



## Bill of Materials for the NCV Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free	Comments
C1	1	CAP CER 8PF 25V NP0 0402	8pF	0.25pF	C0402	Murata Electronics N	GRM1555C1E8R0CA01D	Yes	Yes	32kHz OSC NOT required for Sigfox firmware
C2	1	CAP CER 10000PF 25V X7R 0402	10nF	10%	C0402	Murata Electronics N	GRM155R71E103KA01D	Yes	Yes	
C3	1	CAP CER 10000PF 25V X7R 0402	10nF	10%	C0402	Murata Electronics N	GRM155R71E103KA01D	Yes	Yes	
C4	1	CAP CER 8PF 25V NP0 0402	8pF	0.25pF	C0402	Murata Electronics N	GRM1555C1E8R0CA01D	Yes	Yes	32kHz OSC NOT required for Sigfox firmware
C5	1	CAP CER 10000PF 25V X7R 0402	10nF	10%	C0402	Murata Electronics N	GRM155R71E103KA01D	Yes	Yes	
C6	1	-	NC	-	C0402	-	-	-	-	
C7	1	-	NC	-	C0402	-	-	-	-	
C100	1	CAP CER 100PF 50V NP0 0402	100pF	5%	C0402	Murata Electronics N	GRM1555C1H101JA01D	Yes	Yes	
C101	1	CAP CER 100PF 50V NP0 0402	100pF	5%	C0402	Murata Electronics N	GRM1555C1H101JA01D	Yes	Yes	
C102	1	CAP CER 10000PF 25V X7R 0402	10nF	10%	C0402	Murata Electronics N	GRM155R71E103KA01D	Yes	Yes	
C103	1	CAP CER 4.7UF 6.3V X5R 0603	4.7uF	10%	C0603	Murata Electronics N	GRM188R60J475KE19J	Yes	Yes	
C105	1	CAP CER 100PF 50V NP0 0402	100pF	5%	C0402	Murata Electronics N	GRM1555C1H101JA01D	Yes	Yes	
CB1	1	-	NC	-	C0402	-	-	-	-	
CB2	1	CAP CER 2.7PF 50V NP0 0402	2.7pF	0.1pF	C0402	Murata Electronics N	GRM1555C1H2R7BA01D	No	Yes	
CC1	1	-	NC	-	C0402	-	-	-	-	
CC2	1	-	NC	-	C0402	-	-	-	-	
CE1	1	CAP CER 3.6PF 50V NP0 0402	3.6pF	0.1pF	C0402	Murata Electronics N	GRM1555C1H3R6BA01D	No	Yes	
CE2	1	CAP CER 3.6PF 50V NP0 0402	3.6pF	0.1pF	C0402	Murata Electronics N	GRM1555C1H3R6BA01D	No	Yes	
CE3	1	CAP CER 1PF 50V NP0 0402	1pF	0.25pF	C0402	Murata Electronics N	GRM1555C1H1R0CA01J	No	Yes	
CF1	1	CAP CER 4PF 50V NP0 0402	4pF	0.1pF	C0402	Murata Electronics N	GRM1555C1H4R0BA01D	No	Yes	
CF2	1	CAP CER 4PF 50V NP0 0402	4pF	0.1pF	C0402	Murata Electronics N	GRM1555C1H4R0BA01D	No	Yes	
CF3	1	CAP CER 6.8PF 50V NP0 0402	6.8pF	0.5pF	C0402	Murata Electronics N	GRM1555C1H6R8DA01D	No	Yes	
CLF	1	CAP CER 82PF 50V NP0 0402	82pF	2%	C0402	Murata Electronics N	GRM1555C1H820GA01D	No	Yes	
CM1	1	CAP CER 6.2PF 50V NP0 0402	6.2pF	0.1pF	C0402	Murata Electronics N	GRM1555C1H6R2BA01D	No	Yes	
CM2	1	CAP CER 3.6PF 50V NP0 0402	3.6pF	0.1pF	C0402	Murata Electronics N	GRM1555C1H3R6BA01D	No	Yes	
CT1	1	CAP CER 2.7PF 50V NP0 0402	2.7pF	0.1pF	C0402	Murata Electronics N	GRM1555C1H2R7BA01D	No	Yes	
CT2	1	CAP CER 2.7PF 50V NP0 0402	2.7pF	0.1pF	C0402	Murata Electronics N	GRM1555C1H2R7BA01D	No	Yes	
IC1	1	AX-SFJK RF Microcontroller	SFJKN	-	QFN40	ON Semiconductor	AX-SFJK-x-xx	No	Yes	
LB1	1	FIXED IND 12NH 500MA 140 MOHM	12nH	2%	L0402WW	Murata Electronics N	LQW15AN12NG00D	No	Yes	
LB2	1	FIXED IND 12NH 500MA 140 MOHM	12nH	2%	L0402WW	Murata Electronics N	LQW15AN12NG00D	No	Yes	
LC1	1	FIXED IND 18NH 370MA 270 MOHM	18nH	2%	L0402WW	Murata Electronics N	LQW15AN18NG00D	No	Yes	

LC2	1	FIXED IND 18NH 370MA 270 MOHM	18nH	2%	L0402WW	Murata Electronics N	LQW15AN18NG00D	No	Yes	
LE1	1	FIXED IND 30NH 270MA 580 MOHM	30nH	2%	L0402WW	Murata Electronics North America	LQW15AN30NG00D	No	Yes	
LED1	1	Generic RED LED 0603	RED	-	LED0603	ROHM Semiconductor	SML-D12U1WT86	Yes	Yes	Any generic RED LED 0603, control current with R1
LF1	1	FIXED IND 2.7NH 850MA 50 MOHM	2.7nH	2%	L0402WW	Murata Electronics N	LQW15AN2N7C00D	No	Yes	
LT1	1	FIXED IND 18NH 370MA 270 MOHM	18nH	2%	L0402WW	Murata Electronics N	LQW15AN18NG00D	No	Yes	
LT2	1	FIXED IND 18NH 370MA 270 MOHM	18nH	2%	L0402WW	Murata Electronics N	LQW15AN18NG00D	No	Yes	
LVCO	1	Zero ohm jumper	0 Ohm	5%	L0402WW	Yaego	RC0402JR-070RL	Yes	Yes	
Q1	1	32kHz Oscillator	32.768KHz	20ppm	TF20	NDK (Nihon Dempa Kogyo Co. Ltd)	NX2012SA 32.768KHz EXS00A-MU00788	Yes	Yes	32kHz OSC NOT required for Sigfox firmware
R1	1	RES SMD 220 OHM 5% 1/16W 0402	220	5%	R0402	Yaego	RC0402JR-07220RL	Yes	Yes	
R2	1	RES SMD 1K OHM 5% 1/16W 0402	2.7k	5%	R0402	Yaego	RC0402JR-072K7L	Yes	Yes	
R3	1	FERRITE CHIP 600 OHM 300MA 0402	BEAD600	-	R0402	Murata Electronics N	BLM15AG601SN1D	Yes	Yes	
R4	1	RES SMD 0.0OHM JUMPER 1/16W 04	0 Ohm	5%	R0402	Yaego	RC0402JR-070RL	Yes	Yes	
R5	1	-	NC	-	R0402	-	-	-	-	
R6	1	RES SMD 12K OHM 5% 1/16W 0402	12k	5%	R0402	Yaego	RC0402JR-0712KL	Yes	Yes	
S1	1	Tactile Switch SPST-NO Top Actuated	STER4-PAD-SMD-SMA	-	ER SMALL SMD	C&K	PTS810 SJK 250 SMTR L	Yes	Yes	
X1	1	NDK 48MHz TCXO	48MHz TCXO	1ppm	X2016	NDK (Nihon Dempa Kogyo Co. Ltd)	NT2016SA 48 MHz END4910A	No	Yes	
X2	1	CONN SMA JACK STR 50OHM SMD	SMA-SMD	-	SMA-SMD	Linx Technologies Inc	CONSMSA001-SMD-G	Yes	Yes	
X3	1	Generic header 2 rows, 5 positions, 2mm pitch	HM-2X52MM-SMD	-	HM-2MM-2X5-SMD	Harwin	M22-5320505	Yes	Yes	Any 2x5 2mm pitch surface mount header
-	1	Antenna 916MHz 1/2 wave dipole, 1.2dBi gain, 50 ohms, 900MHz to 930MHz	-	-	SMA - Male	Linx Technologies Inc.	ANT-916-CW-HW-SMA	Yes	Yes	Generic 902-928MHz whip antenna