

**Table 1: Bill of materials**

Item	Q.ty	Ref.	Value	Description	Manufacturer	Order code
1	1	C1	0.033 $\mu$ F, Radial, 305 V, 20 %	CAP FILM 0.033UF 20% 305VAC RAD	EPCOS (TDK)	B32921C3333M000
2	2	C2 C3	22 $\mu$ F, Radial, 18x16.5mm, 400 V, 20 %	Cap Pol Radial (Electrolytic); 7.50 mm C X 18.00 mm Dia X 15.00 mm H body	Nichicon	URZ2G220MHD
3	1	C4	1nF, 1206 (3216 Metric), 1000V (1kV) V, 10 %	CAP CER 1nF 1KV X7R 1206	Würth Electronics Inc.	885342208018
4	1	C5	1nF, 0805 (2012 Metric), 100 V, 10 %	CAP CER 1nF 100V X7R 0805	Würth Electronics Inc.	885012207116
5	3	C6 C8 C10	270 $\mu$ F, Radial, 6.3x11mm, 16 V, 20 %	Cap Pol Radial (Electrolytic); 2.50 mm C X 6.30 mm Dia X 11.00 mm H body	UNITED CHEMI-CON	APSG160ELL271MF08J
6	3	C7 C9 C11	1 $\mu$ F, 0603 (1608 Metric), 25 V, 20 %	CAP CER 1UF 25V X5R 0603	Würth Electronics Inc.	885012106022
7	2	C12 C21	680pF, 0603 (1608 Metric), 50 V, 10 %	CAP CER 680pF 50V X7R 0603	Murata Electronics North America	GRM188R71H681KA01D
8	1	C13	220nF, 0603 (1608 Metric), 25 V, 10 %	CAP CER 0.220UF 25V X7R 0603	Murata Electronics North America	GCM188R71E224KA55D
9	1	C14 N.A.	470pF, 0603 (1608 Metric), 50 V, 5 %	CAP CER 470PF 50V C0G/NP0 0603	Würth Electronics Inc.	885012006061
10	1	C15	0.1 $\mu$ F, 0603 (1608 Metric), 50 V, 10 %	CAP CER 0.1UF 50V X7R 0603	Würth Electronics Inc.	885012206095
11	1	C16	150p, 0603 (1608 Metric), 50 V, 10 %	CAP CER 150pF 50V X7R 0603	Würth Electronics Inc.	885012206078
12	1	C17	2.2nF, Radial, Disc, 250 V, 20 %	CAP CER 2200PF 250VAC RADIAL	Murata Electronics North America	DE2E3KY222MN3AM02F
13	1	C18	1 $\mu$ F, 0805 (2012 Metric), 25 V, 10 %	CAP CER 1UF 25V X7R 0805	Würth Electronics Inc.	885012207078
14	1	C19	22 $\mu$ F, 0805 (2012 Metric), 10 V, 20 %	CAP CER 22uF 10V X5R 0805	Würth Electronics	885012107011
15	1	C20	0.1 $\mu$ F, 0603 (1608 Metric), 50 V, 10 %	CAP CER 0.1UF 50V X7R 0603	Würth Electronics Inc.	885012206095
16	1	C22	2.2 $\mu$ F, 1210 (3225 Metric), 100 V, 10 %	CAP CER 2.2uF 100V X7R 1210	Würth Electronics Inc.	885382209002

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17	1	C23	22µF, 1210 (3225 Metric), 25 V, 20 %	CAP CER 22UF 25V X5R 1210	Würth Electronics Inc.	885012109014
18	1	C24	4.7µF, 1206 (3216 Metric), 50 V, 10 %	CAP CER 4.7uF 50V X7R 1206	Würth Electronics Inc.	885012208094
19	5	C25 C33 C36 C40 C41	0.22µF, 0402 (1005 Metric), 10 V, 20 %	CAP CER 0.22UF 10V X5R 0402	Würth Electronics Inc.	885012105011
20	1	C26	0.1µF, 0402 (1005 Metric), 25 V, 20 %	CAP CER 0.1UF 25V X5R 0402	Würth Electronics Inc.	885012105018
21	5	C27 C28 C29 C32 C35	0.1µF, 0402 (1005 Metric), 10 V, 20 %	CAP CER 0.1UF 10V X5R 0402	Würth Electronics Inc.	885012105010
22	2	C30 C31 N.A.	330pF, 0402 (1005 Metric), 25 V, 10 %	CAP CER 330pF 25V X7R 0402	Würth Electronics Inc.	885012205041
23	3	C34 C38 C39	10nF, 0402 (1005 Metric), 10 V, 10 %	CAP CER 10000PF 10V X7R 0402	Würth Electronics Inc.	885012205012
24	1	C37	4.7µF, 0603 (1608 Metric), 16 V, 10 %	CAP CER 4.7UF 16V X5R 0603	Murata	GRM188R61C475KAAJD
25	2	C42 C43	6.8nF, 0402 (1005 Metric), 10 V, 10 %	CAP CER 6800PF 10V X7R 0402	Würth Electronics Inc.	885012205011
26	1	CN1 N.A.	IN-CONN, Custom	Pluggable Terminal Blocks WR-TBL PCB Model 311 2Pin 5.08mm Cls Vtcl	Würth Electronics	691311500102
27	1	CN2	WE-632723300 TYPE-C RECEPTACLE	USB 3.1 TYPE C RECEPTACLE THT/SM	Würth Electronics Inc.	632723300011
28	1	CN3 N.A.	con4-strip- female, Conn Header FEMALE 4POS	CONN HEADER FEMALE .100 STR 4POS	Würth Electronics Inc.	61300411121
29	1	CN4	Con14-male, Conn header SMD 14POS 1.27MM	CONN HEADER SMD 14POS 1.27MM	Samtec Inc.	FTSH-107-01-F-DV-K-P-TR
30	1	D1	CD- MBL206SL, Chip, Concave Terminals, 600 V, 2 A	BRIDGE RECT 1PHASE 600V 2A	Bourns Inc.	CD-MBL206SL
31	1	D2	S1M, SMA, 1K V, 1 A	DIODE GEN PURP 1KV 1A SMA	Diodes Incorporated	S1M-13-F

Item	Q.ty	Ref.	Value	Description	Manufacturer	Order code
32	1	D3	BAS70JFILM, SC-76, SOD-323, 70mA (DC) A	DIODE SCHOTTKY 70V 70MA SOD323	ST	<a href="#">BAS70JFILM</a>
33	1	D4	BAT41ZFILM, SOD-123, 1V @ 200mA V, 200mA (DC) A	DIODE SCHOTTKY 100V 200MA SOD123	ST	<a href="#">BAT41ZFILM</a>
34	2	D5 D6	BAS70JFILM, SC-76, SOD-323, 70mA (DC) A	DIODE SCHOTTKY 70V 70MA SOD323	ST	<a href="#">BAS70JFILM</a>
35	1	D7	BAV21W- E3-08, SOD-123, 250mA (DC) A	DIODE GEN PURP 200V 250MA SOD123	Vishay Semiconductor Diodes Division	BAV21W-E3-08
36	1	D8	BZV55- B18,115, SOD-80C, 900mV @ 10mA V, 50nA @ 10.5V A, 500m W, 2 %	DIODE ZENER 18V 500MW SOD80C	Nexperia USA Inc.	BZV55-B15,115
37	1	D9	ESDA15P60-1U 2-UDFN	TVS DIODE 13.2V 22.7V 1610	ST	<a href="#">ESDA15P60-1U1M</a>
38	2	D10 D11	LED YELLOW- GREEN, 0402 (1005 Metric), 20mA	DIO Rectangle with Flat Top 1.00mm x 0.50mm, LED YELLOW- GREEN 20mA 0402 (1005 Metric)	Vishay Semiconductor Opto Division	VLMG1500-GS08
39	1	D12	BAT30F4, 0201 (0603 Metric), 300m A	DIODE SCHOTTKY 30V 300MA 0201	ST	<a href="#">BAT30F4</a>
41	1	F1	Fuse 2.5A 250V, Through Hole, 250 V, 2.5 A	Fuses with Leads (Through Hole) 2.5A 250V SS-5F-RADIAL FA FUSE	Bussmann / Eaton	SS-5F-2-5A-BK
42	1	ISO1	TCLT1007, 4-SMD, Gull Wing	OPTOISOLATR 5KV TRANSISTOR 4- SOP	Vishay Semiconductor Opto Division	TCLT1007
43	1	J1 N.A.	con8-pcb- female, pcb- holes	PCB HOLES 8POS	Any	
44	1	J2 N.A.	con10-pcb- female, pcb- holes	PCB HOLES 10POS	Any	
45	1	J3 N.A.	con8-pcb-male, pcb-strip	PCB HOLES 8POS	Any	
46	1	J4 N.A.	con10-pcb- male, pcb-strip	PCB HOLES 10POS	Any	

Item	Q.ty	Ref.	Value	Description	Manufacturer	Order code
47	1	JP1 N.A.	SHORT	2 PIN SHORTED TO CONNECT DIFFERENT NETS	Any	
48	1	L1	470µH, Radial, 10 %	FIXED IND 470UH 350MA 2.4 OHM TH	Würth Electronics Inc.	7447462471
49	1	L2	470 Ω, 0402 (1005 Metric)	FERRITE BEAD 470 OHM 0402 1LN	Würth Electronics Inc.	7427927141
50	1	Q1	IRLH5030TRPB PQFN 5mm x 6mm, 100 V, 88 A	N-channel 100 V, 9.9 mΩ typ., 88A	Infineon	IRLH5030TRPBF
51	1	Q2	STD7N65M6, TO-252-3, DPAK (2 Leads + Tab), SC-63	MOSFET N-CH 650V 5A DPAK	ST	<a href="#">STD7N65M6</a>
52	1	Q3	BSS169H6327X TO-236-3, SC-59, SOT-23-3	MOSFET N-CH 100V 170MA SOT23	Infineon Technologies	BSS169H6327XTSA1
53	2	Q4 Q5	STL11N3LLH6, 8-PowerVDFN	MOSFET N- CH 30V 11A POWERFLAT	ST	<a href="#">STL11N3LLH6</a>
54	3	Q6 Q7 Q8	STL6N3LLH6, 6-PowerWDFN	MOSFET N-CH 30V PWRFLT2X2	ST	<a href="#">STL6N3LLH6</a>
55	1	Q9	STL4P3LLH6, 6-PowerWDFN	MOSFET N-CH 30V PWRFLT2X2	ST	<a href="#">STL4P3LLH6</a>
56	1	R1	1.5k, 0603 (1608 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 1k Ohm1% 1/10W 0603	Yageo	RC0603FR-071K5L
57	1	R4	33, 1206 (3216 Metric), 0.25W, 1/4 W, 1 %	RES SMD 1% 1/4W 1206	TE Connectivity	CRG1206F33R
58	1	R5	0, 1206 (3216 Metric), 0.25W, 1/4 W, 1 %	RES SMD 1% 1/4W 1206	Vishay	CRCW12060000Z0EA
59	1	R6	15k, 0603 (1608 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 12k Ohm1% 1/10W 0603	Yageo	RC0603FR-0715KL
60	2	R7 R8	100k, 0603 (1608 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 100k Ohm1% 1/10W 0603	Yageo	RC0603FR-07100KL
61	1	R9	220, 0603 (1608 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 1k Ohm1% 1/10W 0603	Yageo	RC0603FR-07220RL
62	1	R10	4.7, 0805 (2012 Metric), 0.1W, 1/10 W, 1 %	RES SMD 4.7 OHM 1% 1/8W 0805	Vishay	CRCW08054R70FKEA

Item	Q.ty	Ref.	Value	Description	Manufacturer	Order code
63	1	R11	0.11, 1206 (3216 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 1% 1/4W 1206	TE Connectivity	RLP73K2BR11FTDF
64	1	R12	5.1k, 0603 (1608 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 12k Ohm1% 1/10W 0603	Yageo	RC0603FR-075K1L
65	1	R13	300k, 0603 (1608 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 300k Ohm1% 1/10W 0603	Yageo	RC0603FR-07300K
66	1	R14	2.4k, 0603 (1608 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 2.4K Ohm 1% 1/10W 0603	Vishay	CRCW06032K40FKEA
67	1	R15	82k, 0603 (1608 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 69.8k Ohm1% 1/10W 0603	Panasonic	ERA3AEB823V
68	1	R16	270k, 0603 (1608 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 280k Ohm1% 1/10W 0603	Vishay	CRCW0603270KFKEA
69	1	R17	10k, 0603 (1608 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 10K Ohm 1% 1/10W 0603	Vishay	CRCW060310K0FKEA
70	1	R18	0, 0603 (1608 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 0 Ohm 1% 1/10W 0603	Vishay	CRCW06030000Z0EB
71	1	R19	330, 0603 (1608 Metric), 0.125W, 1/8 W, 1 %	CHIP RESISTOR SMD 0 Ohm 1% 1/10W 0603	Panasonic	ERJ3EKF3300V
72	1	R20	130k, 0603 (1608 Metric), 0.063W, 1/16 W, 1 %	CHIP RESISTOR SMD 1% 1/10W 0603	Yageo	232270461304
73	1	R21	330k, 0603 (1608 Metric), 0.1W, 1/10 W, 1 %	CHIP RESISTOR SMD 1% 1/10W 0603	Vishay	CRG0603F330K
74	1	R22	20k, 0603 (1608 Metric), 1 W, 1 %	CHIP RESISTOR SMD 1% 1/10W 0603	Yageo	RC0603FR-0720KL
75	1	R23	10k, 0603 (1608 Metric), 0.125W, 1/8 W, 1 %	CHIP RESISTOR SMD 1% 1/10W 0603	Vishay	CRCW060310K0FKEA
76	1	R24	47k, 0805 (2012 Metric), 0.063W, 1/16 W, 1 %	RES SMD 1% 1/8W 0805	Vishay	CRCW080547K0FKEA
77	1	R25	0, 0402 (1005 Metric), 0.063W, 1/16 W, 1 %	CHIP RESISTOR SMD 1% 1/16W 0402	Vishay	CRCW04020000Z0ED

Item	Q.ty	Ref.	Value	Description	Manufacturer	Order code
78	2	R26 R39	2.2k, 0603 (1608 Metric), 0.063W, 1/16 W, 1 %	RES SMD 1% 1/10W 0603	Yageo	RC0603FR-072K2L
79	2	R27 R29	100, 2512 (6332 metric), 0.063W, 1/16 W, 1 %	Thick Film Chip Resistor	Vishay	CRCW2512100RFKEG
80	1	R28	560, 0805 (2012 Metric), 0.5W, 1/2 W, 0.5 %	RES SMD 1% 1/8W 0805	Vishay	CRCW0805560RFKEA
81	3	R30 R31 R42	100k, 0402 (1005 Metric), 0.063W, 1/16 W, 1 %	CHIP RESISTOR SMD 1% 1/16W 0402	Panasonic	ERJ-2RKF1003X
82	3	R32 R40 R41	2.2k, 0402 (1005 Metric), 0.063W, 1/16 W, 1 %	CHIP RESISTOR SMD 1% 1/16W 0402	Vishay	CRCW04022K20FKED
83	3	R33 R35 R36	10k, 0402 (1005 Metric), 0.063W, 1/16 W, 1 %	CHIP RESISTOR SMD 1% 1/16W 0402	Yageo	RC0402FR-0710KL
84	1	R34	120k, 0402 (1005 Metric), 0.063W, 1/16 W, 1 %	CHIP RESISTOR SMD 1% 1/16W 0402	TE Connectivity	CRG0402F120K
85	1	R37	10mΩ, 1206 (3216 Metric), 0.063W, 1/16 W, 1 %	RES 0.01 OHM 0.5% 1/2W 1206 WIDE	Ohmite	FC4TR010DER
86	1	R38	180, 0402 (1005 Metric), 0.063W, 1/16 W, 1 %	CHIP RESISTOR SMD 1% 1/16W 0402	Vishay	CRCW0402180RFKED
87	2	R43 R49	75, 0402 (1005 Metric), 0.063W, 1/16 W, 1 %	CHIP RESISTOR SMD 1% 1/16W 0402	Yageo	RC0402FR-0775RL
88	1	R44	91k, 0402 (1005 Metric), 0.063W, 1/16 W, 1 %	CHIP RESISTOR SMD 1% 1/16W 0402	Vishay	CRCW040291K0FKED
89	2	R45 R46	8.2, 0402 (1005 Metric), 0.063W, 1/16 W, 1 %	CHIP RESISTOR SMD 1% 1/16W 0402	Vishay	CRCW04028R20FKED
90	1	R47	33k, 0402 (1005 Metric), 0.063W, 1/16W, 1 %	CHIP RESISTOR SMD 1% 1/16W 0402	TE Connectivity	CRG0402F33K
91	1	R48 N.A.	10k, 0402 (1005 Metric), 0.063W, 1/16W, 1 %	CHIP RESISTOR SMD 1% 1/16W 0402	Any	

Item	Q.ty	Ref.	Value	Description	Manufacturer	Order code
92	1	R50	1k, 0402 (1005 Metric), 0.063W, 1/16W, 1 %	CHIP RESISTOR SMD 1% 1/16W 0402	Vishay	CRCW04021K00FKED
93	2	R51 R52	3.3k, 0402 (1005 Metric), W, 20 %	CHIP RESISTOR SMD 1% 1/16W 0402	Panasonic	ERJ2RKF3301X
94	1	R53	280K, 0402 (1005 Metric), 180m W, 5 %	CHIP RESISTOR SMD 1% 1/16W 0402	Panasonic	ERJ2RKF2803XANY
95	1	RT1	2.5, TH 6mm D11.5mm, 20%	ICL 2.5 OHM 20% 11.5MM	EPCOS (TDK)	B57236S0259M000
96	1	RT2	22k, 0603 (1608 Metric), W, 5%	THERMISTOR NTC 22KOHM 4386K 0603	EPCOS (TDK)	B57352V5223J060
97	1	RV1	Var_270V, Through Hole Disc 7mm	DISK VARISTOR STANDARD 7MM; 275V	Würth Electronics Inc.	820572711
98	1	T1	WE_TRASF_75 Ext-Rail + Flying Wires	Würth-Transformer ratio 3:1(S- F);3:1(10-12);3:1(1	Würth Electronics Inc.	750318501
99	1	TP1	GND_P, 0.100" Dia x 0.180" L (2.54mm x 4.57mm)	TEST POINT PC MINI .040"D BLACK	Keystone Electronics	5001
100	1	TP2	ALERT, 0.079" L x 0.047" W (2.00mm x 1.20mm)	PC TEST POINT NATURAL	Harwin Inc.	S2751-46R
101	1	TP3	VDS, 0.079" L x 0.047" W (2.00mm x 1.20mm)	PC TEST POINT NATURAL	Harwin Inc.	S2751-46R
102	1	TP4	PWM, 0.079" L x 0.047" W (2.00mm x 1.20mm)	PC TEST POINT NATURAL	Harwin Inc.	S2751-46R
103	1	TP5	GND, 0.079" L x 0.047" W (2.00mm x 1.20mm)	PC TEST POINT NATURAL	Harwin Inc.	S2751-46R
104	1	U1	TS3431CILT, TO-236-3, SC-59, SOT-23-3	IC VREF SHUNT ADJ SOT23-3	ST	<a href="#">TS3431CILT</a>
105	1	U2	BAR43SFILM, TO-236-3, SC-59, SOT-23-3	DIODE ARRAY SCHOTTKY 30V SOT23-3	ST	<a href="#">BAR43SFILM</a>
106	1	U3	LDK320AM33R, SC-74A, SOT-753	IC REG LDO 3.3V 0.2A SOT23-5	ST	<a href="#">LDK320AM33R</a>
107	1	U4	STCH03TR, 8- SOIC (0.154", 3.90mm Width)	OFFLINE PWM CONTROLLER FOR LOW S	ST	<a href="#">STCH03TR</a>
108	1	U5	TCP01-M12, 3X3X1 mm	IC USB Type-C Port Protection	ST	<a href="#">TCP01-M12</a>

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109	1	U6	STG3684AUTR, 10-UFQFN	IC SWITCH DUAL SPDT 10QFN	ST	<a href="#">STG3684AUTR</a>
110	1	U7	BAR43SFILM, TO-236-3, SC-59, SOT-23-3	DIODE ARRAY SCHOTTKY 30V SOT23-3	STM	<a href="#">BAR43SFILM</a>
111	1	U8	INA230AIRGTR, 16-VFQFN Exposed Pad	IC CURRENT SHUNT MONITOR 16QFN	Texas Instruments	INA230AIRGTR
112	1	U9	STM32G071KBU 5X5 mm	ARM Microcontrollers - MCU 16/32-BITS MICROS-128KB FLASH	ST	<a href="#">STM32G071KBU6N</a>
113	1	U10	PMD3001D,115, SC-74, SOT-457	IC MOSFET DRIVER 6TSOP	Nexperia USA Inc.	PMD3001D,115



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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 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.