

Energy Buffering

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC	1		Printed Circuit Board		PMP9753	Any	-	-
C1	1	100uF	CAP, CERM, 100uF, 6.3V, +/-20%, X5R, 1210	1210	GRM32ER60J107ME20L	MuRata		
C2, C3, C6	3	10uF	CAP, CERM, 10uF, 6.3V, +/-20%, X5R, 0603	0603	GRM188R60J106ME84	MuRata		
J1, J2, J3, J4, J5, J6, J7, J8, J9, J10, J11, J12, J13, J14, J15, J16, J17	17		Header, TH, 100mil, 2x1, Gold plated, 230 mil above insulator	TSW-102-07-G-S	TSW-102-07-G-S	Samtec, Inc.		
J18	1		Connector, 15x2, 3A 300V STRT DIP, TH	Connector, 15x2, Pitch 2.54mm, TH	XG4C-3031	Omron Electronic Components		
JP1, JP2, JP3, JP4, JP5, JP6, JP7, JP8, JP9	9		Header, TH, 100mil, 3x1, Gold plated, 230 mil above insulator	TSW-103-07-G-S	TSW-103-07-G-S	Samtec, Inc.		
L1	1	2.2uH	Inductor, Multilayer, Ceramic, 2.2uH, 0.7A, 0.23 ohm, SMD	2.2x1x1.45 mm	MIPSZ20120D2R2	FDK		
LBL1	1		Thermal Transfer Printable Labels, 0.650" W x 0.200" H 10,000 per roll	PCB Label 0.650"H x 0.200"W	THT-14-423-10	Brady	-	-
Q1, Q2	2	-12V	MOSFET, P-CH, -12V, -2.3A, 1.0x0.35x0.6mm	1.0x0.35x0.6mm	CSD23381F4	Texas Instruments		None
R1	1	1.00Meg	RES, 1.00Meg ohm, 1%, 0.1W, 0603	0603	RC0603FR-071ML	Yageo America		
R2	1	30	RES, 30 ohm, 5%, 0.1W, 0603	0603	CRCW060330R0JNEA	Vishay-Dale		
R3	1	300	RES, 300 ohm, 1%, 0.1W, 0603	0603	RC0603FR-07300RL	Yageo America		
R4, R5	2	2.7k	RES, 2.7k ohm, 5%, 0.1W, 0603	0603	CRCW06032K70JNEA	Vishay-Dale		
SH-JP1, SH-JP2, SH-JP3, SH-JP4, SH-JP5, SH-JP6, SH-JP7, SH-JP8, SH-JP9	9	1x2	Shunt, 100mil, Gold plated, Black	Shunt	969102-0000-DA	3M	SNT-100-BK-G	Samtec
U1	1		360nA IQ Step Down Converter for Low Power Applications, DSS0012A	DSS0012A	TPS62740DSS	Texas Instruments		None
BT1	1	3.6V	Battery, 3.6 V, 2.4 Ah, Axial, TH	Battery, 50.5x 14.7mm, TH	SL360/P	Tadiran Batteries		
C4	0	10uF	CAP, CERM, 10uF, 6.3V, +/-20%, X5R, 0603	0603	GRM188R60J106ME84	MuRata		
C5	0	100uF	CAP, CERM, 100uF, 6.3V, +/-20%, X5R, 1210	1210	GRM32ER60J107ME20L	MuRata		
C7	0	open						
C8	0	470000uF	CAP, Electric Double Layer, 470000uF, 4.2 V, +/- 20%, 0.045 ohm, Electrical Double Layer Capacitor, Body 21.5x14.5mm, Pitch 3.5mm SMD	Electrical Double Layer Capacitor, Body 21.5x14.5mm, Pitch 3.5mm	DMF3Z5R5H474M3DTA0	MuRata		
FID1, FID2, FID3	0		Fiducial mark. There is nothing to buy or mount.	Fiducial	N/A	N/A		
H1, H2, H3, H4	0		Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw	NY PMS 440 0025 PH	B&F Fastener Supply	-	-
H5, H6, H7, H8	0		Standoff, Hex, 0.5"L #4-40 Nylon	Standoff	1902C	Keystone	-	-
R6, R7	0	open						
TP1	0	White	Test Point, Miniature, White, TH	White Miniature Testpoint	5002	Keystone		

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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