LtAP LR8 LTE kit

LtAP LR8 LTE - a compact all-in-one solution with LTE, GPS and wireless support for LoRa® in a rugged heavy-duty case.



All-in-one:
High-speed LTE, GPS,
Internet-of-things

2.4 GHz AP in a
rugged heavy-duty
case

3 MiniSIM slots –
perfect for roaming

Many powering options,
including automotive

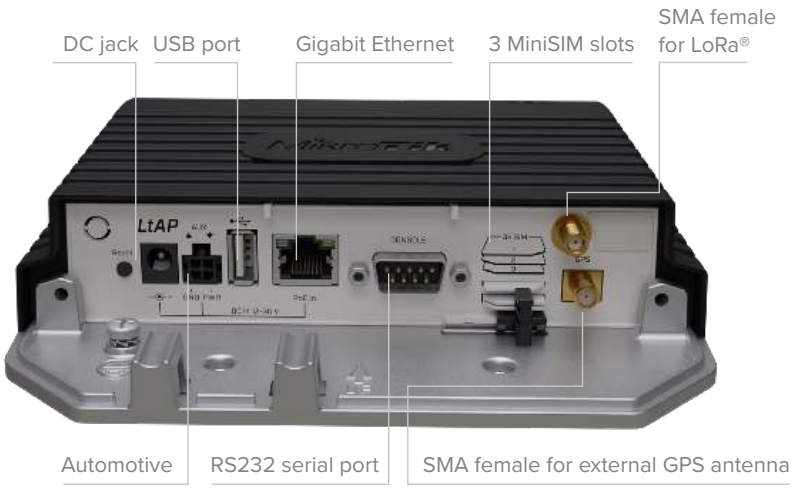
Ready for “The Things
Network” integration

Gigabig Ethernet
with PoE-in

Extreme versatility with the
powerful RouterOS

Inside the heavy-duty case, there is a powerful 2.4 GHz wireless access point with a Gigabit Ethernet port, built-in GPS and two internal LTE antennas. There are two miniPCIe slots – one is used for the LTE modem, the other one is populated with the concentrator gateway card for LoRa® technology.





There are three powering options: DC jack, PoE-in and automotive. We have even seen users powering the LtAP with a 20 000 mAh power bank throughout the day!

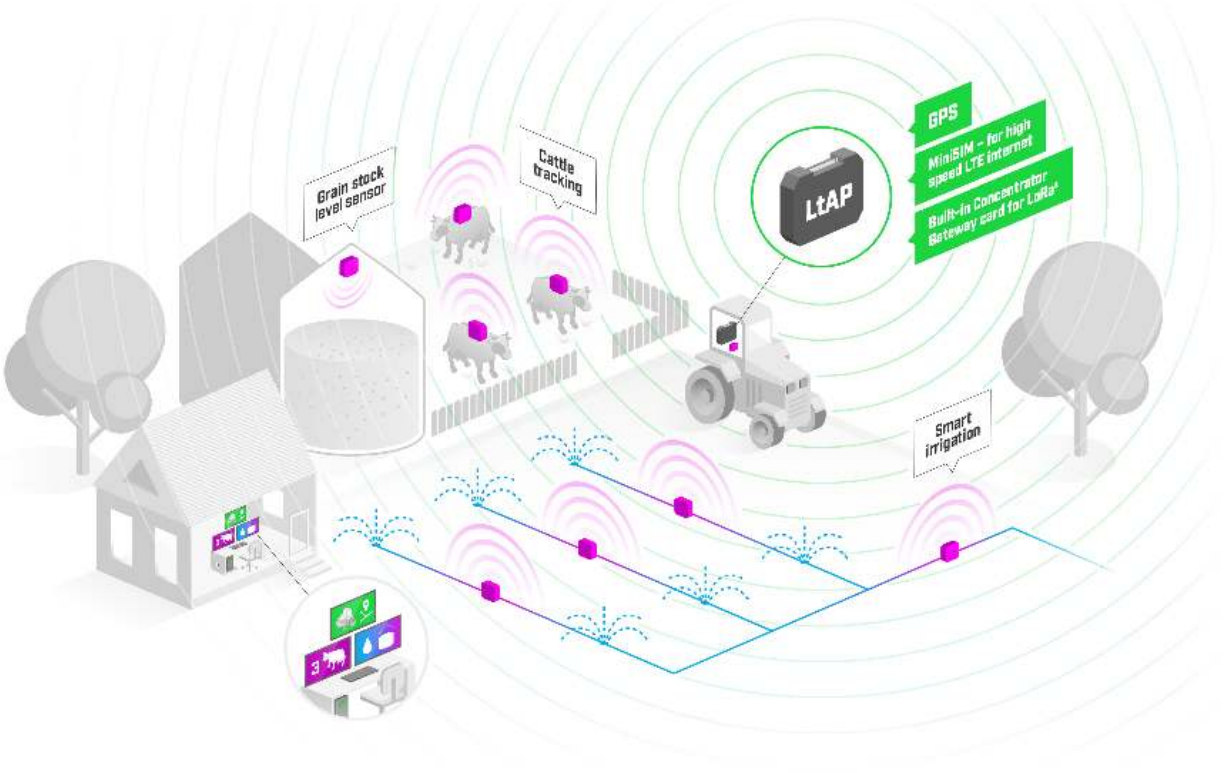
Internet-of-things has never been so affordable

To fully understand what this device can do, we need to talk about Internet-of-things. Let's start with an example. Imagine a farmer who has cattle, an irrigation system for the crops, and storage for the goods. On a day-to-day basis he needs to:

- track the animals;
- monitor the grain stock level;
- control the irrigation system.

For all these tasks the farmer can use low-cost wireless sensors. By connecting them to the LtAP - he can gather the real-time data, combine it with the location information of the vehicle, and send it to the cloud via high-speed LTE. Now all the information he needs to monitor and plan the growth of his farms is in one place. So simple and so handy.
The wireless technology behind this is called LoRa®, which stands for Long Range. It requires very low power. That's why LoRa® is the best way to build your Internet-of-things solutions. LoRa® can be used for anything from smart homes to agriculture, supply chains, logistics and even smart cities. Monitor parking spaces, track utility services, measure environmental data and so on - the possibilities are endless.

There is even a free server infrastructure that you can use - The Things Network, fully supported by the LtAP LR8 LTE kit. With a large community of enthusiasts and developers around the world, you will never be alone with your questions regarding the LoRa® network.



Perfect for logistics and tracking

There are 3 MiniSIM slots you can use to set up automatic switching between mobile operators. Very convenient if you have to cross the border regularly.
The device features two internal LTE antennas, but you can use the U.FL connectors to add external antennas of your choice for even better coverage. The same goes for the GPS – you can attach an external antenna as well.
By the way, we have provided a simple application example on the RouterOS documentation website, so you can start real-time location tracking right away!

The Things Network

Our products for 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".
The setup is so easy - anyone can learn it. No need to reinvent the wheel – join "The Things Network" to save time and energy with smart solutions!

RouterOS – extreme versatility

Run a secure VPN from the office directly to your home, apply specific firewall rules, use IPsec hardware acceleration, VLAN, DHCP, e-mail or SMS notifications, and so on. With RouterOS scripting you can automate a lot:

- modify queues based on bandwidth usage;
- complex trigger notifications, such as “Your bandwidth has reached X for Y minutes!”
- backups and setup of additional devices, and so much more!

We also include a free handy tool for centralized management of all your wireless MikroTik devices – the CAPsMAN. Unlike traditional controller software, CAPsMAN doesn’t require a separate device to run, it can use any existing RouterOS device in your network.
We have been making our own software since 1996. With each new version our priority remained the same: to provide users with the freedom to explore different setups and always have the right tools for the job. Without unnecessary paywalls.

Specifications

Product code	RBLtAP-2HnD&R11e-LTE&LR8
CPU	Dual-core MediaTek MT7621 880 MHz
Size of RAM	128 MB
Storage	16 MB flash
Number of 1G Ethernet ports	1
Wireless	2.4 GHz 802.11b/g/n dual-chain
Wireless antenna max gain	2.5 dBi
LTE antenna max gain	4 dBi (with u.FL connector)
Antenna beam width	360°
LTE category	4 (150 Mbps downlink, 50 Mbps uplink)
3G category	R7 (21 Mbps downlinks, 5.76 Mbps uplink)
2G category	Class12
Dimensions	170 x 162 x 40 mm
Operating temperature	-40°C to +50°C
Operating system	RouterOS, License level 4
SIM slots	3 (Slot #2 and slot #3 available, Slot #1 is not connected to the LTE interface)
USB port*	1 USB 2.0 port type A
Built-in GPS	Yes
Serial port	RS232

** USB port may not be used in the current configuration. Remove the R11e-LR8 to access the USB functionality.*

Powering

Supported input voltage**	DC jack or automotive connector 12 - 30 V
PoE-in	Passive PoE 12 - 30 V
Number of DC inputs	3
Max power consumption (without attachments)	12 W
Max power consumption	25 W

*** Designed for 12 V automotive power system optional use at 24 V systems with max charging voltage at 27 V*

Certification & Approvals

Certification	CE, FCC, IC

R11e-LR8 specifications

Product code	R11e-LR8
Interface	miniPCIe
Supported class	A and C
Frequency	863-870 MHz (EU863-870, RU864-870, IN865-867)
RF Output power	863-870 MHz 20 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 to +50°C
Max power consumption	2 W

Wireless specifications

Rate (2.4 GHz)	**Tx (dBm)**	**Rx (dBm)**
1MBit/s	25	-100
11MBit/s	25	-94
6MBit/s	26	-96
54MBit/s	23	-78
MCS0	26	-96
MCS7	22	-73

Supported bands

LtAP LR8 LTE kit

LTE (FDD) bands	1(2100)/2(1900)/3(1800)/7(2600)/8(900)/20(800)
LTE (TDD) bands	38(2600)/40(2300)
3G bands	1(2100)/2(1900)/5(850)/8(900)
2G bands	2(1900)/3(1800)/5(850)/8(900)

Included parts



24 V 1.2 A
power adapter



K-67
fastening set



Automotive
cable