

Quantity	Designator	Comment	Description	Manufacturer	Part Number
1	C1	180 µF	420CXW180MEFR18X40 Aluminum Electrolytic Capacitors - Radial Leaded 180uF 420V 18mm Diameter 40mm length 7.5mm SP	Rubycon	420CXW180MEFR18X40
2	C2, C3	0.1 µF	CGA5L4X7T2W104K160AE 0.1 µF ±10% 450V Ceramic Capacitor X7T 1206 (3216 Metric)	TDK Corporation	CGA5L4X7T2W104K160AE
2	C4, C28	10 nF	CL31B103KHFNNNE 10000 pF ±10% 630V Ceramic Capacitor X7R 1206 (3216 Metric), CL31B103KHFNNNE CAP CER 10000PF 630V X7R 1206	Samsung Electro-Mechanics	CL31B103KHFNNNE
2	C6, C7	0.22 µF	0.22 µF Film Capacitor 160V 450V Polypropylene (PP), Metallized Radial	KEMET	R71XF322050H0K
4	C8, C49, C60, C61	10 nF	CAP CER 10000PF 25V COG/NPO 0603	Murata Electronics	GRT1885C1E103JA02D
2	C9, C10	22 pF 200 V	CAP CER 22PF 200V COG/NPO 0805	YAGEO	CC0805JRNPOABN220
1	C11	33 µF 50 V	CAP ALUM 33UF 20% 50V RADIAL	Panasonic	ECA-1HHG3301
8	C12, C14, C17, C25, C39, C43, C45, C57	0.1 µF	0.1 µF ±20% 50V Ceramic Capacitor X7R 0603 (1608 Metric), CAP CER 0.1UF 50V X7R 0603	KEMET	C0603C104M5RAC7867
1	C13	2.2 nF	C1608COG1H22J080AA CAP CER 2200PF 50V COG 0603	TDK Corporation	C1608COG1H22J080AA
1	C15	2.2 µF	CL21B225KAFNFNE CAP CER 2.2UF 25V X7R 0805	Samsung Electro-Mechanics	CL21B225KAFNFNE
1	C16	4.7 µF	CAP CER 4.7UF 16V X7R 0603	Murata Electronics	GRM188Z71C475KE21J
1	C18	1 nF	CAP CER 1000PF 25V COG/NPO 0603	KYOCERA AVX	06033A102JA2A
1	C19	0.1 µF	B32671P4104K000 CAP FILM 0.1UF 10% 450VDC RADIAL	EPCOS - TDK Electronics	B32671P4104K000
1	C20	47 µF 35 V	860010572005 CAP ALUM 47UF 20% 35V RADIAL	Würth Elektronik	860010572005
3	C21, C22, C51	0.1 µF 50 V	CAP CER 0.1UF 50V X7R 0603	KEMET	C0603C104M5RAC7867
1	C23	470 pF 25 V	CAP CER 470PF 25V COG/NPO 0603	Würth Elektronik	885012006042
2	C24, C31	100 µF 80 V	CAP ALUM 100UF 20% 80V RADIAL	Panasonic Electronic Components	EEU-FS1K101LB
3	C26, C27, C38	4.7 nF 1 kV	CAP MLCC 4700PF 1KV COG 1210	Murata Electronics	GCM32D5C3A472JX01K
1	C29	10 nF NS	CAP CER 10000PF 25V X7R 0603 DNP	YAGEO	CC0603KRX7R88B103
1	C32	10 µF	CL31B106KLNHFNE CAP CER 10UF 35V X7R 1206	Samsung Electro-Mechanics	CL31B106KLNHFNE
1	C33	220 µF 50 V	Aluminum Electrolytic Capacitors - Radial Leaded 50VDC 220uF 9000H 8x20mm	Panasonic	EEU-FS1H221LB
1	C36	2.2 nF 1 kV NS	CAP CER 2200PF 1000V COGNPO 1210	KEMET	C1210C222MDGAC7800
1	C37	10 µF 50 V	CAP CER 10UF 50V X7R 1206	Samsung Electro-Mechanics	CL31B106KLNHFNE
1	C40	1 nF 50 V	CAP CER 1000PF 50V X7R 0603	YAGEO	CC0603JRX7R98B102
1	C41	1 µF 35 V	GMK107AB7105KAHT CAP CER 1UF 35V X7R 0603	Taiyo Yuden	GMK107AB7105KAHT
1	C42	22 nF	CAP CER 0.022UF 50V X7R 0603	TDK Corporation	C1608X7R1H223K080AA
1	C44	47 µF 35 V	860010572005 CAP ALUM 47UF 20% 35V RADIAL	Würth Elektronik	860010572005
1	C47	100 pF 1 kV	CL31C101J1FNFNE CAP CER 100PF 1KV COG/NPO 1206	Samsung Electro-Mechanics	CL31C101J1FNFNE
1	C48	0.1 µF 50 V	CAP CER 0.1UF 50V X7R 0603	KEMET	C0603C104M5RAC7867
1	C52	22 nF	CAP CER 0.022UF 50V X7R 0603	TDK Corporation	C1608X7R1H223K080AA
1	C59	33 nF	CAP CER 0.033UF 50V X7R 0603	KEMET	C0603C333M5RAC7867
1	C63	0.47 µF 25 V	CAP CER 0.47UF 25V X7R 0603	YAGEO	CC0603KRX7R88B474
2	C66, C67	1 nF 200 V	CAP CER 1000PF 200V COG/NPO 0805	Würth Elektronik	885342007003
1	CMC1	10 mH	MPS P5334 Common Mode Choke 10mH 38mOHM Max	MPS Industries	P5334_1
1	CX1	0.47 µF X2	B32922C3474K000 CAP FILM 0.47UF 10% 630VDC RAD	EPCOS - TDK Electronics	B32922C3474K000
2	CY1, CY2	6.8 nF Y2	VY2682M47Y5V63V7 CAP CER 6800PF 300VAC Y5V RADIAL X1/Y2	Vishay Beyschlag/Draloric/BC Components	VY2682M47Y5V63V7
1	CY3	1 nF 300 V	CAP CER 1000PF 300V NONSTND SMD	Murata Electronics	DK1E3EA102M86RBH01
1	D1	600 V 3 A	DIODE GEN PURP 600V 3A SMC	ON Semi	S3J
1	D2	650 V 6 A	DIODE SIL CARB 650V 6A TO220AC	SMC Diode Solutions	S3D06065A
3	D3	BR 1 kV 35 A	GBU3510_TO_00601 GBU PACKAGE, 35A/1000V STANDARD	Panjit International Inc.	GBU3510_TO_00601
4	D4, D5, D11, D12	60 V 1 A	DIODE SCHOTTKY 60V 1A PWRDI323	Diodes Incorporated	PD3S160Q-7
2	D6, D7	200 V 1 A	DIODE SBR 200V 1A POWERDI123	Diodes Incorporated	SBR1U200P1-7
2	D8, D9	1 kV 1 A	DIODE GP 1KV 1A MINI SMA/SOD123	Comchip Technology	CGRM4007-G
1	D10	600 V 1 A	DIODE GEN PURP 600V 1A SOD123F	Taiwan Semiconductor Corporation	ES1JFL
2	D13, D14	75 V 0.3 A	DIODE GEN PURP 75V 300MA SOD323	SMC Diode Solutions	1N4148WS
1	F1	6.3 A 250 V slow	39216300000 Fuses with Leads - Through Hole 250V 6.3A IEC TL TE5	Littelfuse	39216300000
1	FB1	120 Ω	0603 ferrite bead 120ohm@100MHz	TDK Corporation	MPZ1608S121ATDH5
1	FB2	60 Ω	60 Ohms @ 100 MHz 1 Power Line Ferrite Bead 0805 (2012 Metric) 1.9A 20mOhm	Murata Electronics	BLM21PG600BH1D
2	FB3, FB4	220 Ω	0603 ferrite bead 220ohm@100MHz	Murata Electronics	BLM18AG221SN1D
1	L1	415 µH	P19118	MPS Industries	P19118_2
1	L2	176 µH	MPS P11062	MPS Industries	P11062_2
1	L3	90 µH	Custom RM8 inductor, wind with as big Litz wire as possible.		
1	MOV1	MOV-10D471K	VARISTOR 470V 2.5KA DISC 10MM	Bourns Inc.	MOV-10D471K
1	Q1	TP65H070G4PS	GAN FET N-CH 650V TO-220	Transphorm	TP65H070G4PS
2	Q2, Q3	TP65H070G4PS	GAN FET N-CH 650V TO-220	Transphorm	TP65H070G4PS
1	Q4	200 V 11 mΩ	MOSFET N-CH 200V 88A TO220-3	Infineon Technologies	IPP110N20NAAKSA1
1	Q5	200 V 11 mΩ	MOSFET N-CH 200V 88A TO220-3	Infineon Technologies	IPP110N20NAAKSA1
1	Q6	B5S127	MOSFET 600V 50mA NMOS SOT-23	Diodes Incorporated	B5S127SSN-7
1	Q7	2 A 100 V	TRANS NPN 100V 2A SOT-23	ON Semiconductor	NSS1C201LT1G
1	Q8	2 A 100 V	TRANS NPN 100V 2A SOT-23	ON Semiconductor	NSS1C201LT1G
1	Q9	1 A 80 V	TRANS NPN 80V 1A SOT89-3	Diodes Incorporated	BCX5616QTA
1	Q10	100 V 2 A	MOSFET N-CH 100V 2A SOT23	Micro Commercial Co	SI2324A-TP
1	R1	1.1 kΩ	RES 1.1K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT1K10
2	R2, R54	4.7 Ω	RESA-AS 1206 4R7 1% 250MW TC400	Bourns Inc.	CR1206AF/-4R70EAS
4	R3, R21, R47, R48	3.3 MΩ	RES 3.3M OHM 1% 1/4W 1206	Stackpole Electronics Inc	RMCF1206FT3M30
1	R4	39 mΩ 2010 1%	RES 0.039 OHM 1% 1W 2010	Vishay Dale	WSLT2010R0390FEB18
1	R5	2 kΩ	RC0603FR-072KL RES 2K OHM 1% 1/10W 0603	YAGEO	RC0603FR-072KL
6	R6, R7, R23, R27, R45, R52	47 Ω	47 Ohms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Automotive AEC-Q200 Thick Film, RES 47 OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT47R0
3	R8, R46, R53	47 kΩ	CRGQC0603F47K RES 47K OHM 1% 1/10W 0603	TE Connectivity Passive Product	CRGQC0603F47K
1	R9	NS			
1	R10	27 kΩ	RES 27K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT27K0
1	R11	100 Ω	RES SMD 100 OHM 1% 1/10W 0603	YAGEO	RC0603FR-07100RP
1	R12	2.2 Ω	ESR03EZPJ2R2 RES SMD 2.2 OHM 5% 1/4W 0603	Rohm Semiconductor	ESR03EZPJ2R2

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1	R13	75 kΩ	RES 75K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT75K0
1	R14	11 kΩ	RES 11K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT11K0
1	R15	8.2 kΩ	RES 8.2K OHM 1% 1/10W 0603	YAGEO	RC0603FR-138K2L
1	R16	1 kΩ	RES 1K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FG1K00
1	R17	13 kΩ	RES 13K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT13K0
1	R18	1 kΩ	RES 1K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FG1K00
2	R19, R22	2 kΩ	RES 2K OHM 1% 1/4W 1206	Stackpole Electronics Inc	RMCF1206FT2K00
1	R20	110 kΩ	RES 110K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT110K
2	R24, R26	100 kΩ	RES 100K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FG100K
2	R25, R44	20 kΩ	RES 20K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT20K0
1	R28	10 Ω	RES 10 OHM 5% 1/8W 0805	Stackpole Electronics Inc	RMCF0805JT10R0
2	R29, R61	10 kΩ	RES 10K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT10K0
2	R30, R31	2.7 kΩ	RES 2.7K OHM 5% 1/4W 1206	YAGEO	RC1206JR-072K7L
2	R32, R51	22 kΩ	RES 22K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT22K0
1	R33	2 kΩ	RES 2K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT2K00
1	R34	300 kΩ	RES 300K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT300K
1	R35	3.3 Ω	RES 3.3 OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT3R30
3	R36, R37, R39	10 kΩ	RES 10K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT10K0
1	R38	1.2 kΩ	RES 1.2K OHM 1% 1/10W 0603	YAGEO	RC0603FR-071K2L
2	R40, R43	510 kΩ	RES 510K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT510K
1	R41	10 kΩ	RES 10K OHM 1% 1/8W 0603	Stackpole Electronics Inc	RNCP0603FTD10K0
1	R42	11 kΩ	RES 11K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT11K0
1	R49	909 kΩ	RES 909K OHM 1% 1/10W 0603	YAGEO	RC0603FR-07909KL
1	R55	620 kΩ	RES 620K OHM 1% 1/10W 0603	YAGEO	RC0603FR-07620KL
2	R56, R60	200 kΩ NS	RES 200K OHM 5% 1/4W 1206 DNP	Stackpole Electronics Inc	RMCF1206JT200K
1	R57	0.03 Ω	RES 0.03 50PPM 1% 1W 1206	YAGEO	PE1206FRE470R03L
2	R58, R59	20 Ω	RES 20 OHM 1% 1/2W 1206	Stackpole Electronics Inc	RNCP1206FTD20R0
1	R62	100 kΩ	RES 100K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FG100K
1	RT2	NS	NTC resistor		
1	U1	NCP1654 (133 kHz)	NCP1654BD133R2G IC PFC CTRLR CCM 146KHZ 8SOIC	onsemi	NCP1654BD133R2G
1	U2	NCS20071	FET Operational Amplifier	onsemi	NCS20071SN2T1G
1	U3	NCP1399AA	LLC Controller IC OFFLINE SW HALF-BRDG 16SOIC	onsemi	NCP1399AADR2G
1	U4	TCLT1016	OPTOISOLATOR 5KV TRANS SOP-6L4	Vishay Semiconductor Opto Division	TCLT1016
1	U5	AP4310A	IC OPAMP GP 2 CIRCUIT 8SO	Diodes Incorporated	AP4310AMTR-G1
1	U6	MP6924A	Power Supply Controller Secondary-Side Controller, Synchronous Rectifier 8-SOIC	Monolithic Power Systems Inc.	MP6924AGS
1	U7	NS	X-cap discharger IC AUTOMATIC DISCHARGE 8SO	NXP USA Inc.	TEA1708T/1J
1	XF1	130 μH	PQ2620 P:S1:S2:AP:AS=24:8:8:4:4		
1	Z1	NS			
1	Z2	12 V	DIODE ZENER 12V 300MW SOD323	onsemi	MM3Z12VST1G
2	Z3, Z4	13 V	DIODE ZENER 13V 300MW SOD323	onsemi	MM3Z13VT1G