

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	CX1,CX2	100nF 305Vac	10%	305 Vac		Polypropylene film capacitor X2	Trough hole lead spacing 15mm	TDK-EPC	B32922C3104K000	RS: 334-596	
2	1	C1	100uF	20%	500Vdc		Electrolytic capacitor	Trough hole lead spacing 10 mm	Cornell Dubilier	380LX101M500H452	Digi-Key: 338-1970-ND	
3	15	C2,C4,C11,C12,C29,C31,C34,C35,C36,C40,C41,C45,C46,C51,C52	100nF	10%	50V		X7R ceramic capacitor	SMD 0603	any			
4	1	C3	220nF	10%	520V		Polypropylene film capacitor	Trough hole lead spacing 15	TDK-EPC	B32672Z5224K000	Digi-Key: B32672Z5224K189-ND	
5	12	C5,C6,C10,C13,C20,C24,C27,C28,C38,C39	100pF	5%	50Vdc		C0G ceramic capacitor	SMD 0603	any			
6	3	C7,C9,C14	470uF	20%	25V		Electrolytic capacitor	Trough hole lead spacing 3.5mm	RUBYCON	25YXH470MEFC8X20	RS:704-8046	
7	5	C8,C16,C17,C19, C22	470nF	10%	50V		X7R ceramic capacitor	SMD 1206	any			
8	3	C15,C18,C23	10uF	20%	50V		Electrolytic capacitor	Trough hole lead spacing 2.5 mm	any		RS: 744-2136P	
9	1	C21	100pF	10%	6.3kV		High voltage ceramic capacitor	Trough hole Lead spacing 10 mm	Murata	DECB33J101KC4B	Distelec: 831660	
10	1	C25	1nF	10%	50V		X7R ceramic capacitor	SMD 0603	any			
11	1	C26	4,7 nF	5%	50V		COG ceramic capacitor	SMD 0603	TDK	C1608C0G1H472J	Farnell:1907312RL	
12	2	C30,C32	220pF	5%	630Vdc		Polypropylene film capacitor	Trough hole lead spacing 5mm	Evox Rifa	PFR5 221J630J11L4	RS: 240-4814P	
			220pF	1%	630Vdc		Polypropylene film capacitor	Trough hole lead spacing 5mm	VISHAY	KP1830122631	Farnell: 1413945	
			220pF	2.5%	630Vdc		Polypropylene film capacitor	Trough hole lead spacing 5mm	Wima	FKP 2 220 PF 630V 2.5% 5	Distelec: 828235	
13	1	C33	150nF	10%	330Vac		Polypropylene film capacitor	Trough hole lead spacing 15	TDK-EPC	B32912B3154M189	RS: 669-0084	preferred
			150nF	10%	1000Vdc		Polypropylene film capacitor	Trough hole lead spacing 15	TDK-EPC	B32652A0154K000		
			150nF	10%	400VDC		Polypropylene film capacitor	Trough hole lead spacing 15	TDK-EPC	B32562-J6154-K	Distelec:820877	
14	1	C37	680nF	10%	305Vac		Polypropylene film capacitor	Trough hole lead spacing 15 mm	TDK-EPC	B32922C3684M189	RS: 669-0148	
15	1	C42	22pF	5%	50V		C0G ceramic capacitor	SMD 0603	any			
16	2	C43,C44	10nF	10%	50Vdc		X7R ceramic capacitor	SMD 0603	any			
17	3	C47,C48,C49	1uF	10%	25Vdc		X7R ceramic capacitor	SMD 0805	any			
18	5	D1,D3,D4,D5,D6	1000V 3A		1000V/3A		Standard rectifier Diode 1000V 3A	SMD SMB	Lite On	S3MB	RS: 701-0177	
19	1	D2	STTH2L06		3A/600V		ULTRAFAST HIGH VOLTAGE RECTIFIER	Trough hole DO41	ST	STTH2L06		keep diode's body minimum 10mm above PBC surface
20	1	D8	SM6T220A		220V	600W	TRANSIL	SMD SMB	ST	SM6T220A		
21	7	D7,D10,D12,D15,D18,D24,D25	TMMBAT46		100V/150mA		Small signal Schottky diode	SMD minimelf	ST	TMMBAT 46		
22	1	D9	STPS2150		150V/2A		POWER Schottky diode	SMD SMA	ST	STPS2150A		
23	3	D11,D19,D23	STTH1L06A		1A/600V		ULTRAFAST HIGH VOLTAGE RECTIFIER	SMD SMA	ST	STTH1L06A		

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24	6	D13,D14,D17,D20,D21,D22	STPS1L30A		30V/1A		POWER Schottky diode	SMD SMA	ST	STPS1L30A		
25	1	D16	LIC01		255V		LIGHT IGNITION CIRCUIT	SMD Dpak	ST	LIC01-215B-TR		
26	1	D27	green LED		2 mA		High efficiency green diffused LED 2mA 3mm	Trough hole 3mm	any		RS: 180-8502	
27	1	D26	red LED		2 mA		High efficiency Red diffused LED 2mA 3mm	Trough hole 3mm	any		RS: 171-1234	
28	1	F1	3.15A T		250Vac/3.15A		Fuse	SMD 3x10mm	Schurter	3403.0171.24	RS: 736-0769	
29	1	J1	VIN				not mounted	Trough hole				not mounted
30	1	J2	VIN PLM				low profile female strip line connector	Trough hole	Stelvio Kontek	4772845125440	RS: 230-4938	not mounted
31	1	J3	VOUT				not mounted	Trough hole				not mounted
32	1	J4	PLM				low profile 24 way (2x12) female stripline connector	Trough hole	Stelvio Kontek	4773001150440	RS: 230-4950	
33	1	J5	CON4				low profile female strip line connector	Trough hole	Stelvio Kontek	4772845125440	RS: 230-4938	
34	1	J6	JTAG				low profile female strip line connector	Trough hole	Stelvio Kontek	4772845125440	RS: 230-4938	
35	1	J7	DALI				12 pin male double strip line connector					
36	1	J8	CON3				Jack stereo connector	SMD	Switchcraft Inc.	35RASMT2BHNTX	SC1489-1-ND	
37	2	L1,L5	600uH		2.8A		PFC Inductor	Trough hole		1913.0004		
38		L2	2x68 mH		1.2 A		Power Line choke	Trough hole	TDK-EPC	B82733F2901B001	Digi-Key: 495-2789-ND	
39	1	L3	4.7 uH	20%	1,9A		Power inductor	SMD 4X4.5X3.2	NIC COMPONENTS	NPI43C4R7MTRF	RS code: 740-9372	
40		L4	2.2mH	10%				Trough hole	MAGNETICA	2198.0008		
41	1	L6	4.7 uH	30%	740 mA		ferrite filter	SMD 3x3x1,2	Panasonic	ELLVFG4R7NC	RS: 574-609	
42	1	Q1	STF13NM60N		600V		Power mosfet	TO220FP	ST	STF13NM60N		
43	2	Q3,Q4	STF11NM60ND		600V		Power mosfet	TO220FP	ST	STF11NM60ND		
44	2	Q2,Q5	STF26NM60N		600V/10A		Power mosfet	TO220FP	ST	STF26NM60N		
45	1	RV1	S14K275		275 Vac		Varistor	Trough hole	EPCOS	B72214S0271K101	RS: 289-7187	
46	3	R1,R2,R5	1M	1%		1/4W	metal film resistor	SMD 1206	any			
47	16	R3,R9,R16,R17,R19,R26,R33,R36,R37,R40,R56,R62,R63,R64,R68,R74	47k	1%		1/10W	metal film resistor	SMD 0603	any			
48	30	R4,R8,R10,R14,R18,R20,R24,R25,R27,R32,R35,R55,R61,R65,R66,R67,R71,R73,R75,R77,R78,R79,R80,R81,R82,R86,R87,R88,R92,R93	10K	1%		1/10W	metal film resistor	SMD 0603	any			
49	8	R6,R7,R12,R13,R53,R54,R59,R60	510k	1%		1/4W	metal film resistor	SMD 1206	any			
50	3	R11,R15,R52	22	1%		1/4W	metal film resistor	SMD 1206	any			
51	3	R21,R39,R57	220	1%		1/4W	metal film resistor	SMD 1206	any			
52	1	R22	17.4k	1%		1/10W	metal film resistor	SMD 0603	any			
53	3	R28,R29,R30	1	1%		1/4W	metal film resistor	SMD MELF 0204	Vishay	MMA02040C1008FB300	RS code: 678-7179P	
54	2	R23,R46,R47	24k	1%		1/10W	metal film resistor	SMD 0603	any			
55	1	R31	5.1k	1%		1/10W	metal film resistor	SMD 0603	any			
56	1	R34	33k	1%		1/4W	metal film resistor	SMD 1206	any			
57	9	R38,R48,R50,R83,R84,R85,R90,R95,R96	0			1/4W	metal film resistor	SMD 1206	any			

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58	1	R41	51k	1%		1/10W	metal film resistor	SMD 0603	any			
59	2	R42,R44	2.7 Ohm	1%		1/4W	metal film resistor	SMD 1206	any			
60	1	R43	270	1%		1/4W	metal film resistor	SMD 1206	any			
61	1	R45	8.2k	1%		1/10W	metal film resistor	SMD 0603	any			
62	1	R49	15k	5%		5W	ceramic resistor	Trough hole	TYCO	SQMR515KJ	RS: 199-7911	
63	1	R51	240k	1%		1/10W	metal film resistor	SMD 0603	any			
64	1	R58	100	1%		1/4W	metal film resistor	SMD 1206	any			
65	3	R69,R70,R72	1.5	1%		3W	metal film resistor	Trough hole	Riedon	UB3C-1R5F1	Digi-Key: UB3C-1.5-ND	
66	1	R76	5.6k	1%		1/10W	metal film resistor	SMD 0603	any			
67	2	R89,R94	1k	1%		1/10W	metal film resistor	SMD 0603	any			
68	1	R91	100k	1%		1/10W	metal film resistor	SMD 0603	any			
69	1	R97	470	1%		1/10W	metal film resistor	SMD 0603	any			
70	1	SW1	RESET									
71	1	T1	Magnetica				Igniter	Trough hole	MAGNETICA	1907.0010		
72	1	UMICRO1	STLUX385A					SMD TSSOP38	ST	STLUX385A		
73	1	U1	TD220				GATE DRIVER WITH VREG AND TWO POINT REGULATOR	SMD SO8	ST	TD220I		
74	1	U2,U3	TS272				DUAL OPERATIONAL AMPLIFIERS	SMD TSSOP8	ST	TS272AIPT		
75	1	U5	LD29080S33R				low drop voltage regulators	SMD SOT223	ST	LD29080S33R		
76	1	U4	ALTAIR04-900				Off-line all-primary-sensing switching regulator	SMD SO16N	ST	ALTAIR04-900		
77	1	U6,U7	L6390				High-voltage high/low-side driver	SO16	ST	L6390D		
78	1	U8	STLM20				Analog temperature sensor	SOT323-5L	ST	STLM20W87F		