

Bill of Materials

TI DESIGNS
500mA Wireless Charger Booster Pack with Gauge
TIDA-00669

Designator	Description	Manufacturer	PartNumber	Quantity
I PCB1	Printed Circuit Board	Any	TIDA-00669	1
I PCB2	Printed Circuit Board	Any	TIDA-00669 Coil Board	1
C1, C3, C7, C15, C24, C25	CAP, CERM, 0.1 µF, 10 V, +/- 10%, X7R, 0402	MuRata	GRM155R71A104KA01D	6
C2	CAP, CERM, 0.47 µF, 6.3 V, +/- 10%, X5R, 0402	MuRata	GRM155R60J474KE19D	1
C4	CAP, CERM, 1 µF, 10 V, +/- 10%, X5R, 0402	MuRata	GRM155R61A105KE15D	1
C5, C21	CAP, CERM, 0.022 µF, 50 V, +/- 10%, X7R, 0402	MuRata	GRM155R71H223KA12D	2
C6, C22	CAP, CERM, 0.47 µF, 25 V, +/- 10%, X7R, 0603	MuRata	GRM188R71E474KA12D	2
C8	CAP, CERM, 4.7 µF, 10 V, +/- 10%, X5R, 0402	TDK	C1005X5R1A475K050BC	1
C9, C23	CAP, CERM, 0.01 µF, 50 V, +/- 5%, X7R, 0402	Kemet	C0402C103J5RACTU	2
C10, C11, C14, C26, C27, C28	CAP, CERM, 10 µF, 6.3 V, +/- 20%, X5R, 0603	Kemet	C0603C106M9PACTU	6
C12	CAP, CERM, 0.022 µF, 16 V, +/- 10%, X7R, 0402	TDK	C1005X7R1C223K	1
C13	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X5R, 0603	MuRata	GRM188R61C475KAAJ	1
C16, C17	CAP, CERM, 0.068 µF, 50 V, +/- 10%, X7R, 0402	TDK	C1005X7R1H683K	2
C18	CAP, CERM, 1800 pF, 50 V, +/- 5%, COG/NP0, 0603	MuRata	GRM1885C1H182JA01D	1
C19, C30	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, 0402	Yageo America	CC0402JRNPO9BN101	2
C20	CAP, CERM, 0.047 µF, 50 V, +/- 10%, X7R, 0603	MuRata	GRM188R71H473KA61D	1
C29	CAP, CERM, 1300 pF, 16 V, +/- 10%, X7R, 0402	AVX	0402YC132KAT2A	1
Coil 1	Wireless coil	Würth	760308103206	1
D1	LED, Green, SMD	Lite-On	LTST-C190GKT	1
Ferrite 1	Ferrite shield	Würth	354005	1
H1, H2, H3, H4, H5, H6, H7, H8	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	B&F Fastener Supply	NY PMS 440 0025 PH	8
HS1, HS2, HS3, HS4	Standoff, Hex, 0.375" L #4-40 Nylon	Keystone	1902B	4
J1, J3, J4, J6, J7, J8	Header, 100mil, 2x1, Gold, TH	Sullins Connector Solutions	PBC02SAAN	6
J1-3, J4-2	Header, 2.54mm, 10x2, Gold, TH	Sullins Connector Solutions	PRPC010DAAN-RC	2
J2	Header (shrouded), 2mm, 2x1, R/A, SMT	JST Manufacturing	S2B-PH-SM4-TB(LF)(SN)	1
L1, L2	Inductor, Multilayer, Ferrite, 1.5 µH, 1.5 A, 0.07 ohm, SMD	MuRata	LQM2HPN1R5MG0L	2
Q1	MOSFET, N-CH, 20 V, 6.7 A	Texas Instruments	CSD85301Q2	1
R1	RES, 221, 1%, 0.063 W, 0402	Vishay-Dale	CRCW0402221R1FKED	1
R2, R4, R13	RES, 10.0 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW040210K0FKED	3
R3	RES, 2.21 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW04022K21FKED	1
R5	RES, 0.047, 1%, 0.1 W, 0603	Panasonic	ER-JL03KF47MV	1
R6	RES, 768 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW0402768KFKED	1
R8, R16, R17, R27	RES, 1.00 M, 1%, 0.063 W, 0402	Vishay-Dale	CRCW04021M00FKED	4
R9	RES, 12.4 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW040212K4FKED	1
R10	RES, 243 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW0402243KFKED	1
R11	RES, 1.50 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW04021K50FKED	1
R12	RES, 2.43 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW04022K43FKED	1
R14	RES, 422, 1%, 0.063 W, 0402	Vishay-Dale	CRCW0402422R1FKED	1
R15	RES, 200, 1%, 0.063 W, 0402	Vishay-Dale	CRCW0402200R1FKED	1
R18, R19	RES, 1.00 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW04021K00FKED	2
R20, R21, R22, R23, R25, R26	RES, 0, 5%, 0.063 W, 0402	Vishay-Dale	CRCW04020000Z0ED	6
R24	RES, 20.0 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW040220K0FKED	1
SH-J1, SH-J4, SH-J6, SH-J7, SH-J8	Shunt, 100mil, Gold plated, Black	3M	969102-0000-DA	5
U1	Cost-Effective Voltage and Current Protection Integrated Circuit for Single-Cell Li-Ion/Li-Polymer Batteries, DSE0006A	Texas Instruments	BQ29707DSER	1
U2	High-Efficiency Qi v1.1-Compliant Wireless Power Receiver and Battery Charger, RHL0020A	Texas Instruments	BQ51050BRHL	1
U3	System-Side Impedance Track Fuel Gauge With Integrated Sense Resistor, YZF0009AKAL	Texas Instruments	BQ27421YZFR-G1A	1
U4	TINY 1.5-A BOOST CONVERTER WITH ADJUSTABLE INPUT CURRENT LIMIT, DSG0008A	Texas Instruments	TPS61252DSG	1
U5	SINGLE INDUCTOR BUCK-BOOST WITH 1A SWITCHES AND ADJUSTABLE SOFT START, YFF0012AFAP	Texas Instruments	TPS63051YFF	1
FID1, FID2, FID3	Fiducial mark. There is nothing to buy or mount.	N/A	N/A	0
J5	Header, 100mil, 2x1, Gold, TH	Sullins Connector Solutions	PBC02SAAN	0
R7	RES, 1.00 M, 1%, 0.063 W, 0402	Vishay-Dale	CRCW04021M00FKED	0

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