEA	0603
45	2	R16, R27	RES, 2.2 k, 5%, 0.1 W, 0603	Vishay-Dale	CRCW06032K20JNEA	0603
46	2	R19, R25	RES, 110k ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW0402110KFKEA	0603
47	2	R20, R26	RES, 9.42k ohm, 1%, 0.063W, 0402	Vishay-Dale	TNPW04029K42BEED	0603
48	1	R21	RES, 1.2k ohm, 5%, 0.063W, 0402	Vishay-Dale	CRCW04021K20JNED	0402
49	1	RV1	VARISTOR 36.9V 30A 0805	AVX	VC080530A650DP	1206
50	1	T1	Transformer, 50 uH, SMT	Würth Elektronik eiSos	750342706	TR_750342706
51	11	TP9, TP14, TP15,	Test Point 40mil pad 20mil drill	STD	STD	TP1_PD40_D0.5_S50
52	2	TP4, TP5	Test Point, Multipurpose, Black, TH	Keystone	5011	Keystone5011
53	2	TP7, TP8	Test Point, Multipurpose, Black, TH	Keystone	5011	Keystone5011
54	1	TP10	Test Point, Multipurpose, Red, TH	Keystone	5010	Keystone5010
55	1	TP11	Test Point, Multipurpose, Black, TH	Keystone	5011	Keystone5011
56	1	TP12	Test Point, Multipurpose, Black, TH	Keystone	5011	Keystone5011
57	1	TP13	Test Point, Multipurpose, Blue, TH	Keystone	5127	Keystone5127
58	3	TP16, TP17, TP22	Test Point 40mil pad 20mil drill	STD	STD	TP1_PD40_D0.5_S50
59	1	U1	Wide Input 65V, 1.5A Synchronous Step-Down DC-DC Converter, DNT0012B	Texas Instruments	LM5160DNT	DNT0012B
60	1	U2	36-V, 1-A, 4.17-µVRMS, RF LDO Voltage Regulator, RGW0020A	Texas Instruments	TPS7A4700RGW	RGW0020A
61	1	U3	V Input, with Ultra-Low Noise, 8-pin MSOP (DGN), -40 to 125 degC, Green	Texas Instruments	TPS7A4901DGNR	DGN0008D_N
62	1	U4	-36 V Input, with Ultra-Low Noise, 8-pin MSOP (DGN), -40 to 125 degC, Green	Texas Instruments	TPS7A3001DGNR	DGN0008D_N
63	1	U5	Optocoupler, 5kV RMS, SMT	Fairchild Semiconductor	FOD817DS	N04C
64	1	U8	IC,150mA, Ultra Low IQ, 1uA LDO Regulator with Enable	TI	TPS709xxDBV	DBV-5

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