

**LM5118Q Two Switch Buck Boost**

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
!PCB1	1		Printed Circuit Board		PMP7905	Any
C1	1	100uF	CAP, AL, 100uF, 100V, +/-20%, 0.17 ohm, SMD	SMT Radial J16	EEV-FK2A101M	Panasonic
C2, C3, C4, C5, C6, C101, C102, C103, C104, C105	10	4.7uF	CAP, CERM, 4.7uF, 100V, +/-20%, X7S, 1210	1210	C3225X7S2A475M	TDK
C7, C8, C9, C10	4	47uF	CAP, CERM, 47uF, 16V, +/-20%, X5R, 1210	1210	GRM32ER61C476ME15L	MuRata
C11, C12, C13	3	100uF	CAP, AL, 100uF, 16V, +/-20%, 0.024 ohm, SMD	F80	APXE160ARA101MF80G	Nippon Chemi-Con
C14, C16, C17	3	0.1uF	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0805	0805	C2012X7R1E104K	TDK
C15, C24, C25	3	0.1uF	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0805	0805	C2012X7R2A104K	TDK
C18	1	1000pF	CAP, CERM, 1000pF, 25V, +/-10%, X7R, 0805	0805	GRM216R71E102KA01D	MuRata
C19	1	750pF	CAP, CERM, 750pF, 50V, +/-5%, C0G/NP0, 0805	0805	GRM2165C1H751JA01D	MuRata
C20	1	0.047uF	CAP, CERM, 0.047uF, 25V, +/-10%, X7R, 0805	0805	GRM219R71E473KA01D	MuRata
C21	1	100pF	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0805	0805	C2012C0G1H101J	TDK
C22, C23	2	1uF	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0805	0805	C2012X7R1E105K	TDK
D1, D2, D3, D4	4	0.52V	Diode, Schottky, 30V, 20A, TO-220	TO-220	MBR2030CTL	On Semiconductor
D5, D6	2	1.25V	Diode, Ultrafast, 100V, 0.15A, SOD-123	SOD-123	1N4148W-7-F	Diodes Inc.
FID1, FID2, FID3, FID4, FID5, FID6	6		Fiducial mark. There is nothing to buy or mount.	Fiducial	N/A	N/A
H1, H2, H3, H4, H5, H6	6		THERM PAD TO-220 W/ADH .009" SP9		SP900S-0.009-AC-58	Bergquist
H7, H8, H9, H10, H11, H12	6		WASHER SHOULDER #4 NYLON 25/PK		MNI-4-3	Richco Plastic Co
H13, H14, H15	3		Machine Screw, Round, #4-40 x 1/2 Steel, Philips panhead		PMS 440 0050 PH	B&F Fastener Supply
H16, H17, H18	3		WASHER FLAT #4 STEEL		5205820-3	TE Connectivity
H19, H20, H21	3		HEX NUT 1/4" 4-40 100/PK		HNZ 440	B&F Fastener Supply
HS1, HS2, HS3	3	HS-TO-220-VERT-1	Heat Sink TO-220 Vertical 1 Inch	HS-TO-220-VERT-1	529702B02500G	AAVID Thermalloy
J1, J2, J3, J4	4	Triple	Terminal, Turret, TH, Triple	Keystone1598-2	1598-2	Keystone
J5, J6, J7, J8	4	50 ohm	Connector, RF Jack, Vertical, Gold, SMD	A-1JB	A-1JB	Amphenol
L1	1	10uH	Inductor, Shielded E Core, Ferrite, 10uH, 28A, 0.0026 ohm, SMD	SER2918	SER2918H-103KL	Coilcraft
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	30V	MOSFET, N-CH, 30V, 80A, TO-220	TO-220	IPP034N03L G	Infineon Technologies
R1	1	0.5	RES, 0.5 ohm, 1%, 0.5W, 1206	1206	CSR1206FKR500	Stackpole Electronics Inc
R2, R3	2	0.015	RES, 0.015 ohm, 1%, 3W, 4527	4527	WSR3R0150FEA	Vishay-Dale
R4, R7, R9, R14	4	1.0	RES, 1.0 ohm, 5%, 0.125W, 0805	0805	CRCW08051R00JNEA	Vishay-Dale
R5	1	75.0k	RES, 75.0k ohm, 1%, 0.125W, 0805	0805	CRCW080575K0FKEA	Vishay-Dale
R6	1	1.0Meg	RES, 1.0Meg ohm, 5%, 0.125W, 0805	0805	CRCW08051M00JNEA	Vishay-Dale
R8	1	15.0k	RES, 15.0k ohm, 1%, 0.125W, 0805	0805	CRCW080515K0FKEA	Vishay-Dale
R10	1	60.4k	RES, 60.4k ohm, 1%, 0.125W, 0805	0805	CRCW080560K4FKEA	Vishay-Dale
R11	1	5.6k	RES, 5.6k ohm, 5%, 0.125W, 0805	0805	CRCW08055K60JNEA	Vishay-Dale
R12	1	10.7k	RES, 10.7k ohm, 1%, 0.125W, 0805	0805	CRCW080510K7FKEA	Vishay-Dale
R13	1	51	RES, 51 ohm, 5%, 0.125W, 0805	0805	CRCW080551R0JNEA	Vishay-Dale
R15	1	1.24k	RES, 1.24k ohm, 1%, 0.125W, 0805	0805	CRCW08051K24FKEA	Vishay-Dale
R16, R17, R18, R19	4	49.9	RES, 49.9 ohm, 1%, 0.125W, 0805	0805	CRCW080549R9FKEA	Vishay-Dale
TP1, TP3	2	Red	Test Point, TH, Multipurpose, Red	Keystone5010	5010	Keystone
TP2, TP4	2	Black	Test Point, TH, Multipurpose, Black	Keystone5011	5011	Keystone
TP5, TP6, TP7, TP8, TP9, TP10, TP11	7	SMT	Test Point, SMT, Miniature	Testpoint_Keystone_Miniature	5015	Keystone
TP12, TP13	2	White	Test Point, TH, Multipurpose, White	Keystone5012	5012	Keystone
U1	1		Wide Voltage Range Buck-Boost Controller, 20-pin TSSOP-EP, Pb-Free	MXA20A	LM5118Q1MHX/NOPB	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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