

Bill of Materials

TI DESIGNS

Item	Qty	Reference	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
1	3	C1, C21, C22	CAP, CERM, 0.1uF, 16V, +/-10%, X5R, 0603	MuRata	GRM188R61C104KA01D			
2	3	C2, C3, C23	CAP, CERM, 10uF, 25V, +/-10%, X5R, 0805	TDK	C2012X5R1E106K125AB			
3	2	C5, C6	CAP, CERM, 1uF, 50V, +/-10%, X7R, 0805	MuRata	GRM21BR71H105KA12L			
4	4	C7, C8, C15, C16	CAP, CERM, 2.2uF, 50V, +/-10%, X5R, 1206	MuRata	GRM31CR61H225KA88L			
5	1	C9	CAP, AL, 100uF, 63V, +/-20%, 0.35 ohm, SMD	Panasonic	EEE-FK1J101P			
6	1	C11	CAP, CERM, 2200pF, 16V, +/-10%, X7R, 0603	MuRata	GRM188R71C222KA01D			
7	1	C13	CAP, CERM, 12pF, 50V, +/-5%, COG/NP0, 0603	MuRata	GRM1885C1H120JA01D			
8	2	C14, C25	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603	MuRata	GRM188R71H103KA01D			
9	2	C17, C18	CAP, CERM, 10uF, 10V, +/-20%, X5R, 0603	TDK	C1608X5R1A106M			
10	1	C20	CAP, CERM, 0.033uF, 16V, +/-10%, X7R, 0603	MuRata	GRM188R71C333KA01D			
11	1	C24	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0603	TDK	C1608X7R1E104K			
12	6	C26, C27, C29, C31, C32, C34	CAP, CERM, 0.1uF, 25V, +/-10%, X5R, 0603	AVX	06033D104KAT2A			
13	4	C28, C30, C33, C35	CAP, CERM, 330pF, 50V, +/-10%, X7R, 0603	MuRata	GRM188R71H331KA01D			
14	2	D1, D2	Diode, Schottky, 60V, 1A, SMA	ON Semiconductor	MBRA160T3G			
15	1	J1	Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH	On-Shore Technology	ED555/2DS			
16	1	J2	Header, 100mil, 3x1, Tin plated, TH	Sullins Connector Solutions	PEC035AAN			
17	1	J3	D-Sub-15, 17Pos, TH	Harting	09 66 252 6610			
18	1	J4	Header, 100mil, 5x2, Tin plated, TH	Sullins Connector Solutions	PEC05DAAN			
19	1	J5	Header, 100mil, 3x2, Tin, TH	Sullins Connector Solutions	PEC03DAAN			
20	1	L1	Inductor, Shielded Drum Core, Ferrite, 150uH, 0.7A, 0.57 ohm, SMD	Würth Elektronik eiSos	7447713151			
21	1	L2	Inductor, Wirewound, Ferrite, 4.7uH, 0.9A, 0.2 ohm, SMD	TDK	NLCV32T-4R7M-PFR			
22	5	R1, R30, R42, R50, R60	RES, 10 ohm, 5%, 0.25W, 0603	Vishay-Dale	CRCW060310R0JNEAHP			
23	6	R2, R3, R13, R34, R35, R41	RES, 0 ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW06030000Z0EA			
24	20	R5, R27, R28, R29, R31, R32, R43,	RES, 4.7k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW06034K70JNEA			
25	2	R7, R11	RES, 51 ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW060351R0JNEA			
26	1	R8	RES, 39k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW060339K0JNEA			
27	1	R9	RES, 165k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW0603165KFKEA			
28	2	R10, R14	RES, 90.9k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060390K9FKEA			
29	2	R12, R18	RES, 10.0k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060310K0FKEA			
30	1	R15	RES, 15.4k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060315K4FKEA			
31	2	R16, R23	RES, 4.99k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW06034K99FKEA			
32	1	R17	RES, 36.5k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060336K5FKEA			
33	1	R19	RES, 0.12 ohm, 1%, 0.1W, 0603	Panasonic	ERJ-3RSFR12V			
34	1	R20	RES, 620 ohm, 1%, 0.1W, 0603	Yageo America	RC0603FR-07620RL			
35	1	R21	RES, 150k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW0603150KJNEA			
36	1	R22	RES, 6.8k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW06036K80JNEA			
37	1	R24	RES, 68k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW060368K0JNEA			
38	1	R25	RES, 24k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW060324K0JNEA			
39	1	R26	RES, 10k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW060310K0JNEA			
40	6	R33, R36, R48, R49, R58, R59	RES, 22 ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW060322R0JNEA			
41	3	R37, R38, R39	RES, 470 ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW0603470RJNEA			
42	1	R40	RES, 510 ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW0603510RJNEA			
43	2	TP1, TP2	Test Point, Miniature, Red, TH	Keystone	5000			
44	1	U1	0.5 A, 42 V Step Down DC/DC Converter with Eco-mode	Texas Instruments	TPS54040ADGQ			
45	1	U2	1A SIMPLE SWITCHER® Power Module with 42V Maximum Input Voltage for Military and Rugged Applications	National Semiconductor	LMZ14201EXTTZ/NOPB			
46	1	U3	200-mA, Low-IQ, LDO Regulator for Portable Devices	Texas Instruments	TLV70025DDC			
47	1	U4	2.5 to 18 V Positive Voltage 10A Integrated Hot-Swap Controller	Texas Instruments	TPS24750RUV			
48	2	U5, U7	8-BIT DUAL-SUPPLY BUS TRANSCEIVER WITH CONFIGURABLE VOLTAGE TRANSLATION AND 3-STATE OUTPUTS	Texas Instruments	SN74AVC8T245PW			
49	2	U6, U8	3.3V-Supply RS-485 with IEC ESD Protection	Texas Instruments	SN65HVD78D			

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