

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
!PCB1	1		Printed Circuit Board			Any
C1	1	47uF	CAP, AL, 47 µF, 50 V, +/- 20%, 0.3 ohm, SMD	SMT Radial G	EEE-FC1H470P	Panasonic
C2	1	0.1uF	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0805	0805	C0805C104K1RACTU	Kemet
C3	1	10uF	CAP, CERM, 10 µF, 50 V, +/- 20%, X7R, 1210	1210	C3225X7R1H106M250A C	TDK
C4, C5	2	1uF	CAP, CERM, 1 µF, 100 V, +/- 20%, X7R, 1206	1206	C3216X7R2A105M160A A	TDK
C6, C7, C8, C9, C10, C11	6	2.2uF	CAP, CERM, 2.2 µF, 100 V, +/- 10%, X7R, 1206_190	1206_190	CL31B225KCHSNNE	Samsung Electro-Mechanics
C12, C15, C19, C22	4	0.1uF	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603	C0603C104K5RACTU	Kemet
C13	1	4.7uF	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X5R, 0603	0603	GRM188R61C475KAAJ	MuRata
C14	1	0.47uF	CAP, CERM, 0.47 µF, 100 V, +/- 10%, X7R, 0805	0805	GRM21BR72A474KA73 L	MuRata
C16	1	1000pF	CAP, CERM, 1000 pF, 100 V, +/- 5%, C0G/NP0, 0603	0603	GRM1885C2A102JA01 D	MuRata
C17, C18	2	82uF	CAP, Aluminum Polymer, 82 µF, 16 V, +/- 20%, 0.03 ohm, D6.3xL5.8mm SMD	D6.3xL5.8mm	875105344009	Würth Elektronik
C20, C21	2	47uF	CAP, CERM, 47 µF, 16 V, +/- 15%, X5R, 1206	1206	C3216X5R1C476M160A B	TDK
C23	1	33pF	CAP, CERM, 33 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	06035A330JAT2A	AVX
C24, C26, C28	3	0.01uF	CAP, CERM, 0.01 µF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	CGA3E2X7R2A103K08 0AA	TDK
C25	1	0.068uF	CAP, CERM, 0.068 µF, 25 V, +/- 10%, X7R, 0603	0603	GRM188R71E683KA01 D	MuRata
C27	1	22pF	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603	CGA3E2C0G1H220J08 0AA	TDK
D1	1	60V	Diode, Schottky, 60 V, 1 A, SOD-323F	SOD-323F	PMEG6010CEJ,115	NXP Semiconductor
D2	1	50V	Diode, Schottky, 50 V, 2 A, AEC-Q101, SMA	SMA	SS25S-E3/5AT	Vishay-Semiconductor
H1, H2, H3, H4	4		Nylon Screw, Panhead, Phillips, 2-56		NY PMS 256 0025 PH	B&F Fastener Supply
H5, H6, H7, H8	4		Standoff, Hex, 0.5"L #4-40 Nylon	Standoff	1902C	Keystone
J1, J5	2		Therminal Block, 5 mm, 2-pole, Tin, TH	TH, 2-Leads, Body 10x10mm, Pitch 5mm	282856-2	TE Connectivity
J2, J6, J7	3		Header, 100mil, 3x1, Gold, TH	3x1 Header	TSW-103-07-G-S	Samtec
J3, J4	2		Header, 100mil, 2x1, Gold, TH	2x1 Header	TSW-102-07-G-S	Samtec
L1	1	2.2uH	Inductor, Shielded Drum Core, Ferrite, 2.2 µH, 16.5 A, 0.0037 ohm, SMD	Inductor, 10.9x9.3x10mm	7443330220	Würth Elektronik
L2	1	2uH	Inductor, Shielded, Composite, 2 µH, 39.9 A, 0.001909 ohm, SMD	15.2x8x16.2mm	XAL1580-202MEB	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, Q3, Q4	4	40V	MOSFET, N-CH, 40 V, 33 A, AEC-Q101, SOT669	SOT669	BUK9Y21-40E,115	NXP Semiconductor
R1	1	1.0	RES, 1.0, 5%, 0.25 W, 1206	1206	CRCW12061R00JNEA	Vishay-Dale
R2, R7, R9	3	10.0	RES, 10.0, 1%, 0.25 W, 0603	0603	CRCW060310R0FKEA HP	Vishay-Dale
R3, R5, R11, R13, R14	5	0	RES, 0, 5%, 0.1 W, 0603	0603	CRCW06030000Z0EA	Vishay-Dale
R4	1	0.003	RES SMD 0.003 OHM 3W 2512 WIDE	Wide 2512 (6432 Metric), 1225	KRL6432E-M-R003-F-T1	Susumu
R6	1	10.0k	RES, 10.0 k, 1%, 0.1 W, 0603	0603	CRCW060310K0FKEA	Vishay-Dale
R8	1	1.0	RES, 1.0, 5%, 0.5 W, 1206	1206	CRM1206-JW-1R0ELF	Bourns
R10	1	49.9	RES, 49.9, 1%, 0.1 W, 0603	0603	CRCW060349R9FKEA	Vishay-Dale
R12	1	5.49k	RES, 5.49 k, 1%, 0.1 W, 0603	0603	CRCW06035K49FKEA	Vishay-Dale
TP1	1	White	Test Point, Miniature, White, TH	White Miniature Testpoint	5002	Keystone
U1	1		Wide Input Range Buck Controller, RGE0024H	RGE0024H	LM5141QRGERQ1	Texas Instruments
FID1, FID2, FID3	0		Fiducial mark. There is nothing to buy or mount.	Fiducial	N/A	N/A

Notes:

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

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