

PROJECT NAME: STEVAL-IHM032V1

May 3, 2011

## 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	3	C7,C19,C46	4.7nF	+/-10%	25V		Ceramic capacitor X7R	SMD 0603	Any			
2	3	C9,C10,C17	470nF	+/-10%	25V		Ceramic capacitor X7R	SMD 0805	Any			
3	1	C3	22nF	+/-10%	50V		Ceramic capacitor X7R	SMD 0805	Any			
4	1	C13	22nF	+/-10%	25V		Ceramic capacitor X7R	SMD 0603	Any			
5	1	C14	2.2nF	+/-10%	50V		Ceramic capacitor X7R	SMD 0603	Any			
6	1	C15	33pF	5%	50V		Ceramic capacitor COG	SMD 0603	Any			
7	1	C18	100uF	+/- 20%	400V		Electrolytic Capacitor	Through Hole	Any		RS code: 575-361	
8	1	C20	100nF	+/-10%	50V		Ceramic capacitor X7R	SMD 0805	Any			
9	3	C8,C11,C16	2.2uF	+/- 20%	25V		Ceramic capacitor Y5V	SMD 0805				
10	1	C22	2.2uF	+/-20%	35V		Aluminium electrolytic capacitor	SMD 4mm diameter	any		RS code: 537-0376	
11	4	C12,C26,C27,C28	N.M.									not mounted
12	3	C29,C30,C31	470pF	+/-10%	50V		Ceramic capacitor X7R	SMD 0603	any			
13	3	C32,C33,C34	10pF	+/-10%	50V		Ceramic capacitor COG	SMD 0603	any			
14	1	C37	10nF	+/-10%	25V		Ceramic capacitor X7R	SMD 0603	any			
15	1	C47	22uF	+/-20%	25V		Aluminium electrolytic capacitor	SMD 5mm diameter	any		RS code: 568-654	
16	2	C48,C49	100uF	+/-20%	25V		Aluminium electrolytic capacitor	SMD 6.3mm diameter	any		RS code: 568-799	
17	6	D1,D3,D4,D6,D7,D8	1N4148				Small signal switching diode	SMD SOD-80	any		Distrelec code: 601496	
18	3	D2,D5,D9	LL4005		600V/1A		Rectifier Diode	SMD DO213AB	Taiwan Semiconductor	LL 4005G	Distrelec code: 604754	
19	4	D10,D11,D12,D13	STTH1R04U				FAST RECOVERY RECTIFIER DIODES	SMD SMB	STMicroelectronics	STTH1R04U		
20	1	D14	BAT48Z				Small signal Schottky diodes	SMD SOD-123	STMicroelectronics	BAT48ZFILM		
21	3	D15,D16,D22	STTH1L06				TURBO 2 ULTRAFast HIGH VOLTAGE RECTIFIER	SMD SMA	STMicroelectronics	STTH1L06A		
22	1	D17	GREEN LED SMD				Green CHiPLED	SMD 1206	Any		RS code: 654-5824	
23	3	D18,D19,D20	BAT54JFILM				Small signal Schottky diodes	SOD-323	STMicroelectronics	BAT54JFILM		
24	1	D21	BZX84B15-V		15V	250 mW	Zener diode	SMD SOT23	NXP	BZX84-C15	RS code: 436-8186	
25	1	F1	2A		250Vac/2A		submin PCB T fuse	Through Hole	Wickmann	19372K-2A	RS code: 611-0692	
26	1	J2	AC MAINS		250 Vac		2 way screw terminal block 5 mm pitch	Through Hole	any		RS code: 467-0350	
27	1	J3	MOTOR_CONN				34 way IDC low profile boxed header 2,54mm pitch	Vertical Through Hole	Any		RS code: 461-792	
28	1	J4	Stripline m. 1x3				3 way single row strip line connector (male connector) 2,54mm pitch	Vertical Through Hole	any		RS code:495-8470	
29	6	J5,J6,J7,J19,J20,J22	Small jumper				SMD jumper	SMD 0805	Any			
30	1	J18	Small jumper				SMD jumper	SMD 0805	Any			not mounted
31	4	J13,J14,J15,J16	JUMPER				3 way single row strip line connector (male connector) 2,54mm pitch	Vertical Through Hole	any		RS code:495-8470	mount with jumper item 68 (RS code: 674-2381) between pin 1 and 2. See assembly details
32	4	J9,J10,J11,J17	JUMPER				2 way single row strip line connector (male connector) 2,54mm pitch	Vertical Through Hole	Any		RS code: 495-8470	mount with jumper item 68 (RS code: 674-2381)
33	1	J12	CON3				3 way screw terminal block 5 mm pitch	Through Hole	any		RS code: 467-0366	
34	1	J21	DC Bus				2 way screw terminal block 5 mm pitch	Through Hole	any		RS code: 467-0350	
35	1	NTC1	5 ohm			2W	Thermistors - NTC	Through Hole	Epcos	B57236S509M	RS code: 211-7986	
36	1	NTC2	NTC 10k				Thermistors - NTC	SMD 1206	Epcos	B57621C103J62	Rs code: 191-2342	
37	6	Q1,Q3,Q4,Q6,Q7,Q9	STGD3HF60HD		600V/4.5A		4.5 A, 600 V very fast IGBT with ultrafast diode	SMD DPAK	STMicroelectronics	STGD3HF60HDT4		
38	3	Q2,Q5,Q8	BC817-25				NPN Transistor	SMD SOT23	Any		RS code: 436-7903	
39	1	Q10	N.M.									not mounted
40	1	R3	10 Mohm	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
41	3	R4,R16,R37	1M	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
42	6	R5,R12,R14,R21,R35,R41	10	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
43	6	R6,R13,R15,R23,R36,R43	100	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
44	6	R7,R8,R17,R18,R38,R39	180k	+/-5%		1/4W	metal film resistor	SMD 1206	Any			
45	8	R9,R19,R40,R53,R54,R55,R68,R69	4.7k	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
46	3	R10,R20,R42	1k	+/-1%		0.125 W	metal film resistor	SMD 0805	Any			

PROJECT NAME: STEVAL-IHM032V1

May 3, 2011

## BILL OF MATERIALS

Item	Quantity	Reference	Part / Value	Tolerance %	Voltage Current	WATT	TECNOLOGY information	PACKAGE	Manufacturer	Manufacturer Code	RS/Distelec/Other Code	More Info
47	4	R25,R30,R31,R33	1k	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
48	5	R11,R22,R44,R64,R66	10k	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
49	2	R26,R28	22	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
50	1	R27	2.2k	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
51	2	R29,R70	910	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
52	4	R32,R63,R71,R72	1.8	+/-1%		1/4W	Professional Melf resistor MMA 0204	SMD melf 0204	Vishay		Distelec:713008	
53	2	R34,R59	2.7k	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
54	2	R45,R46	470k	+/-1%		1/4W	metal film resistor	SMD 1206	Any			
55	1	R47	8.2k	+/-1%		0.125 W	metal film resistor	SMD 0805	Any			
56	5	R56,R57,R58,R73,R74	N.M.									not mounted
57	1	R60	5.6k	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
58	1	R61	3.9k	+/-1%		0.125 W	metal film resistor	SMD 0805	Any			
59	1	R62	1.5k	+/-1%		0.125 W	metal film resistor	SMD 0805	Any			
60	1	R65	10	5%		1/2 W	metal film resistor	SMD 1210	Any		RS code: 153-876	
61	1	R67	2k	+/-1%		0.1 W	metal film resistor	SMD 0603	Any			
62	1	TR1	SMAJ18A-TR				Transil diode	SMA	STMicroelectronics	SMAJ18A-TR		
63	1	U1	LD1117S33TR				Low drop fixed and adjustable positive voltage regulators	SMD SOT-223	STMicroelectronics	LD1117S33TR		
64	2	U2,U4	L6392D				High-voltage high and low side driver	SO-14	STMicroelectronics	L6392D013TR		
65	1	U3	L6391D				High-voltage high and low side driver	SO-14	STMicroelectronics	L6391D013TR		
66	1	U5	VIPER12ASTR-E				Low Power OFF-Line SMPS Primary Switcher	SO-8	STMicroelectronics	VIPER12ASTR-E		
67	1	T1	Multiple Inductor 1.41mH 0.17A						MAGNETICA	2092.0001		
68	8	Jumper					2.54 mm female jumper				RS code: 674-2381	