

Bill of Materials

TI DESIGNS

TIDA-00643

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number
1	1	!PCB1	PCB	Printed Circuit Board	Any	TIDA-00643
2	7	C1, C3, C4, C5, C6, C17, C22	1uF	CAP, CERM, 1 μ F, 35 V, +/- 10%, X5R, 0603	Taiyo Yuden	GMK107BJ105KA-T
3	2	C2, C7	0.047uF	CAP, CERM, 0.047 μ F, 25 V, +/- 10%, X7R, 0603	MuRata	GRM188R71E473KA01D
4	1	C8	1uF	CAP, CERM, 1 μ F, 16 V, +/- 10%, X5R, 0603	MuRata	GRM188R61C105KA93D
5	1	C9	4.7uF	CAP, CERM, 4.7 μ F, 35 V, +/- 10%, X5R, 0603	MuRata	GRM188R6YA475KE15D
6	5	C10, C11, C12, C19, C28	0.1uF	CAP, CERM, 0.1 μ F, 16 V, +/- 20%, X5R, 0402	Würth Elektronik	885012105016
7	3	C13, C14, C16	1000pF	CAP, CERM, 1000 pF, 50 V, +/- 5%, COG/NPO, 0402	MuRata	GRM1555C1H102JA01D
8	1	C15	2.2uF	CAP, CERM, 2.2 μ F, 35 V, +/- 10%, X5R, 0603	MuRata	GRM188R6YA225KA12D
9	1	C18	390uF	CAP, AL, 390 μ F, 35 V, +/- 20%, 0.08 ohm, SMD	Panasonic	EEE-FPV391UAP
10	1	C20	0.33uF	CAP, CERM, 0.33 μ F, 25 V, +80/-20%, Y5V, 0603	Kemet	C0603C334Z3VACTU
11	1	C21	22uF	CAP, CERM, 22 μ F, 16 V, +/- 10%, X5R, 0805	TDK	C2012X5R1C226K125AC
12	3	C23, C24, C25	2200pF	CAP, CERM, 2200 pF, 16 V, +/- 10%, X7R, 0402	MuRata	GRM155R71C222KA01D
13	4	C26, C27, C29, C30	2.2uF	CAP, CERM, 2.2 μ F, 16 V, +/- 10%, X5R, 0603	MuRata	GRM188R61C225KE15D
14	1	D1	100V	Diode, Schottky, 100 V, 1 A, SOD-123FL	ON Semiconductor	MBR1H100SFT3G
15	1	D2	Green	LED, Green, SMD	Lite-On	LTST-C171GKT
16	1	L1	15uH	Inductor, Shielded Drum Core, Ferrite, 15 μ H, 1.1 A, 0.122 ohm, SMD	Cooper Bussman	SD53-150-R
17	2	L2, L3	600 ohm	Ferrite Bead, 600 ohm @ 100 MHz, 1.3 A, 0603	MuRata	BLM18KG601SN1D
18	6	Q1, Q2, Q3, Q4, Q5, Q6	30V	MOSFET, N-CH, 30 V, 100 A, SON 5x6mm	Texas Instruments	CSD17573Q5B
19	2	R1, R22	10.0k	RES, 10.0 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0710KL
20	1	R2	100	RES, 100, 1%, 0.1 W, 0603	Yageo America	RC0603FR-07100RL
21	3	R3, R4, R5	0.007	RES, 0.007, 1%, 2 W, 2512	Rohm	PMR100HZPFU7L00
22	3	R6, R7, R8	24.9k	RES, 24.9 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060324K9FKEA

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23	4	R9, R10, R11, R14	4.99k	RES, 4.99 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW04024K99FKED
24	1	R13	24.9k	RES, 24.9 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0724K9L
25	1	R15	68.0k	RES, 68.0 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0768KL
26	1	R16	20.0k	RES, 20.0 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060320K0FKEA
27	3	R17, R18, R19	56	RES, 56, 5%, 0.063 W, 0402	Vishay-Dale	CRCW040256R0JNED
28	1	R20	47k	RES, 47 k, 5%, 0.1 W, 0603	Vishay-Dale	CRCW060347K0JNEA
29	1	R23	330	RES, 330, 5%, 0.1 W, 0603	Vishay-Dale	CRCW0603330RJNEA
30	1	U1	IC	Three Phase Gate Driver with Three Integrated Current Shunt Amplifiers and Voltage Regulator	Texas Instruments	DRV8305NPHPR
31	1	U2	IC	4 Channel Protection Solution for Super-Speed (up to 6 GBPS) Interface	Texas Instruments	TPD4E05U06QDQA
32	1	U3	IC	Wide Input Voltage Range Buck Regulator with High Efficiency Sleep Mode	Texas Instruments	LMR16006XDDCR
33	1	U4	IC	Piccolo Microcontroller	Texas Instruments	TMS320F28027FPT

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