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-LR8/R11e-LR9 – a new LoRa® concentrator gateway card in mini PCIe form factor based on Semtech SX1301 chipset. It enables LoRa® connectivity for any MikroTik product that has mini PCIe slot with connected USB lines.

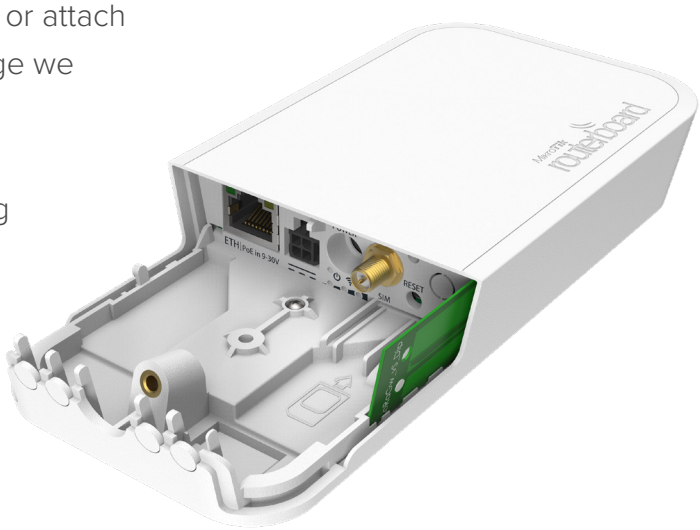
With the support of 8 different channels, Listen Before Talk (LBT) and spectral scan features this product will astound you with its enticing price point.

Price: $89
See device specifications on page 3

wAP LR8/LR9 kit – an out-of-the-box solution to use LoRa® 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.

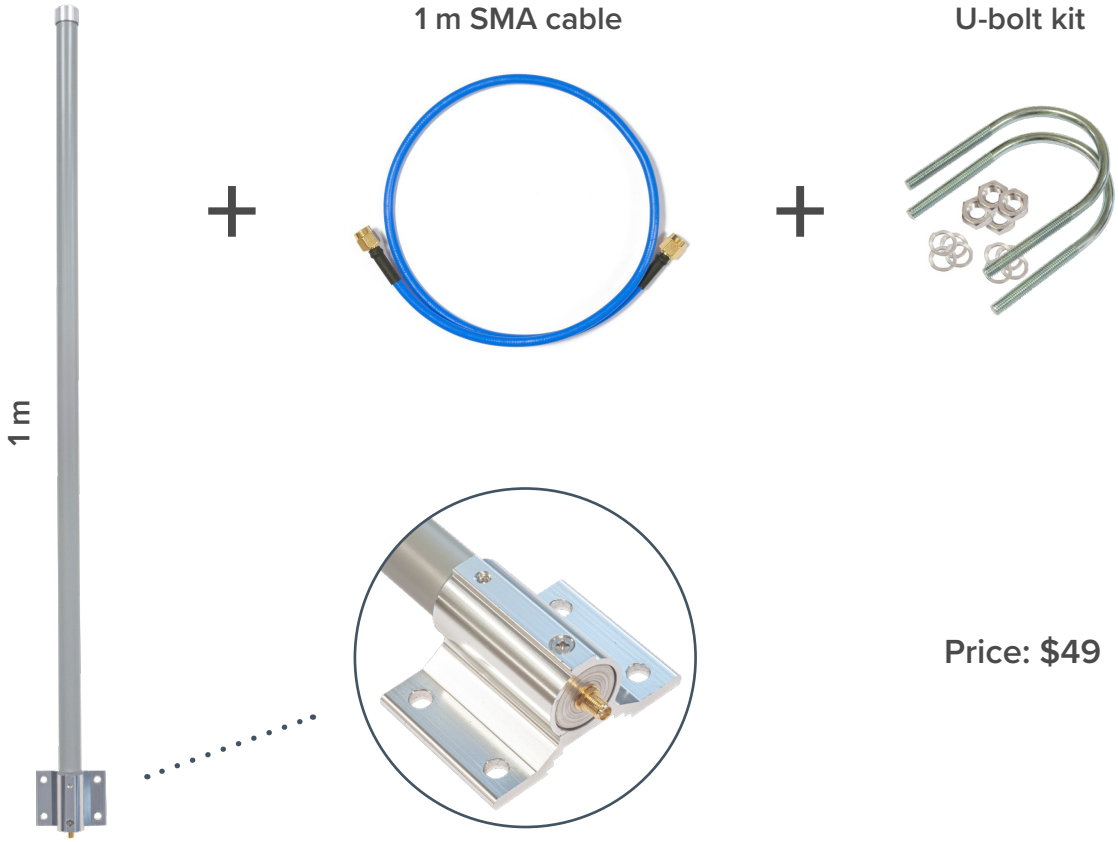
You can use the optional internal 2 dBi antenna or attach an external antenna. For extra network coverage we suggest adding MikroTik LoRa® Antenna kit.



Functional and non-intrusive design, astonishing durability and great value – that is the wAP LR8 kit, the long-awaited LoRa® solution for LoRa® enthusiasts of any level.

Price: $169
See device specifications on page 3

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.

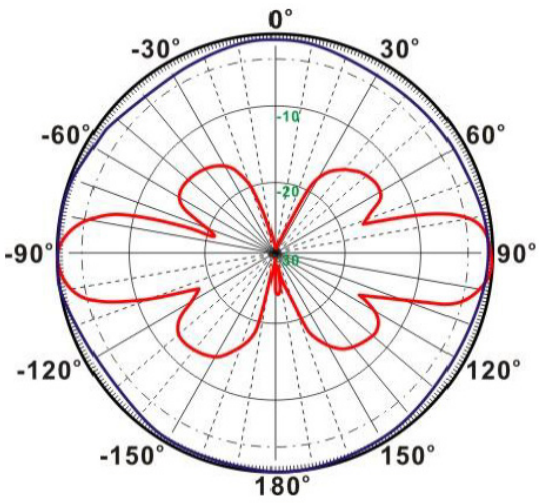


Price: $49

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-LR8/R11e-LR9 specifications

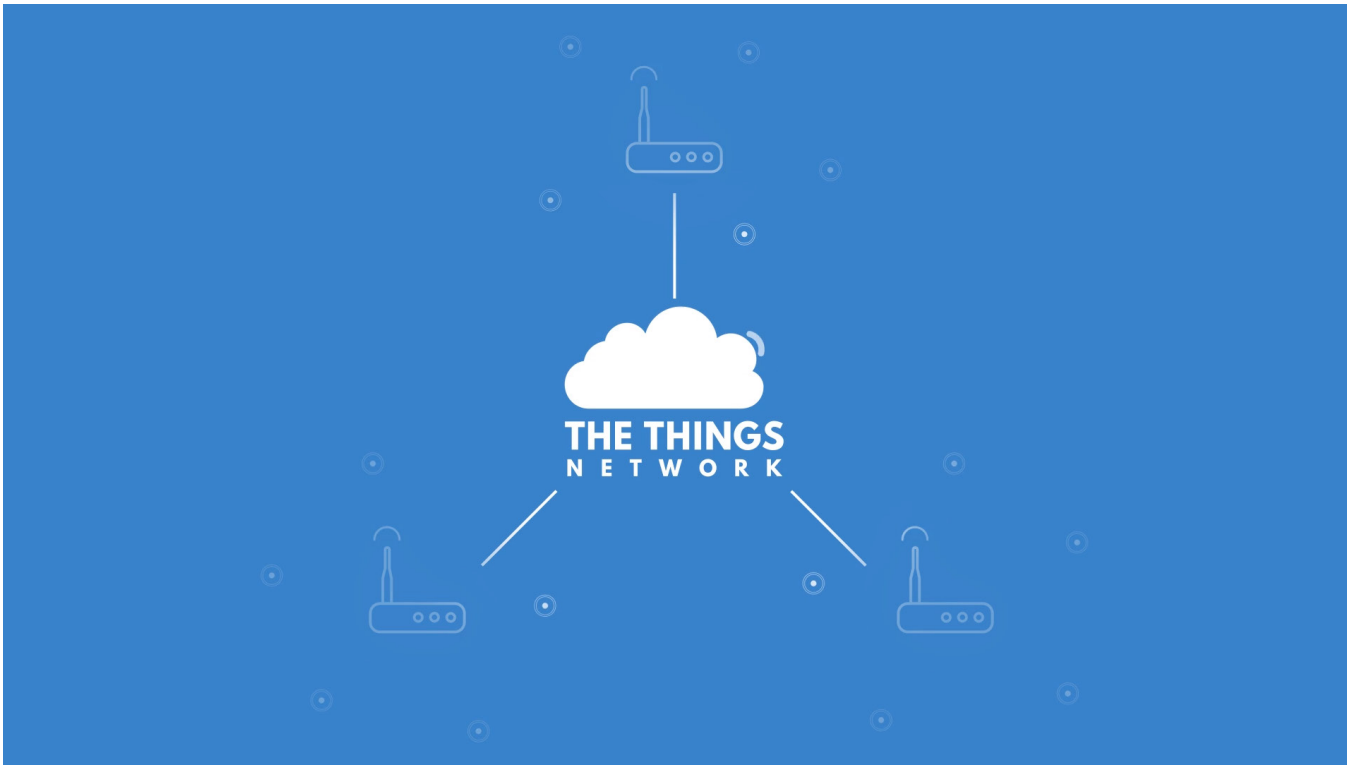
Product code	R11e-LR8	R11e-LR9
Interface	Mini-PCIe	
Supported class	A and C	
Frequency	863-870 MHz (EU863-870, RU864-870, IN865-867)	902-928 MHz (AU915-928, US902-928, AS923, KR920-923)
RF Output power	863-870 MHz 20 dBm	902-928 MHz 23 dBm
Receive max sensitivity	-137 dB @ SF12	
Range	Up to 15 km in 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 LR8/LR9 kit specifications

Product code	RBwAPR-2nD&R11e-LR8	RBwAPR-2nD&R11e-LR9
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 LoRa® 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 LoRa® 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.