

PROJECT NAME: STEVAL-IHT008V1

BILL OF MATERIALS

Item	Quantity	Reference	Part / Value	Voltage / Watt / Ampere	Type / TECHNOLOGY informations	Tolerance	Package	Manufacturer	Manufacturer's ordering code / Orderable Part Number
1	2	C1,C9	1000 µF	250V	aluminium capacitor	+/- 20%	30 mm diameter	Nichicon	LLS2E102MELB
2	4	C2,C4,C5,C8	2.2nF	440 VAC	Y2 capacitor	+/- 20%	7,5 mm pitch		
3	2	C6,C7	56nF	300 V	X2 capacitor	+/- 10%	15 mm pitch		
4	1	C10	1nF	50 V	ceramic capacitor	+/- 10%	smd_0805		
5	2	C11,C14	1uF	25V	ceramic capacitor	+/- 10%	smd_0805		
6	3	C13,C15,C38	1nF	50V	ceramic capacitor	+/- 10%	smd_0805		
7	9	C16,C17,C18,C19,C20,C21,C24,C26,C27	10nF	50V	ceramic capacitor	+/- 10%	smd_0805		
8	1	C22	100nF	50V	ceramic capacitor	+/- 10%	smd_0805		
9	1	C23	10uF	16V	ceramic capacitor	+/- 10%	smd_0805		
10	1	C25	680nF	25V	ceramic capacitor	+/- 10%	smd_0805		
11	1	C28	220uF	16V	aluminium capacitor	+/- 10%	radial_CMS	Panasonic	EEE1CA221XAP
12	1	C29	1,5mF	16V	aluminium capacitor	+/- 10%	radial_CMS	Panasonic	EEVFK1C152Q
13	1	C30	220uF	63V	aluminium capacitor	+/- 10%	radial_CMS	Panasonic	EEEFK1J221AQ
14	2	C31,C37	100uF	16V	aluminium capacitor	+/- 10%	radial_CMS	Panasonic	EEE1CA101WAP
15	1	C32	10uF	450V	aluminium capacitor	+/- 10%	radial_CMS	Panasonic	EEVEB2W100SM
16	1	C33	22uF	450V	aluminium capacitor	+/- 10%	radial_CMS	Panasonic	EEVEB2W220M
17	1	C34	2.2uF	63V	aluminium capacitor	+/- 10%	radial_CMS	United Chemi-Con	EMVA630ADA2R2MD55G
18	1	C35	680pF	50V	ceramic capacitor	+/- 10%	smd_0805		
19	1	C36	100nF	50V	ceramic capacitor	+/- 10%	smd_0805		
20	1	C39	330n	50V	ceramic capacitor	+/- 10%	smd_0805		
21	1	D1	BZX55C30	30V_0,5W	zener diode		DO-35		
22	6	D2,D6,D7,D8,D9,D10	LED		AIGaAs Red LED		smd_flat_top	AVAGO TECHNOLOGIES	HLMP-Q156-H0031
23	1	D4	BZX55C5V6	5,6V_0,5W	zener diode		DO-35		
24	1	D5	BZX55C15	15V_0,5W	zener diode		DO-35		
25	3	D11,D15,D16	STPS1150	15A_150V	schottky diode		DO-41	ST	STPS1150
26	1	D12	1.5KE300A	300V_1,5kW	TVS diode		DO-201		
27	1	D13	1N4007		standard diode		DO-41		
28	1	D14	STTH106		fast recovery diode		DO-41	ST	STTH1L06RL
29	1	D17	D1N4148		standard diode		DO-35		
30	1	D18	Led_bicolor		bicolor LED		smd_PLCC-3	VISHAY	VLMV3100-GS08
31	1	F1	fuse holder	10A/250V			through-hole	Multicomp	MCHTC-100M
32	7	J1,J2,J3,J4,J5,J6,J20			2 way header_ 2,54 mm pitch		through-hole	TE connectivity	826926-2
33	1	J7	douber / rectifier mode		4 way header_ 5,08 pitch		through-hole	PHOENIX CONTACT	1755752
34	8	J8,J11,J15,J18,J21,J12,J13,J17			2 way plug_ 5,08 pitch		through-hole	WAGO	236-402
35	2	J9,J10			3 way plug_ 5,08 pitch		through-hole	WAGO	236-403
36	2	J14,J19			4 way header_ 2,54 mm pitch		through-hole	TE CONNECTIVITY / AMP	826926-4
37	1	J16	EXT_CONTROL		8 way header_ 2,54 pitch		through-hole	TE CONNECTIVITY / AMP	826926-8
38	1	L1	0.012H	10A	common mode choke filter		through-hole	WURTH ELEKTRONIK	7448051012
39	1	L2	1mH		power inductor		through-hole	WURTH ELEKTRONIK	744741102
40	1	Q1	BUX87	450V	NPN TRANSISTOR		SOT-32	ST	BUX87
41	1	Q2	STQ1NK80ZR-AP	800V	N MOSFET		TO-92	ST	STQ1NK80ZR-AP
42	1	Q3	2N2222	40V	NPN transistor		TO-18		
43	5	R1,R2,R3,R4,R5	220	0,125W	SMD_resistor	+/-5%	smd_0805		
44	1	R6	470	0,125W	SMD_resistor	+/-5%	smd_0805		
45	2	R7,R10	250k	0,25W	axial_resistor	+/-5%	through-hole		
46	1	R8	2.5k	5W	axial_resistor	+/-1%	through-hole	OHMITE	45F2K5E
47	4	R9,R11,R14,R16	50k	0,25W	axial_resistor	+/-5%	through-hole		

48	2	R12,R13	250k	0,125W	SMD_resistor	+/-5%	smd_1206		
49	1	R15	3.3k	0,25W	axial_resistor	+/-5%	through-hole		
50	5	R17,R19,R20,R21,R22	91	0,5W	axial_resistor	+/-5%	through-hole		
51	1	R18	1.5k	0,125W	SMD_resistor	+/-5%	smd_0805		
52	5	R23,R24,R25,R26,R27	270	0,125W	SMD_resistor	+/-5%	smd_0805		
53	1	R28	36	2W	axial_resistor	+/-5%	through-hole		
54	1	R29	2.7k	0,125W	SMD_resistor	+/-5%	smd_0805		
55	6	R30,R31,R35,R36,R47,R48	1M	0,25W	SMD_resistor	+/-1%	smd_1206		
56	2	R32,R33	300	0,125W	SMD_resistor	+/-1%	smd_0805		
57	1	R34	21.5k	0,25W	SMD_resistor	+/-1%	smd_1206		
58	2	R37,R49	16.2k	0,25W	SMD_resistor	+/-1%	smd_1206		
59	2	R38,R39	2.7M	0,25W	axial_resistor	+/-5%	through-hole		
60	1	R40	4.7k	0,125W	SMD_resistor	+/-5%	smd_0805		
61	2	R41,R43	16k	0,25W	SMD_resistor	+/-1%	smd_1206		
62	2	R42,R50	0	0,125W	SMD_resistor	+/-5%	smd_0805		
63	1	R44	10k		pot_10kohm_linear	+/-20%	through-hole	Alps	RK09K1130AP5
64	2	R45,R46	100k	0,125W	SMD_resistor	+/-5%	smd_0805		
65	1	R51	10k	0,125W	SMD_resistor	+/-5%	smd_0805		
66	2	R52,R53	47	1W	axial_resistor	+/-5%	through-hole	Teconnectivity	EP1W47RJ
67	1	R54	36k	0,125W	SMD_resistor	+/-1%	smd_0805		
68	1	R55	10k	0,125W	SMD_resistor	+/-1%	smd_0805		
69	1	R56	20k	0,125W	SMD_resistor	+/-1%	smd_0805		
70	1	R57	22k	0,125W	SMD_resistor	+/-1%	smd_0805		
71	1	R58	150	0,125W	SMD_resistor	+/-1%	smd_0805		
72	1	SIOV1	S07K300/EPC	300 VAC	round_varistor_7mm	N/A	through-hole		
73	1	SIOV2	S14K300/EPC	300 VAC	round_varistor_14mm	N/A	through-hole		
74	5	SW1,SW2,SW3,SW4,SW5	micro_switch		push button	N/A	smd	SCHURTER	1241.1618.11
75	1	SW6	switch_HVDC	28V / 5A	Slide Switch SPDT On-On	N/A	through-hole	RS	5MS1S402AM2QES
76	1	SW7	poussoir_HV_discharge	0,4 VA	push button DPDT On-On	N/A	through-hole	RS	8UD8WR2C2M2RES
77	34	TP1 to TP34			pcb test point terminals	N/A	through-hole	VERO	20-2136
78	1	T_ICL	T1635T-8FP	800V	triac	N/A	TO-220FP	ST	T1635T-8FP
79	1	T1	ACST210-8FP	800V	AC_switch	N/A	TO-220FP	ST	ACST210-8FP
80	2	T2,T3	ACS108-8SN	800V	AC_switch	N/A	SOT-223	ST	ACS108-8SN
81	2	T4,T5	Z0109MUF	800V	triac	N/A	SMBflat-3L	ST	Z0109MUF
82	1	T6	myrra74010	12W	flyback_transfo	N/A	CI_E16	Myrra	74010
83	6	U1,U2,U3,U4,U5,U6	IS127	300V	opto tansistor_darlington output	N/A	smd	ISOCOM	IS127
84	1	U7	TS861	10V	CMOS comparator	N/A	soic 8	ST	TS861AIDT
85	1	U8	1000V/10A	10A	rectifier bridge		through-hole (SIP)	MULTICOMP	GBU1007
86	1	U9	STM8S103K3_LQFP32	STM8S103K3	8 bits µC		LQFP32	ST	STM8S103K3T3C
87	2	U10,U11	LM2931	5V	5V regul		DPAK		
88	1	U12	viper26LD		SMPS controller		SOIC16	ST	viper26LD

Non Connected Component

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3	1	C3	1uF	450V	PP capacitor_pitch 15mm	+/-10%	through-hole		
7	1	C12		NC	NC				
23	2	C40,C41		NC	NC				

Accessories

Item	Quantity	Reference	Part / Value	Voltage / Watt / Ampere	Type / TECHNOLOGY informations	Tolerance	Package	Manufacturer	Manufacturer's ordering code / Orderable Part Number
	6		jumper connecton strap						
	1		doubler/rectifier male plug					PHOENIX CONTACT	1792773-first option 1757035
	1		potentiometer setting button					RS	7777312
	5		microswitch button					SCHURTER	862.8107
	4		board support					ETTINGER	06.53.156
	1		heatsink_TO220	15K/W				Fischer Elektronik	ICK35SA
	1		GBU1007_heatsinhk	10K/W				AAVID THERMALLOY	TV40G
	1		10 A fuse	10A			5 mm X 20 mm		