

## BILL OF MATERIALS

Item	Quantity	Reference	Part / Value	Tolerance %	Voltage Current	WATT	TECNOLOGY information	PACKAGE	Manufacturer	Manufacturer Code	RS/Distelec/Other Code	More Info
1	2	C1,C10	220 nF	10%	200 Vdc		X7R ceramic capacitor	SMD 1812			RS code: 192-421	
2	2	C2,C9	220 nF	10%	25Vdc		X7R ceramic capacitor	SMD 0805				
3	1	C3	470 nF	20%	275 Vac		Polypropylene film capacitor X2	Trough hole Lead spacing 22.55 mm	Vishay	BFC233920474	RS code 485-6706	
4	1	C4	1uF	10%	305 Vac		Polypropylene film capacitor X2	Trough hole Lead spacing 22.5 mm	Epcos	B32923C3105K	RS code 334-710	
5	4	C5, C11,C14,C28	220 nF	10%	50 Vdc		X7R ceramic capacitor	SMD 0805				
6	6	C6,C12,C15,C19,C29,C31	100 pF	5%	50 Vdc		COG ceramic capacitor	SMD 0805				
7	2	C7, C27	220 pF	5%	50 Vdc		COG ceramic capacitor	SMD 0805				
8	1	C8	150 nF	10%	305 Vac		Polypropylene film capacitor X2	Trough hole Lead spacing 15 mm	Epcos	B32922C3154K	RS code 334-855	
9	2	C13, C30	820 pF	10%	50 Vdc		X7R ceramic capacitor	SMD 0805				
10		C43	N.M.	10%	50 Vdc		X7R ceramic capacitor	SMD 0805				N.M.
11	1	C44	2.2 nF	10%	50 Vdc		X7R ceramic capacitor	SMD 0805				
12	6	C45,C58,C73,C74,C89,C93	100 nF	10%	50 Vdc		X7R ceramic capacitor	SMD 0805				
13	2	C46,C85	1 nF	10%	50 Vdc		X7R ceramic capacitor	SMD 0805				
14	1	C47	22pF	10%	50 Vdc		X7R ceramic capacitor	SMD 0805				
15	1	C59	1 uF	-20% +80%	50 Vdc		Y5V ceramic capacitor	SMD 0805	Murata	GRM219F51H105ZA01D	RS code 723-6350	
16	1	C60	10 nf	10%	305 Vac		Polypropylene film capacitor X2	Trough hole Lead spacing 10 mm	Epcos	B32921C3103M189	RS code 669-0135	
17	3	C65,C66,C68	1000 uF	20%	100 Vdc		Electrolytic capacitor	Trough hole Lead spacing 7.5 mm	RS		RS code: 711-1769	Max temp. 105°
18	2	C62, C63	220 nF	10%	250 Vdc		Polypropylene film capacitor	Trough hole Lead spacing 15 mm	Epcos	B32652A3224K	RS code 190-7817	
19	1	C67	10 uF	20%	100 Vdc		Electrolytic capacitor	Trough hole Lead spacing 2.5 mm	Any	Any	RS code: 715-3019	
20	2	C69,C84	47uF	20%	50Vdc		Electrolytic capacitor	Trough hole Lead spacing 3.5 mm	Any	Any	RS code: 715-1650	Max temp. 125°
21	2	C72, C77	N. M.	10%	50 Vdc		X7R ceramic capacitor	SMD 0805				
22	1	C76	10 NF	10%	50 Vdc		X7R ceramic capacitor	SMD 0805				
23	2	C78, C86	1 nF	20%	400Vac		Y5U ceramic capacitor Y1	Trough hole Lead spacing 6.5 mm	CERA MITE	30LVD10 7.5PCM	RS code 214-5931	
24	1	C80	1 uF	10%	100 Vdc		Ceramic Capacitors	SMD 1206	Murata	GRM31CR72A105KA01L	RS code 723-6584	
25	1	C83	470 nF	10%	16 Vdc		X7R ceramic capacitor	SMD 0805				
26	3	C87, C92, C94	470 uF	20%	25 Vdc		Electrolytic capacitor	SMD	Any	Any	RS code: 729-6251	
27	1	C88	1000 uF	20%	25 Vdc		Electrolytic capacitor	SMD	Any	Any	RS code: 708-3434	
28	1	C91	10 uF	20%	450 Vdc		Electrolytic capacitor	Trough hole Lead spacing 5 mm	Any	Any	RS code: 699-7565	
29	2	C95, C96	10uF	10%	25 Vdc		X5R ceramic capacitor	SMD 1206				
30	2	D1,D2	Zener Diode	5%	5,6V	500 mW	Zener Diode	SOD123	Any	Any	RS code: 687-8262	
31	1	D3	2KBP10M-E4		1000V/2A		Bridge Rectifier	KPBM	Vishay	2KBP10M-E4	RS code 629-6099	
32	1	D4	Transil		15V	600W	Transil	SMB	STMicroelectronics	SM6T15CA		
33	1	D7	Zener Diode	5%	N.M.	500 mW	Zener Diode	SOD123				
34	12	D9,D10,D12,D13,D14,D15,D17,D18,D19,D20,D31,D32	LL4148				Switching diode	SOD-80	Any		Distelec code: 601496	
35	2	D22,D28	TMMBAT41		100V/200mA		Small signal Schottky diodes	MINIMELF	STMicroelectronics	TMMBAT41		
36	3	D11,D16,D25	STPS2150A		150V/2A		Power Schottky Rectifier	SMA	STMicroelectronics	STPS2150A		
37	1	D24	STPS1L30A		30V/1A		Low Drop Power Schottky Rectifier	SMA	STMicroelectronics	STPS1L30A		
38	2	D23,D26	STTH2L06A		600V/2A		Turbo 2 ultrafast high voltage rectifier	SMA	STMicroelectronics	STTH2L06A		
39	1	D29	STTH802B		200V/8A		Turbo 2 ultrafast high voltage rectifier	DKPAK	STMicroelectronics	STTH802B		
40	3	D27,D30,D35	SM6T200A		200 V	600W	Transil	SMB	STMicroelectronics	SM6T200A		
41	2	D33,D34	Zener Diode	5%	4.7V	500 mW		SOD123			MMSZ4V7	RS code: 544-9747
42	1	D40	GF1M		1000V/1A			DO-214BA (SMA)	Any	Any	RS code: 710-2970	
43	1	D41	Zener Diode	5%	24	500 mW	Zener Diode	SOD123	Any	Any	RS code: 545-3213	
44	1	F1	FUSE		250Vac/1.6A			Trough hole Lead spacing 5.08 mm	Wickmann	3721160000	RS code 226-0951	
45	3	IC1,IC2, U12	L6562AD				Power factor corrector Integrated circuit	SO8	STMicroelectronics	L6562AD		
46	1	ISO1	SFH6156-2T				Photo Coupler	SMD	Vishay	SFH6156-2T	RS code 284-1190	
47	1	JP2	0 ohm					SMD 0805	N.M.	N.M.	N.M.	N.M.
48	2	JP1,JP4	0 ohm					SMD 0805				
49	1	J1	TERMINAL BLOCKS 3 POLES		300Vac/17A		TERMINAL BLOCKS 3 POLES	Trough hole Lead spacing 5.08 mm	Phoenix Contact	MKDS 1.5/3-5.08	RS code: 193-0570	

## BILL OF MATERIALS

Item	Quantity	Reference	Part / Value	Tolerance %	Voltage Current	WATT	TECNOLOGY information	PACKAGE	Manufacturer	Manufacturer Code	RS/Distelec/Other Code	More Info
50	2	J3,J4	TERMINAL BLOCKS 3 POLES		300Vac/13.5A		TERMINAL BLOCKS 2 POLES	Trough hole Lead spacing 5.08 mm	Phoenix Contact	MKDSN 1,5/2-5.08	RS code: 193-0586	
51	2	L4,L9	1mH	10%	0.8A		Inductor	Trough hole	Any		RS code: 675-5298	
52	2	L1,L3	1mH	20%	900mA/1A Sat.		Inductor	SMD	Würth Electronics Inc	7447709102	Digikey code: 732-1702-2-ND	ASSEMBLY THE INDUCTOR IN TRH PACKAGE
			1mH	10%			Inductor	Trough hole	Panasonic	ELC18B102L	RS code: 233-5443	
			1mH	10%			Inductor	Trough hole	Panasonic	ELC18B102L	Digikey code: ELC-18B102L-ND	
53	1	L2	2 X 25 mH				Inductor	Trough hole	Magnetica	1045.0031		
54	2	L5	15uH	20%	1.6A/79 mOhm		Inductor	SMD	Panasonic	ELL6UH150M	RS code 573-983	
55		L7	15uH		3.5A		Inductor	SMD	Bourns	SRR1240-150M	RS code: 727-2211	
56	1	L8	560 uH		850mA		Inductor	SMD	Bourns	SDR1307-561KL	RS code: 727-1754	
57	1	M1	SPPLM7570QT (MODEM BD.)				12 way single row strip line connector (female connector) 2,54mm pitch	Vertical Through Hole	Any		RS code: 488-1724	
58	5	Q1,Q3,Q5,Q11,Q13	BC846C				NPN TRANSISTOR	SOT23	Any	Any	Distelec code: 612089	
59	2	Q2,Q4	STD16NF25		250V/0.26 OHM		PMOS	DPAK	STMicroelectronics	STD16NF25		
60	1	Q10	STF7N95K3		950V/1.35 ohn		PMOS	TO-220FP	STMicroelectronics	STF7N95K3		
61	1	Q12	BC857C				PNP TRANSISTOR	SOT23	Any	Any	RS code: 508-236	
62	1	RV1	B72214-S 301-K101		300V		SIOV metal oxide varistor	Trough hole Lead spacing 7.5 mm	TDK-EPC	B72214S0301K101	Distelec code: 730042	
63	11	R11,R76,R112,R113,R119,R126,R135,R140,R141,R142,R145,	10k	5%			SMD RESISTOR	SMD 0805				
64	4	R28,R31,R80,R130	1k	5%			SMD RESISTOR	SMD 0805				
65	1	R63	1.3	1%			SMD RESISTOR	SMD 1206				
66	3	R64,R71,R138	10	1%			SMD RESISTOR	SMD 0805				
67	1	R66	82k	1%			SMD RESISTOR	SMD 0805				
68	2	R67,R68	1k	1%			SMD RESISTOR	SMD 0805				
69	1	R69	237k	1%			SMD RESISTOR	SMD 0805				
70	1	R70	10k	1%			SMD RESISTOR	SMD 0805				
71	3	R72,R115,R122	13k	1%			SMD RESISTOR	SMD 0805				
72	5	R73,R77,R108,R123,R127	10	5%			SMD RESISTOR	SMD 0805				
73	2	R74,R124	220k	5%			SMD RESISTOR	SMD 0805				
74	3	R75,R94,R125	33k	1%			SMD RESISTOR	SMD 0805				
75	2	R78,R128	22k	1%			SMD RESISTOR	SMD 0805				
76	2	R79,R129	150	5%			SMD RESISTOR	SMD 0805				
77	4	R81,R82,R131,R132	3.3	1%		1W	RESISTOR	Trough hole	Any		Distelec code: 715806	
78	2	R83,R133	1.5k	1%			SMD RESISTOR	SMD 0805				
79	2	R84,R134	5.6k	1%			SMD RESISTOR	SMD 0805				
80	1	R85	N.M.	1%			SMD RESISTOR	SMD 1206				
81	2	R87,R88	8.2k	1%			SMD RESISTOR	SMD 0805				
82	1	R89	51k	1%			SMD RESISTOR	SMD 0805				
83	9	R90,R91,R92,R93,R105,R121,R137,R143,R144	100k	1%			SMD RESISTOR	SMD 1206				
84	3	R95,R96,R97	1M	1%			SMD RESISTOR	SMD 1206				
85	1	R98	68k	5%			SMD RESISTOR	SMD 1206				
86	1	R99	680k	1%			SMD RESISTOR	SMD 0805				
87	1	R100	12k	1%			SMD RESISTOR	SMD 0805				
88	3	R101,R106,R109	0				SMD RESISTOR	SMD 0805				
89	1	R102	1.8k	5%			SMD RESISTOR	SMD 1206				
90	1	R103	2.2k	5%			SMD RESISTOR	SMD 1206				
91	1	R104	N.C.	5%			SMD RESISTOR	SMD 1206				
92	1	R107	20K	5%			SMD RESISTOR	SMD 1206				
93	1	R110	56k	5%			SMD RESISTOR	SMD 0805				
94	1	R111	270m	1%		1W	SMD RESISTOR	SMD 2512	Susumu	RL3264L4-R270-F	Digikey code: RL32L4.270FCT-ND	
97	1	R114	3.3k	5%		1W	RESISTOR	Trough hole				
98	2	R116,R139	30k	1%			SMD RESISTOR	SMD 0805				
99	1	R117	2.4k	1%			SMD RESISTOR	SMD 0805				
100	1	R118	100m	1%		1W	SMD RESISTOR	SMD 2512	Susumu	KRL3264-C-R100-F-T1	Digikey code: KRL32C.100CT-ND	
101	2	R120,R136	1K	5%			SMD RESISTOR	SMD 0805				
102	13	TP1,TP2,TP7,TP9,TP13,TP18,TP19,TP20,TP21,TP22,TP23,TP24,TP25					TEST POINT					
102	1	T1	0.47mH	15%			Transformer of 3	Trough hole	Magnetica	1055.0071		

## BILL OF MATERIALS

Item	Quantity	Reference	Part / Value	Tolerance %	Voltage Current	WATT	TECNOLOGY information	PACKAGE	Manufacturer	Manufacturer Code	RS/Distelec/Other Code	More Info
103	1	T2	2mH	15%			Transformer	Trough hole	Magnetica	2198.0002		
104	1	T3	1,4 mH	30%	400Vac		SMD	SMD	VAC VACUUMSCHMELZE	T60403-K5024-X044	SISRAM	
106	1	U13	TL431AIL3T				Programmable voltage reference	SOT23-3	STMicroelectronics	TL431AIL3T		
107	1	U14	SFH6156-2T				Photo Coupler	SMD	Vishay	SFH6156-2T	RS code 284-1190	
108	1	U15	Altair04-900				Off-line all-primary-sensing switching regulator	SO16N	STMicroelectronics	Altair04-900		
109	1	U16	LF33ABDT-TR				Very low drop voltage regulators with inhibit	DPACK	STMicroelectronics	LF33ABDT-TR		
110	2	U17	TS272AIDT				CMOS DUAL OPERATIONAL AMPLIFIERS	SO8	STMicroelectronics	TS272AIDT		