LoRa series

New MikroTik LoRa products – Internet of things has never been so affordable

MikroTik is bringing you new, powerful LoRa products for the fraction of the cost you would expect.

R11e-LoRa8/R11e-LoRa9 – a new LoRaWAN concentrator gateway card in mini PCIe form factor based on Semtech SX1301 chipset. It enables LoRaWAN connectivity for any MikroTik product that has mini PCIe slot with connected USB lines.

With the support of 8 different channels, Listen Before Talk (LBT) and spectral scan features this product will astound you with its enticing price point.

wAP LoRa8/LoRa9 kit – an out-of-the-box solution to use LoRaWAN gateway. This kit contains a pre-installed UDP packet forwarder to any public or private LoRa servers and an outdoor weatherproof wireless access point with 2.4 GHz WLAN interface and Ethernet port that could be used as a backend.

This particular wAP form-factor has been tested in many other MikroTik products – it can deliver excellent and stable performance in almost any weather conditions.

You can use the optional internal 2 dBi antenna or attach an external antenna. For extra network coverage we suggest adding MikroTik LoRa Antenna kit.

Functional and non-intrusive design, astonishing durability and great value – that is the wAP LoRa8 kit, the long-awaited LoRa solution for LoRa enthusiasts of any level.
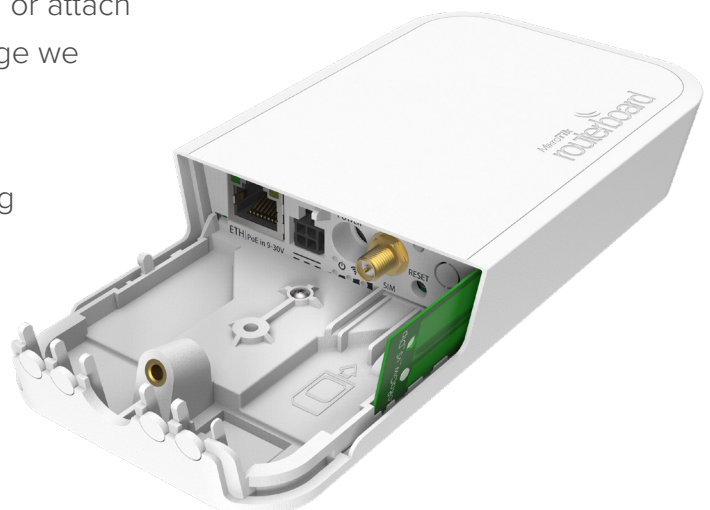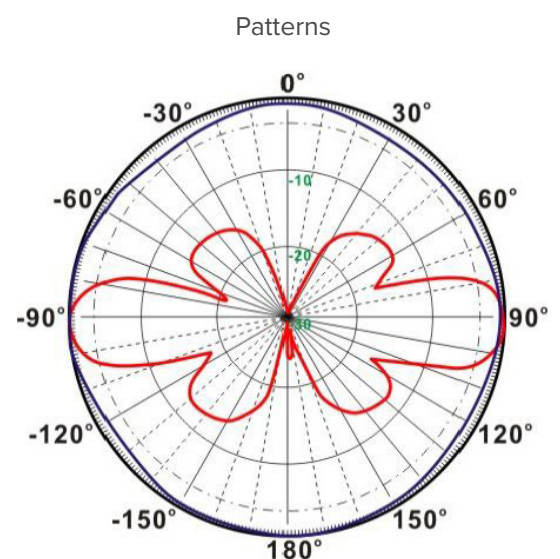
LoRa Antenna kit with a 6.5 dBi Omni antenna for 824-960 MHz, 1 m long SMA cable and mechanical holder for quick and easy mast attachment – when you need that extra network coverage.

1 m

+

1 m SMA cable

+

U-bolt kit
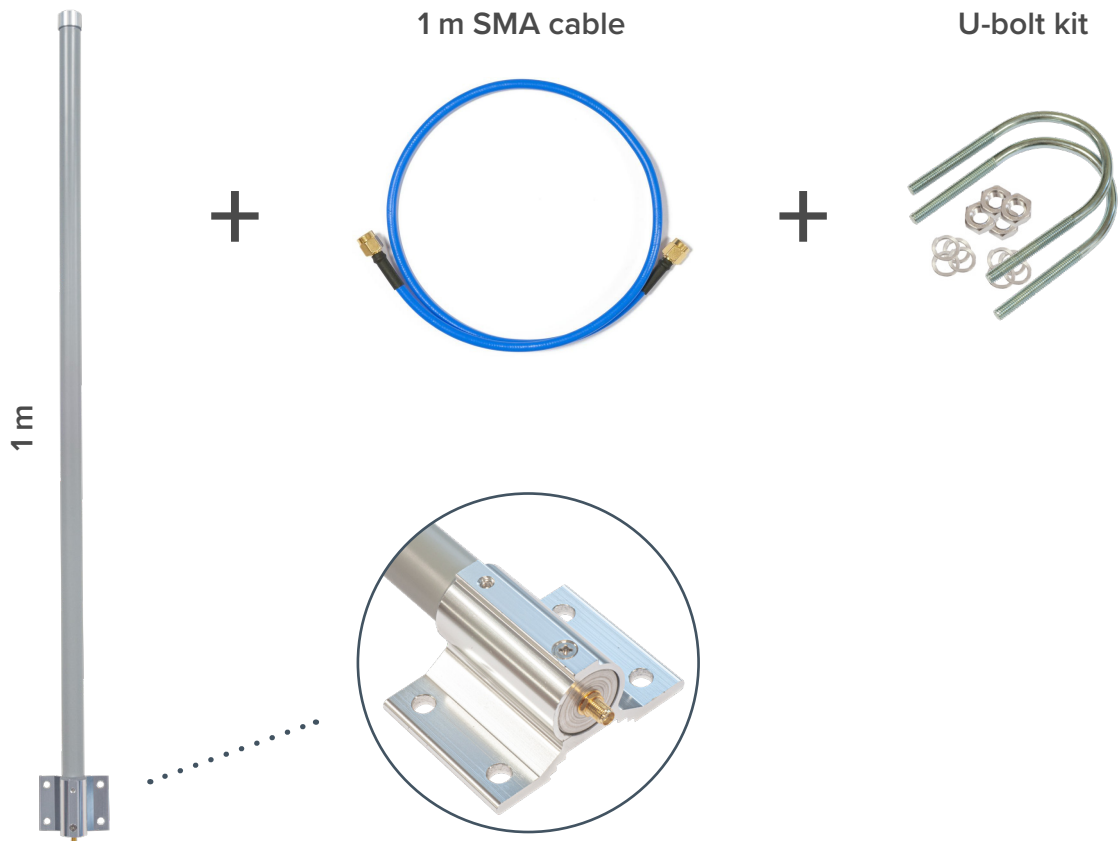
LoRa Antenna kit specifications

Product code	TOF-0809-7V-S1
Frequency	824 - 960 MHz
Gain	6.5 dBi
Horizontal beamwidth	360°
Vertical beamwidth	30°
Nominal impedance	50 Ω
Lightning protection	DC ground
Connector	SMA female
Weight	0.6 kg
Dimensions	Ø 25 x 950 mm
Mast diameter	Ø 30 - 50 mm

Patterns

R11e-LoRa8/R11e-LoRa9 specifications

| Product code	R11e-LoRa8	R11e-LoRa9
Interface	Mini-PCIe	
Supported class	A and C	
Frequency	863-870 MHz (EU863-870, RU864-870, IN865-867)	902-928 MHz (AU915-928, US902-928, AS923, KR920-923)
RF Output power	863-870 MHz 20 dBm	902-928 MHz 23 dBm
Receive max sensitivity	-137 dB @ SF12	
Range	Up to 15 km in rural environment and up to 2 km in urban environment when using MikroTik LoRa 6.5 dBi antenna kit	
Operating ambient temperature	-40°C .. +70°C	
Max power consumption	2 W	

wAP LoRa8/LoRa9 kit specifications

Product code	RBwAPR-2nD&R11e-LoRa8	RBwAPR-2nD&R11e-LoRa9
CPU	QCA9531 650 MHz	
Size of RAM	64 MB	
10/100 Ethernet ports	1	
Wireless	Built-in 2.4 GHz 802.11b/g/n, dual-chain	
Antenna gain	2 dBi	
PoE in	Yes	
Supported input voltage	9 V - 30 V (Passive PoE)	
Dimensions	185 x 85 x 30 mm	
Operating ambient temperature	-40°C .. +60°C	
Operating system	RouterOS, License level 4	
Max power consumption	7 W	

Wireless specifications

Rate (2.4 GHz)	Tx (dBm)	Rx (dBm)	Rate (2.4 GHz)	Tx (dBm)	Rx (dBm)
1MBit/s	22	-96	54MBit/s	18	-74
11MBit/s	22	-89	MCS0	20	-93
6MBit/s	20	-93	MCS7	16	-71
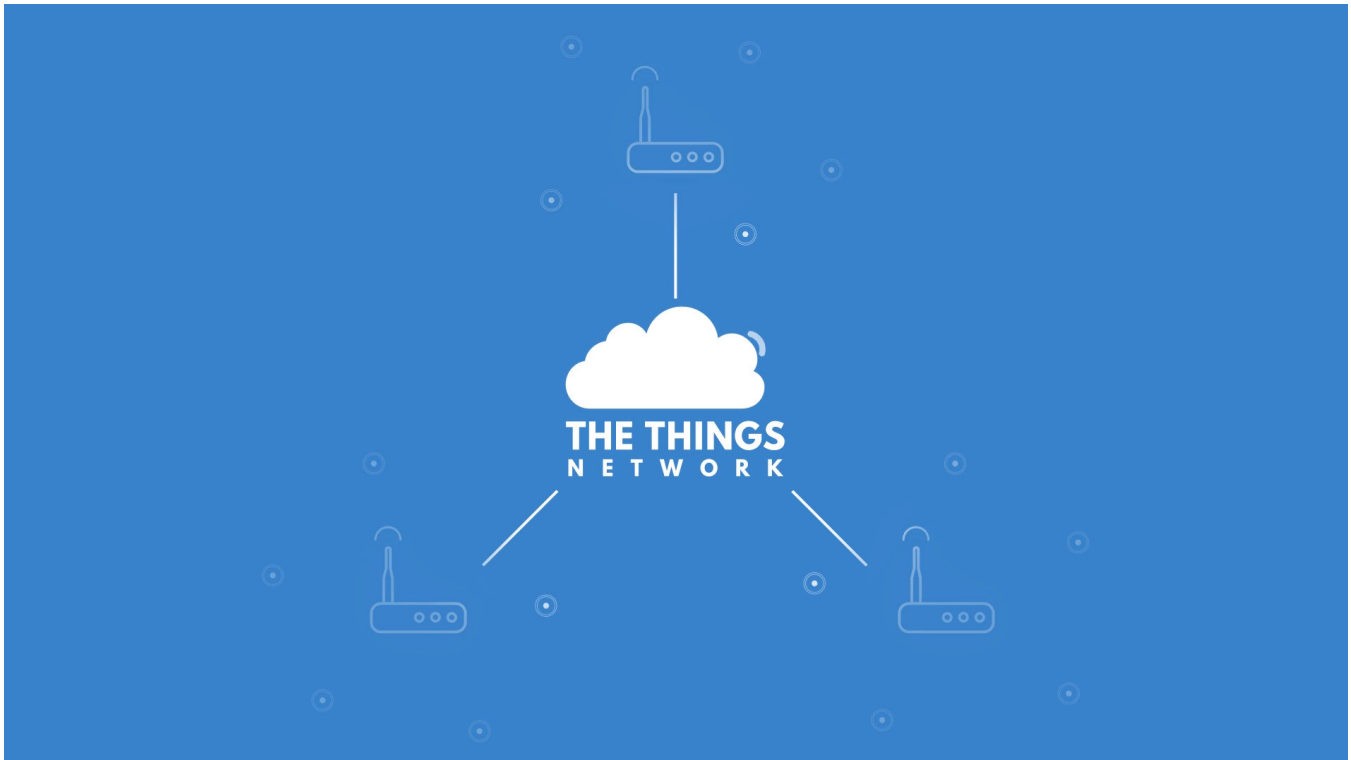
Our LoRa are ready to work with "The Things Network" - the famous open source infrastructure that provides free LoRaWAN network coverage and has tons of apps for your needs. With the help of "The Things Network" you can get started with the Internet of things within a day. And it is easily upgradable to enterprise-grade network "The Things Industries".

Cattle tracking, smart irrigation, level monitors for liquids, smart pulse sensors and thermostats, smart parking and so on – the possibilities are endless. And the setup is so easy, anyone can learn it. There is a large community of developers and enthusiasts all around the globe – you will never be alone with your questions and ideas regarding the LoRaWAN network. No need to reinvent the wheel – join "The Things Network" to save time and energy with smart solutions!

With this product family we aim to provide the most affordable LoRa solution to date without compromising quality or performance.