TI DESIGNS

Bill of Materials

TIDA-00100

Designator	Quantity	Value	Description	Manufacturer	PartNumber
!PCB1	1		Printed Circuit Board	Any	ISE4002
C1, C15	2	1uF	CAP, CERM, 1uF, 6.3V, +/-20%, X5R, 0402	TDK	C1005X5R0J105M
C2, C3, C4, C5, C7	5	0.1uF	CAP, CERM, 0.1uF, 10V, +/-10%, X7R, 0402	MuRata	GRM155R71A104KA01D
C6	1	220pF	CAP, CERM, 220pF, 50V, +/-5%, C0G/NP0, 0402	MuRata	GRM1555C1H221JA01D
C8	1	2.2uF	CAP, CERM, 2.2uF, 6.3V, +/-20%, X5R, 0402	Taiyo Yuden	JMK105BJ225MV-F
C9, C13	2	1pF	CAP, CERM, 1pF, 50V, +/-5%, C0G/NP0, 0402	MuRata	GRM1555C1H1R0CA01D
C10	1	0.4pF	CAP, CERM, 0.4pF, 50V, +/-25%, C0G/NP0, 0402	MuRata	GRM1555C1HR40BA01D
C11, C12	2	18pF	CAP, CERM, 18pF, 50V, +/-5%, C0G/NP0, 0402	MuRata	GRM1555C1H180JA01D
C14, C16	2	15pF	CAP, CERM, 15pF, 50V, +/-5%, C0G/NP0, 0402	MuRata	GRM1555C1H150JA01D
C17, C18	2	12pF	CAP, CERM, 12pF, 50V, +/-5%, C0G/NP0, 0402	MuRata	GRM1555C1H120JA01D
C19	1	1000pF	CAP, CERM, 1000pF, 50V, +/-5%, C0G/NP0, 0402	MuRata	GRM1555C1H102JA01D
C20, C24	2	4.7uF	CAP, CERM, 4.7uF, 10V, +/-10%, X5R, 0805	Kemet	C0805C475K8PACTU
C21, C25	2	0.1µF	CAP CER 0.1UF 6.3V 10% X5R 0603	AVX Corporation	06036D104KAT2A
C22	1	0.01uF	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603	MuRata	GRM188R71H103KA01D
C23, C26, C27, C28	4	1.0µF	CAP CER 1UF 10V 20% X5R 0603	Murata Electronics North America	GRM188R61A105MA61D
C29	1	8000 uF	Supercapacitors / Ultracapacitors 5.5Volts 8uF FLAT LEADS	Cellergy	CLG05P008F12
D1, D10	2	5V	Diode, Schottky, 5V, 0.03A, SOD-323	Toshiba	1SS315TPH3F
D2	1	Yellow	LED, Yellow, SMD	Rohm	SML-P12YTT86
D3, D4, D5, D6, D7, D8, D9	7		ESD in 0402 Package with 10 pF Capacitance and 6 V Breakdown, 1 Channel, -40 to +125 degC, 2-pin X2SON (DPY), Green (RoHS & no Sb/Br)	Texas Instruments	TPD1E10B06DPYR
FB1	1	1000 ohm	0.25A Ferrite Bead, 1000 ohm @ 100MHz, SMD	MuRata	BLM15HG102SN1D
H1, H2, H3, H4	4		Screw, Pan Head , 4-40, 3/8", Nylon	B&F Fastener Supply	NY PMS 440 0038 PH
H5, H6, H7, H8	4		Nut, Hex, 4-40, Nylon	B&F Fastener Supply	NY HN 440

Designator	Quantity	Value	Description	Manufacturer	PartNumber
H9, H10, H11, H12	4		Bumpon, Hemisphere, 0.44 × 0.20, Clear	3M	SJ-5303 (CLEAR)
J1	1		Header, 50mil, 5x2, R/A, SMT	Samtec	FTSH-105-01-F-DH
J2	1		Header, 100mil, 2x1, Tin plated, TH	Sullins Connector Solutions	PEC02SAAN
J3, J4	2		Header, 100mil, 3x1, Tin plated, TH	Sullins Connector Solutions	PEC03SAAN
J5	1		TERMINAL BLOCK 3.5MM 2POS PCB	On Shore Technology Inc	ED555/2DS
L1	1	2.2nH	Inductor, Multilayer, Air Core, 2.2nH, 0.3A, 0.12 ohm, SMD	MuRata	LQG15HS2N2S02D
L2	1	5.1nH	Inductor, Multilayer, Air Core, 5.1nH, 0.3A, 0.2 ohm, SMD	MuRata	LQG15HH5N1S02D
L3, L4	2	2nH	Inductor, Multilayer, Air Core, 2nH, 0.3A, 0.1 ohm, SMD	MuRata	LQG15HS2N0S02D
L5	1	22uH	Inductor, Shielded Drum Core, Ferrite, 22uH, 0.83A, 0.36 ohm, SMD	Coilcraft	LPS4018-223MLB
LBL1	1		Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	Brady	THT-14-423-10
Q1	1		P-Channel NexFET(TM) Power MOSFET, YZC0006ABBB	Texas Instruments	CSD75205W1015
R1, R2, R3, R4, R5, R6, R7, R10	8	0	RES, 0 ohm, 5%, 0.063W, 0402	Vishay-Dale	CRCW04020000Z0ED
R8	1	2.74k	RES, 2.74k ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW04022K74FKED
R9	1	56.2k	RES, 56.2k ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW040256K2FKED
R11	1	2.21k	RES, 2.21k ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW04022K21FKED
R12, R14	2	4.99Meg	RES, 4.99Meg ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW06034M99FKEA
R13	1	10.0Meg	RES, 10.0Meg ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060310M0FKEA
R15	1	1.00k	RES, 1.00k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW06031K00FKEA
R16, R17	2	0	RES, 0 ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW06030000Z0EA
R18, R21	2	5.49Meg	RES, 5.49Meg ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW06035M49FKEA
R19	1	7.32Meg	RES, 7.32Meg ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW06037M32FKEA
R20	1	2.80Meg	RES, 2.80Meg ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW06032M80FKEA
R22	1	5.76Meg	RES, 5.76Meg ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW06035M76FKEA
TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9	9	Red	Test Point, Miniature, Red, TH	Keystone	5000
U1	1		2.4-GHz Bluetooth low energy and Proprietary System-on-Chip, RHA0040H	Texas Instruments	CC2541RHA

Designator	Quantity	Value	Description	Manufacturer	PartNumber
U2	1		Ultra Low Power Boost Converter with Battery Management for Energy Harvester Applications, RGR0020A	Texas Instruments	BQ25505RGR
X1	1		CRYSTAL, 32.768KHZ, 9PF, SMD	Abracon Corportation	ABS07-32.768KHZ-9-T
X2	1		Crystal, 32MHz, 10pF, SMD	Epson	Q22FA1280009200
Z1	1		PHOTOVOLTAIC SOLAR CELL	Cymbet Corporation	CBC-PV-01N
FID1, FID2, FID3	0		Fiducial mark. There is nothing to buy or mount.	N/A	N/A

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substitut

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