

Bill of materials

Table 1. STEVAL-TTM007A bill of materials

ItemA7:G7	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
1	2	C1, C2	0.22uF	CAP CER 0.22UF 50V X7R 0603	TDK Corporation	CGA3E3X7R1H224K080AB
2	2	C3, C4	47uF	CAP TANT 47UF 25V 10% 2917	KEMET	T491D476K025ATAUTO
3	2	C5, C6	47uF	CAP ALUM POLY HYB 47UF 35V SMD	Panasonic Electronic Components	EEH-ZA1V470P
4	1	C7	0.1uF	CAP CER 0.1UF 50V X7R 0603	KEMET	C0603C104K5RACTU
5	16	C8, C10, C104, C109, C156, C157, C158, C159, C160, C167, C168, C169, C170, C171, C172, C173	0.1uF	CAP, Ceramic, SMD, 0.1 uF, 10 %, 25 V, 0603	KEMET	C0603C104K3RAC
6	2	C12, C13	47nF	CAP CER 0.047UF 50V X7R 0603	Murata Electronics	GCM188R71H473KA55D
7	6	C14, C18, C23, C24, C29, C34	0.1uF	CAP CER 0.1UF 50V X7R 0603	KEMET	C0603C104J5RACTU
8	4	C15, C19, C32, C33	47uF	CAP CER 47UF 35V X7R SMD	Murata Electronics	KRM55WR7YA476MH01K
9	30	C16, C17, C37, C40, C43, C46, C49, C52, C55, C57, C59, C61, C63, C65, C67, C69, C71, C73, C75, C77, C79, C81, C85, C87, C89, C91, C93, C95, C97, C99	10nF	CAP CER 10000PF 10V X7R 0603	Würth Electronics Inc.	885012206014
10	2	C20, C21	N.M.	CAPACITOR CERAMIC SMD 0603	/	/
11	1	C22	22uF	CAP CER 22UF 16V X5R 0603	Samsung Electro	CL10A226MO7JZNC
12	2	C25, C26	4.7nF	CAP CER 4700PF 25V X7R 0603	Würth Electronics Inc.	885012206063
13	2	C27, C28	2.2uF	CAP CER 2.2UF 16V X7S 0603	TDK Corporation	CGA3E1X7S1C225M080AC
14	1	C30	4.7uF	CAP CER 4.7UF 10V X5R 0603	Würth Electronics Inc.	885012106012
15	1	C31	22000pF	CAP CER 0.022UF 25V X7R 0603	Würth Electronics Inc.	885012206067

ItemA7:G7	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
16	12	C35, C38, C41, C44, C47, C50, C53, C82, C83, C100, C102, C108	10uF	CAP CER 10UF 16V X5R 0805	Würth Electronics Inc.	885012107014
17	27	C36, C39, C42, C45, C48, C51, C54, C56, C58, C60, C62, C64, C66, C68, C70, C72, C74, C76, C78, C80, C86, C88, C90, C92, C94, C96, C98	0.047uF	CAP CER 0.047UF 100V X7R 0603	Würth Electronics Inc.	885012206118
18	5	C84, C101, C105, C106, C107	0.1uF	CAP CER 0.1UF 25V X7R 0603	KEMET	C0603C104K3RACTU
19	1	C103	1nF	CAP CER 1000PF 25V X7R 0603	Samsung Electro	CL10B102KA8NNNC
20	12	C110, C114, C117, C121, C126, C130, C133, C137, C140, C144, C149, C153	220pF	CAP CER 220PF 50V X7R 0603	Samsung Electro	CL10B221KB8NNNC
21	2	C111, C134	390pF	CAP CER 390PF 50V C0G/NP0 0603	Murata Electronics	GRM1885C1H391JA01D
22	12	C112, C113, C115, C124, C129, C132, C135, C136, C138, C147, C152, C155	0.1uF	CAP CER 0.1UF 16V X7R 0603	Würth Electronics Inc.	885012206046
23	16	C116, C119, C120, C122, C123, C127, C128, C131, C139, C142, C143, C145, C146, C150, C151, C154	150pF	CAP CER 150PF 100V C0G 0603	TDK Corporation	CGA3E2C0G2A151J080AD
24	4	C118, C125, C141, C148	47pF	CAP CER 47PF 50V C0G 0603	TDK Corporation	C1608C0G1H470J080AA
25	6	C161, C162, C163, C164, C165, C166	10nF	CAP CER 10000PF 100V X7R 0603	TDK Corporation	C1608X7R2A103M080AA
26	2	C174, C175	8pF	CAP CER 8PF 50V C0G/NPO 0603	Yageo	CC0603DRNPO9BN8R0
27	1	C176	0.1uF	CAP, Ceramic, SMD, 0.1 uF, 10 %, 25 V, 0603	Kemet	C0603C104K3RAC
28	2	CON1, CON2	Con10-90A	CONN HEADR 2.54MM 10POS GOLD R/A	Sullins Connector Solutions	SBH11-PBPC-D05-RA-BK
29	2	D1, D2	STPS5H100AFY, SOD128 Flat	DIODE SCHOTTKY 100V 5A SOD128	ST	STPS5H100AFY
30	5	D3, D13, D15, D17, D19	ESDLIN1524BJ, SOD323	TVS DIODE 15V/24V 35V/50V SOD323	ST	ESDLIN1524BJ

ItemA7:G7	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
31	4	D4, D5, D6, D9	LED GREEN	LED GREEN DIFFUSED 0603 SMD	OSRAM Opto Semiconductors Inc.	LP L296-J2L2-25-Z
32	2	D7, D8	STPS5H100AF, SOD128 Flat	DIODE SCHOTTKY 100V 5A SOD128	ST	STPS5H100AF
33	1	D10	LV	LED GREEN DIFFUSED 0603 SMD	OSRAM Opto Semiconductors Inc.	LP L296-J2L2-25-Z
34	1	D11	PMEG3030EP	DIODE SCHOTTKY 30V 3A CFP5	Nexperia	PMEG3030EP,115
35	4	D12, D14, D16, D18	3.6V	DIODE ZENER 3.6V 200MW SOD323F	ON Semiconductor	MM3Z3V6C
36	4	D20, D21, D22, D23	BKIN	LED RED CLEAR 2SMD	Everlight Electronics Co Ltd	19-217/R6C-AL1M2VY/3T
37	1	D24	USR1	LED GREEN DIFFUSED 0603 SMD	OSRAM Opto Semiconductors Inc.	LP L296-J2L2-25-Z
38	1	D25	RST	LED RED CLEAR 2SMD	Everlight Electronics Co Ltd	19-217/R6C-AL1M2VY/3T
39	1	D26	USR2	LED GREEN DIFFUSED 0603 SMD	OSRAM Opto Semiconductors Inc.	LP L296-J2L2-25-Z
40	1	F1	MINISMDC075F/33-2	PTC RESET FUSE 33V 750MA 1812	Littelfuse Inc.	MINISMDC075F/33-2
41	14	FB1, FB2, FB3, FB4, FB5, L4, L5, L6, L7, L8, L9, L10, L11, L12	330Ohm@100MHz	FERRITE BEAD 330 OHM 0603 1LN	Murata Electronics	BLM18SG331TN1D
42	12	FB6, FB7, FB8, FB9, FB10, FB11, FB12, FB13, FB14, FB15, FB16, FB17	120Ohms@100MHz	FERRITE BEAD 120 OHM 0603 1LN	Murata Electronics	BLM18PG121SN1D
43	1	J1	FI-S25P-HFE	CONN HEADER SMD R/A 25POS 1.25MM	JAE Electronics	FI-S25P-HFE
44	1	J2	FI-S30P-HFE	CONN HEADER SMD R/A 30POS 1.25MM	JAE Electronics	FI-S30P-HFE
45	2	J3, J4	Conn 2X8 pitch 2.5mm	Headers & Wire Housings NANOFIT HDR RA DLR 16CKT TIN BLK	Molex	105314-1116
46	2	J5, J6	Con 2X3 Pitch 2.5mm	Headers & Wire Housings NanoFit RA Hdr TH DR 6Ckt 0.38um Au Blk	Molex	105314-1206
47	1	J7	Con 1X2 Pitch 2.5mm	CONN HEADER R/A 2POS 2.5MM	Molex	1053131102
48	1	J8	0430450818	CONN HEADER SMD 8POS 3MM	Molex	0430450818
49	3	J9, J12, J24	DB9-male connector	CONN D-SUB PLUG 9POS VERT SOLDER	Amphenol ICC (Commercial Products)	L717TSEH09POL2RM5
50	5	J10, J13, J26, J32, J34	GRPB021VWVN-RC	CONN HEADER .050" 2POS PCB GOLD	Sullins Connector Solutions	GRPB021VWVN-RC

ItemA7:G7	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
51	7	J11, J14, J15, J25, J30, J31, J33	Jumper-Female	CONN JUMPER SHORTING 1.27MM GOLD	Sullins Connector Solutions	NPB02SVAN-RC
52	2	J16, J29	CON 3 Strip 1.27	CONN HEADER VERT 3POS 1.27MM	Harwin Inc.	M50-3530342
53	3	J17, J19, J22	Jumper_Female	CONN JUMPER SHORTING .100" GOLD	Sullins Connector Solutions	QPC02SXGN-RC
54	3	J18, J20, J23	con3-strip-male	CONN HEADER .100 STR 3POS	Würth Electronics Inc.	61300311121
55	1	J21	MOR2	CONN TERM BLOCK 2.54MM 2POS	Phoenix Contact	1725656
56	2	J27, J28	MA01R100VABBR600	CONN RIGID SIDE STR 100 POS	JAE Electronics	MA01R100VABBR600
57	1	J35	FTR-102-02-S-D	CONN HEADER SMD 4POS 1.27MM	Samtec Inc.	FTR-102-02-S-D
58	9	L1, L14, L15, L16, L17, L18, L19, L20, L21	120Ohm@100MHz	FERRITE BEAD 120 OHM 0603 1LN	Würth Electronics Inc.	742792625
59	2	L2, L3	15uH	Power Inductors - SMD 15uH Shld 20% 3.9A 76.7mOhms AECQ2	Coilcraft	XAL5050-153MEC
60	1	L13	10uH 3.5A	FIXED IND 10UH 3.5A 33 MOHM SMD	Würth Electronics Inc.	744314101
61	1	Q1	PMPB100XPEAX	MOSFET P MOS DISCRETES	Nexperia	PMPB100XPEAX
62	1	Q2	PMPB55XNEAX	MOSFET N-CH 30V 3.8A 6DFN	Nexperia	PMPB55XNEAX
63	49	R1, R2, R14, R15, R19, R20, R24, R25, R27, R28, R54, R60, R84, R85, R87, R88, R91, R92, R93, R95, R97, R98, R99, R177, R184, R188, R190, R191, R192, R199, R222, R223, R224, R225, R226, R227, R230, R231, R232, R233, R234, R236, R237, R241, R242, R246, R247, R248, R249	0	RES SMD 0 OHM JUMPER 1/10W 0603	Panasonic Electronic Components	ERJ-3GEY0R00V
64	2	R3, R4	0	RES SMD 0 OHM JUMPER 1/8W 0805	Yageo	RC0805JR-070RL
65	5	R5, R6, R7, R8, R9	0	RES SMD 0 OHM JUMPER 1/8W 0805	Yageo	RC0805JR-070RL
66	3	R10, R94, R96	0	RES SMD 0 OHM JUMPER 1/8W 0805	Yageo	RC0805JR-070RL

ItemA7:G7	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
67	9	R11, R66, R68, R70, R72, R74, R80, R89, R213	1k	RES SMD 1K OHM 1% 1/10W 0603	Yageo	RC0603FR-071KL
68	1	R12	330	Thick Film Resistors - SMD CRGQC 0603 330R 1% SMD Resistor	TE Connectivity	CRGQC0603F330R
69	7	R13, R201, R202, R207, R208, R214, R217	150	RES SMD 150 OHM 1% 1/10W 0603	Yageo	RC0603FR-07150RL
70	2	R16, R21	120	RES SMD 120 OHM 1% 0.4W 0805	Rohm Semiconductor	ESR10EZPF1200
71	17	R17, R18, R22, R23, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R200	10k	RES SMD 10K OHM 0.1% 1/10W 0603	Panasonic Electronic Components	ERA-3AEB103V
72	16	R26, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R115, R122, R150, R157	100	RES SMD 100 OHM 1% 1/10W 0603	Yageo	RC0603FR-07100RP
73	25	R52, R53, R55, R56, R59, R64, R67, R81, R82, R83, R170, R178, R179, R185, R186, R187, R189, R193, R194, R197, R198, R235, R238, R243, R245	0	RES SMD 0 OHM JUMPER 1/10W 0603	Panasonic Electronic Components	ERJ-3GEY0R00V
74	2	R57, R58	5.1k	RES SMD 5.1K OHM 1% 1/10W 0603	Yageo	RC0603FR-075K1L
75	1	R65	2.87k	RES SMD 2.87K OHM 1% 1/10W 0603	Yageo	RC0603FR-072K87L
76	7	R69, R75, R76, R77, R79, R105, R140	0.0	RES SMD 0.0OHM JUMPER 1/10W 0603	Yageo	RC0603JR-070RL
77	3	R71, R73, R78	30k	RES SMD 30K OHM 0.1% 1/10W 0603	Panasonic Electronic Components	ERA-3AEB303V
78	1	R86	1.5k	RES SMD 1.5K OHM 1% 1/10W 0603	Yageo	RC0603FR-071K5L
79	1	R90	100k	RES SMD 100K OHM 5% 1/10W 0603	Yageo	RC0603JR-07100KL

ItemA7:G7	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
80	24	R100, R103, R106, R107, R108, R109, R110, R113, R128, R135, R138, R141, R142, R143, R144, R145, R148, R163, R216, R218, R219, R220, R221, R229	10k	RES SMD 10K OHM 1% 1/10W 0603	Yageo	RC0603FR-0710KL
81	12	R101, R104, R111, R119, R124, R132, R136, R139, R146, R154, R159, R167	470R	RES 470 OHM 1% 1/10W 0603	Yageo	RC0603FR-07470RL
82	2	R102, R137	15k	RES SMD 15K OHM 1% 1/10W 0603	Yageo	RC0603FR-1015KL
83	8	R112, R118, R125, R130, R147, R153, R160, R165	12k	RES 12K OHM 1% 1/10W 0603	Yageo	RC0603FR-0712KL
84	8	R114, R121, R126, R133, R149, R156, R161, R168	18k	RES 18K OHM 1% 1/10W 0603	Yageo	RC0603FR-1018KL
85	4	R116, R123, R151, R158	750	RES SMD 750 OHM 1% 1/10W 0603	Yageo	RC0603FR-07750RL
86	4	R117, R127, R152, R162	1.5k	RES SMD 1.5K OHM 1% 1/10W 0603	Yageo	RC0603FR-071K5L
87	4	R120, R131, R155, R166	20k	RES 20K OHM 1% 1/10W 0603	Yageo	RC0603FR-1015KL
88	2	R129, R164	10k	RES 10K OHM 1% 1/10W 0603	Yageo	RC0603FR-1010KL
89	2	R134, R169	5.1k	RES SMD 5.1K OHM 0.1% 1/10W 0603	Yageo	RT0603BRD075K1L
90	6	R171, R172, R173, R174, R175, R176	510	RES SMD 510 OHM 1% 1/10W 0603	Vishay	CRCW0603510RFKEBC
91	4	R180, R181, R182, R183	33K	RES SMD 33K OHM 1% 1/10W 0603	Yageo	RC0603FR-0733KL
92	2	R195, R196	0	RES SMD 0 OHM JUMPER 1/10W 0603	Panasonic Electronic Components	ERJ-3GEY0R00V
93	4	R203, R204, R209, R210	3.3k	RES SMD 3.3K OHM 0.1% 1/10W 0603	Panasonic Electronic Components	ERA-3AEB332V
94	1	R215	2.2K	RES SMD 2.2K OHM 1% 1/10W 0603	Yageo	RC0603FR-072K2L
95	3	R239, R240, R244	0	RES SMD 0 OHM JUMPER 1/10W 0603	Panasonic Electronic Components	ERJ-3GEY0R00V

ItemA7:G7	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
96	4	S1, S2, S3, S4	SCREW_M4X6	Screw, Taptite, M4, 6 mm, Bright Zinc, Steel, Pan Head Pozidriv	RS Pro	483-0158
97	4	SP1, SP2, SP3, SP4	SpacrM4X14	Tower,M4,14mm Female, Female	Harwin Inc.	R40-1001402
98	3	SW1, SW2, SW3	1437566-3	SWITCH TACTILE SPST-NO 0.05A 24V	TE Connectivity	1437566-3
99	1	SW4	1437566-3	SWITCH TACTILE SPST-NO 0.05A 24V	TE Connectivity	1437566-3
100	1	SWD1	FTSH-105-01-L-D-K	CONN HEADER 10POS DUAL .05" T/H	Samtec Inc.	FTSH-105-01-L-D-K
101	1	T1	BC846C	TRANS NPN 65V 0.1A SOT-23	ON Semiconductor	BC846CMTF
102	2	TP0, TP9	TESTPOINT	TEST POINT 1MM SMD PADSTASCK	/	/
103	2	TP1, TP5	CAN_Tx	TEST POINT 1MM SMD PADSTASCK	/	/
104	2	TP2, TP6	CAN_H	TEST POINT 1MM SMD PADSTASCK	/	/
105	2	TP3, TP7	CAN_L	TEST POINT 1MM SMD PADSTASCK	/	/
106	39	TP4, TP8, TP16, 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, TP52, TP53, TP54, TP55, TP56, TP57, TP58, TP59, TP60, TP61, TP62	CAN_Rx	TEST POINT 1MM SMD PADSTASCK	/	/
107	1	TP11	SWDBG	TEST POINT 1MM SMD PADSTASCK	/	/
108	1	TP12	CSN	TEST POINT 1MM SMD PADSTASCK	/	/
109	1	TP13	CLK	TEST POINT 1MM SMD PADSTASCK	/	/
110	1	TP14	MOSI	TEST POINT 1MM SMD PADSTASCK	/	/
111	1	TP15	MISO	TEST POINT 1MM SMD PADSTASCK	/	/
112	1	TP17	GND	TEST POINT 1MM SMD PADSTASCK	/	/
113	1	TP18	VDD_LV	TEST POINT 1MM SMD PADSTASCK	/	/

ItemA7:G7	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
114	1	TP19	VDD_HV	TEST POINT 1MM SMD PADSTASCK	/	/
115	1	TP20	VDD_LV_S	TEST POINT 1MM SMD PADSTASCK	/	/
116	1	TP21	PMOS	TEST POINT 1MM SMD PADSTASCK	/	/
117	1	TP22	VLX	TEST POINT 1MM SMD PADSTASCK	/	/
118	1	TP23	VDD_LV_SMPS	TEST POINT 1MM SMD PADSTASCK	/	/
119	1	TP24	NMOS	TEST POINT 1MM SMD PADSTASCK	/	/
120	1	TP25	VDD_LDO1	TEST POINT 1MM SMD PADSTASCK	/	/
121	1	TP26	VDD_LDO2	TEST POINT 1MM SMD PADSTASCK	/	/
122	2	U1, U2	TCAN330GD	CAN Interface IC 3.3-V CAN Transceivers with CAN FD (Flexible Data Rate) 8-SOIC -40 to 125	Texas Instruments	TCAN330GD
123	2	U10, U13	TSB514IYPT, TSSOP-14L	RAIL-TO-RAIL INPUTS AND OUTPUTS,	ST	TSB514IYPT
124	1	U3	SPSB100,	Power Managment,AEC-Q100,Current 3A	ST	SPSB100
125	1	U5	LD1117DT33TR, DPAK	IC REG LINEAR 3.3V 800MA DPAK	ST	LD1117DT33TR
126	2	U6, U7	ESDA5V3LY, SOT23-3L	TVS DIODE 3VWM 19VC SOT23-3L	ST	ESDA5V3LY
127	1	U8	ESDA6V1LY	TVS DIODE 5.2VWM 16VC SOT23-3L	ST	ESDA6V1LY
128	2	U11, U14	TSV911ILT	IC OPAMP GP 8MHZ RRO SOT23-5	ST	TSV911ILT
129	2	U12, U16	TSB582IYDT	DUAL Operation Amplify	ST	TSB582IYDT
130	1	U15	ST3232EBTR	IC DRVR/RCVR RS232 ESD 16-TSSOP	ST	ST3232EBTR
131	1	U17	STM6315RDW13F	IC MPU RESET CIRC 2.63V SOT-143	ST	STM6315RDW13F
132	1	U9	SR5E1E7-AA-ES	ARM Microcontrollers 32 Bit- MCU 176 Pin	ST	SR5E1E770C30F00X
133	1	Y1	40 MHz	CRYSTAL 40.0000MHZ 18PF SMD	Abracon LLC	ABM8-40.000MHZ-B2-T
134	1	PCB	FR4-6 Layer	FR4-6 Layer-TG140-thickness 40micron external 35 micron internal	Massive PCB	DSC-CLU

IMPORTANT NOTICE – 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 acknowledgment.

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.

ST and the ST logo are trademarks of ST. For additional information about ST trademarks, refer to www.st.com/trademarks. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2024 STMicroelectronics – All rights reserved