

LoRaWAN EasyNode Rev 1.2 Bill of Materials

Items are listed in preferred order of assembly.

#	Qty	Reference	Value	Description
1	1	U6	SLS32AIA020X2USON10XTMA4	USON package Optiga X Security Controller IC (optional since it is not supported in the software currently)
2	2	R20, R21	4.7k	Resistor 0603 R20 and R21 required if U6 is fitted
3	1	C8	100n	Capacitor 0603 required if U6 is fitted
4	3	R1, R6, R7	1M	Resistor 0805
5	1	D3	LED low current	VLMO30L1M2-GS08
6	6	R2, R3, R5, R12, R17, R19	1k	Resistor 0805
7	2	R4, R9	330R	Resistor 0805
8	2	R8, R16	100k	Resistor 0805
9	1	R10	33k	Resistor 0805
10	1	R11	47k	Resistor 0805
11	2	R13, R14	4.7k	Resistor 0805
12	1	R15	100R	Resistor 0805
13	1	R18	33R	Resistor 0805
14	2	C1, C3	100n	Capacitor 0805
15	1	C2, C9	1n	Capacitor 0805
16	1	U4	LP5907MFX-3.3	3.3V LDO SOT23-5
17	2	C4, C6, C7	1u 10V	Capacitor 0805
18	1	C5	10u 10V	Capacitor 1206
19	1	FB1	FBead	Ferrite Bead 0805, example is Wurth 7427920415
20	2	D1, D2	BAT54	Schottky SOT-23
21	3	Q1, Q2, Q3	BSS123	N-channel MOSFET SOT-23
22	2	Q4, Q5	Si2301	P-channel MOSFET SOT-23, alternatives are FDV304P or IRLML2246
23	1	U3	MIC280	Temperature Sensor SOT23-6
24	1	Y1	32.768MHz Xtal	Crystal 3mm dia max, 8mm length max
25	1	U2	Pi Pico	Pico module
26	1	U5	RFM95W	LoRa module 868 MHz (Europe) or 915 MHz (US), AliExpress
27	1	n/a	20-pin DIP socket	Socket for U1
28	1	U1	MSP430G2212IN20	MSP430 microcontroller
29	1	J3	SD Card Holder	SD Card Holder from AliExpress
30	1	B1	3V CR2032 Holder	Coin cell holder from AliExpress
31	2	SW1, SW2	Tact Switch	6mm Tact Switch
32	1	J4	RF connector	SMA socket
33	1	J1, J2, J5	2.54mm SIL Header	20-way SIL pin header, cut into 4, 12 and 2 way.
34	1	n/a	3 x AAA Cell Holder	Battery Holder
35	1	n/a	CR2032 3V Cell	Coin cell
36	1	n/a	2N3906	PNP transistor connected to J6 as an external temperature sensor (optional)