

**Table 1: STEVAL-IPFC01V1 bill of materials**

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
1	1	-	STEVAL-IPFC01P1	Power board	ST	not available separately
2	1	-	STEVAL-IPFC01C1	Control board	ST	not available separately
3	1	-	STEVAL-IPFC01A1	adapter board	ST	not available separately

**Table 2: Power board bill of materials**

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
1	1	C100	100nF, 275Vac, ±20%	POLYPROPYLENE FILM CAP, through hole lead spacing 15mm	PANASONIC	ECQUAAF104MA
2	1	C101	100nF, 50V, ±10%	0603	ANY	ANY
3	1	C102	1nF, 500Vdc, ±20%	Ceramic disc cap, through hole lead spacing 7.5mm	VISHAY BC COMPONENTS	VY1102M35Y5UG63V0
4	3	C200, C204, C208	470nF, 50V, ±20%	X7R Ceramic Capacitor, 0805	TDK	CGA4J3X7R1H474M125A
5	3	C201, C202, C203	470µF, 25V, ±20%	Electrolytic capacitor +105°, TH 8mm diameter, 3.5mm lead spacing	ANY	ANY
6	1	C205	10µF, 25V, ±20%	Electrolytic capacitor +105°, through hole lead spacing 2.5mm	ANY	ANY
7	2	C206, C207	4.7µF, 50V, ±10%	Ceramic Capacitor, 1210	MULTICOMP	MULTICOMP
8	1	C209	4.7nF, 50V, ±10%	X7R Ceramic Capacitor, 0603	ANY	ANY
9	2	C210, C340	1nF, 50V, ±10%	X7R Ceramic Capacitor, 0603	ANY	ANY
10	4	C300, C301, C302, C303	470µF, 450V, ±20%	Electrolytic capacitor +105°, through hole lead spacing 10mm	Nichicon	LGL2W471MELC35
11	1	C304	0.56µF, 450V, ±10%	POLYPROPYLENE FILM CAP, through hole lead spacing 22.5mm	EPCOS	B32673P6564K000
12	1	C305	1µF, 520V, ±10%	POLYPROPYLENE FILM CAP, through hole lead spacing 22.5mm	EPCOS	B32673Z5105K000
13	11	C306, C328, C329, C330, C334, C307, C323, C324, C325, C332, C339	10nF, 50V, ±10%	X7R Ceramic Capacitor, 0603	ANY	ANY
14	3	C308, C309, C310	100pF, 630 Vdc, ±5%	POLYPROPYLENE FILM CAP, through hole lead spacing 5mm	KEMET	PFR5101J630J11L4BULK
15	4	C311, C312, C313, C326	100pF, 50V, ±5%	COG Ceramic Capacitor, 0603	ANY	ANY
16	11	C316, C317, C319, C322, C331, C335, C336, C337, C338, C318, C320	100nF, 50V, ±10%	X7R Ceramic Capacitor, 0603	ANY	ANY
17	1	C327	3.3nF, 50V, ±5%	COG Ceramic Capacitor, 0603	ANY	ANY

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
18	3	C328, C329, C330	150 pF, 50V, ±5%	C0G Ceramic Capacitor, 0603	ANY	ANY
19	1	C333	1nF, 50V, ±5%	C0G Ceramic Capacitor, 0603	ANY	ANY
20	18	D100, D203, D303, D304, D305, D306, D307, D308, D309, D310, D311, D312, D313, D314, D316, D317, D318, D319	30V, 1A	Power schottky diode, SMA	ST	<a href="#">STPS1L30A</a>
21	1	D101	50A, 1000V, 50A	Single Phase Bridge Rectifier, GBJ	HY Electronic Corp	GBJ5010
22	3	D102, D103, D104	GF1M, 1000V, 1A	General Purpose Rectifier Diode, SMA	ON Semiconductor	GF1M
23	1	D200	220V	TRANSIL, SMB	ST	<a href="#">SM6T220A</a>
24	1	D201	150V, 2A	Power schottky diode, SMA	ST	<a href="#">STPS2150A</a>
25	1	D202	1000V, 1A	Turbo 2 ultrafast high voltage rectifier, SMA	ST	<a href="#">STTH1L06A</a>
26	1	D204	100V, 150mA	Small signal Schottky diode, SMD Minimelf	ST	<a href="#">TMMBAT46FILM</a>
27	3	D300, D301, D302	600V, 12A	Silicon carbide high voltage rectifier, TO220AC	ST	<a href="#">STPSC12065D</a>
28	1	D315	100V, 150mA	Small signal Schottky diode, SOD-323	ST	<a href="#">BAT46JFILM</a>
29	1	F100	20A, 250Vac, 20A, 0%	Cylindrical Fuse Class gG/gL and aM, SMD 10x3 mm	Bel Fuse Inc.	SMM 20
30	1	ISO100	80V, 50mA, 0%	Optocoupler, SMD	Toshiba	TLP385
31	1	J100	VIN, 630V, 17.5A	PCB terminal block, through hole lead spacing 7.5mm	Phoenix Contact	1717033
32	1	J300	VOUT, 300Vac, 25A	PCB terminal block, through hole lead spacing 7.62mm	RS Pro	790-1130
33	1	J301	CON40A, 550Vca, 6.9A	PCB terminal block female, through hole lead spacing 2.54 mm	Samtec	ESQ12037GD
34	1	L100	2x 4.5 mH, 250V, 18A, ±20%	Common Mode Power Line Choke, through hole	Würth Elektronik	7448051804
35	1	L200	4.7uH, 1.7A, ±20%	SMD Inductor, SMD 4.5x4mm	NIC COMPONENTS	NPI43C4R7MTRF

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
36	1	L201	2.2mH, 0.47A, ±10%	Switch Mode Transformer, through hole	AQ Magnetica OR Würth Elektronik	2198.0037 OR 750 318 675
37	3	L300, L301, L302	±10%	Power inductor, through hole PQ32	AQ Magnetica OR Würth Elektronik	2083.0011 OR 750316867
38	2	Q100, Q304	18V, 1A	N-channel 20 V, Power MOSFET, SO8	ST	<a href="#">STS6NF20V</a>
39	3	Q300, Q301, Q302	600V, 40A	MDmesh II Plus™ low Qg, TO-247	ST	<a href="#">STW40N60M2</a>
40	1	Q303	45V, 200 mA	BJT NPN small signal transistor, SOT-23	ON Semiconductor	MMBT6429LT1G
41	1	RL100	250Vac-16A, 250V, 16A, 0%	RELAY SPST, through hole	SCHRACK - TE CONNECTIVITY	RT314018
42	1	RV100	S14K275, 275Vac, ±10%	METAL OXIDE VARISTORS, through hole lead spacing 6mm	EPCOS	B72214S0271K101
43	2	R100, R360	22, 200V, ±1%	Metal film resistor, 1206	ANY	ANY
44	1	R101	150, 350V, ±5%	High power ceramic resistors, through hole	TE Connectivity	SQMW5150RJ
45	4	R102, R203, R362	33k, 50V, ±1%	Metal film resistor, 0603	ANY	ANY
46	7	R103, R104, R112, R113, R301, R304, R308	470k, 200V, ±1%	Metal film resistor, 1206	ANY	ANY
47	3	R105, R108, R109	33k, 200V, ±1%	Metal film resistor, 1206	ANY	ANY
48	1	R106	100k, 200V, ±1%	Metal film resistor, 1206	ANY	ANY
49	2	R107, R111	10M, 50V, ±1%	Metal film resistor, 0603	ANY	ANY
50	1	R110	47k, 50V, ±1%	Metal film resistor, 0603	ANY	ANY
51	1	R114	3k ±0.1%, 50V, 0%	Metal film resistor, 0603	ANY	ANY
52	1	R200	3.3k, 200V, ±1%	Metal film resistor, 1206	ANY	ANY
53	1	R202	100, 200V, ±1%	Metal film resistor, 1206	ANY	ANY
54	1	R204	12k, 50V, ±1%	Metal film resistor, 0603	ANY	ANY
55	1	R205	24k, 50V, ±1%	Metal film resistor, 0603	ANY	ANY



Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
56	2	R206, R207	2.7, 200V, $\pm 1\%$	Professional MELF Resistors, MELF 0204	Vishay	MMA02040C2708FB300
57	1	R208	24k, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
58	1	R300	30m, $\pm 1\%$	Ultra Precision Current Sensing Chip Resistor, SMD 4527	Stackpole Electronics Inc.	CSS4527FT30L0
59	11	R302, R303, R332, R334, R336, R339, R341, R343, R351, R352, R367	100, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
60	3	R305, R306, R307	510, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
61	10	R309, R310, R333, R335, R337, R340, R342, R344, R356, R358	2.2k $\pm 0.1\%$ , 75V, 0%	Metal film resistor, 0603	ANY	ANY
62	2	R311, R325	10k $\pm 0.1\%$ , 50V, 0%	Metal film resistor, 0603	ANY	ANY
63	3	R312, R313, R314	33, 200V, $\pm 1\%$	High Power Thick Film Resistor, 1206	ANY	ANY
64	2	R315, R316	10, 200V, $\pm 1\%$	High Power Thick Film Resistor, 1206	ANY	ANY
65	1	R317	10, 200V, $\pm 1\%$	High Power Thick Film Resistor, 1206	ANY	ANY
65	3	R318, R322, R320	10k, 200V, $\pm 1\%$	High Power Thick Film Resistor, 1206	ANY	ANY
67	3	R319, R321, R323	10m, $\pm 1\%$	Wirewound Res., Precision, SMD 2512	OHMITE	MCS3264R010FER
68	1	R324	3.3k $\pm 0.1\%$ , 75V, 0%	Metal film resistor, 0603	ANY	ANY
69	1	R326	4m, $\pm 1\%$	Metal film resistor, SMD 3921	Vishay	WSLP39214L000FEA
70	6	R327, R328, R329, R346, R347, R348	62k $\pm 0.1\%$ , 75V, 0%	Metal film resistor, 0603	ANY	ANY
71	2	R330, R353	6.8k, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
72	1	R331	2k, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
73	1	R338	4.7k, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
74	1	R345	47k, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
75	1	R349	3.3k, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
76	1	R350	10k, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
77	1	R354	330k, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
78	2	R355, R359	82k $\pm 0.1\%$ , 75V, 0%	Metal film resistor, 0603	ANY	ANY
79	1	R357	470, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
80	1	R361	11k, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
81	1	R363	10k, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
82	3	R364, R365, R366	0, 200V, $\pm 1\%$	Metal film resistor, 1206	ANY	ANY
83	3	R368, R369, R370	1k, 50V, $\pm 1\%$	Metal film resistor, 0603	ANY	ANY
84	1	U200	5V, 0.25A	Very low drop voltage regulators with inhibit, SO8	ST	<a href="#">L4931ABD50, TR</a>
85	1	U201	900V	Off-line all-primary-sensing switching regulator, SO16N	ST	<a href="#">ALTAIR05T, 800</a>
86	5	U300, U301, U302, U303, U305	-	rail to rail input/output 5V CMOS Op-Amp, SOT23-5L	ST	<a href="#">TSV911ILT</a>
87	1	U304	-	Rail-to-rail high-speed comparator, SOT23-5L	ST	<a href="#">TS3011ILT</a>
88	1	U306	5V	Ultra-low current 2.4 V precision analog temperature sensor, SOT323-5L	ST	<a href="#">STLM20W87F</a>
89	3	U307, U308, U309	18V, 4A	4 A dual low side MOSFET driver, SO8	ST	<a href="#">PM8834TR</a>
90	2	Y100, Y101	2.2nF, 250V, $\pm 20\%$	Ceramic disc cap, T H lead spac. 7.5 mm	MURATA	DE2E3KH222MA3B
91	1	Y300	FAN2, 12V, 0.25A	DC Axial Fan, through hole 40X40X20	ARX	FD1240-A0241D0AL
92	1	HEATSINK	-	HEATSINK 220mm, standard finishing size length: 220 mm	PADA	8411
93	1	PLEXIGLASS SPACER	-	PLEXIGLASS SPACER, DIM: 240X40x3mm	ANY	ANY
94	6	SPACER	-	Nylon spacer 10mm M3	-	-
95	6	NUT	-	Nylon NUT M3	-	-
96	3	INSULATOR KIT 1	-	INSULATOR KIT TO-220	MULTICOMP	MK3306/S
97	3	INSULATOR KIT 2	-	INSULATOR TO-247	-	-
98	2	Screw M3	-	M3 steel screws - 10 mm length	-	-



Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
99	7	Screw M2.5	-	M2.5 steel screws - 20 mm length	-	-
100	7	NUT	-	M2.5 STEEL NUT	-	-
101	7	Plain Washer	-	M2.5 Steel Plain Washer	-	-

**Table 3: Control board bill of materials**

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
1	1	C1	4.7 $\mu$ F, 0805, 16 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
2	2	C2, C5	100nF, 0603, 50 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
3	4	C3, C4, C15, C17	10nF, 0603, 50 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
4	1	C6	47 $\mu$ F, 1206, 6.3 V, 20 %	Polarized tantalum chip capacitor	AVX	TAJA476K006RNJ
5	1	C7	1 $\mu$ F, 0603, 25 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
6	6	C8, C21, C22, C25, C26, C27	100pF, 0603, 25 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
7	3	C9, C19, C20	150pF, 0603, 25 V, 5 %	COG Ceramic Capacitor	ANY	ANY
8	2	C10, C37	33pF, 0603, 50 V, 5 %	COG Ceramic Capacitor	ANY	ANY
9	1	C11	100nF, 0603, 50 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
10	1	C12	15nF, 0603, 50 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
11	4	C13, C38, C39, C40	220nF, 0603, 50 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
12	2	C14, C16	100nF, 0603, 25 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
13	3	C18, C24, C32	100nF, 0603, 50 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
14	2	C23, C33	10nF, 0603, 25 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
15	1	C28	1.5nF, 0603, 25 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
16	1	C29	100pF, 0603, 25 V, 5 %	COG Ceramic Capacitor	ANY	ANY
17	1	C30	10pF, 0603, 50 V, 5 %	COG Ceramic Capacitor	ANY	ANY
18	1	C31	15nF, 0603, 50 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
19	1	C34	1nF, 0603, 25 V, 10 %	X7R Ceramic Capacitor	ANY	ANY
20	1	C35	2.2nF, 0603, 25 V, 10 %	COG Ceramic Capacitor	ANY	ANY
21	1	C36	330pF, 0603, 50 V, 5 %	COG Ceramic Capacitor	ANY	ANY
22	1	D1	RED, 0805, N.A. %,	High efficiency red diffused LED 2mA 3mm	Kingbright	KP-2012SRC-PRV
23	1	D2	GREEN, 0805, N.A. %,	High efficiency green diffused LED 2mA 3mm	Kingbright	KPHCM-2012CGCK
24	1	J1	CON40A, /, / V, / %,	Right angle connector 2 ways 2.54mm	Stelvio Kontek	4.74975E+12



Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
25	1	J2	SWIM I/F,	generic male strip line connector	ANY	ANY
26	1	J3	CON4,	generic male strip line connector	ANY	ANY
27	1	L1	WE-CBF,	SMD Inductor, 0603	Wurth Elektronik	74279262
28	2	R1, R2	1k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
29	3	R4, R7, R36	10k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
30	2	R6, R35	3.3k, 50 V, 1 %	Metal film resistor, 0603r	ANY	ANY
31	3	R8, R9, R32	10k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
32	4	R10, R11, R16, R17	100, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
33	4	R12, R13, R18, R19	N.M., 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
34	2	R14, R15	10k, 50 V, 0.1 %	Metal film resistor, 0603	ANY	ANY
35	2	R20, R30	22k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
36	1	R21	10k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
37	1	R22	2.2k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
38	1	R23	7.5k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
39	1	R24	2.4k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
40	1	R25	220K, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
41	2	R26, R27	56k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
42	1	R28	6.2k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
43	2	R29, R31	0, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
44	1	R33	N.M., 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
45	1	R34	15k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
46	1	R37	5.1k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
47	3	R38, R39, R40	100k, 50 V, 1 %	Metal film resistor, 0603	ANY	ANY
48	1	U1	-	Three-channel interleaved CCM PFC digital controller, TSSOP38	ST	<a href="#">STNRGPF01</a>

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
49	2	U2,U3	-	Quad 2-Input Schmitt NAND Gate, SO14	ST	<a href="#">M74HC132YRM13TR</a>
50	1	U4	-	rail to rail input/output 5V CMOS Op-Amp, SOT23-5L	ST	<a href="#">TSV911ILT</a>
51	1	U5	-	Low power rail-to-rail input/output op-amp, SO8	ST	<a href="#">LMV358IDT</a>

**Table 4: Adapter board bill of materials**

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
1	1	D400	LED	High Efficiency Red LED 3mm, through hole	Kingbright	L-7104ID
2	1	J400	CON4	4-contact 2.54mm female SIL Board-to-board Socket, through hole	HARWIN	M20-7890446
3	1	J401	CON6	Right angle male connector 1 way 6 circuits 2.54mm, through hole	ANY	ANY
4	1	Q400	40 V, 0.6 A	General Purpose Transistors, NPN Silicon	ON Semiconductor	SMMBT2222ALT1G
5	1	R401	330	Metal film resistor, 0805	ANY	ANY
6	1	R402	470k	Metal film resistor, 0805	ANY	ANY
7	1	R403	1K	Metal film resistor, 0805	ANY	ANY

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**Notice applicable to Evaluation Boards according to European Regulation**

For the European Regulation of the Evaluation Board, the applicable EU directives are considered, with a particular attention to the Low Voltage Directive (LVD) 2014/35/EU, the Electromagnetic Compatibility (EMC) Directive 2014/30/EU, and the Radio Equipment Directive (RED) 2014/53/EU. If the Evaluation Board is outside the scope of the foregoing Directives, then the General Product Safety Directive (GPSD) 2001/95/EC and Council Directive 93/68/EEC, amending Directive 73/23/EEC on electrical equipment designed for use within certain voltage limits, are applicable.

The Evaluation Board meets the requirements of the Restriction of Hazardous Substances (RoHS 2 or RoHS recast) Directive 2011/65/EU, Annex II, as amended by Directive 2015/863/EU.

**Notice applicable to Evaluation Boards not FCC-Approved**

This kit is designed to allow:

- (1) Product developers to evaluate electronic components, circuitry, or software associated with the kit to determine whether to incorporate such items in a finished product and
- (2) Software developers to write software applications for use with the end product.

This kit is not a finished product and when assembled may not be resold or otherwise marketed unless all required FCC equipment authorizations are first obtained. Operation is subject to the condition that this product not cause harmful interference to licensed radio stations and that this product accept harmful interference. Unless the assembled kit is designed to operate under part 15, part 18 or part 95 of 47 CFR, Chapter I ("FCC Rules"), the operator of the kit must operate under the authority of an FCC license holder or must secure an experimental authorization under part 5 of this chapter.

**For Evaluation Boards annotated as FEDERAL COMMUNICATIONS COMMISSION (FCC) Part 15 Compliant**

- **FCC Interference Statement for Class A Evaluation Boards:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- **FCC Interference Statement for Class B Evaluation Boards:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.
- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**WARRANTY**

ST WARRANTS THAT IT HAS THE RIGHT TO PROVIDE THE EVALUATION BOARD TO YOU. THIS WARRANTY IS PROVIDED BY ST IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL, STATUTORY, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY, NON-INFRINGEMENT, FITNESS FOR ANY PARTICULAR PURPOSE, OR UNINTERRUPTED OR ERROR-FREE OPERATION, ALL OF WHICH ARE EXPRESSLY DISCLAIMED. THE EVALUATION BOARD IS PROVIDED "AS IS".

YOU WARRANT TO ST THAT YOU WILL ENSURE THE EVALUATION BOARD IS USED ONLY BY ELECTRONICS EXPERTS WHO UNDERSTAND THE DANGERS OF HANDLING AND USING SUCH ITEMS, YOU ASSUME ALL RESPONSIBILITY AND LIABILITY FOR ANY IMPROPER OR UNSAFE HANDLING OR USE OF THE EVALUATION BOARD BY YOU, YOUR EMPLOYEES, AFFILIATES, CONTRACTORS, AND DESIGNEES.

**LIMITATION OF LIABILITIES**

IN NO EVENT SHALL ST BE LIABLE TO YOU, WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR ANY OTHER LEGAL THEORY, FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, INCIDENTAL, PUNITIVE, OR EXEMPLARY DAMAGES WITH RESPECT TO ANY MATTERS RELATING TO THIS AGREEMENT, REGARDLESS OF WHETHER ST HAS BEEN ADVISED OF THE POSSIBILITY OF THE SAME. IN NO EVENT SHALL ST'S LIABILITY ARISING OUT OF THIS AGREEMENT IN THE AGGREGATE EXCEED THE AMOUNT PAID BY YOU UNDER THIS AGREEMENT FOR THE PURCHASE OF THE EVALUATION BOARD, OR TEN UNITED STATES DOLLARS (\$10.00) IF NO PURCHASE PRICE WAS PAID.

**INDEMNIFICATION**

You shall, at Your expense, defend ST and its Affiliates against a claim or action brought by a third party for infringement or misappropriation of any patent, copyright, trade secret or other intellectual property right of a third party to the extent resulting from (1) Your combination of the Evaluation Board with any other component, system, software, or firmware, (2) Your modification of the Evaluation Board, or (3) Your use of the Evaluation Board in a manner not permitted under this Agreement. You shall indemnify ST and its Affiliates against and pay any resulting costs and damages finally awarded against ST or its Affiliates or agreed to in any settlement, provided that You have sole control of the defense and settlement of the claim or action, and ST cooperates in the defense and furnishes all related evidence under its control at Your expense. ST will be entitled to participate in the defense of such claim or action and to employ counsel at its own expense.

"Affiliates" means any corporation or other entity directly or indirectly controlled by, controlling or under common control with the entity in question, for so long as such ownership exists. "Control" means the direct or indirect beneficial ownership of more than fifty (50%) percent of the stock or other equity interests entitled to vote for the election of directors or an equivalent governing body. Any such corporation or other legal entity shall be deemed to be an Affiliate of such Party only as long as such Control exists.

**TERMINATION**

ST may terminate this Agreement without notice if You breach this Agreement. Upon termination, You shall immediately destroy or return all copies of the software, firmware, and documentation of the Evaluation Board to ST and certify in writing to ST that You have done so.

**APPLICABLE LAW AND JURISDICTION**

This Agreement shall be governed, construed and enforced in accordance with the laws of Switzerland, without regard to its conflict of laws rules. The UN Convention on Contracts for the International Sale of Goods shall not apply to this Agreement. In case of dispute and in the absence of an amicable settlement, the only competent jurisdiction shall be the Courts of Geneva, Switzerland. Any breach of this Agreement by You may result in irreparable damage to ST for which ST will not have an

adequate remedy at law. Accordingly, in addition to any other remedies and damages available, You acknowledge and agree that ST may immediately seek enforcement of this Agreement in any jurisdiction by means of specific performance or injunction, without any requirement to post a bond or other security.

#### **SEVERABILITY**

If any provision of this agreement is or becomes, at any time or for any reason, unenforceable or invalid, no other provision of this agreement shall be affected thereby, and the remaining provisions of this agreement shall continue with the same force and effect as if such unenforceable or invalid provisions had not been inserted in this Agreement. In addition, any unenforceable or invalid provision shall be deemed replaced by a provision that is valid and enforceable and that comes closest to expressing the intention of the unenforceable or invalid provision.

#### **WAIVER**

The waiver by either party of any breach of any provision of this Agreement shall not operate or be construed as a waiver of any other or a subsequent breach of the same or a different provision.

#### **RELATIONSHIP OF THE PARTIES**

Nothing in this Agreement shall create, or be deemed to create, any joint venture, partnership, principal-agent, employer-employee or other relationship between the Parties, except that of independent contractors. Neither Party has the authority or power to bind, to contract in the name of, or to create a liability for the other in any way or for any purpose.

#### **SURVIVAL**

Any provision of this Agreement which imposes an obligation after termination of this Agreement shall survive the termination of this Agreement.

#### **SECTION HEADINGS**

Section headings are inserted for convenience only and shall not be used to interpret this Agreement.

#### **WASTE AND RECYCLING**

**The Evaluation Board is not to be disposed of as urban waste. At the end of its life cycle, differentiated waste collection must be followed.** Consult the local authorities for more information on the proper disposal channels. It is mandatory to separately collect the Evaluation Board and make sure it is delivered it to the appropriate waste management and recycling centers.

As of 15 August 2018, in all the countries belonging to the European Union, the Evaluation Board is subject to the WEEE Directive 2012/19/EU requirement; therefore, it is forbidden to dispose of the Evaluation Board as undifferentiated waste or with other domestic wastes. Consult the local authorities for more information on the proper recycling centers.

Disposing of the Evaluation Board incorrectly may cause damage to the environment and may be subject to fines based on specific countries' rules.