

		PROJECT NAME:		STEVAL-IPP001V2							June 28, 2011
BILL OF MATERIALS											

Item	Quantity	Reference	Part / Value	Tolerance %	Voltage	Current	WATT	TECNOLOGY information	PACKAGE-FOOT-PRINT	Manufacturer	Manufacturer Code	RS/Distelec/OTHER Code	More Info
1	1	CM3	IND-EPCOS-B82721K					Power line chokes 10mH 0.7 A	Trouhg hole	EPCOS	B82721K2701N020	Digi-Key: 495-2739-ND	ST SUPPLY
2	1	CN1	PORT 0					R/A DB9 male connector (plug)	Trouhg hole	any		RS:542-8009	
3	1	CN2	USB_TYPEB					USB socket	Trouhg hole	any		Distelec: 124164	
4	1	C2	120pF	5%	50V			X7R/COG ceramic capacitor	SMD 0603	any		any	
5	2	C3, C48	100pF	5%	50V			X7R/COG ceramic capacitor	SMD 0603	any		any	
6	30	C4, C7, C13, C14, C15, C17, C18, C19, C21, C22, C43, C47, C49, C50, C51, C52, C53, C65, C66, C64, C75, C78, C79, C80, C81, C82, C83, C87, C88, C89	100nF	10%	25V			X7R ceramic capacitor	SMD 0603	any		any	
7	5	C5, C12, C16, C23, C42	10uF	20%	10V			Y5V ceramic capacitor	SMD 1206	any		RS:434-8097	
8	1	C6	220nF X2	20%	305Vac			EMI suppression X2 Capacitor	Trough hole 15mm lead spacing	Epcos	B32922A2224M	RS:497-4129	
9	3	C1, C85	10nF	10%	25V			X7R ceramic capacitor	SMD 0603	any		any	
10	1	C8	2.2 nF	5%	25V			COG ceramic capacitor	SMD 0603	any		any	
11	1	C9	120 pF	5%	50V			COG ceramic capacitor	SMD 0603	any		any	
12	1	C10	10nF	10%	50V			X7R ceramic capacitor	SMD 0805	any		any	
13	1	C11	15nF	10%	50V			X7R ceramic capacitor	SMD 0805	any		any	
14	1	C20	47uF	10%	16V			Tantalum capacitor	SMD 6032-28	any		RS: 407-0047	
15	2	C24,C25	82uF	20%	350V			Aluminum electrolytic capacitor	Trough hole 18mm diameter, 7.5mm lead spacing	Panasonic	EEUED2V820S	RS: 526-2247	
16	1	C26	33nF X2	10%	250 Vac			Chip Monolithic X2 Ceramic Capacitors	SMD 2220	Murata	GA355XR7GB333KY06L	Distelec: 830079	
17	1	C27	1000uF 16v ZL	20%	16V			Low ESR electrolytic capacitor	Trough hole 10mm diameter, 5mm lead spacing	Rubycon	16ZL1000M10X20	Distelec: 801841	
18	1	C28	470uF 16v ZL	20%	16V			Low ESR electrolytic capacitor	Trough hole 10mm diameter, 5mm lead spacing	Rubycon	16ZL470M10X12.5	Distelec: 801839	
19	9	C29, C30, C38, C67, C68, C69, C70, C71, C77	100nF	10%	25V			X7R ceramic capacitor	SMD 0805	any		any	
20	1	C31	3.3uF	20%	35V			Aluminum electrolytic capacitor	Trough hole	any		any	
21	1	C32	330uF	20%	16V			Low ESR electrolytic capacitor	Trough hole	Panasonic	EEUFC1C331	RS: 315-0451	

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22	1	C33	100uF 10v ZL	20%	16V		Low ESR electrolytic capacitor	Trough hole	Rubycon	16ZLH100M5x11	Distelec: 801183	
23	1	C34	2.2nF - Y1	20%	250 Vac		Y1 Ceramic Multi-Layer Capacitors	Trough hole	MURATA	DE1E3KX222MA5B	Farnell: 3531995	
24	1	C35	1nF	5%	50V		COG ceramic capacitor	SMD 0805	any		any	
25	1	C36	470nF	10%	16V		X7R ceramic capacitor	SMD 0805	any		any	
26	1	C37	4.7nF	10%	50V		X7R ceramic capacitor	SMD 0805	any		any	
27	1	C39	4.7uF	20%	25V		electrolytic capacitor	Trough hole	any		any	
28	1	C40	15 pF	5%	50V		COG ceramic capacitor	SMD 0805	any		any	
29	1	C41	4.7 pF	5%	50V		COG ceramic capacitor	SMD 0805	any		any	
30	2	C44, C45	1 nF	10%	25V		X7R ceramic capacitor	SMD 0603	any		any	
31	2	C60,C61	10pF	5%	50V		COG ceramic capacitor	SMD 0603	any		any	
32	2	C62,C63	22pF	5%	50V		COG ceramic capacitor	SMD 0603	any		any	
33	2	C72, C90	4.7uF	20%	10V		Y5V ceramic capacitor	SMD 0805	MURATA	GRM21BF51A475ZA01L	Distelec: 830046	any
34	1	C76	4.7nF	10%	50V		X7R ceramic capacitor	SMD 0805	any		any	
35	1	C84	470nF	10%	16V		X7R ceramic capacitor	SMD 0805	any		any	
36	1	C86	10uF	10%	10V		Tantalum capacitor	SMD 6032-28	any		RS: 648-0575	
37	2	C91,C92	47nF	10%	50V		X7R ceramic capacitor	SMD 0805	any		any	
38	2	DL1, D14	GREEN		20 mA		green led diode	SMD 0805	Kingbright	KP-2012MGC	RS: 466-3778	
39	2	DL2, D15	YELLOW		20 mA		yellow led diode	SMD 0805	Kingbright	KP-2012SYC	RS: 466-3835	
40	1	D13	RED		20 mA		red led diode	SMD 0805	Kingbright	KP-2012SRC-PRV	RS: 466-3813	
41	1	DZ1	P6KE200A		200V		TRANSIL Diode	Trough hole DO-204AC	ST	P6KE200A		ST SUPPLY
42	1	D1	LL4148		100V/150mA		Small signal rectifier	SMD DO213AA	any		RS: 652-7494	any
43	2	D3,D5	STPS1L30A		30V/1A		LOW DROP POWER SCHOTTKY RECTIFIER	SMD SMA/DO-214AC	ST	STPS1L30A		ST SUPPLY
44	1	D4	SM6T15CA				Transil Diode	SMD SMB/DO-214AA	ST	SM6T15CA		ST SUPPLY
45	1	D6	SM6T6V8CA				Transil Diode	SMD SMB/DO-214AA	ST	SM6T6V8CA		ST SUPPLY
46	2	D7, D9	SM4007		1000V/1A		Standard rectifier diode	SMD melf/ DO-213AB	any		RS: 505-4939	
47	1	D8	STPS2150		150V/2A		Power Schottky rectifier diode	SMD SMA/DO-214AC	ST	STPS2150A		ST SUPPLY
48	1	D10	STTH108		800V/1A		HIGH VOLTAGE ULTRAFAST RECTIFIER	Through hole DO-41	ST	STTH108		ST SUPPLY
49	1	D11	STPS1150		150V/1A		Power Schottky rectifier diode	Through hole DO-41	ST	STPS1150		ST SUPPLY

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50	1	D12	STPS1L60		60V/1A		Power Schottky rectifier diode	SMD SMA/DO-214AC	ST	STPS1L60A		ST SUPPLY
51	1	F1	2A FUSE		250Vac/2A		FUSE, TIME DELAY, 2A	Through hole Radial 5mm lead spacing	BUSSMANN	BK/ETF 2A	Farnell:3029979	
52	3	FB1, FB2, FB3	BLM21PG331SN1		1500mA		EMIFIL (Inductor type) Chip Ferrite Bead, Impedance 330 ohm	SMD 0805	Murata	BLM21PG331SN1	Digi-Key: BLM21PG331SN1D-ND	
53	1	IC1	ST3232EBDR				RS-232 drivers and receivers	SMD SO-16	ST	ST3232EBDR		ST SUPPLY
54	1	IC2	TFDU4301				IRDA TRANSCEIVER	SMD	VISHAY SEMICONDUCTOR	TFDU4300-TR1	Farnell: 1469607	
55	7	JP11, JP12, JP13, JP14, JP15, JP17, JP18	CLOSE									there is no components mounted
56	4	JP4, JP5, JP6, JP7	CLOSE				2 way stripline connector	Trough hole 2.54mm pitch	any		RS:251-8086	mount with jumper: RS: 251-8503
57	4	JP8	OPEN				not mounted	SMD				not mounted
58	1	J2	CON6A				6 way 2row vertical IDC box header	Trough hole 2.54mm pitch	any		Distelec: 121631	
59	1	J3	CON10AP				10 way 2row vertical IDC box header	Trough hole 2.54mm pitch	any		RS: 473-8254	
60	1	J8	VDD_12V				2 way horizontal header,5.08mm pitch	Trough hole 5 mm pitch	Tyco Electronics	282815-2	RS: 361-7544	2 way screw terminal RS: 361-7320
61	1	J9	MAINS_CON		250Vac / 2.5A		Flush-type device plug C8 Snap-in	Troug hole	Schurter	4300.0099	Distelec: 110275	Alternative: MULTICOMP, type:JR201S
62	1	J10	CON10				Right-angled IDC boxed header, 10 way 2row	Trough hole 2.54mm pitch 90°	any		RS: 473-8349	
63	2	J11, J20	JUMPER				2 way stripline connector	Trough hole 2.54mm pitch	any		RS: 251-8086	
64	1	J12	LCD connector				mount 2 connectors: 8 way (2x4) double row strip line socket	Trough hole 2.54mm pitch	any		RS: 488-1730	
65	1	J15	JTAG				Right-angled IDC boxed header, 20 way 2row	Trough hole 2.54mm pitch 90°	any		RS: 473-8377	
66	1	J19	RTC_CAL				5 way stripline connector	Trough hole 2.54mm pitch	any		RS: 251-8121	
67	1	J21	SC_CON - NOT FIT	not mounted			7 way stripline connector	Trough hole 2.54mm pitch				not mounted
68	1	J22	CON3	not mounted			3 way top entry socket (strip female)	Trough hole 2.54mm pitch	any		RS: 488-1724	not mounted
69	1	J23	CON2	not mounted			2 way top entry socket (strip female)	Trough hole 2.54mm pitch	any		RS: 488-1724	not mounted

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70	1	J24	ZigBee - CONN1	not mounted				6 way top entry socket (strip female)	Trough hole 2.54mm pitch	any		RS: 488-1724	not mounted
71	1	J25	ZigBee - CONN2	not mounted				6 way top entry socket (strip female)	Trough hole 2.54mm pitch	any		RS: 488-1724	not mounted
72	1	L1	15uH	10%	2.5A			Power inductor	SMD 10x10mm body size	EPCOS	B82464A4153K	Farnell: 7429649	
73	1	L2	220uH	10%	240mA			Power inductor	SMD 6x6mm body size	EPCOS	B82462A4224K	RS: 495-8048	
74	1	L3	4.7uH	20%	2A			Power inductor	SMD 6x6mm body size	EPCOS	B82462G4472M	Farnell: 7430000	
75	1	L4	1mH	10%	120mA			inductor	SMD 2220	EPCOS	B82442H1105K	RS: 496-1347	
76	1	L5	BEAD		2A			H I G H CURRENT (2A) F E R R I T E CHIP BEAD, impedance at 100 MHz: 600 ohm	SMD 0805	KEKITAGAWA	MLB-201209-0600PN	Distelec: 330138	
77	2	NTC1,NTC2	16ohm	20%	2.9A	2.1 W		NTC resistor	Trough hole Disc 5mm lead spacing	EPCOS	B57236S0160M000	Distelec: 730576	
78	1	Q2	2N7002		60V/0.2A			STripFET™ Power MOSFET	SMD SOT23-3L	ST	2N7002		
79	1	R1	47 kohm	1%		0.1W		metal film resistor	SMD 0603	any		any	
80	4	R2, R3, R5, R6	10 kohm	1%		1 W		Professional MELF Resistors	SMD MMB 0207	Vishay		Distelec: 710082	
81	1	R4	120 ohm	1%		0.1W		metal film resistor	SMD 0603	any		any	
82	1	R7	10 kohm	1%		0.1W		metal film resistor	SMD 0603	any		any	
83	1	R8	39 kohm	1%		0.1W		metal film resistor	SMD 0603	any		any	
84	1	R9	330 ohm	1%		0.1W		metal film resistor	SMD 0603	any		any	
85	2	R11,R18	47 kohm	1%		0.1W		metal film resistor	SMD 0603	any		any	
86	1	R12	1 kohm	1%		0.1W		metal film resistor	SMD 0603	any		any	
87	1	R13	5.1 kohm	1%		0.1W		metal film resistor	SMD 0603	any		any	
88	1	R14	24 kohm	1%		0.1W		metal film resistor	SMD 0603	any		any	
89	1	R17	150 ohm	1%		0.1W		metal film resistor	SMD 0603	any		any	
90	25	R10, R15, R19, R20, R21, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R58, R90, R71, R72, R73, R74, R88, R89	4.7 kohm	1%		0.1W		metal film resistor	SMD 0603	any		any	
91	2	R22, R61	1 kohm	1%		0.1W		metal film resistor	SMD 0603	any		any	
92	2	R35, R37	6.8 Mohm	5%		0.25W		metal film resistor	SMD 1206	any		any	

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93	1	R36	2.5 kohm	5%			0.25W	metal film resistor	SMD 1206	any		any	
94	1	R38	33 kohm	1%			0.25W	metal film resistor	SMD 1206	any		any	
95	1	R39	10 ohm	5%			0.25W	metal film resistor	SMD 1206	any		any	
96	1	R40	not mounted				0.25W	metal film resistor	SMD 1206				
97	1	R41	10 kohm	1%			0.25W	metal film resistor	SMD 1206	any		any	
98	1	R42	75 kohm	1%			0.25W	metal film resistor	SMD 1206	any		any	
99	1	R43	15 ohm	1%			0.25W	Mini-MELF resistors	SMD 1206	any	Vishay	distelec:713030	
100	1	R44	1.2 ohm	1%			0.25W	Mini-MELF resistors	SMD 1206	any	Vishay	distelec: 713004	
101	1	R45	8.2 kohm	1%			0.25W	metal film resistor	SMD 1206	any		any	
102	1	R46	1.5 kohm	5%			0.25W	metal film resistor	SMD 1206	any		any	
103	1	R47	330 ohm	5%			0.25W	metal film resistor	SMD 1206	any		any	
104	9	R48, R49, R50, R51, R53, R54, R55, R57, R75	10 kohm	1%			0.1W	metal film resistor	SMD 0603	any		any	
105	1	R52	NOT MOUNTED						SMD 0603				not mounted
106	1	R56	1 Mohm	1%			0.1W	metal film resistor	SMD 0603	any		any	
107	11	R59, R60, R80, R81, R82, R83, R84, R85, R86, R87, R91	0 ohm	1%			0.1W	metal film resistor	SMD 0603	any		any	
108	2	R62,R63	0 - NOT FIT						SMD 0603				not mounted
109	1	R64	5 ohm	1%			0.1W	metal film resistor	SMD 0603	any		any	
110	1	R65	47 ohm	1%			0.1W	metal film resistor	SMD 0603	any		any	
111	2	R66,R67	22 ohm	1%			0.125 W	metal film resistor	SMD 0805	any		any	
112	1	R68	1 Mohm	5%			0.125 W	metal film resistor	SMD 0805	any		any	
113	1	R69	1.5 Kohm	5%			0.125 W	metal film resistor	SMD 0805	any		any	
114	1	R70	100 ohm	1%			0.1W	metal film resistor	SMD 0603	any		any	
115	3	R76, R77, R78	300 ohm	5%			0.125 W	metal film resistor	SMD 0805	any		any	
116	1	R79	47 ohm	1%			0.1W	metal film resistor	SMD 0603	any		any	
117	1	RV1	S14K510	10%		510 Vac		Disk-shaped metal- oxide varistor	Through hole	Epcos	B72214S0511K101	Distelec: 730933	
118	3	SW1, SW4, S1	ST7580 Reset					tactile switch 100gf	Through hole 6X6mm 5mm height	any		RS:378-6410	
119	1	SW3	E0					3 way stripline connector	Trough hole 2.54mm pitch	any		RS: 251-8092	
120	1	SW5	E1					3 way stripline connector	Trough hole 2.54mm pitch	any		RS: 251-8092	

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121	1	SW6	E2				3 way stripline connector	Trough hole 2.54mm pitch	any		RS: 251-8092	
122	1	SW7	BOOT0				3 way stripline connector	Trough hole 2.54mm pitch	any		RS: 251-8092	
123	1	SW9	BOOT1				3 way stripline connector	Trough hole 2.54mm pitch	any		RS: 251-8092	
124	5	SW10, SW12, SW16, SW17, SW18	switch				3 way stripline connector	Trough hole 2.54mm pitch	any		RS: 251-8092	
125	9	SW11, SW13, SW14, SW15, SW19, SW20, SW21, SW22, SW23	JUMPER				3 way stripline connector	Trough hole 2.54mm pitch	any		RS: 251-8092	
126	1	TP1	CL				Loop terminal assembly,1mm hole	trough hole			RS: 101-2391	test point
127	1	TP2	ZC_IN				Loop terminal assembly,1mm hole	trough hole			RS: 101-2391	
128	1	TP3	PA_IN-				Loop terminal assembly,1mm hole	trough hole			RS: 101-2391	
129	1	TP4	PA_IN+				Loop terminal assembly,1mm hole	trough hole			RS: 101-2391	
130	1	TP5	TX_OUT				Loop terminal assembly,1mm hole	trough hole			RS: 101-2391	
131	1	TP6	PA_OUT				Loop terminal assembly,1mm hole	trough hole			RS: 101-2391	
132	1	TP7	VDDIO				Loop terminal assembly,1mm hole	trough hole			RS: 101-2391	
133	1	TP8	VDD				Loop terminal assembly,1mm hole	trough hole			RS: 101-2391	
134	1	TP9	VDD_PLL				Loop terminal assembly,1mm hole	trough hole			RS: 101-2391	
135	1	TP10	VCC				Loop terminal assembly,1mm hole	trough hole			RS: 101-2391	
136	1	TP11	VCCA				Loop terminal assembly,1mm hole	trough hole			RS: 101-2391	
137	1	TP12	RX_IN				Loop terminal assembly,1mm hole	trough hole			RS: 101-2391	
138	1	T1	VAC 5024X044				Signal-Transformer	SMD	VAC VACUUMSCHM ELZE (http://www.vacuumschmelze.de/dynamic/en/index.php)	T60403-K5024-X044 (datasheet: http://www.vacuumschmelze.de/dynamic/docroot/medi alib/documents/pdf/kbprodu ktblaetter/5024-X044_en.pdf)		
139	1	T2	TDK - REV.C			6W	General Transformers	trough hole	TDK	SRW16ES		ST SUPPLY

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140	1	U1	ST7580				FSK, N-PSK multi-mode power line networking system-on-chip	SMD QFN-48	ST	ST7580		ST SUPPLY
141	1	U2	M25P10-A				1 Mbit, serial Flash memory, 50 MHz SPI bus interface	SMD SO8	NUMONIX	M25P10-AVMN6P	RS: 608-5647	
142	1	U3	LF33AB		3.3V		Very low drop voltage regulators with inhibit	SMD DPAK	ST	LF33ABDT-TR		ST SUPPLY
143	1	U4	ALTAIR04-900				Off-line all-primary-sensing switching regulator	SMD SO16N	ST	ALTAIR04-900		ST SUPPLY
144	1	U5	STM32F103VET6				32-bit MCU	SMD LQFP100	ST	STM32F103VET6		ST SUPPLY
145	1	U6	M24128-BWMN6P				128 Kbit, 64 Kbit and 32 Kbit serial I ² C bus EEPROM	SMD SO8	ST	M24128-BWMN6TP		ST SUPPLY
146	1	U7	USBLC6-2P6 - NOT FIT				Very low capacitance ESD protection	SMD SOT-666	ST	USBLC6-2P6	not mounted	ST SUPPLY
147	1	U8	MT008-A				joystick					ST SUPPLY
148	1	U9	TSM0505S	10%	5V/5V 200mA		DC/DC converter	SMD SOIC-14			RS: 510-5431	
149	1	U10	IL712S-1E		2500 Vrms		Bi-directional Digi Isolator	SMD MSOP-8	NVE	IL712S-1E	RS: 418-436	
150	1	V1	BATTERY HOLDER				PCB mount coin cell holder, 12mm	trough hole	Keystone	500	RS: 430-653	CR1220 lithium coin cell (RS: 597-172)
151	2	Y1,Y3	8MHz	30 ppm			8 MHz crystal	trough hole HC49S	any		RS: 672-0268	cambio di valore o Package
152	1	Y2	32.768 Khz	20ppm			32.768kHz crystal		any		RS: 547-6979	mount this crystal in horizontal position
153	1	ISO1	TLP 421				Optocoupler	Trough hole DIP4	Toshiba	TLP 421	Distelec: 631515	
154	7	spacer					5mm metal spacer With inner and outer threads	trough hole	any		Distelec: 341130	
155	5	spacer					35mm metal spacer With RH and LH internal threads	trough hole	any		Distelec: 341077	
156	2	washer					A4 stainless steel plain washer, M3		any		RS: 189-620	
157	2	nut					NiPt brass full nut, M3		any		RS: 483-0502	