



Bill of materials

Table 1. STEVAL-CTM014A bill of materials

Item	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
1	2	D22-23	BAV99LT1G	Dual Series Switching Diode	ON	BAV99LT1G
2	3	Q1-2 Q4	MMBT3904LT1G	General Purpose Transistors	ON	MMBT3904LT1G
3	1	Q3	MMBT3906LT1G	General Purpose Transistors	ON	MMBT3906LT1G
4	15	C1-6 C13 C22-23 C75 C77-79 C81 C85	1nf	Ceramic chip capacitor	Wurth	885012206083
5	1	C63	1.2nf	Ceramic chip capacitor	YAGEO	CC0603KRX7R9BB122
6	25	C10-12 C15 C17 C19 C24-27 C36 C39 C45 C47 C50 C59 C61 C65 C71-72 C74 C76 C82-83 C86	100nf	Ceramic chip capacitor	Wurth	885012206095
7	4	C35 C38 C41 C64	100pf	Ceramic chip capacitor	Wurth	885012006057
8	4	C14 C66-68	2.2nf	Ceramic chip capacitor	Wurth	885012206085
9	1	C54	2.2uf	Ceramic chip capacitor	Wurth	885012206027
10	1	C33	1uf	Ceramic chip capacitor	Wurth	885012206002
11	4	C34 C37 C40 C84	33pf	Ceramic chip capacitor	Wurth	885012006054
12	1	C62	470nf	Ceramic chip capacitor	YAGEO	CC0603KRX7R9BB474
13	1	C87	4.7uF	Ceramic chip capacitor	YAGEO	CC0603KRX5R5BB475
14	3	C51-53	68nf	Ceramic chip capacitor	Wurth	885012206094
15	1	C56	220pf	Ceramic chip capacitor	Wurth	885012007059
16	13	C7-9 C16 C18 C20 C44 C46 C48-49 C58 C60 C73	10uf	Ceramic chip capacitor	Wurth	885012108022
17	1	C90	2.2nf	Ceramic chip capacitor	Wurth	885342208019
18	2	C42-43	100nf,630v	Ceramic chip capacitor	Wurth	885342211006
19	1	C21	0.1UF_630V	Film capacitor	PANASONIC	ECWFE2J104K

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20	3	C57 C69-70	220uf,35v	Electrolytic capacitor	Würth	860020574012
21	1	C32	330uf,450v	Electrolytic capacitor	Würth	861011485018
22	2	C28-29	0.33uF	X safety capacitor	Würth	890324025034CS
23	1	C55	2.2nf	Y safety capacitor	KNSCHA	AJTF222M2GF0200A082E
24	2	C30-31	0.47nf	Y safety capacitor	DERSONIC	CY1471ME14EE45W2A2
25	2	J1 J4	VH-3P-7.92MM	VH series terminals, pitch 7.92mm, 3 pins	Würth	645005114822
26	1	J3	XH-3PIN-2.54MM	XH series terminals, pitch 2.54mm, 3 pins	Würth	64600311622
27	1	J2	FTSH-107-01-L-DV-K-A	SMD micro header	SAMTEC	FTSH-107-01-L-DV-K-A
28	1	D9	S1M	General-Purpose Rectifiers	ON	S1M
29	1	D4	1SMB5930BT3G	Zener Voltage Regulators	ON	1SMB5930BT3G
30	1	DB1	KBJ608	GLASS PASSIVATED BRIDGE RECTIFIERS	MDD	KBJ608
31	1	D21	LED_RED	Red LED	EVERLIGHT	17-21SURC/S530-A3/4T
32	11	D1-3 D8 D14-20	LL4148	Silicon Epitaxial Planar Switching Diode	MDD	LL4148
33	1	L2	8mH, 4A	Inductor	YUNLU	DMG-004A40-HRA0
34	1	L1	17mH, 4A	common mode choke	Würth	7448030417
35	1	U4	LDK320ADU33R, SOT-89	LDO	ST	LDK320ADU33R
36	1	U5	LM293D, SOP	comparator	ST	LM293D
37	1	R25	5Ω, 5W	NTC	shiheng	MF72 5D15
38	2	U6-7	PC817	optocoupler	SHARP	PC817X3NSZW
39	6	R10 R21 R43 R121-122 R124	0R	Resistor	Würth	560112116001
40	15	R1-6 R22-23 R49 R82-83 R104 R114 R123 R125	100R	Resistor	Würth	560112116009
41	13	R84 R100 R107-110 R117-120 R126-127 R15	10k	Resistor	Würth	560112116005
42	1	R67	11k	Resistor	Würth	560112116147
43	1	R70	15k	Resistor	Würth	560112116035

Item	Q.ty	Ref.	Part/Value	Description	Manufacturer	Order code
44	19	R11-14 R18 R20 R31-32 R37-38 R41-42 R87-88 R97-98 R102-103 R48	1k	Resistor	Würth	560112116014
45	1	R99	200R	Resistor	YAGEO	RC0603FR-07200RL
46	3	R79-81	220R	Resistor	Würth	560112116126
47	1	R113	2k	Resistor	Würth	560112116091
48	2	R69 R111	3.3k	Resistor	Würth	560112116047
49	6	R28 R53 R59 R64 R85 R47	3k	Resistor	Würth	560112116128
50	3	R73 R95-96	4.7k	Resistor	Würth	560112116006
51	7	R29 R54 R60 R65 R101 R105-106	470R	Resistor	Würth	560112116067
52	4	R55-56 R61 R66	47k	Resistor	Würth	560112116025
53	1	R86	620R	Resistor	Würth	560112116143
54	3	R19 R68 R72	680R	Resistor	Würth	560112116115
55	12	R30 R33-36 R39-40 R74-78	9.1k	Resistor	YAGEO	RC0603FR-079K1L
56	6	R89-94	100k	Resistor	Würth	560112132034
57	1	R50	100R	Resistor	Würth	560112132023
58	8	R26-27 R51-52 R57-58 R62-63	200k	Resistor	YAGEO	RC1206FR-07200KL
59	2	R71 R112	33R	Resistor	Würth	560112132033
60	3	R44-46	330k	Resistor	YAGEO	AC1210FR-07330KL
61	3	R7-9	50mR,2512,1W	Resistor	YAGEO	PE2512FKE070R05L
62	1	K1	835-1A-B-C12V	Relay	Song Chuan	835-1A-B-C12V
63	1	U2	STGIPQ8C60T-HZ, N2DIP-26L-Z	IPM	ST	STGIPQ8C60T-HZ
64	1	U1	STM32G431CBT6, LQFP48-10X10MM	MCU	ST	STM32G431CBT6
65	4	D10-13	STTH1R02U, SMB	Diode	ST	STTH1R02U
66	1	T1	WE_750344753	high-frequency transformer	Würth	750344753
67	1	R24	820443211E	Varistor	Würth	820443211E
68	1	U3	VIPER122LSTR, SSOP-10	High voltage converter	ST	VIPER122LSTR
69	1	U2, DB1	Thermal silicone grease	Coated on the surfaces of U2 and DB1	DOWSIL	DC340
70	1	HS1	Heatsink	Aluminum heatsink, Assembled on U2 and DB1	Any	Any

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