

Bill of materials

Table 1. STEVAL-CTM015V1 bill of materials

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
1	1	Table 2. STEVAL-CTM015A2	-	Power board	ST	Not available for separate sale
2	1	Table 3. STEVAL-CTM015A1	-	Driver board	ST	Not available for separate sale
3	1	Heat sink, 150 x 100 x 40 mm	1 K/W, 150 x 100 x 40 mm,	Heat sink	Fischer Elektronik	SK92 150SA
			0.86 K/W		AAVID THERMALLOY	OS461/B/150

Table 2. STEVAL-CTM015A2 (power board) bill of materials

Item	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
1	3	C32 C33 C34	0.022 μ F, 1210 (3225 Metric), 450 V, \pm 5%, COG	Ceramic capacitors	TDK Corporation	C3225C0G2W223J230A A
2	6	C38 C39 C42 C43 C46 C47	1 μ F, 0805 (2012 Metric), 16 V, \pm 10%, SMD	Ceramic capacitors	Yageo	CC0805KKX7R7BB105
3	3	C40 C44 C48	56 nF, 0805 (2012 Metric), 25 V, \pm 5%, SMD	Ceramic capacitors	Kemet	C0805C563J3JACAUTO
4	3	C41 C45 C49	10 nF, 0805 (2012 Metric), 50 V, \pm 10%, SMD	Ceramic capacitors	Yageo	CC0805KRX7R9BB103
5	3	C78 C79 C80	680 nF, 0805 (2012 Metric), 25 V, \pm 10%	Ceramic capacitors	Würth Electronics Inc.	885012207050
6	6	D16 D17 D18 D19 D20 D21	STTH15RQ06G2, D ² Pak, 2.95V @ 15 A	600 V, 15 A Turbo 2 soft ultrafast recovery diode	ST	STTH15RQ06G2-TR
7	3	J26 J33 J34	CON6 SMD	Connector headers	Molex Connector Corporation	0015912060
8	3	J27 J28 J29	CON4 SMD	Connector headers	Molex Connector Corporation	0015912040
9	3	J35 J36 J37	con6-2x3-strip-female	Connector headers	Sullins Connector Solution	PPTC032LFBN-RC
10	1	NTC1	10 K, 0603 (1608 Metric) \pm 5%	NTC thermistor	EPCOS (TDK)	B57351V5103J060
11	6	Q1 Q2 Q3 Q4 Q5 Q6	STGB30H65FB, D ² Pak, 260W	Trench gate field-stop IGBT, HB series 650 V, 30 A high speed in a D2PAK package	ST	STGB30H65FB
12	3	R32 R33 R34	0.018, 2512 (6332 metric), 3 W, \pm 1%	Resistors	TE Connectivity Passive Product	TLR3A30WR018FTDG

Item	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
13	3	R41 R49 R57	33K, 0805 (2012 Metric), 0.125 W, 1/8 W, ±1%, SMD	Chip resistors	Yageo	RC0805FR-0733KL
14	9	R42 R50 R58 R136 R137 R138 R139 R140 R141	10 K, 0805 (2012 Metric), 0.125 W, 1/8 W, ±1%	Chip resistors	Yageo	RC0805FR-0710KL
15	6	R43 R45 R51 R53 R59 R61	750, 0805 (2012 Metric), 0.125 W, 1/8 W, ±1%	Chip resistors	Yageo	RC0805FR-07750RL
16	3	R44 R52 R60	3.3 K, 0805 (2012 Metric), 0.125 W, 1/8 W, ±1%, SMD	Chip resistors	Yageo	RC0805FR-073K3L
17	3	R46 R54 R62	2.2 K, 0805 (2012 Metric), 0.125 W, 1/8 W, ±1%	Chip resistors	Yageo	RC0805FR-072K2L
18	6	R47 R48 R55 R56 R63 R64	12 K, 0805 (2012 Metric), 0.125 W, 1/8 W, ±1%	Chip resistors	Yageo	RC0805FR-0712KL
19	3	R121 R122 R123	1206 (3216 Metric), 0.25 W, 1/4 W, ±1%	Chip resistors	Yageo	RC1206JR-070RL
20	10	SC9 SC10 SC12 SC13 SC14 SC16 SC17 SC18 SC19 SC20	Con1, M3, 6 mm	Screws	RS	482-8515
21	6	TP19 TP20 TP21 TP23 TP24 TP25	0.079" L x 0.047" W (2.00mm x 1.20mm)	Test points	Harwin Inc.	S2751-46R
22	8	TW1 TW2 TW3 TW4 TW5 TW6 TW7 TW8	Con1, M3, 12 mm Female, Female	Towers	Würth Electronics Inc.	970120324
					RS Pro	222-402
23	3	U8 U10 U12	TSV991ILT, SC-74A, SOT-753	Wide-bandwidth (20 MHz) rail to rail input/output 5 V CMOS op-amp	ST	TSV991ILT
24	3	U9 U11 U13	LMV331ICT 5-TSSOP, SC-70-5, SOT-353	General purpose low voltage comparator	ST	LMV331ICT
25	1	PCB	IMS-134x83x1.7mm	IMS-134x83x1.7mm	Any	Any
26	1	Sil-Pad insulator	Thermal Interface Sheet Sil-Pad TSP 1600 Series, 12" x 12" Sheet, 0.005", 0.45°C-in ² /W @ 50 psi	Sil-Pad insulator - to be put between PCB and heatsink	Bergquist Company	SP800-0.005-AC-1212
			THERM PAD, 180X180X0.2 mm, GRAY-20W/m-K 180X180X0.2 mm, 20W/m-K		Panasonic	EYG-S1818ZLX2

Table 3. STEVAL-CTM015A1 (driver board) bill of materials

Item	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
1	3	C1 C3 C5	1 μ F, 0603 (1608 Metric), 50 V, \pm 10%, X5R	Ceramic capacitors	Samsung Electro-Mechanics	CL10A105KB8NNNC
2	3	C2 C4 C6	470 nF, 0603 (1608 Metric), 25 V, \pm 10%, X7R	Ceramic capacitors	Würth Electronics Inc.	885012206075
3	3	C7 C8 C9	1 nF, 0603 (1608 Metric), 25 V, \pm 10%, X7R	Ceramic capacitors	Samsung Electro-Mechanics	CL10B102KA8NNNC
4	2	C10 C15	1 μ F, 0603 (1608 Metric), 6.3 V, \pm 10%, X5R	Ceramic capacitors	Yageo	CC0603KRX5R5BB105
5	7	C11 C12 C13 C14 C16 C17 C18	0.1 μ F, 0603 (1608 Metric), 50 V, \pm 10%, X7R	Ceramic capacitors	Würth Electronics Inc.	885012206095
6	1	C21	4.7 nF, 1206 (3216 Metric), 630 V, \pm 10%, SMD	Ceramic capacitor	TDK Corporation	C3216X7R2J472K115A A
7	2	C22 C23	330 μ F, Radial-SMD, 8x10mm 25 V, \pm 20%	Aluminium capacitors	Würth Electronics Inc.	865080453014
8	2	C24 C28	56 μ F, Radial-SMD, 6.3x5.4 mm, 10 V, \pm 20%	Aluminium capacitors	Würth Electronics Inc.	865080243005
9	1	C25	0.1 μ F, 0603 (1608 Metric), 50 V, \pm 10%, X7R	Ceramic capacitor	KEMET	C0603C104K5RACTU
10	1	C26	2.2 μ F, Radial-SMD, 4x5.4 mm, 50 V, \pm 20%	Aluminium capacitor	Würth Electronics Inc.	865060640002
11	1	C27	10 μ F, Radial-SMD, 4x5.4 mm, 16 V, \pm 20%, SMD	Aluminium capacitor	Würth Electronics Inc.	865250340003
12	1	C29	150 nF, 0603 (1608 Metric), 50 V, \pm 20%, SMD	Ceramic capacitor	Any	Any
13	1	C30	1 nF, 0603 (1608 Metric), 50 V, \pm 10%, X7R	Ceramic capacitor	Samsung Electro-Mechanics	CL10B102KA8NNNC
14	3	C35 C36 C37	0.1 μ F, 0603 (1608 Metric), 50V, +/-10%, X7R	Ceramic capacitors	AVX Corporation	06035C104KAT2A
15	3	C50 C51 C52	10 pF, 0603 (1608 Metric), 10 V, \pm 10%, X7R	Multilayer ceramic capacitors	Any	Any
16	1	C53	100 nF, 0603 (1608 Metric), 25 V, \pm 10%, X7R	Multilayer ceramic capacitor	Any	Any
17	1	C54	6.8 nF, 0603 (1608 Metric), 50 V, \pm 10%, X7R	Ceramic capacitor	Würth Electronics Inc.	885012206088
18	1	C55	10 nF, 0603 (1608 Metric), 10 V, \pm 10%, X7R	Multilayer ceramic capacitor	Any	Any
19	6	C56 C57 C58 C59 C60 C61	68 nF, 0603 (1608 Metric), 50 V, \pm 10%, X7R	Ceramic capacitors	KEMET	C0603C683K5RACTU

Item	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
20	1	C62	0.1 μ F, radial, 305 Vac, \pm 20%	Capacitor	EPCOS (TDK)	B32921C3104M000
21	2	C63 C64	470 μ F 500 V, radial, Can - Snap-In, 500 V, \pm 20%	Aluminium capacitors	Rubycon	500MXH470MEFCSN35 X55
22	6	C67 C69 C71 C73 C75 C77	68 nF, 1206 (3216 Metric), 250 V, \pm 10%	Ceramic capacitors (not assembled)	KEMET	C1206C683KARACTU
23	1	CN1	Con14-male	Connector header	Samtec Inc.	FTSH-107-01-F-DV-K-P-TR
24	4	CN2 CN3 CN4 CN5	CON2	Screw terminal blocks	RS Pro	7901130
25	1	CN6	MOR2	Connector terminal block	Phoenix Contact	1725656
26	2	CN7 CN8	PEC06SFAN	Connector headers	Sullins Connector Solutions	PEC06SFAN
27	1	CN9	con4-strip-male	Connector header	Würth Electronics Inc.	61300411121
28	1	CN10	con5-strip-male	Connector header	Any	Any
29	3	D1 D4 D7	STTH108A, DO-214AC, SMA, 1A	800 V, 1 A ultrafast diode	ST	STTH108A
30	10	D2 D3 D5 D6 D8 D9 D22 D23 D24 D25	BAT30KFILM, SC-79, SOD-523, 530mV @ 300mA, 300mA (DC)	30 V, 300 mA SMD general purpose signal Schottky diode	ST	BAT30KFILM
31	1	D10	LS L296-P2Q2-1-Z, 0603 (1608 Metric), 20mA	Red LED	OSRAM Opto Semiconductors Inc.	LS L296-P2Q2-1-Z
32	1	D11	STPS2150A, DO-214AC, SMA, 2A	150 V, 2 A power Schottky rectifier	ST	STPS2150A
33	1	D12	STTH1L06A, DO-214AC, SMA, 1A	Ultrafast high voltage rectifier 600V 1A SMA	ST	STTH1L06A
34	1	D13	STPS1L60A, DO-214AC, SMA, 570mV @ 1A, 1A	600 V, 1 A low drop ultrafast diode	ST	STPS1L60A
35	1	D14	1N4148WS, SC-90, SOD-323F, 1V@ 10mA, 150mA	General purpose diode	Fairchild/ON Semiconductor	1N4148WS
36	2	D15 D29	LP L296-J2L2-25-Z, 0603 (1608 Metric), 20 mA	Green LEDs	OSRAM Opto Semiconductors Inc.	LP L296-J2L2-25-Z
37	1	D63	2.7 V 500 mW, DO-213AC, MINI-MELF, SOD-80, 1.5V @ 200 mA, 10 μ A @ 1 V, 500 mW	Zener diode	Vishay Semiconductor Diodes Division	TZMB2V7-GS08
38	1	D64	LS L296-P2Q2-1-Z, 0603 (1608 Metric)	Red LED	OSRAM Opto Semiconductors Inc.	LS L296-P2Q2-1-Z

Item	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
39	1	D65	STTH5L06B, TO-252-3, DPak (2 Leads + Tab), SC-63, 1.3V @ 5A, 5A	600 V, 5 A low drop ultrafast diode	ST	STTH5L06B-TR
40	3	ICS1 ICS2 ICS3	ACS722LLCTR-20AU-T, 8-SOIC (0.154", 3.90mm Width)	Current Hall sensors	Allegro MicroSystems, LLC	ACS722LLCTR-20AU-T
41	7	J1 J2 J3 J13 J14 J15 J17	con3-strip-male	Connector headers	Würth Electronics Inc.	61300311121
42	2	J8 J40	1-pin Male Header	Connector headers	Sullins Connector Solutions	PRPC001SAAN-RC
43	1	J16	JUMPER-con2-strip-male	Jumper	Any	
44	1	J30	con4-2x2-strip-female	Connector header	Sullins Connector Solution	PPTC022LFBN-RC
45	2	J31 J32	con4-2x2-strip-female	Connector headers	Sullins Connector Solution	PPTC022LFBN-RC
46	3	J35 J36 J37	con6-2x3-strip-female	Connector headers	Sullins Connector Solution	PPTC032LFBN-RC
47	1	J39	con4-strip-male	Connector header	Any	
48	1	J43	JUMPER-con2-strip-male	Jumper	Any	
49	10	J44 J47 J48 J49 J50 J51 J52 J53 J54 J55	Jumper_Female -	Jumpers	Sullins Connector Solutions	QPC02SXGN-RC
50	1	L1	600 Ohm@100 MHz, 0603 (1608 Metric)	Ferrite bead	Würth Electronics Inc.	742863160
51	12	R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12	75, 0603 (1608 Metric), 0.1W, 1/10W, ±1%	Resistors	Panasonic Electronic Components	ERJ-3EKF75R0V
52	7	R13 R24 R25 R27 R35 R37 R39	0603 (1608 Metric), 0.1 W, 1/10 W	Resistors	Yageo	RC0603JR-070RL
53	2	R14 R15	47 k, 0603 (1608 Metric), 0.1 W, 1/10 W, ±1%	Resistors	Yageo	RC0603FR-0747KL
54	3	R16 R17 R18	10 k, 0603 (1608 Metric), 0.1 W, 1/10 W, ±0.1%	Resistors	Panasonic Electronic Components	ERA-3AEB103V
55	5	R19 R21 R67 R69 R70	10 k, 0603 (1608 Metric), 0.1 W, 1/10 W, ±1%	Resistors	Yageo	RC0603FR-0710KL
56	1	R20	100 k, 0603 (1608 Metric), 0.1 W, 1/10 W, ±5%	Resistor	Yageo	RC0603JR-07100KL
57	2	R22 R28	510, 0603 (1608 Metric), 0.1 W, 1/10 W, ±1%	Chip resistors	Yageo	RC0603FR-07510RL
58	1	R23	47 K, 2512 (6332 metric), 2 W	Resistor	TE Connectivity Passive Product	352147KFT
59	1	R26	56 k, 0603 (1608 Metric), 0.1 W, 1/10 W, ±0.1%	Resistor	Panasonic Electronic Components	ERA-3AEB563V

Item	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
60	1	R29	18 k, 0603 (1608 Metric), 0.1 W, 1/10 W, $\pm 1\%$	Resistor	Panasonic Electronic Components	ERA-3AED183V
61	1	R30	100 K, 0603 (1608 Metric), 0.1 W, 1/10 W, $\pm 1\%$	Resistor	Yageo	RC0603FR-07100KL
62	1	R31	16.2 k, 0603 (1608 Metric), 0.1 W, 1/10 W, $\pm 1\%$	Resistor	Yageo	RC0603FR-0716K2L
63	3	R36 R38 R40	0603 (1608 Metric), 0.1 W, 1/10 W	Resistors (not assembled)	Yageo	RC0603JR-070RL
64	21	R65 R68 R73 R80 R81 R82 R86 R87 R88 R89 R93 R94 R95 R96 R97 R104 R105 R106 R117 R118 R119	390 K, 1206 (3216 Metric), 0.25 W, 1/4 W, $\pm 0.1\%$	Resistors	Panasonic Electronic Components	ERA-8AEB394V
65	3	R71 R72 R74	1 K8, 0603 (1608 Metric), 0.1 W, 1/10 W, $\pm 1\%$	Resistors	Any	
66	1	R75	1 k, 0603 (1608 Metric), 0.1 W, 1/10 W, $\pm 1\%$	Resistor	Yageo	RC0603FR-071KL
67	1	R76	7.5 k, 0805 (2012 Metric), 0.125 W, 1/8 W, $\pm 1\%$	Resistor	Yageo	RC0805FR-077K5L
68	1	R78	4.7 K, 0603 (1608 Metric), 0.1 W, 1/10 W, $\pm 1\%$	Chip resistor	Yageo	RC0603FR-074K7L
69	12	R79 R85 R91 R92 R99 R101 R103 R109 R111 R112 R114 R115	100 k, 0805 (2012 Metric), 0.125 W, 1/8 W, $\pm 1\%$	Chip resistors	Any	
70	3	R83 R100 R107	50 k 0805 (2012 Metric) 0.125 W, 1/8 W $\pm 1\%$	Chip resistors	Any	
71	6	R84 R90 R102 R108 R110 R113	4.1 k 0805 (2012 Metric) 0.125 W, 1/8 W $\pm 1\%$	Chip resistors	Any	
72	3	R98 R116 R120	50 k 0805 (2012 Metric) 0.125 W, 1/8 W $\pm 1\%$	Chip resistors	Any	
73	1	R124	3.9 k 0603 (1608 Metric) 0.1 W, 1/10 W $\pm 1\%$	Resistor	Yageo	RC0603FR-073K9L
74	5	R131 R132 R133 R134 R135	68 K 2512 (6432 Metric) 2 W $\pm 1\%$	Resistors	TE Connectivity Passive Product	352168KFT
75	1	R142	0 2512 (6432 Metric) 1 W $\pm 1\%$	Resistor (not assembled)	Yageo	RC2512JK-070RL
76	9	R146 R149 R160 R167 R170 R181 R188 R191 R202	1206 (3216 Metric), 0.25 W, 1/4 W	Resistors (not assembled)	Yageo	RC1206JR-070RL

Item	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
77	6	R148 R166 R169 R187 R190 R208	1206 (3216 Metric), 0.25 W, 1/4W	Resistors	Yageo	RC1206JR-070RL
78	6	R150 R161 R171 R182 R192 R203	499, 1206 (3216 Metric), 0.25W, 1/4W, +/- 0.01%	Chip resistors	Any	
79	12	SC1 SC2 SC3 SC4 SC5 SC6 SC7 SC8 SC21 SC22 SC23 SC24	Con1, M3,6 mm	Screws	RS	482-8515
80	2	SW1 SW2	FSM4JSMA, 6.00mm x 6.00mm	Tactile switch	TE Connectivity ALCOSWITCH Switches	FSM4JSMA
81	1	T1	WE_TRASF	Transformer	Würth Electronics Inc.	750318317
82	45	TP1 TP3 TP5 TP7 TP8 TP9 TP10 TP18 TP22 TP26 TP27 TP28 TP29 TP30 TP31 TP32 TP33 TP34 TP35 TP36 TP37 TP38 TP39 TP40 TP41 TP42 TP43 TP44 TP45 TP46 TP47 TP48 TP49 TP50 TP51 TP58 TP59 TP60 TP61 TP62 TP66 TP69 TP73 TP76 TP80	5001, 0.100" Dia x 0.180" L (2.54 mm x 4.57 mm)	Test points	Keystone Electronics	5001
83	1	TP11	5000, 0.100" Diam. x 0.180" L (2.54 mm x 4.57 mm)	Test point	Keystone Electronics	5000
84	3	U1 U2 U3	L6395D, 8-SOIC (0.154", 3.90mm Width)	High voltage high and low- side driver	ST	L6395D
85	1	U4	STM32F303CBT, 48- LQFP	Mainstream mixed signal MCU Arm Cortex-M4 core	ST	STM32F303CBT6
86	1	U5	LD1117S50TR, TO-261-4, TO-261AA	Adjustable and fixed low drop positive voltage regulator	ST	LD1117S50TR
87	1	U7	LD1117S33CTR, TO-261-4, TO-261AA	Adjustable and fixed low drop positive voltage regulator	ST	LD1117S33CTR
88	1	U14	VIPER26LD, 16-SOIC (0.154", 3.90mm Width)	Fixed frequency VIPer plus family	ST	VIPER26LD

Item	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
89	1	Y1	8 MHz, 0.126" L x 0.051" W (3.20 mm x 1.30 mm)	Ceramic resistor	Murata Electronics North America	CSTNE8M00GH5C000R 0
90	1	PCB	FR4-86x1881.6mm	FR4-86x1881.6 mm	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.

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

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