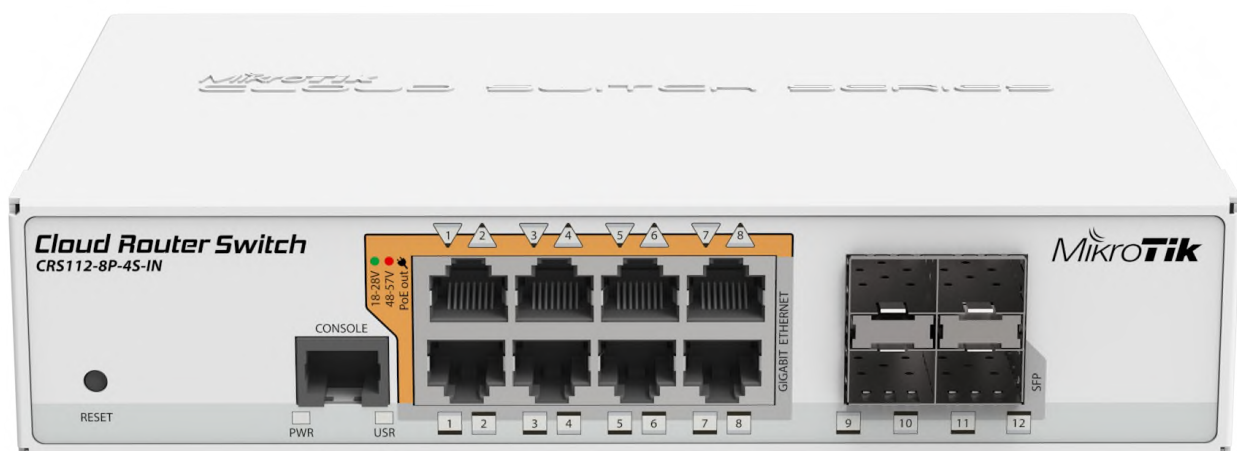


CRS112-8P-4S-IN

CRS112-8P-4S-IN is eight Gigabit RJ45 ports PoE switch, that offers different power output options: auto-sensing 802.3af/at PoE/PoE+ and Passive PoE, and four SFP ports provide optical fiber connectivity options to support uplinks of up to 1 Gbps.

CRS112-8P-4S-IN is equipped with 12 independent switching ports. 28 V 3.4 A power supply is already included in the box. There is secondary DC jack on the back of the enclosure that supports 48-57 V power supply (not included, can be purchased separately). CRS112-8P-4S-IN can power 802.3af/at devices if 48-57 V DC input is used (unit will automatically detect and provide correct power to devices). Max current is 1 A per port if input voltage is 18-28 V, 450 mA if 48-57 V. Total limit is 2.8A@24V and 1.4A@48-57V.



Our CRS series combines a fully functional router and a manageable switch with L3 features, it's powered by the familiar RouterOS. All the specific Switch configuration options are available in a special Switch menu, but if you want, ports can be removed from the switch configuration, and used for routing purposes. It gives you all the basic functionality for a managed switch, plus more: allows to manage port-to-port forwarding, apply MAC filter, configure VLANs, mirror traffic, apply bandwidth limitation and even adjust some MAC and IP header fields. IGMP snooping is also supported.

Switching features

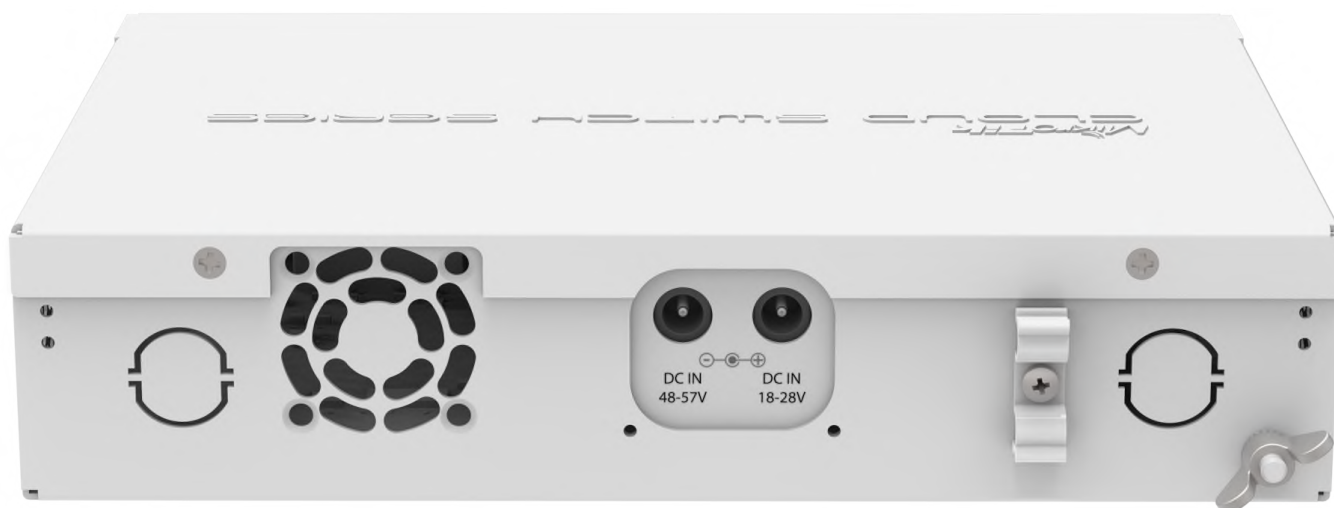
- Non-blocking Layer 2 switching capacity
- 16K host table
- IEEE 802.1Q VLAN
- Supports up to 4K simultaneous VLANs
- Port isolation
- Port security
- Broadcast storm control
- Port mirroring of ingress/egress traffic
- Rapid Spanning Tree Protocol
- Access Control List
- MikroTik neighbor discovery
- SNMP
- 9204-byte jumbo frames support
- IGMP snooping
- static link aggregation

Quick specifications

- 8 Gigabit RJ45 Ports
- 4 SFP Ports
- Non-Blocking Throughput: 12 Gbps
- Switching Capacity: 24 Gbps
- Forwarding Rate: 17.8 Mpps
- Maximum Power Consumption: 10 W (without PoE devices connected)
- Supports PoE+ IEEE 802.3at/af and 24 V Passive PoE
- Quiet, Fanless Operation
- Desktop-Rackmount

Specifications

Product code	CRS112-8P-4S-IN
CPU nominal frequency	QCA8511
Size of RAM	128 MB
Storage type	Flash
Storage size	16 MB
10/100/1000 Ethernet ports	8
SFP ports	4
Serial port	RJ45
PoE out	Yes, 802.3af/at
Supported input voltage	18 V - 57 V
Dimensions	200 x 142 x 44 mm
Operating system	RouterOS, level 5 license
Max power consumption	160 W
Max power consumption without attachments	10 W



Power adapter
28 V 3.4 A



Rackmount ears



Power cord



Screws

CSS326-24G-2S+RM

SwOS powered 24 port Gigabit Ethernet switch with two SFP+ ports, wire speed connectivity with several new switching features.

The device is powered by a Marvell DX switch chip. The device is running an operating system designed specifically for MikroTik switch products - SwOS. SwOS is configurable from your web browser. It gives you all the basic functionality for a managed switch, plus more: allows to manage port-to-port forwarding, apply MAC filter, configure VLANs, mirror traffic, apply bandwidth limitation and even adjust some MAC and IP header fields. SFP cage supports both 1.25 Gb SFP and 10 Gb SFP+ modules.

Specifications

Product code	CSS326-24G-2S+RM
Switch chip model	98DX3216A1
Storage type	Flash
Storage size	2 MB
10/100/1000 Ethernet ports	24
SFP+ cages	2
Operating system	SwOS
Supported input voltage	10 - 30 V (jack or passive PoE)
Dimensions	443 x 144 x 44 mm
Operating temperature	-20°C .. +70°C tested
Max power consumption	19 W

Features

- Non-blocking Layer 2 switching capacity
- 16K host table
- IEEE 802.1Q VLAN
- Supports up to 250 VLANs
- Port isolation
- Port security
- Broadcast storm control
- Port mirroring of ingress/egress traffic
- Rapid Spanning Tree Protocol
- Access Control List
- MikroTik neighbor discovery
- SNMP v1
- Web-based GUI

Included



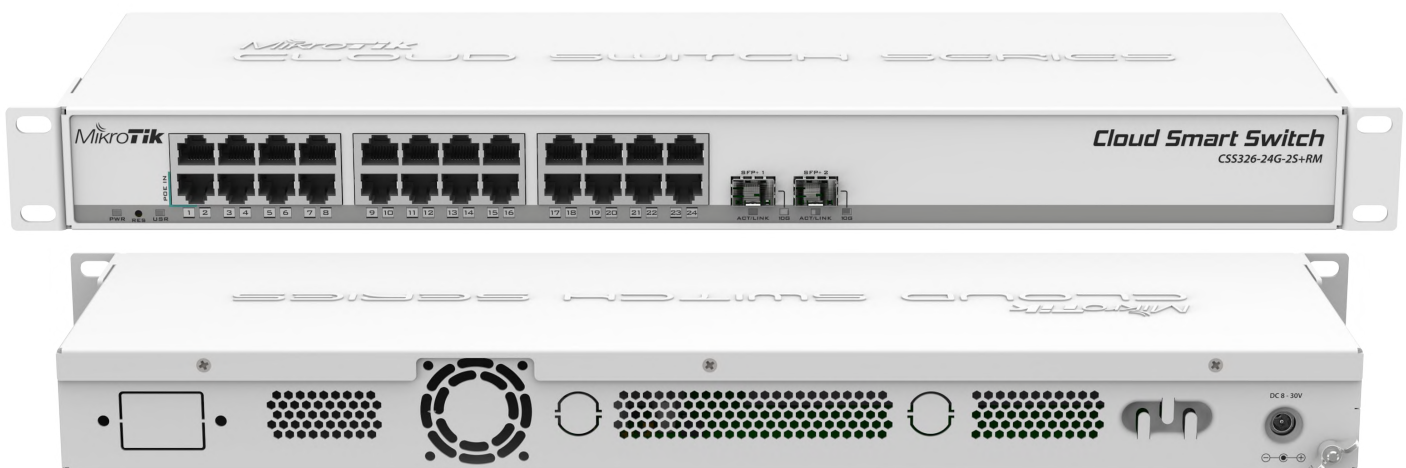
24 V 1.2 A power adapter



Rack ears



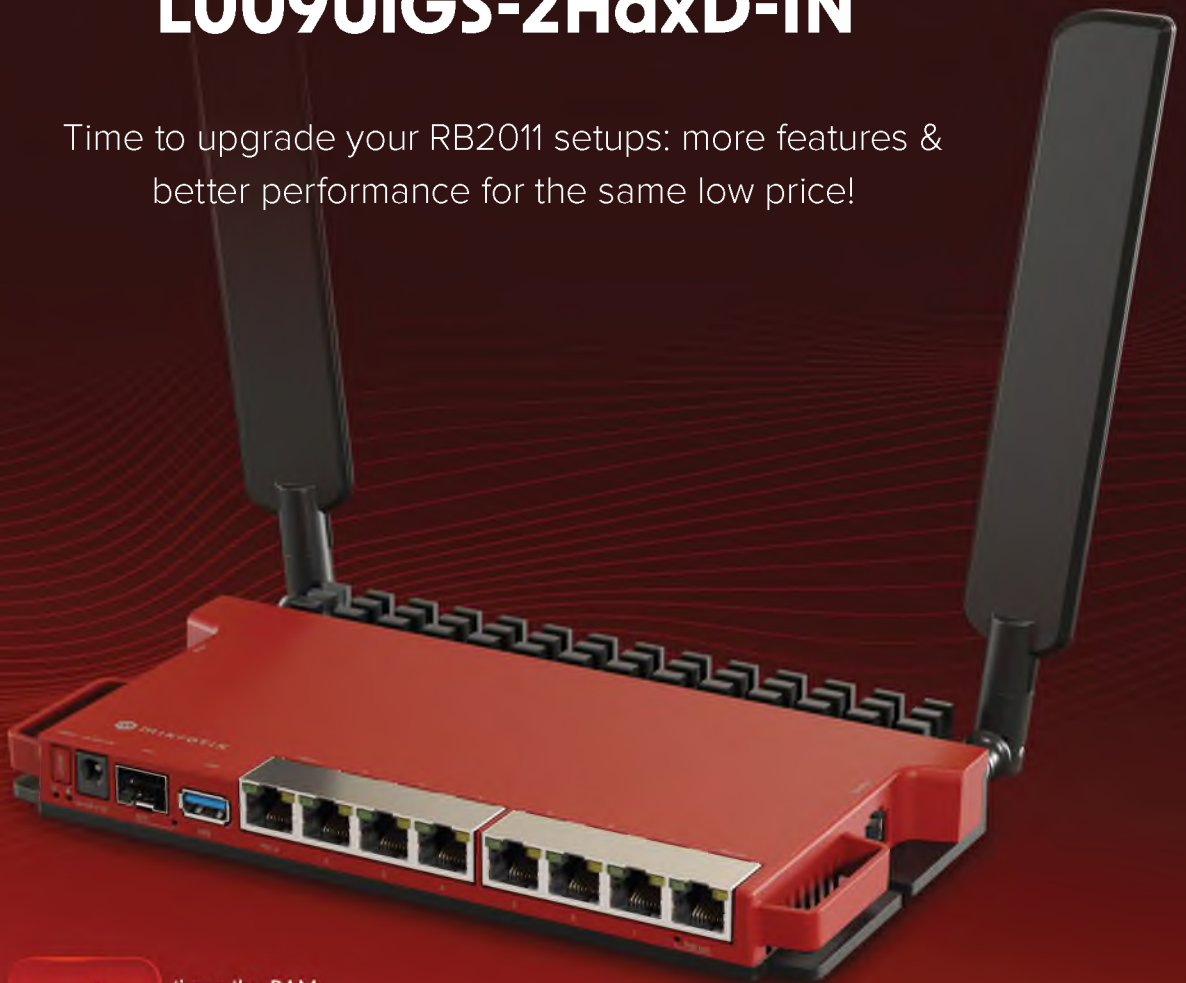
Screw set





L009UiGS-2HaxD-IN

Time to upgrade your RB2011 setups: more features & better performance for the same low price!



Up to
Fit up to

4

times the RAM
times faster than RB2011!
units in a single 1U rack space!

...more than just a router!



INNOVATIVE ENCLOSURE
THAT ACTS AS A MASSIVE HEAT-SINK



MODERN DUAL-CORE
ARM CPU



POWERFUL 2.4 GHZ AX
DUAL-CHAIN WIRELESS



8X GIGABIT
ETHERNET PORTS



SFP CAGE WITH
2.5G SUPPORT



USB 3.0



CONSOLE
PORT



512 MB RAM



POE-IN &
POE-OUT



CONTAINER
SUPPORT

With simple accessories, you can mount FOUR of these routers in a single 1U rackmount space!

The legendary RB2011 product line has provided affordable, flexible, and robust connectivity for over a decade. In fact, it was our very first router with SFP. Finally, it's time for an upgrade. But don't worry: we've kept and improved all the key elements and features of the beloved RB2011. Even the red color scheme and the appealing price!



There are three main reasons to choose the L009: better performance, more features, and some interesting quality-of-life improvements. Let's start with the raw power and performance improvements!

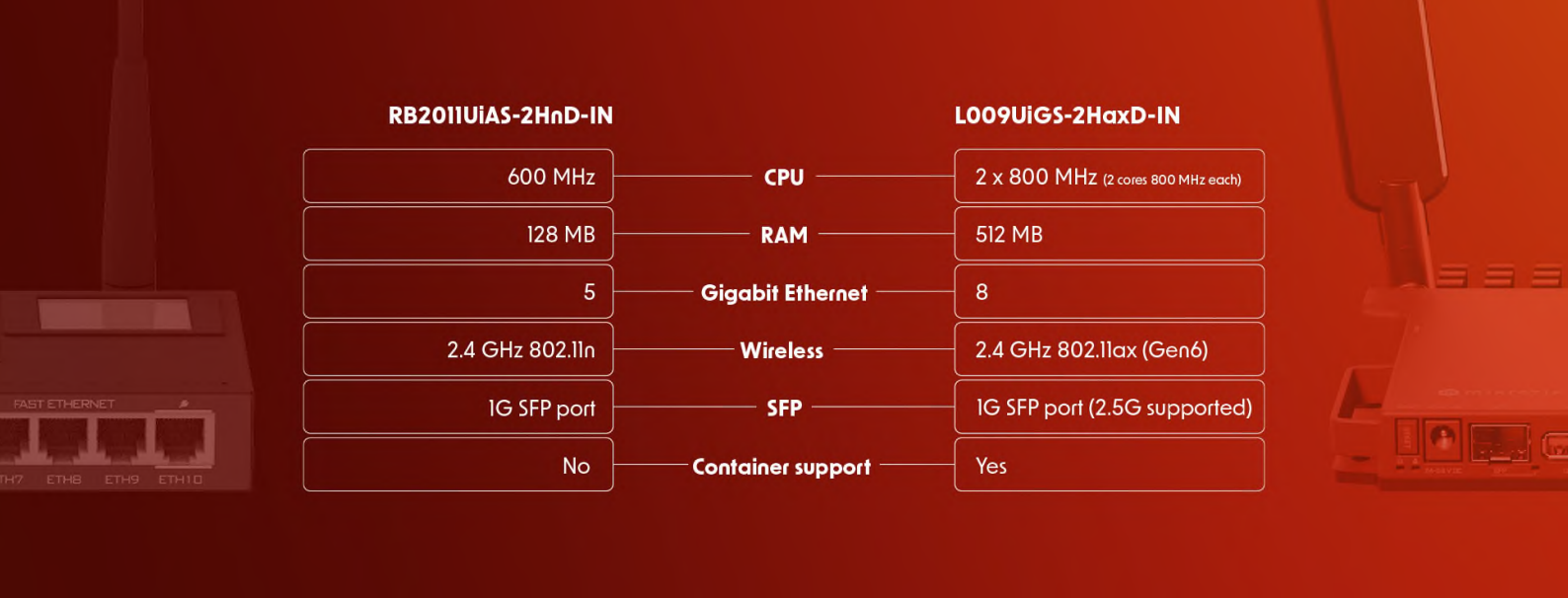
L009 features a powerful dual-core ARM CPU. It offers significant improvement when it comes to routing and filtering, complex firewall rules, IPsec hardware encryption, and various advanced RouterOS features. ARM CPU architecture provides significant advantages over older MIPS-based devices. Like using all the latest Linux Kernel features. Or implementing your own container projects. The combination of a modern ARM CPU and a full-sized USB port is perfect for running custom container projects. You could run a Pi-hole adblock on this router, for example. Or you could use the USB to add an LTE modem of your choice. Imagination is the real limit here.



L009 is up to 4 times faster than RB2011 in most cases and setups, from simple fast path routing to complex bridge filters.

All the ports are now Gigabit Ethernet ports. There's PoE-in on the first port. You can use it instead of the DC jack to power the unit. And there's PoE-Out* on the last port – for powering other devices. Another helpful addition is an SFP cage that supports both Gigabit and 2.5 Gigabit connectivity. We have tested a variety of MikroTik SFP modules and cables that support higher speeds – the 2.5G capability makes a sysadmin's life so much easier– there's a **console port for quick direct-access** configuration!

** Works only if powered by DC jack*



RB2011UiAS-2HnD-IN

600 MHz
128 MB
5
2.4 GHz 802.11n
1G SFP port
No

CPU

RAM

Gigabit Ethernet

Wireless

SFP

Container support

L009UiGS-2HaxD-IN

2 x 800 MHz (2 cores 800 MHz each)
512 MB
8
2.4 GHz 802.11ax (Gen6)
1G SFP port (2.5G supported)
Yes

At the heart of it all we have a speedy Marvell Peridot Switchchip which offers an impressive 2.5 Gigabit full duplex connection to the CPU to all the ports except Ether1. The first port has its own Gigabit full duplex line to the CPU. That means – countless configurations with no bottlenecks!

The 2.4 GHz dual-chain wireless connectivity is also much stronger now. With Generation 6 (802.11ax) wireless, you get up to 90% higher speed in the 2.4 GHz spectrum — along with greater stability and responsiveness, even with multiple connected clients. The device comes with powerful external antennas, but if needed, you can connect your own via the RP-SMA connectors.

The new enclosure is a spectacular innovation on its own. It's the same form-factor you might have seen with our highly sought-after RB5009 devices. It has several extremely useful properties. First of all, the case acts as a massive heat-sink, protecting your setups from overheating. But here's the fun part: with a simple set of accessories, you can fit up to four of these routers in a single 1U rackmount space.



Here at MikroTik, we're the world champions of server room tetris. So here's our latest lifehack for the most efficient server rooms: grab an RB5009 with PoE-out ports. And mount it together with seven L009 routers in just two 1U rackmount spaces. You'll become a living legend among system administrators, setting a new example of efficient space management and simple, reliable powering. And if you don't need the wireless capability, you can cut costs even more and try the other version of this router: the L009UiGS-RM. It has all the same features – except for the 2.4 GHz wireless. And it comes with all the necessary mounting accessories.

RB2011 will always remain a networking legend, but it's time to take it up a notch. And the L009 product line is the perfect upgrade that will help you save time, money, and server room space like never before!

L009 is not just a router. It's a versatile network appliance that can assist you in so many ways.

Here are some neat container use-cases to explore with your brand new L009!

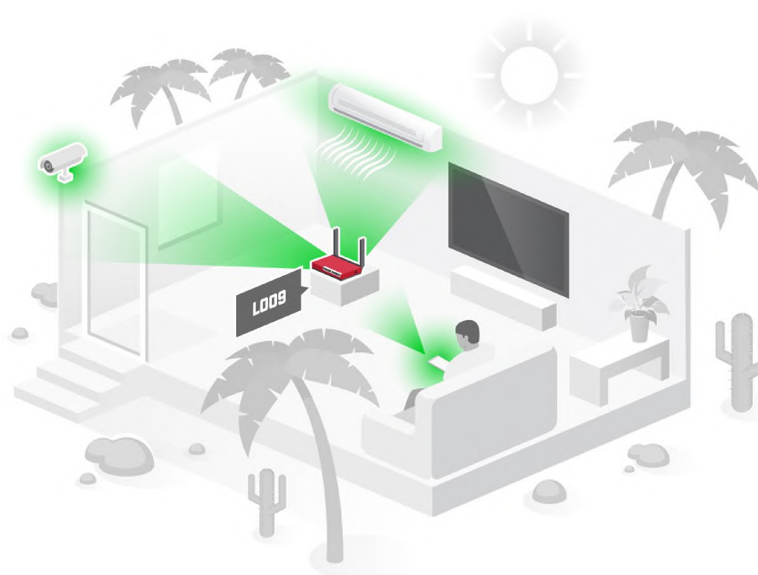
Block all unwanted ads with PiHole hosted on your L009!



Host your web blog or a simple website on your router – without any additional hardware!



L009 can host the HomeAssistant app, which allows monitoring your CCTV cameras, temperature sensors, and other devices to create the smart home ecosystem of your dreams!



You can even automate your home. For instance, wouldn't it be nice if the air conditioning turned on automatically when it gets too hot? With L009's container support that's an easy ride!

• Specifications

Product code	L009UiGS-2HaxD-IN
CPU	Dual-Core IPQ-5018 800 MHz
CPU architecture	ARM 64bit (RouterOS 32bit)
Size of RAM	512 MB
RAM type	DDR3L
Storage	128 MB, NAND
Number of 1G Ethernet ports	8
Number of 1G SFP ports	1 (2.5G supported)
USB port	1 (3.0 type A)
Serial console port	RJ45
Switch chip model	88E6190
Wireless interface model	IPQ-5018
Wireless	2.4 GHz 802.11b/g/n/ax dual-chain
Antenna gain	4 dBi
Antenna connector	RP-SMA female
Dimensions	220 x 125 x 22 mm
Operating system	RouterOS v7, License level 5
Operating temperature	-40°C to +70°C

• Powering

PoE-in	802.3af
PoE-Out*	Passive PoE
Max out per port output (DC input 24-30 V)	1 A
Max out per port output (DC input 30-56 V)	450 mA
Number of DC inputs	2 (PoE-in, DC jack)
PoE-in input Voltage	24-56 V
DC jack input Voltage	24-56 V
Max USB current	1.5 A
Power adapter nominal voltage	24 V
Power adapter nominal current	1.5 A
Max power consumption without attachments	12 W
Max power consumption	45W (with appropriate PSU)

* PoE-Out works only if powered by DC jack

• Included parts



24 V 1.5 A
power adapter



HGO indoor
antenna kit



Fastening
set



Rackmount
kit K-79

• Optional



LtAP mini LTE kit (2024)

Tiny, affordable weatherproof access point with a built-in LTE modem and GPS.

Add extensive networking and tracking options to your vehicle without breaking the bank!



BUILT-IN GPS



EXTENSIVE LTE BAND
SUPPORT



EXTRA DURABLE AND
COMPACT ENCLOSURE



FLEXIBLE POWERING:
POE-IN, DC JACK,
MICROUSB



CONSOLE PORT FOR
EASY CONFIGURATION



TWO MINISIM SLOTS
FOR ROAMING

LtAP Mini LTE kit is a compact and rugged wireless access point designed to keep your vehicle connected wherever you go. Whether you're riding through the Great Outdoors or navigating busy urban streets, this tiny device ensures you're always online and ready to upload location data.

LtAP mini has a special **extra-durable enclosure** with a wall mounting kit, **two SIM slots** to alternate between cellular providers, and **integrated GPS** support, making this a perfect device for tracking moving vehicles like cars, buses or trains.

There's an Ethernet port for your wired devices and a classic 2.4 GHz wireless radio. The RS232 serial port gives you console access for debugging.



The power options are as flexible as they get. You have the classic DC jack, 802.3af/at PoE-in, and a microUSB option. We have even seen users powering the LtAP mini with a portable power bank throughout the day!

The new LTE card offers a better price and the support of the most popular **LTE bands**, including the **B28 band**! It is connected to two internal antennas with u.FL connectors, so you can unplug the connectors and add your own external LTE antenna for even better coverage.

We have provided a simple tracking [application example](#) in the RouterOS documentation - to help you start tracking your vehicle's location in real-time. You will need to connect an external GPS antenna, we recommend using the ACGPSA antenna with IP67 water resistance rating – [available separately](#).

• Specification

Product code	RB912R-2nD-LTm&EC200A-EU
CPU	QCA9531 650 MHz
Size of RAM	64 MB
Storage	16 MB
10/100 Ethernet ports	1
Wireless	Built-in 2.4 GHz 802.11b/g/n, dual-chain
Wireless chip model	QCA9531
Wireless regulations	Specific frequency range can be limited by country regulations
Antenna beam width	360°
Wireless antenna gain	1.5 dBi
GPS	Built-in MT3337V, with uUFL RF connector and active antenna support
PoE in	Yes
SIM slot	2 Mini SIM slots
LTE antenna gain	3.5 dBi (with uFL connector)
LTE modem	EC200A-EU
LTE FDD bands	1 (2100MHz) / 3 (1800MHz) / 5 (850MHz) / 7 (2600MHz) / 8 (900MHz) / 20 (800 MHz) / 28 (700MHz)
LTE TDD bands	38 (2600MHz) / 40 (2300MHz) / 41 (2500MHz)
3G Category	R7 (21Mbps Downlinks, 5.76Mbps Uplink)
3G Bands	1 (2100MHz) / 5 (850MHz) / 8 (900MHz)
2G Category	Class12
2G bands	3 (1800MHz) / 8 (900MHz)
Serial port	RS232 (shared with GPS port)
Supported input voltage	PoE in: 10 V - 57 V (802.3af/at with unshielded cable) DC jack: 8 - 30 V MicroUSB: 5 V
Dimensions	139 x 77 x 28,5 mm
Operating temperature	-40°C .. +70°C tested
License level	4
Operating System	RouterOS v7
Max Power consumption	7.03 W

• Wireless specification

Rate (2.4 GHz)	Tx (dBm)	Rx (dBm)
1MBit/s	25	-100
11MBit/s	25	-94
6MBit/s	25	-96
54MBit/s	19	-78
MCS0	25	-96
MCS7	18	-73

• Include parts



24 V 1.2 A power adapter



PoE injector



External DC cable



Fastening set



KNOT LR8/LR9 kit

An out-of-the-box IoT Gateway solution for LoRa® technology.
For ultimate versatility and cost-effectiveness.



LoRa® 868MHz or
915MHz



CAT-M/NB
technology



2.4 GHz
wireless



Bluetooth



2x 100 Mbps
Ethernet ports



PoE-in &
PoE-out



MicroUSB



GNSS



GPIO



RS485/Modbus

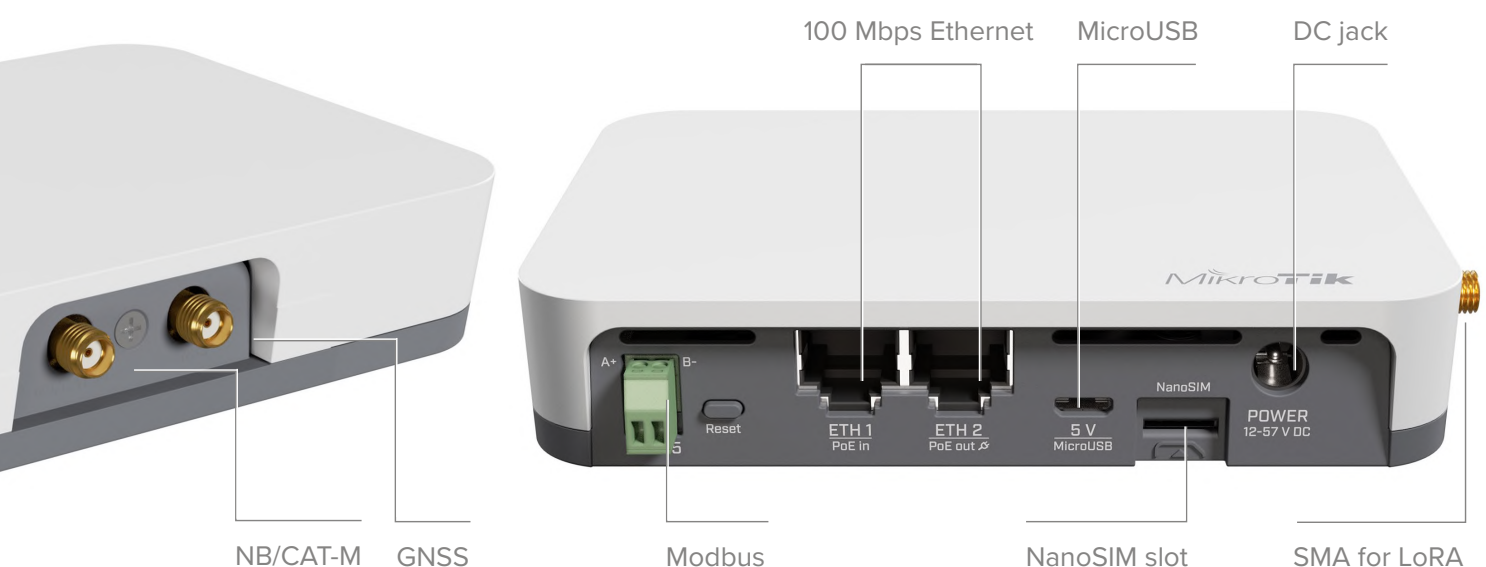
It is an out-of-the-box IoT Gateway solution for LoRa® technology. It uses Narrow Band and CAT-M technology. Because of the low cost, low bandwidth cellular connection, it is supported by countless mobile operators around the globe. This kit contains a pre-installed UDP packet forwarder to any public or private LoRa® servers. 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.

KNOT can monitor onboard GPIOs, convert Modbus protocol to TCP, and even forward Bluetooth packets to TCP/IP network via HTTPS and MQTT.

You can use the KNOT as a TCP bridge from wired Modbus sensors to send readings to a Modbus server. Yes, the KNOT brings wireless connectivity to wired sensors and actuators, such as electricity meters and relays.

It could be used as a backup connection for the Ethernet or as a management channel for your network. NB/CAT-M monthly plan is much cheaper than LTE. Why spend extra money on bandwidth you don't need? For example, you can manage a KNOT-powered vending machine with temperature and moisture sensors with only a few megabytes per day!

/ KNOT features so many protocol support and connectivity options: 2.4 GHz wireless, Bluetooth, GPS, LoRa®, 2x 100 Mbps Ethernet ports with PoE-in and PoE-out, Micro-USB. Maximum convenience at the lowest cost! Also, all three connectors — CAT-M, GPS, and LoRa — use SMA female interfaces for maximum compatibility.



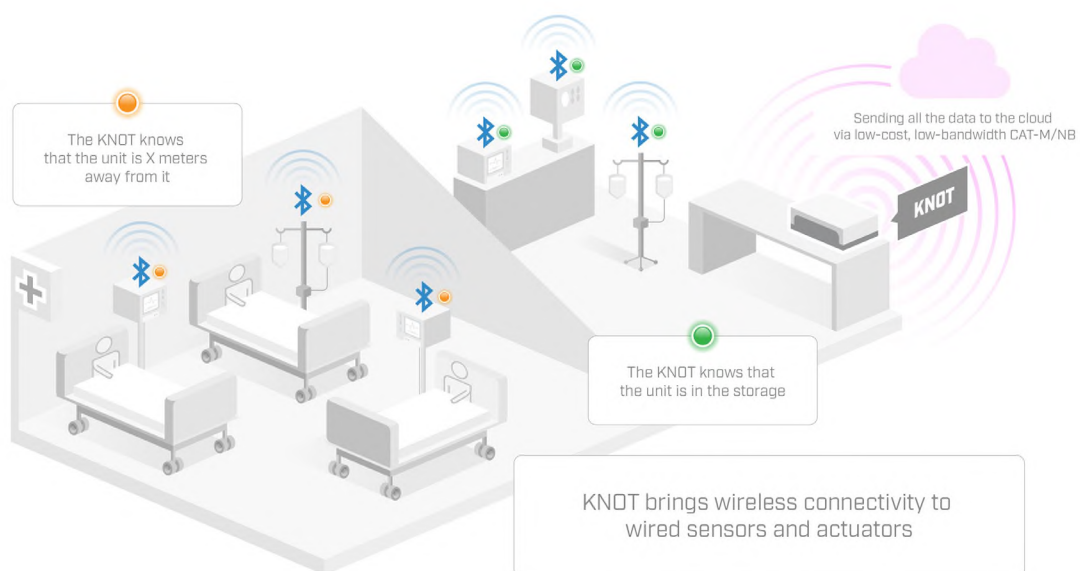
With the Bluetooth interface, you can use the KNOT for asset tracking and telemetry based on Bluetooth advertisement packets. KNOT supports any BLE tag that sends advertisement data. iBeacon, Eddystone or any other format.

It has powerful filters for forwarding only relevant packets and ignoring others.

KNOT is a great tool for most outdoor cabinet IoT applications as well. It comes with a DIN rail mount that allows easy integration with all kinds of setups: from agriculture and asset tracking to cold chain monitoring, industrial manufacturing, and so on.

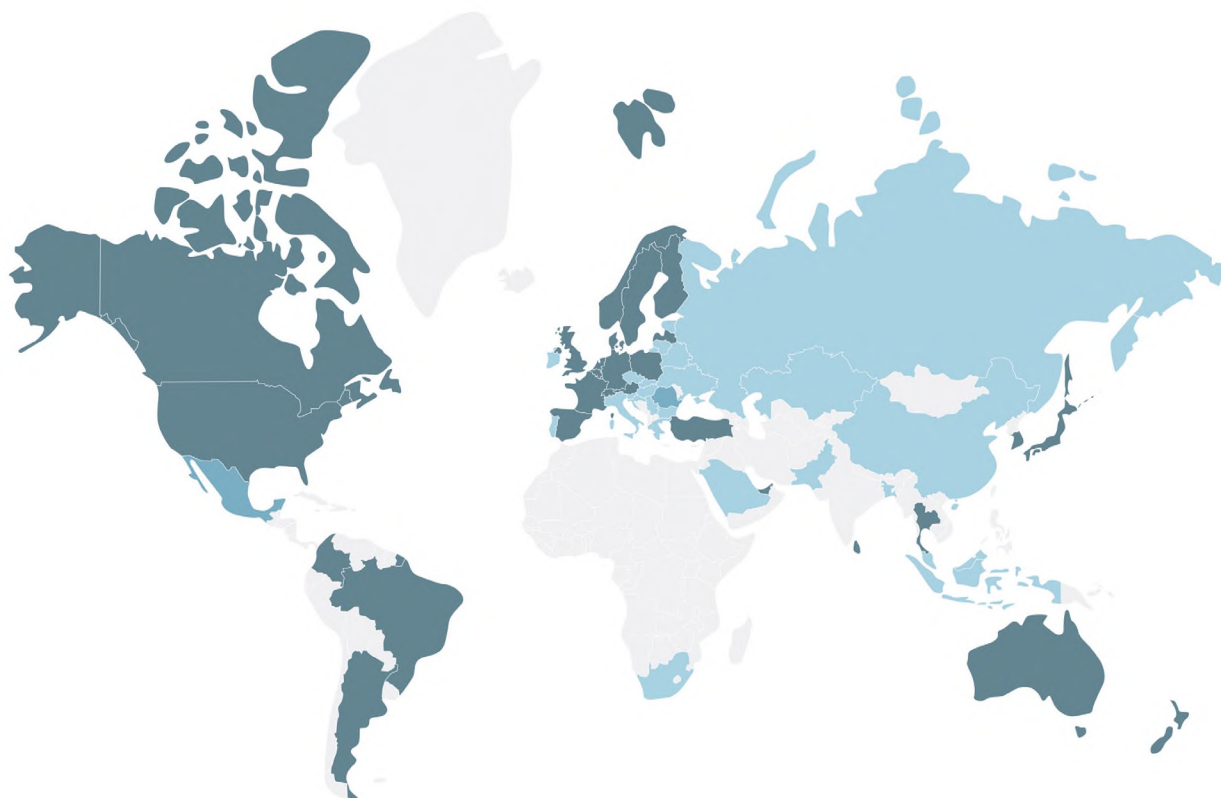


Bring flexible low-cost connectivity to the most remote or tricky areas with the MikroTik KNOT!



How would all this work in real life? Well, let's imagine a hospital. Lots of expensive assets moving across huge buildings. Tools, equipment, meds, you name it. Everything gets moved around all the time. Usually, hospitals have to spend a lot of resources on inventory checking.

Let's fix that. Place low-cost Bluetooth tags on all the important items. Add a KNOT device in every storage room. Now the hospital management always knows if the equipment is returned to its place. Why stop there? You can add temperature sensors to medical supplies and use the KNOT to keep track. The possibilities are endless.



Narrow Band and CAT-M technology is supported by many operators around the world!

* According to the 3GPP deployment map, Feb 2021 <https://www.gsma.com/iot/deployment-map/>

Specifications

Product code	RB924i-2nD-BT5&BG77&R11e-LR8/LR9
CPU	QCA9531 650 MHz
Number of 100 Mbps Ethernet ports	2
Number of 100 Mbps Ethernet ports with PoE-out	1
Size of RAM	64 MB
Storage	16 MB flash
Concentrator Gateway card for LoRa®	R11e-LR8/R11e-LR9
Wireless	2.4 GHz 802.11 b/g/n dual-chain
Antenna gain	1.5 dBi
Antenna connector	SMA female (CAT-M, GPS, LoRa)
Bluetooth antenna gain	2 dBi
Antenna beam width	360°
Bluetooth	Version 5.2
Dimensions	122 x 87 x 26 mm
Operating system	RouterOS, License level 4
USB port	1 microUSB port type AB
SIM slots	1 Nano SIM
Built-in GPS	Yes (GPS, GLONASS, BeiDou, Galileo)
Operating temperature	-40°C to +70°C

Powering

PoE-in input Voltage	12-57 V
Number of DC inputs	3 (PoE-in, DC jack, MicroUSB)
Supported input Voltage	12-57 V (PoE-in. DC jack), 5 V (MicroUSB)
PoE-out	802.3af/at
PoE-out ports	1 (Ether2)
Power adapter nominal voltage	24 V
Power adapter nominal current	1.2 A
Max power consumption (without attachments)	5 W
Max power consumption	18 W

Certification & Approvals

Certification	Bluetooth, CE, FCC, IC
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Wireless specifications

Rate (2.4 GHz)	Tx (dBm)	Rx (dBm)
1MBit/s	22	-96
11MBit/s	22	-89
6MBit/s	20	-93
54MBit/s	18	-74
MCS0	20	-93
MCS7	16	-71
Bluetooth Wireless Specification		
1M	18	-93

Supported bands

Module BG77

Cat M1: LTE FDD	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85
Cat NB2: LTE FDD	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B28/B66/B71/B85
Region	Global
GNSS (Optional)	GPS/GLONASS/BeiDou/Galileo/QZSS

Included parts



24 V 1.2 A
power adapter



Wall mount
set



DIN rail
mount set

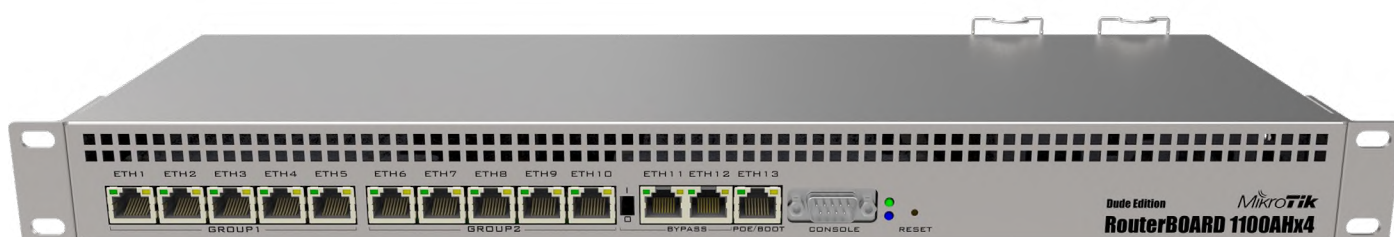


USB A Female to
Micro B cable

RB1100AHx4 Dude edition

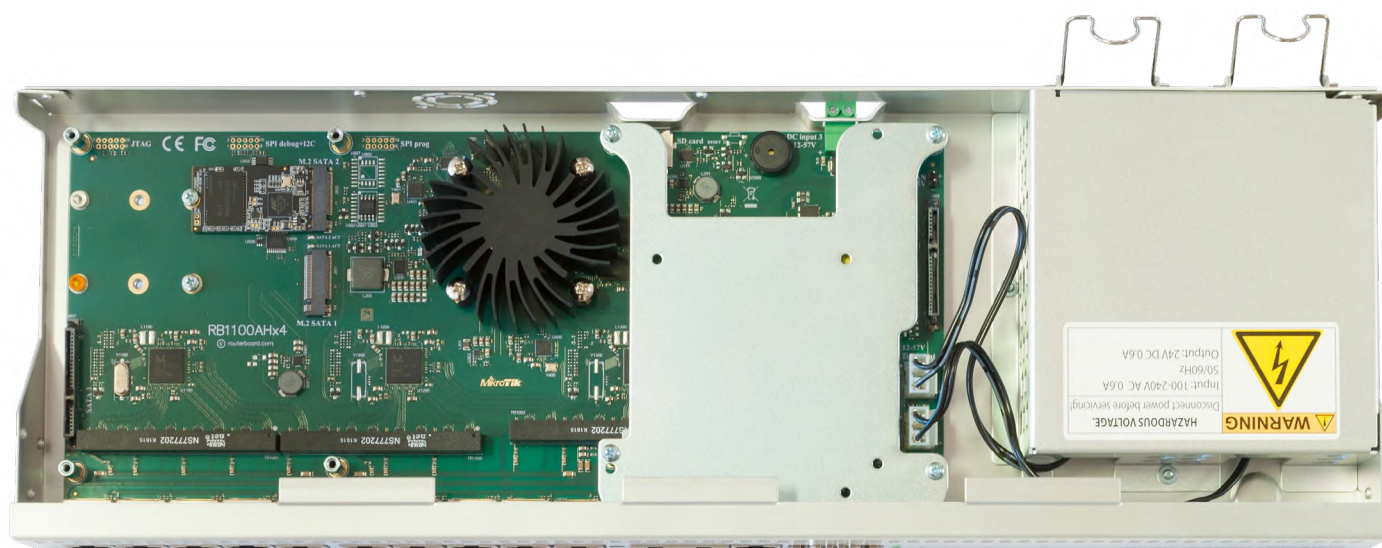
The new RB1100AHx4 Dude Edition uses a new quad core Cortex A15 chip from Annapurna labs, an Amazon company. The chip is clocked at 1.4 GHz, for a maximum throughput of up to 7.5 Gbit/s.

The unit features several high speed storage connectors (two SATA and two M.2) for using a Dude database, proxy cache or any other storage intensive feature. It includes a 60 GB M.2 drive and comes with Dude package already installed to work out-of-the box.



The RB1100AHx4 Dude Edition supports IPsec hardware acceleration and is faster at it than any previous RouterBOARD device.

The unit features two IEC failover power connectors, supports passive or 802.3at/af PoE input and has a DC telecom power connector for -48V DC powering. It uses passive cooling and is absolutely quiet.



Specifications

Product code	RB1100AHx4 Dude edition
CPU	AL21400, 4 cores, 1.4 GHz
Size of RAM	1 GB
Storage type	NAND
Storage size	128 MB + 60 GB m.2 SATA 3 drive included
10/100/1000 Ethernet ports	13
Ethernet bypass	Ethernet 11/12
Power jack	2x IEC. 100 V - 240 V
DC telecom power	20 V - 57 V (-48 V supported)
PoE input	Passive, 802.3at. 20 V - 57 V
Redundant power supply	Yes
Voltage monitor	Yes
PCB temperature monitor	Yes
Current monitor	Yes
Dimensions	443 x 148 x 44 mm
Operating temperature	-40°C .. +70°C tested
Operating system	RouterOS, level 6 license
Max Power consumption	25 W
microSD	1
SATA	2x 2.5 inch SATA 3
M.2 slots	2x SATA 3 compatible (supports 2242, 2260 and 2280 sizes, M-key)
Serial port	RS232
Beeper	Yes



SATA cables


K-10 R2
screw kit


Rack ears



2x IEC cord



M.2 SSD 60 GB

Access Point U6+



Mechanical

Dimensions	Ø160 x 33 mm (Ø6.3 x 1.3")
Weight	Without mount: 338 g (0.75 lb) With mount: 413 g (0.91 lb)
Enclosure materials	Top cover: polycarbonate Bottom cover: aluminum
Mount materials	ABS, SGCC steel

Hardware

Networking interface	(1) GbE RJ45 port	
Management interface	Ethernet	
Power method	PoE	
Supported voltage range	44-57V DC	
Max. power consumption	9W	
Max. TX power	2.4 GHz	23 dBm
	5 GHz	23 dBm
MIMO	2.4 GHz	2 x 2
	5 GHz	2 x 2
Throughput rate	2.4 GHz	573.5 Mbps
	5 GHz	2402 Mbps
Antenna gain	2.4 GHz	3 dBi
	5 GHz	5.4 dBi
LED	White/blue	
Button	Factory reset	
Mounting	Wall/ceiling (included)	
Operating temperature	-30 to 60° C (-22 to 140° F)	
Operating humidity	5 to 95% noncondensing	
Certifications	CE, FCC, IC	

Software

WiFi standards	802.11a/b/g WiFi 4/WiFi 5/WiFi 6
Wireless security	WPA-PSK, WPA-Enterprise (WPA/WPA2/WPA3)
BSSID	8 per radio
VLAN	802.1Q
Advanced QoS	Per-user rate limiting
Guest traffic isolation	Supported
Zero wait DFS	Not supported
Concurrent clients	300+



Specifications are subject to change. Ubiquiti products are sold with a limited warranty described at www.ui.com/support/warranty

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