

Bill of Materials

TI DESIGNS

Energy Harvester Booster Pack

TIDA-00588

Designator	Description	Manufacturer	PartNumber	Quantity
!PCB1	Printed Circuit Board	Any	TIDA-00588	1
BT1	Battery Holder, CR2032, Retainer clip, TH	Memory Protection Devices	BS-7	1
C1, C2	CAP, CERM, 10 μ F, 10 V, +/- 10%, X5R, 0805	MuRata	GRM21BR61A106KE19L	2
C3, C7	CAP, CERM, 4.7 μ F, 6.3 V, +/- 20%, X5R, 0402	TDK	C1005X5R0J475M050BC	2
C4, C6, C10, C16, C17	CAP, CERM, 0.1 μ F, 10 V, +/- 10%, X7R, 0402	MuRata	GRM155R71A104KA01D	5
C5, C11, C12, C14	CAP, CERM, 100 μ F, 6.3 V, +/- 20%, X5R, 1210	Kemet	C1210C107M9PACTU	4
C8	CAP, CERM, 0.01 μ F, 10 V, +/- 10%, X5R, 0402	MuRata	GRM155R61A103KA01D	1
C9	CAP, CERM, 22 μ F, 10 V, +/- 20%, X5R, 0603	Samsung Electro-Mechanics	CL10A226MP8NUNE	1
C13	CAP, Electric Double Layer, 47000 μ F, 5.5 V, +80/-20%, TH	Elna	DX-5R5H473U	1
C15	CAP, CERM, 1 μ F, 6.3 V, +/- 20%, X5R, 0402	TDK	C1005X5R0J105M	1
D1, D2, D3, D4	Diode, Schottky, 20 V, 0.5 A, SOD-123	ON Semiconductor	MBR0520LT1G	4
D5	Diode, Zener, 4.7 V, 300 mW, SOD-523	Diodes Inc.	BZT52C4V7T-7	1
FID1, FID2, FID3	Fiducial mark. There is nothing to buy or mount.	N/A	N/A	3
J1, J6, J7, J8, J9, J10, J13, J14, J15	Header, 100mil, 2x1, Tin, TH	Molex	90120-0122	9
J2, J4, J5, J11	Header, 2.54 mm, 3x1, Gold, TH	Wurth Elektronik	61300311121	4
J3	TERMINAL BLOCK 5.08MM VERT 2POS, TH	On-Shore Technology	ED120/2DS	1
J12	Header (shrouded), 2mm, 2x1, R/A, SMT	JST Manufacturing	S2B-PH-SM4-TB(LF)(SN)	1
JP1, JP2	Receptacle, 2.54 mm, 10x2, Gold, TH	Major League Electronics	CRD-081413-A-G	2
L1	Inductor, Shielded, Ferrite, 4.7 μ H, 1.2 A, 0.14 ohm, SMD	Coilcraft	EPL3015-472MLB	1
L2	Inductor, Shielded Drum Core, Ferrite, 22 μ H, 0.83 A, 0.36 ohm, SMD	Coilcraft	LPS4018-223MLB	1
L3	Inductor, Shielded Drum Core, Ferrite, 10 μ H, 1.25 A, 0.2 ohm, SMD	Coilcraft	LPS4018-103MLB	1
R1, R20	RES, 1.00 M, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06031M00FKEA	2
R2	RES, 110 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW0603110KFKEA	1
R3, R4, R5, R8, R15, R16, R21, R22, R23	RES, 0, 5%, 0.1 W, 0603	Panasonic	ERJ-3GEY0R00V	9
R6, R7, R9, R10	RES, 0, 5%, 0.125 W, 0805	Vishay-Dale	CRCW08050000Z0EA	4
R11	RES, 374 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW0603374KFKEA	1
R12	RES, 7.32 M, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06037M32FKEA	1
R13, R14	RES, 8.25 M, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06038M25FKEA	2
R17	RES, 5.62 M, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06035M62FKEA	1
R18	RES, 4.53 M, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06034M53FKEA	1
R19	RES, 4.75 M, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06034M75FKEA	1
SH-J1, SH-J2, SH-J4, SH-J5, SH-J6, SH-J7, SH-J9, SH-J10, SH-J11, SH-J14	Shunt, 100mil, Gold plated, Black	3M	969102-0000-DA	10

Designator	Description	Manufacturer	PartNumber	Quantity
U1	LOW INPUT VOLTAGE STEP-UP CONVERTER IN 6 PIN SC-70 PACKAGE, DCK0006A	Texas Instruments	TPS61220DCKR	1
U2, U3, U5, U6	MONOCRYSTALLINE SOLAR CELL, 22MM X 7MM, SMD	IXYS	KXOB22-04X3L	4
U4	Ultra Low Power Harvester Power Management IC with Boost Charger, and Nano-Powered Buck Converter, RGR0020A	Texas Instruments	BQ25570RGRR	1

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