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Reference Design to extend the alkaline battery lifetime

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
!PCB	1		Printed Circuit Board		PMP9771	Any		
BT1	1		AA Alkaline Battery	AA Battery				
BT2	1		160mAh Lithium Polymer Battery	31mmx18mm			-	-
C1, C2	2	10uF	CAP, CERM, 10 µF, 6.3 V, +/- 10%, B, 0603	0603	GRM188B30J106ME47	MuRata		
H1, H2, H3, H4	4		Machine Screw, Round, #4-40 x 1/4, Nylon, Phillips panhead	Screw	NY PMS 440 0025 PH	B&F Fastener Supply		
J1, J3, J4, J6, J7	5		Header, 100mil, 2x1, Gold, TH	2x1 Header	TSW-102-07-G-S	Samtec		
J2, J5	2		Header, TH, 100mil, 3x1, Gold plated, 230 mil above insulator	TSW-103-07-G-S	TSW-103-07-G-S	Samtec, Inc.	Equivalent	Any
L1	1	4.7uH	Inductor, Shielded, Ferrite, 4.7 µH, 1.2 A, 0.14 ohm, SMD	Inductor, 3x1.55x3mm	EPL3015-472MLB	Coilcraft		
R1	1	1.00Meg	RES, 1.00 M, 1%, 0.1 W, 0603	0603	RC0603FR-071ML	Yageo America		
R2	1	143k	RES, 143 k, 1%, 0.1 W, 0603	0603	CRCW0603143KFKEA	Vishay-Dale		
R3	1	40.2	RES, 40.2, 1%, 0.1 W, 0603	0603	CRCW060340R2FKEA	Vishay-Dale		
TP1	1	Black	Test Point, Compact, Black, TH	Black Compact Testpoint	5006	Keystone		
U1	1		LOW INPUT VOLTAGE STEP-UP CONVERTER IN 6 PIN SC-70 PACKAGE, DCK0006A	DCK0006A	TPS61220DCK	Texas Instruments		Texas Instruments

Notes:

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

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