

PROJECT NAME: STKNX Evaluation and Development kit - Rev 111-07
August 24, 2018
BILL OF MATERIALS

Item	Quantity	Reference	Part / Value	Voltage / Watt / Ampere	Type / TECHNOLOGY informations	Tolerance	Package	If this field is shown is mandatory to use this type		Additional Notes	Use this column in development phase only	
								Manufacturer	Manufacturer's ordering code / Orderable Part Number		Supplier	Supplier's ordering code
1	27	C1,C2,C3,C4,C6,C9,C12,C16,C17,C21,C23,C26,C27,C29,C30,C33,C34,C36,C39,C42,C45,C46,C47,C48,C50,C51,C56	100NF	50V	CER	10%	603	N.A.	100NF_50V_X7R_0603_10%			
2	5	C5,C57,C58,C59,C60	100NF	50V	CER	15%	603	N.A.	100NF_50V_X7R_0603			
3	1	C7	NP	50V	ALU	20%	L8.3_W8.3_H10.2_PANA-F	PANASONIC	EEEF1H221AP		RS	729-6302
4	1	C8	220UF	50V	ALU	20%	L8.3_W8.3_H10.2_PANA-F	PANASONIC	EEEF1H221AP		RS	729-6302
5	1	C10	4.7UF	6.3V	CER	10%	805	N.A.	4.7UF_6V3_X5R_0805			
6	1	C11	10UF	10V	CER	10%	1206	MURATA TAIYO YUDEN	GRM31CR74A106KA04 GMK316AB7106KL-TR	On the Rev111, the initial requested part (Murata) was replaced by the EMS by a Tayo-Yuden "equivalent". But the Tayo-Yuden part has a very bad derating curve and makes the 8.2.2 KNX spec test #4.4 Load Changes FAIL (Slopes too steep)	RS	723-6559
7	1	C13	10UF	35V	CER	10%	1206	MURATA TAIYO YUDEN	GRM31CR6YA106KA12 GMK316AB7106KL-TR	On the Rev111, the initial requested part (Murata) was replaced by the EMS by a Tayo-Yuden "equivalent". The Murata part initially requested was mounted from rev 141.	RS	790-0613
8	3	C14,C35,C53	10NF	50V	CER	10%	603	N.A.	10NF_50V_X7R_0603_10%			
9	1	C15	150PF	50V	CER	5%	603	N.A.	150PF_50V_COG_0603			
10	2	C18,C20	47NF	50V	CER	15%	603	N.A.	47NF_50V_X7R_0603			
11	1	C19	220NF	16V	CER	10%	603	N.A.	220NF_16V_X7R_0603			
12	1	C22	470NF	35V	CER	10%	603	N.A.	470NF_35V_X7R_0603			
13	1	C24	22UF	25V	CER	20%	1206	N.A.	22UF_25V_X5R_1206_20%			
14	2	C25,C28	4.7UF	6.3V	CER	10%	603	N.A.	4.7UF_6V3_X5R_0603_10%			
15	2	C31,C32	6.8PF	50V	CER	0.25pF	603	N.A.	6.8PF_50V_COG_0603_0.25pF			
16	2	C37,C38	8.2PF	50V	CER	0.25pF	603	N.A.	8.2PF_50V_COG_0603_0.25pF			
17	1	C40	10UF	35V	CER	10%	1206	N.A.	10UF_35V_X7R_1206			
18	1	C41	10UF	6.3V	CER	15%	603	N.A.	10UF_6V3_X5R_0603			
19	4	C43,C44,C49,C52	1UF	16V	CER	10%	603	N.A.	1UF_16V_X7R_0603			
20	2	C54,C55	10PF	50V	CER	5%	603	N.A.	10PF_50V_COG_0603_5%			
21	1	C61	1NF	50V	CER	10%	603	N.A.	1NF_50V_X7R_0603_10%			
22	1	C62	NP	50V	CER	10%	603	N.A.	1NF_50V_X7R_0603_10%			
23	2	D1,D2	GREEN		LED		805	WURTH ELEKTRONIK	150080VS75000			
24	1	D3	YELLOW		LED		805	WURTH ELEKTRONIK	150080YS75000			
25	6	D4,D9,D11,D12,D13,D16	RED		LED		805	WURTH ELEKTRONIK	150080RS75000			
26	3	D5,D6,D8	TS4148RY		SCHOTTKY		805	TAIWAN SEMICONDUCTOR	TS4148RY		MOUSER	821-TS4148-0805-RY
27	1	D7	SMAJ40CA		TVS		SMA	STMICROELECTRONICS	SMAJ40CA		RS	714-7109
28	1	D10	STPS2L30A		SCHOTTKY		SMA	STMICROELECTRONICS	STPS2L30A		RS	249-202
29	1	D14	USBLC6-2P6		TVS/ESD/EMI		SOT666	STMICROELECTRONICS	USBLC6-2P6		RS	624-7687
30	1	D16	NP		SCHOTTKY		SOD323	STMICROELECTRONICS	BAT54JFILM		RS	880-5260
31	1	F1	0.5A		FUSE		1206	LITTELFUSE	0430.500WR			
32	6	J1,J3,J27,J28,J30,J34	MTSW-102-09-G-S-236		HEADER		CON_HEADER_1X2_L18.54_W2.54_P2.54	SAMTEC	MTSW-102-09-G-S-236			
33	16	J2,J4,J5,J6,J10,J11,J12,J14,J15,J33,J35,J36,J37,J38,J39,J40	H3161-01 QTY=2		SOCKET		CON_SHUNT_H3161-01_P10.16	HARWIN	H3161-01 QTY=2		DIGIKEY	952-1467-ND QTY=2

34	4	J7,J16,J17,J18	61300621121		HEADER		CON_HEADER_2X3 _L7.62_W5.08_P2.5 4	WURTH ELEKTRONIK	61300621121	RS	828-1522
35	2	J8,J9	61300421121		HEADER		CON_HEADER_2X2 _L5.08_W5.08_P2.5 4	WURTH ELEKTRONIK	61300421121	RS	828-1513
36	1	J13	KNM1P5.75_2SQV80NE-T		HEADER		CON_KNM1P5.75_2 SQV80NE-T	STELVIO-KONTEK WURTH ELEKTRONIK	KNM1P5.75_2SQV80NE-T		
37	3	J19,J20,J41	61300311121		HEADER		CON_HEADER_1X3 _L7.62_W2.54_P2.5 4	WURTH ELEKTRONIK	61300311121		
38	2	J21,J22	61303821121		HEADER		CON_HEADER_2X1 _L9.149_W5_P2.54 4	WURTH ELEKTRONIK	61303821121		
39	2	J23,J26	61300811821		HEADER		CON_HEADER_1X8 _L20.32_W2.54_P2. 54	WURTH ELEKTRONIK	61300811821		
40	1	J24	61301011821		HEADER		CON_HEADER_1X1 0_L25.4_W2.54_P2. 54	WURTH ELEKTRONIK	61301011821	FARNELL	1841230
41	1	J25	61300611821		HEADER		CON_HEADER_1X6 _L15.24_W2.54_P2. 54	WURTH ELEKTRONIK	61300611821		
42	3	J29,J32,J43	61300211121		HEADER		CON_HEADER_1X2 _L5.08_W2.54_P2.5 4	WURTH ELEKTRONIK	61300211121		
43	1	J31	65100516121		USB		CON_1734035-1	WURTH ELEKTRONIK	65100516121		
44	1	J42	61302021121		HEADER		CON_HEADER_2X1 0_L25.4_W5.08_P2. 54	WURTH ELEKTRONIK	61302021121		
45	1	LD1	RED-GREEN		LED		PLCC4	AVAGO	HSMF-A201-A00J1	FARNELL	1058420RL
46	1	L1	33uH	0.65A	INDUCTOR	20%	L4_W4_H1.8	WURTH ELEKTRONIK	74404042330	RS	814-2537
47	1	L2	600R	350mA	FERRITE	25%	603	TAI TECH	FCM1608KF-601T05		
48	2	L3,L4	330R	0.4A	FERRITE	25%	603	WURTH ELEKTRONIK	782631331		
49	6	M3,M5,M25,M26,M27, M32	CLOSED		JUMPER		JUMPER	WURTH ELEKTRONIK	60900213421		
50	16	M4,M6,M7,M8,M12,M 13,M14,M15,M16,M30 M31,M33,M34,M35,M 36,M37	CLOSED		STRAP		JUMPER	HARWIN	D3082-05	DIGIKEY	952-1873-ND
51	5	M9,M10,M11,M23,M2 7	CLOSED 1-2		JUMPER		JUMPER	WURTH ELEKTRONIK	60900213521		
52	2	M17,M18	CLOSED 1-2 (inactive)		JUMPER		JUMPER	WURTH ELEKTRONIK	60900213521		
53	1	M19	CLOSED 3-5		JUMPER		JUMPER	WURTH ELEKTRONIK	60900213521		
54	2	M20,M21	CLOSED 3-4		JUMPER		JUMPER	WURTH ELEKTRONIK	60900213521		
55	1	M22	CLOSED 4-6		JUMPER		JUMPER	WURTH ELEKTRONIK	60900213521		
56	1	M28	CLOSED		JUMPER		JUMPER	WURTH ELEKTRONIK	60900213621		
57	2	M29,M38	OPEN		JUMPER		JUMPER	WURTH ELEKTRONIK	60900213421		
58	1	Q1	NPN		CMS		SOT23	ON SEMICONDUCTOR	BC847BL		
59	1	Q2	P-MOS		CMS		SO8	STMICROELECTRONICS	STS7PF30L	RS	920-8871
60	28	R1,R3,R5,R6,R8,R10, R14,R16,R20,R21,R2 4,R31,R36,R37,R39,R 44,R46,R52,R54,R56, R58,R60,R62,R83,R8 7,R89,R90,R91	NP	1/10W	RES	5%	603	N.A.	0R_5%_0603		
61	14	R2,R7,R23,R30,R33,R 34,R35,R63,R64,R65, R66,R71,R92,R94	10K	1/10W	RES	5%	603	N.A.	10K_5%_0603		
62	6	R4,R9,R17,R22,R74,R 77	820R	1/10W	RES	5%	603	N.A.	820R_5%_0603		
63	1	R11	4.7M	1/10W	RES	5%	603	N.A.	4.7M_5%_0603		
64	1	R12	68R	1W	RES	5%	1218	N.A.	68R_5%_1218_1W		
65	1	R13	40.2K	1/10W	RES	0%	603	N.A.	40.2K_0.1%_0603		
66	2	R15,R19	1K	1/10W	RES	5%	603	N.A.	1K_5%_0603		
67	1	R18	10K	1/10W	RES	0%	603	N.A.	10K_0.1%_0603		
68	18	R23,R25,R26,R43,R4 5,R47,R48,R49,R50,R 51,R53,R55,R57,R59, R61,R97,R98,R100	0R	1/10W	RES	5%	603	N.A.	0R_5%_0603		
69	4	R27,R28,R76,R95	100K	1/10W	RES	5%	603	N.A.	100K_5%_0603		
70	6	R32,R42,R67,R68,R6 9,R70	2.7K	1/10W	RES	5%	603	N.A.	2.7K_5%_0603		
71	3	R38,R85,R93	NP	1/10W	RES	5%	603	N.A.	10K_5%_0603		

72	1	R40	18K	1/10W	RES	5%	603	N.A.	18K_5%_0603			
73	6	R41,R78,R79,R80,R84,R86	4.7K	1/10W	RES	5%	603	N.A.	4.7K_5%_0603			
74	4	R72,R81,R82,R91	100R	1/10W	RES	5%	603	N.A.	100R_5%_0603			
75	1	R73	36K	1/10W	RES	5%	603	N.A.	36K_5%_0603			
76	1	R75	1.5K	1/10W	RES	5%	603	N.A.	1.5K_5%_0603			
77	1	R96	NP	1/10W	RES	5%	603	N.A.	470K_5%_0603			
78	1	R99	NP	1/10W	RES	5%	603	N.A.	18K_5%_0603			
79	1	R101	0R	1/8W	RES	5%	805	N.A.	0R_5%_0805			
80	6	S1,S2,S3,S4,S5,S6	434111025826		BUTTON		L6_W3.8_H2.5	WURTH ELEKTRONIK	434111025826	RS		785-6406
81	2	TP1,TP2	TPSMD-1MM		TEST POINT		Test Point	N.A.	TPSMD-1MM			
82	5	U1,U6,U7,U9,U10	NL17SZ04DFT2G		LOGIC		SOT353	ON SEMICONDUCTOR	NL17SZ04DFT2G	RS		802-1601
83	6	U2,U3,U5,U8,U16,U18	ACPL-W61L-000E		ISOLATOR		SS06	BROADCOM	ACPL-W61L-000E	RS		714-0215
84	1	U4	STKNX-AC		TRANSCIEVER		VFDFPN24_L4_W4_P0.5	STMICROELECTRONICS	STKNX-AC			
85	1	U11	STM32F103RBT6		MCU		LQFP64	STMICROELECTRONICS	STM32F103RBT6	FARNELL		1447640
86	1	U12	SN74AHC1G08DBV		LOGIC		SOT23-5	TEXAS INSTRUMENTS	SN74AHC1G08DBV	DIGIKEY		296-1091-1-ND
87	1	U13	24LC128-I/SN		MEMORY		SO8	MICROCHIP	24LC128-I/SN	RS		823-3292
88	1	U14	LD1117S50TR		CONVERTER		SOT223	STMICROELECTRONICS	LD1117S50TR	RS		686-9379
89	1	U15	LD39050PU33R		CONVERTER		DFN6	STMICROELECTRONICS	LD39050PU33R	RS		880-5317
90	1	U17	LD3985M33R		CONVERTER		SOT23-5	STMICROELECTRONICS	LD3985M33R			
91	1	U19	STM32F103CBT6		MCU		LQFP48	STMICROELECTRONICS	STM32F103CBT6	FARNELL		1606327
92	1	Y1	16MHZ-10PPM-8PF		QUARTZ		L2.0_W1.6_H0.45	NDK	EXS00A-CS06655			
93	1	Y2	32.768kHz-20PPM-7pF		QUARTZ		L2.05_W1.2_H0.55	NDK	EXS00A-MU00389			
94	1	Y3	8MHZ-20PPM-8PF		QUARTZ		L3.2_W2.5_H1.0	NDK	EXS00A-CG04874			