



Bill of Materials for the SIGFOX-GEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C1,C31,C37	3	CAP CER 10UF 16V X5R 0805	10uF,16V	±20%	0805	Würth Electronics	885012107014	Yes	Yes
C2,C36	2	CAP CER 4.7UF 6.3V X5R 0603	4.7uF,6.3V	10%	0603	Murata Electronics	GRM188R60475KE19J	Yes	Yes
C3	4	CAP CER 6.2PF 50V NPO 0402	6.2pF, 50V	±0.5pF	0402	Murata Electronics	GRM1555C1H6R2DA01D	Yes	Yes
C4,C5,C7,C16	4	DNP	DNP	DNP	DNP			Yes	Yes
C6,C14,C15	3	CAP CER 2.7PF 50V NPO 0402	2.7PF, 50V	±0.1pF	0402	Murata Electronics	GRM1555C1H2R7BA01D	Yes	Yes
C8,C9	2	CAP CER 4.3PF 50V NPO 0402	4.3PF, 50V	0.1 pF	0402	Murata Electronics	GRM1555C1H4R3BA01D	Yes	Yes
C10,C20,C21,C25	4	CAP CER 100PF 50V NPO 0402	100pF, 50V	±5%	0402	Würth Electronics	885012005061	Yes	Yes
C11,C12	2	CAP CER 2.2PF 50V NPO 0402	2.2pF, 50V	±0.1pF	0402	Murata Electronics	GRM1555C1H2R2BA01D	Yes	Yes
C13	1	CAP CER 0.9PF 50V NPO 0402	0.9pF, 50V	±0.1pF	0402	Murata Electronics	GRM1555C1HR90BA01D	Yes	Yes
C17	1	CAP CER 3.6PF 50V NPO 0402	3.6pF, 50V	±0.25pF	0402	Murata Electronics	GRM1555C1H3R6CA01D	Yes	Yes
C18,C19,C22,C24	4	CAP CER 10000PF 25V X7R 0402	10nF, 50V	±10%	0402	Murata Electronics	GRM155R71E103KA01D	Yes	Yes
C23	1	CAP CER 39PF 50V NPO 0402	39pF, 50V	±5%	0402	Murata Electronics	GRM1555C1H390A01D	Yes	Yes
C65,C66	2	22pF ±5% 50V Ceramic Capacitor COG, NPO 0402 (1005 Metric)	22pF, 50V	±5%	0402	Murata Electronics	GRM1555C1H220A01D	Yes	Yes
C83	1	CAP CER 0.1UF 16V X7R 0603	DNP	DNP	DNP	Würth Electronics	885012206046	Yes	Yes
C84	1	CAP CER 10000PF 16V X7R 0603	DNP	DNP	DNP	Murata Electronics	GRM188R71C103KA01D	Yes	Yes
D3	1	Red 625nm LED Indication - Discrete 2V 0603 (1608 Metric)	RED LED	DNP	0603	Würth Electronics	15060RS75000	Yes	Yes
D12	1	DIODE SCHOTTKY 20V 500MA SOD123	MBR0520LT1	-	SOD-123	ON Semiconductor	MBR0520LT1G	No	Yes
E1	1	CONN SMA JACK STR. 50OHM SMD	ANTENNA CONNECTOR	-	Surface Mount, Right Angle	Linx Technologies Inc.	CONSM002-SMD-G	Yes	Yes
J1,J3	2	STACKING HEADER ARDUINO SHIELD	CONN TRBLK 8	-	0.095" x 0.535"	Samtec	ESW-108-24-G-S	Yes	Yes
J2	1	STACKING HEADER ARDUINO SHIELD	CONN10	-	0.095" x 0.535"	Samtec	ESW-110-24-G-S	Yes	Yes
J4	1	STACKING HEADER ARDUINO SHIELD	CONN TRBLK 6	-	0.095" x 0.535"	Samtec	ESW-106-24-G-S	Yes	Yes
J5	1	10 Positions Header, Shrouded Connector 0.079" (2.00mm) Surface Mount Gold	CONN10A	-	0.079" (2.00mm) Surface Mount	Sullins Connector Solutions	SBH21-NBPN-D05-SM-BK	Yes	Yes
J32,J33	2	3 Positions Header, Unshrouded Connector 0.100" (2.54mm) Through Hole Gold	CON3	-	0.100" (2.54mm) Through Hole	Würth Electronics	61300311121	Yes	Yes
J6	1	3 Positions Header, Unshrouded Connector 0.100" (2.54mm) Through Hole Gold	DNP	DNP	DNP	Würth Electronics	61300311121	Yes	Yes
J19,J31	2	2 Positions Header, Unshrouded Connector 0.100" (2.54mm) Through Hole Gold	DNP	DNP	DNP	Würth Electronics	61300211121	Yes	Yes
L1,L3,L5,L7	4	FIXED IND 18NH 370MA 270 MOHM	18nH	±5%	0402	Murata Electronics	LQW15AN18NH00D	Yes	Yes
L2,L8	2	FIXED IND 12NH 500MA 140 MOHM	12nH	±5%	0402	Murata Electronics	LQW15AN12NH00D	Yes	Yes
L4	1	FIXED IND 9.5NH 540MA 140 MOHM	9.5nH	±5%	0402	Murata Electronics	LQW15AN9NSJ00D	Yes	Yes
L6	1	FIXED IND 40NH 250MA 700 MOHM	40nH	±5%	0402	Murata Electronics	LQW15AN40NJ00D	Yes	Yes
L9	1	FERRITE BEAD 600 OHM 0402 1LN	600 Ohm	0402	0402	Murata Electronics	BLM15AG601SN1D	Yes	Yes
Q1	1	TRANS NPN 40V 0.6A SOT23	40V 0.6A	SOT23	SOT23	ON Semiconductor	MMBT2222ALT1G	No	Yes
R3	1	RES SMD 2.7K OHM 1% 1/10W 0402	2.7K 1/10W	0402	0402	Panasonic Electronic	ERJ-2RKF2701X	Yes	Yes
R4	1	RES SMD 12K OHM 5% 1/16W 0402	12K 1/10W	0402	0402	Yageo	RC0402JR-0712KL	Yes	Yes
R17,R18,R19,R22,R24,R25,R59,R61	8	RES SMD 10K OHM 1% 1/10W 0603	10K 1/10W	0603	0603	Vishay Dale	CRCC060310K0FKEA	Yes	Yes
R20	1	RES SMD 1K OHM 1% 1/10W 0603	1K 1/10W	0603	0603	Yageo	RC0603FR-071KL	Yes	Yes
R40,R80,R81,R82,R84,R103,R104,R106,R107,R108,R109	11	RES SMD 0.00HM JUMPER 1/10W 0603	DNP	0603	DNP	Yageo	RC0603JR-070RL	Yes	Yes
R42,R75,R78,R83,R85,R86,R87,R101,R102	9	RES SMD 0.00HM JUMPER 1/10W 0603	0E 1/10W	0603	0603	Yageo	RC0603JR-070RL	Yes	Yes
R74	1	RES SMD 100 OHM 1% 1/10W 0603	100E 1/10W	0603	0603	Yageo	RC0603FR-07100RL	Yes	Yes
R105	1	RES SMD 1M OHM 1% 1/10W 0603	1M 1/10W	0603	0603	Yageo	RC0603FR-071ML	Yes	Yes
SW3	1	Tactile Switch SPST-NO Top Actuated Surface Mount	-	-	6.20mm x 6.20mm	Würth Electronics	430182043816	Yes	Yes
TP4,TP19,TP27	3	-	-	-	-	-	-	Yes	Yes
TP13,TP14,TP16,TP17,TP18,TP20,TP21,TP22,TP23,TP24,TP25,TP26	12	-	-	-	-	-	-	Yes	Yes
U2	1	OSCILLATOR 48MHZ	4-SMD	-	48MHZ	NDK	NT2016SA-48MHZ-END4910A	Yes	Yes
U3	1	SigFox Firmware IC	QFN-40	-	IC	ON Semiconductor	AX-SFEU-1-01	No	Yes
U22	1	IC I/O EXPANDER EC 16B QFN-24	QFN-24	-	24	ON Semiconductor	PCA9655EMTXXG	No	Yes
U23	1	IC SWITCH DUAL SPST US8	US8	-	8	ON Semiconductor	NLA533USG	No	Yes
U24	1	IC BRIDGE CTRLR IC/SPI 24-TQFN	24-VQFN	-	24-TQFN	PERICOM	P17C9X760BZDE	Yes	Yes
Y1	1	14.7456MHz Crystal 20pF 60 Ohm -40°C - 85°C Surface Mount HC49/US	HC49/US	±30ppm	49/US	ECS Inc.	ECS-147-40-20-3X-EN-TR	Yes	Yes
Y2	1	CRYSTAL 26.0000MHZ 8PF SMD	DNP	DNP	DNP	NDK	NX2016SA-48MHZ-EX500A-CS08927	Yes	Yes
Y3	1	14.7456MHz HCMOS XO (Standard) Oscillator Surface Mount 3.3V 10mA Enable/Disable	DNP	DNP	DNP	CTS-Frequency Controls	632L3014M74560	Yes	Yes
NA	2	Multi-Jumper 2.54mm Jumper with Test Point WR-PHD	-	-	2.54mm	Würth Electronics	60900213421	Yes	Yes
NA	1	868MHZ Whip, Straight RF Antenna	-	-	-	Linx Technologies Inc.	ANT-868-CW-RH-SMA	Yes	Yes