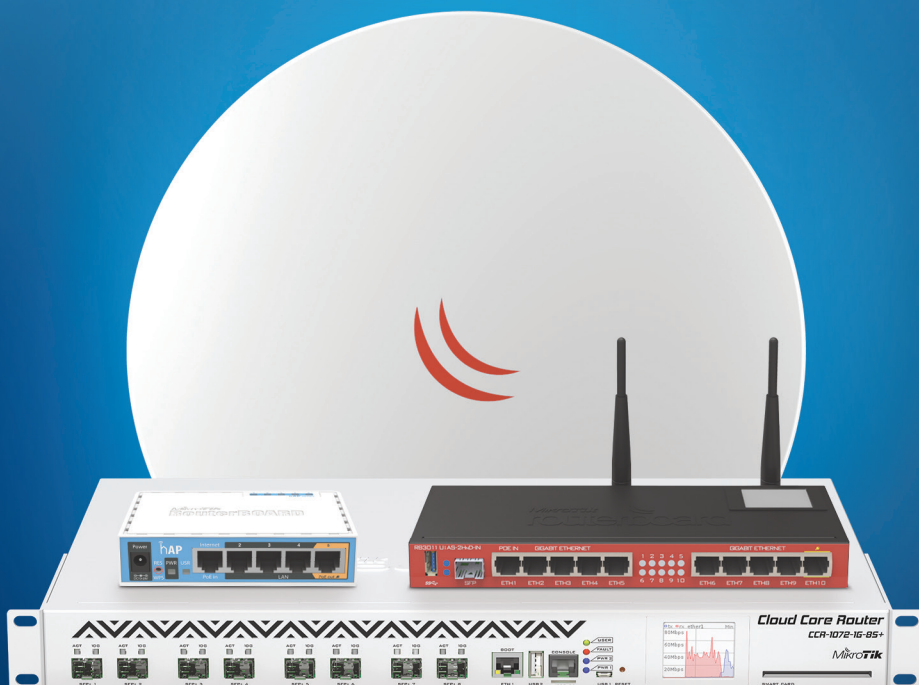


MikroTik routerboard

PRODUCT CATALOG Q4 2015



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Why MikroTik?

MikroTik provides routing and wireless equipment for all possible uses - from the customer location, up to high end data centres.

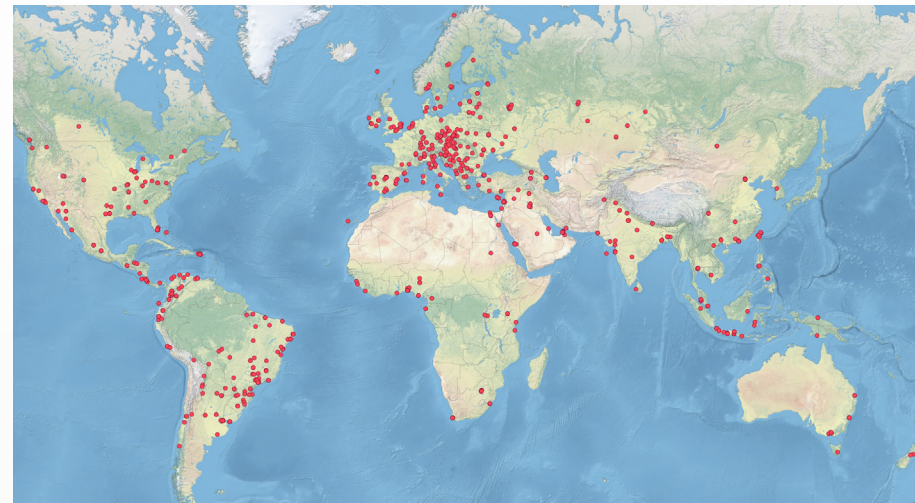
We have an extensive network of trained consultants, training centres and distributors in almost every country of the world.

Established in Europe in 1996, we have 19 years of experience in networking and wireless installations.

Our in-house developed RouterOS software now supports most common and many special features and we are constantly adding new customer requested features.

Build wireless links across seas, internet exchanges between countries, and secure tunnels between banks. MikroTik can do it all.

Reseller, trainer and consultant map



- Best price/performance
- Millions of RouterOS powered devices currently routing the world
- Nineteen years of developing networking software and hardware
- Over 40'000 RouterOS trained and certified network engineers
- More than 2000 training classes in the last year
- World wide network of certified consultants
- Offering products that support simple CPEs to complex enterprise networks
- Thousands of pages of documentation, examples, application notes, and guides

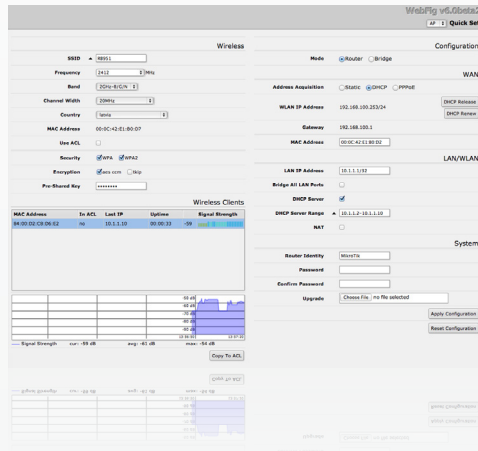
RouterOS

MikroTik RouterOS is the operating system of MikroTik RouterBOARD hardware.

It has all the necessary features for an ISP - routing, firewall, bandwidth management, wireless access point, backhaul link, hotspot gateway, VPN server and more.

RouterOS is a stand-alone operating system based on the Linux v3.3.5 kernel, and our goal here at MikroTik is to provide all these features with a quick and simple installation and an easy to use interface.

- Powerful QoS control
- RIP, OSPF, BGP, MPLS routing
- P2P traffic filtering
- Bonding of Interfaces
- Stateful firewall, tunnels
- (R)STP bridging with filtering
- High speed 802.11a/b/g/n/ac
- Wireless TDMA (Nv2)
- WDS and Virtual AP
- HotSpot Plug-and-Play access
- WinBox GUI and Web admin
- Telnet/mac-telnet/ssh/console
- Real-time configuration and monitoring



MikroTik

MikroTik is a router software and hardware manufacturer, that offers the most user friendly, up to carrier-class routing and network management solutions. Our products are used by ISPs, individual users and companies for building data network infrastructures all across the world.

There are millions of installations worldwide going back as far as 1996!

Our mission is to make existing Internet technologies faster, more powerful, and affordable to wider range of users.

- Based in Europe
- 160 employees
- Established in 1996
- 19th anniversary this year
- RouterOS in 1997
- RouterBOARD in 2002
- First MUM Prague, Czech Republic in 2006

MUM

MikroTik User Meeting (MUM) is a conference on MikroTik RouterOS software and RouterBOARD hardware. Ask questions, attend workshops, listen to presentations, talk with specialists and see interesting technology demos by MikroTik and the users themselves - all here, at the MUM!

The MikroTik User Meeting brings many MikroTik users together at once, so you can get the maximum information in the shortest time.

The MUM has taken place already 67 times, in 29 countries in all continents. Every year, more people attend these great events - every next event breaking the previous attendance record. More than 1400 people attended the conference in Indonesia in 2013! You should come too!



Academy

Colleges, universities, and schools around the world are starting MikroTik Academy programs to offer students Internet networking courses using MikroTik RouterOS as a learning tool. We are actively enrolling new locations weekly and looking for new applicants.

There are no charges from MikroTik for material, online testing, and online certificates associated with this program. MikroTik Academy program offers schools an excellent networking education program and program materials for little or no cost.

The program courses offer:

- a proven network education program
- official MikroTik RouterOS certification exams
- discounted (and free) hardware and free RouterOS licenses for training classes

If there is an educational institution near you that could be interested in the MikroTik Academy program, please contact us or forward this information to them.

Please contact us at training@mikrotik.com.

Official MikroTik Academy Web Page:
<http://www.mikrotikacademy.com>

MikroTik Academy application form:
<http://www.mikrotikacademy.com/apply>



NetMetal 5

By supporting the 802.11ac wireless standard, the NetMetal allows to use datarates of up to 1.3Gbps (for the T models), 256-QAM modulation and 20/40/80MHz channels. With its huge speed improvements, 802.11ac opens up new possibilities.

The NetMetal is a completely new product in a waterproof enclosure. Its rugged design is made to withstand the toughest conditions, but at the same time is easy to use and can be opened and closed with one hand. The solid aluminium enclosure also works as a reliable heatsink for its high output power radio.

RB922 models have miniPCI-e slot for another wireless card.

| Product code | RB921UAGS-5SHPacT-NM | | RB921UAGS-5SHPacD-NM | | RB922UAGS-5HPacT-NM | | RB922UAGS-5HPacD-NM | |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------|--|---------------------|----------------------------------------------------------------------|---------------------|--|
| CPU | QCA9557 720MHz network processor | | | | | | | |
| Memory | 128MB DDR2 onboard memory | | | | | | | |
| Ethernet | One Gigabit port with Auto-MDIX | | | | | | | |
| SFP | 1x SFP cage available | | | | | | | |
| Extras | Beeper, signal and status LEDs, voltage and temperature sensors | | | | | | | |
| Supported channels | 20/40/80MHz | | | | | | | |
| Expansion | USB 2.0 port | | | | | USB 2.0 port, 1x MiniPCle slot, SIM slot (requires 3g miniPCle card) | | |
| Power input | PoE in: 8-30V DC on Ether1 (Non 802.3af) | | | | | | | |
| Consumption | 23W | | 21W | | 23W | | 17W | |
| Dimensions | 143x247x48mm | | | | | | | |
| Operating temperature | -40°C .. +70°C tested | | | | | | | |
| OS | MikroTik RouterOS, Level 4 license, free product lifetime upgrdes | | | | | | | |
| Kit includes | RB922/R921 outdoor unit, Power adapter 24V 1.2A, PoE injector, miniPCle mounting screws, DIN rail mount, metal monting ring, 2x plastic mounting loops | | | | | | | |

| | RB921UAGS-5SHPaCt-NM | RB921UAGS-5SHPaCtD-NM | RB922UAGS-5HPaCt-NM | RB922UAGS-5HPaCtD-NM |
|-----------------|---------------------------------------------------------------|-----------------------|-----------------------|-----------------------|
| Wireless | QCA9880 5GHz 802.11ac | QCA9882 5GHz 802.11ac | QCA9882 5GHz 802.11ac | QCA9882 5GHz 802.11ac |
| Chains | Triple chain | Dual chain | Triple chain | Dual chain |
| Connector type | RP-SMA Female (outside thread) | | | |
| Connectors | 3x | 2x | 3x | 2x |
| TX/RX at MCS0 | 33dBm / -96dBm | 31dBm / -96dBm | 32dBm / -96dBm | 30dBm / -96dBm |
| TX/RX at MCS7 | 31dBm / -77dBm | 29dBm / -77dBm | 29dBm / -77dBm | 27dBm / -77dBm |
| TX/RX at MCS9 | 27dBm / -71dBm | 25dBm / -72dBm | 24dBm / -72dBm | 22dBm / -72dBm |
| TX/RX at 6Mbit | 33dBm / -96dBm | 31dBm / -96dBm | 33dBm / -96dBm | 31dBm / -96dBm |
| TX/RX at 54Mbit | 31dBm / -81dBm | 29dBm / -81dBm | 29dBm / -81dBm | 27dBm / -81dBm |
| Frequency range | 4920-6100 MHz, Operating range limited by Country Regulations | | | |



Power adapter



Mounting loops



Metal ring



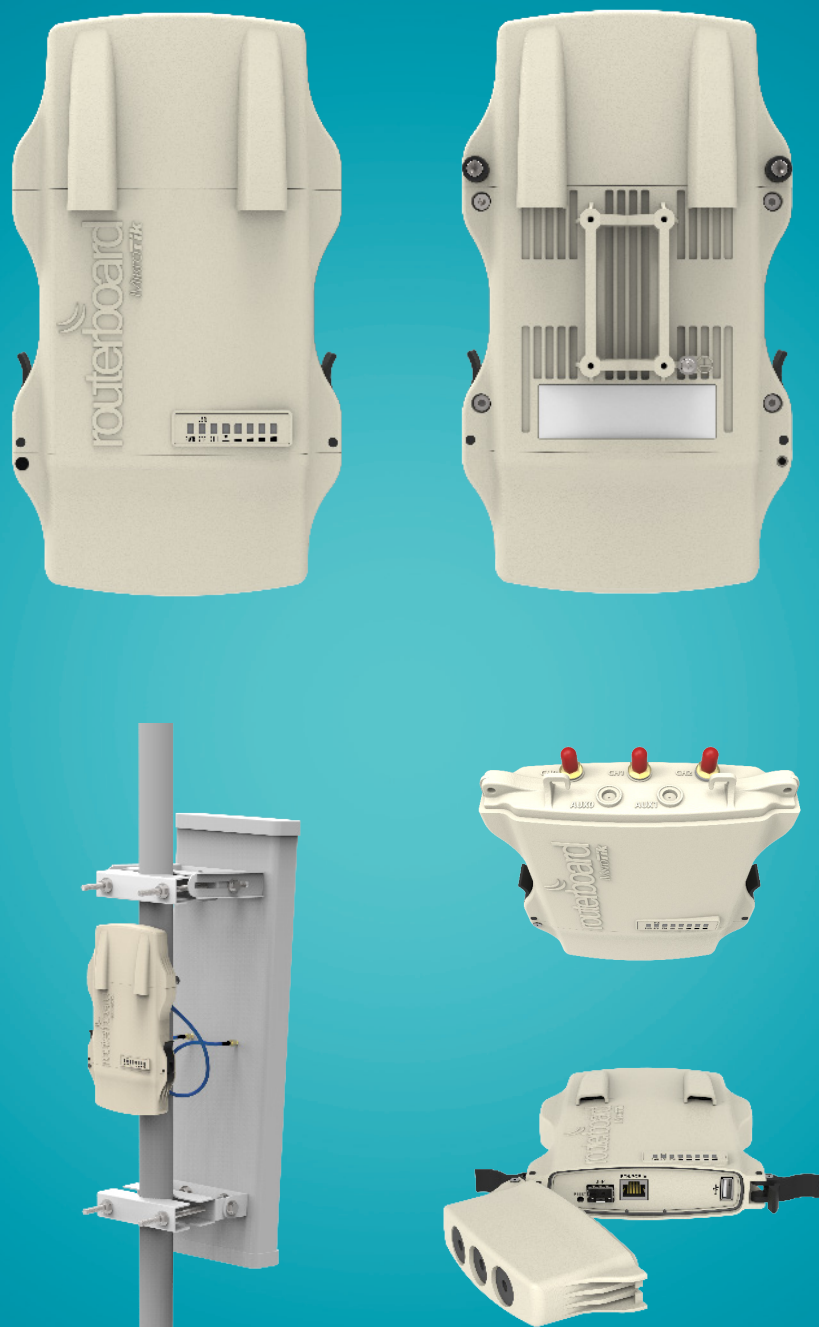
Gigabit PoE injector



DIN mount



miniPCI screws



NetBox 5

The NetBox is a dual chain outdoor AP/CPE/Point-to-Point device with RP-SMA connectors for antennas, and a cable hood for protection against moisture. This device supports the new 802.11ac standard for increased wireless speed (866Mbit datarate, and 20/40/80MHz channels).

The case can be opened with one hand, and is protected against the elements. Ethernet and a Grounding wire exits are provided on the bottom, behind a protective door.

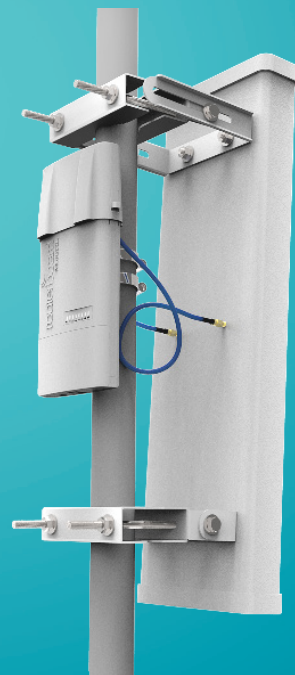
Comes with a mounting loop for tower/pole mounting, and a separate DIN rail mount is also provided. Package also includes a PoE injector and power supply unit.

| | |
|-----------------------|---------------------------------------------------------------------------------------------------------|
| Product code | RB911G-5HPacD |
| CPU | QCA9557 720MHz network processor |
| Memory | 128MB DDR onboard memory |
| Ethernet | One Gigabit port with Auto-MDI/X |
| Wireless | QCA9882 5GHz 802.11ac, 2x RP-SMA connectors, Dual chain |
| Connector type | RP-SMA Female (outside thread) |
| Extras | beeper, signal and status LEDs, voltage and temperature sensors |
| Supported channels | 20/40/80MHz |
| Power input | PoE in: 8-30V DC on Ether1 (Non 802.3af) |
| Power consumption | 12W at 24V |
| Operating temperature | -40°C .. +70°C tested |
| Dimensions | 246x135x50mm |
| OS | MikroTik RouterOS, Level 4 license |
| Kit includes | Netbox outdoor unit, PoE injector, mounting loop, DIN rail mount, mounting ring, power adapter 24V 0.8A |

| TX power / RX sensitivity | |
|---------------------------|---------------------------------------------------------------|
| TX/RX at MCS0 | 30dBm / -96dBm |
| TX/RX at MCS7 | 27dBm / -77dBm |
| TX/RX at MCS9 | 22dBm / -72dBm |
| TX/RX at 6Mbit | 31dBm / -96dBm |
| TX/RX at 54Mbit | 27dBm / -81dBm |
| Frequency range | 4920-6100 MHz, Operating range limited by Country Regulations |



Power adapter



Mounting loops



Metal ring



Gigabit PoE injector



DIN mount

Using the optionally available Flexguide cable, you can use the Basebox with any 3rd party antenna

DynaDish 5

The DynaDish 5 is a new 802.11ac outdoor device with an integrated antenna. Compact in its design, it is a simple and completely integrated product with everything you need to quickly install a reliable point to point link.

The DynaDish 5 is powered by a new 720MHz CPU from Qualcomm.

- Ideal for long distance point-to-point links.
- 5GHz dual chain board integrated into 25dBi dish antenna with 8 degree beam width.
- 720Mhz CPU 300MHz DDR2.
- One Gigabit Ethernet port.

The antenna is a 8 degree 25dBi dish, and it includes a precise alignment mount, ideal for long range point to point wireless links.



Power adapter



Precision mount



U Kit



Gigabit PoE injector

| Model | DynaDish 5 |
|-------------------|---------------------------------------------------------------------------------------|
| Product code | RBDynaDishG-5HacD |
| CPU | QCA9557 720MHz CPU |
| Memory | 128MB RAM |
| Ethernet | One 10/100/1000 Ethernet port |
| Wireless | Built-in 5 GHz 802.11ac, dual-chain |
| Antenna | VSRW 1.5; beamwidth h/v: 8°; gain: 25dBi; dual polarization |
| Extras | Beeper, PCB temperature monitor, voltage monitor |
| Power consumption | 16W |
| LEDs | 14 LEDs (6 user LEDs) |
| Power input | 11V - 60V passive PoE or 802.3af/at with unshielded cable |
| Dimensions | Ø 404mm, height 175mm (without mount) |
| Operating temp. | -40°C .. +70°C tested |
| Operating system | MikroTik RouterOS, Level 3 license |
| Package contains | DynaDish 5 unit, 24V 0.8A power adapter, precision mount, U kit, Gigabit PoE injector |

| | Tx (dBm) | Rx (dBm) |
|----------|----------|----------|
| 6Mbit/s | 31 | -96 |
| 54Mbit/s | 28 | -81 |
| MCS0 | 30 | -96 |
| MCS7 | 27 | -77 |
| MCS9 | 22 | -72 |

QRT Series

High power integrated antenna

The QRT is a rugged outdoor flat panel antenna, with a built in RouterBOARD. It has high output power wireless transmitter, and a Gigabit Ethernet port.

Easy to use and quick to deploy, QRT is ideal for point to point links.

Three models are available:

- The QRT 5 comes with 5GHz 1000mW wireless and 24dBi antenna
- The QRT 2 comes with 2.4GHz 3200mW wireless and 17dBi antenna
- The QRT 5 ac supports 802.11ac for higher speed and 802.11a/n for backwards compatibility.

| Model | QRT 5 | QRT 2 | QRT 5 ac |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Product code | RB911G-5HPnD-QRT | RBQRTG-2SHPnD | RB911G-5HPacD-QRT |
| Features | 1 Ethernet, Gigabit, High power, Dual chain | | |
| CPU | Atheros AR9342 600MHz network processor | Atheros AR7242 400MHz network processor | QCA9557 720 MHz network processor |
| Memory | 64MB DDR onboard memory | | 128MB DDR2 |
| Data storage | 128MB NAND memory chip | | |
| Ethernet | One Gigabit port with Auto-MDI/X | | |
| Wireless | Built in 5GHz 802.11a/n (AR9342) | Built in 2GHz 802.11b/g/n (AR9582) | Built in 5GHz 802.11ac (QCA9882) |
| Extras | beeper, signal and status LEDs, voltage and temperature sensors | | |
| Power input | PoE in: 8-30V DC on Ether1 (Non 802.3af). | | |
| Operating temp. | -40°C .. +70°C tested | | |
| Unit dimensions | 309x320x50mm | | |
| Max consumption | 11W at 24V | 19W at 24V | 11.5W at 24V |
| OS | MikroTik RouterOS, Level 4 license (supports wireless CPE/PtP and AP mode) | | |
| Included | QRT wireless device, precision mounting bracket, U bolts, pole clamp, screw kit, 24V 0.8A power adapter, Gigabit PoE injector | QRT wireless device, precision mounting bracket, U bolts, pole clamp, screw kit, 24V 1.2A power adapter, Gigabit PoE injector | QRT wireless device, precision mounting bracket, U bolts, pole clamp, screw kit, 24V 0.8A power adapter, Gigabit PoE injector |

Wireless specifications

| | QRT 5 | QRT 2 | QRT 5 ac |
|-----------------|----------------|----------------|----------------|
| TX/RX at MCS0 | 30dBm / -96dBm | 35dBm / -96dBm | 30dBm / -96dBm |
| TX/RX at MCS7 | 24dBm / -78dBm | 30dBm / -78dBm | 24dBm / -78dBm |
| TX/RX at 6Mbit | 30dBm / -96dBm | 35dBm / -96dBm | 30dBm / -96dBm |
| TX/RX at 54Mbit | 27dBm / -80dBm | 31dBm / -80dBm | 27dBm / -80dBm |
| Frequency range | 4900-5920MHz | 2300-2600MHz | 4920-6100 MHz |



| Model | QRT 5 | QRT 2 | QRT AC |
|--------------------------------|-------------------------------|-------------|---------------|
| Frequencies | 4.9-5.875 GHz | 2.3-2.6 GHz | 4.9-5.875 GHz |
| Gain | 24 dBi | 17dBi | 24 dBi |
| VSWR | 1.37 : 1 | 1.43 : 1 | 1.37 : 1 |
| 3 dB Beam-Width, H-Plane | 10.5° | 22° | 10.5° |
| 3 dB Beam-Width, E-Plane, typ. | 10.5° | 22° | 10.5° |
| Polarization | Dual, Vertical and horizontal | | |
| Port to Port Isolation | -50 dB | | |
| Cross polarization, min | -25 dB | | |
| Front to Back Ratio, min | 35 dB | 30 dB | 35 dB |



Precision mounting bracket



U bolts



Pole clamp



Screw kit



Power adapter



Gigabit PoE injector

SXT ac series

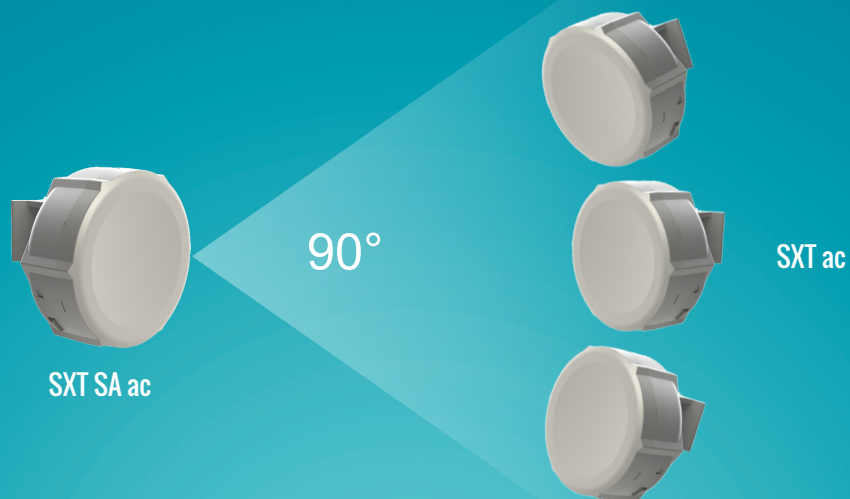
The new AC standard is here, with up to 866Mbit over the air data rate, 256-QAM modulation, and 80MHz channels. 802.11ac opens up new possibilities and speeds never possible before.

The SXT ac is a new member in our 802.11ac product lineup, currently three models are available — with regular 28 degree antenna (SXT ac), the SA model with a 90 wide beam-width sector antenna and HG model with high gain 17dBi antenna. Also supports 802.11a/n mode and is compatible with all legacy RouterBOARD devices, including Nstream and Nv2 protocols. Both devices come with Gigabit Ethernet.

- Up to 1300mW RF output
- Extended temperature range -40°C to +70°C
- Up to 540Mbps user data throughput
- Low latency Point to Point
- Supports passive PoE and 802.3af/at PoE input (15-60V)

| Model | RBSXTG-5HPacD | RBSXTG-5HPacD-SA | RBSXTG-5HPacD-HG |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| CPU | QCA9557 720MHz CPU | | |
| Memory | 128MB DDR2 | | |
| Gigabit | 1x 10/100/1000 Ethernet | | |
| Wireless | Onboard dual chain 5GHz 802.11ac QCA9882 wireless module; 10kV ESD protection on each RF port | | |
| Supported channels | 20/40/80MHz | | |
| Supported modes | CPE, Point to Point, Point to Multipoint | | |
| Additional | Reset switch, beeper, USB 2.0 port, voltage and temperature monitors | | |
| LEDs | Power LED, Ethernet LED, 5 wireless signal LED | | |
| PoE in | 15-60V DC, Passive and 802.3af/at supported (Mode B. requires crossover cable) | | |
| Dimensions | 140x140x56mm | | 140x140x105mm |
| Max consumption | 12W | | |
| Operating temp. | -40°C .. +70°C tested | | |
| OS | MikroTik RouterOS, Level 4 license | | |
| Package contains | SXT wireless device with integrated antenna, pole mounting bracket, mounting ring, 24V DC 0.8A power adapter, passive Gigabit PoE injector, quick setup guide | | |
| Certifications | FCC, CE, ROHS | | |

| | RBSXTG-5HPacD | RBSXTG-5HPacD-SA | RBSXTG-5HPacD-HG |
|-----------------|---------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------|
| TX/RX at MCS0 | 30dBm / -96dBm | 30dBm / -96dBm | 22dBm / -72dBm |
| TX/RX at MCS7 | 27dBm / -77dBm | 27dBm / -77dBm | 30dBm / -96dBm |
| TX/RX at MCS9 | 22dBm / -72dBm | 22dBm / -72dBm | 27dBm / -77dBm |
| TX/RX at 6Mbit | 31dBm / -96dBm | 31dBm / -96dBm | 31dBm / -96dBm |
| TX/RX at 54Mbit | 28dBm / -81dBm | 28dBm / -81dBm | 28dBm / -81dBm |
| Antenna | Dual pol. 25deg, 5GHz antenna, 16dBi, -35 dB port to port isolation | Dual pol. 90deg, 5GHz antenna, 13dBi, -35 dB port to port isolation | Dual pol. 24deg, 5GHz antenna, 17dBi gain, -30db port to port isolation |



SXT SA ac



SXT HG5 ac



Power adapter



Mounting ring

Pole mounting
bracket

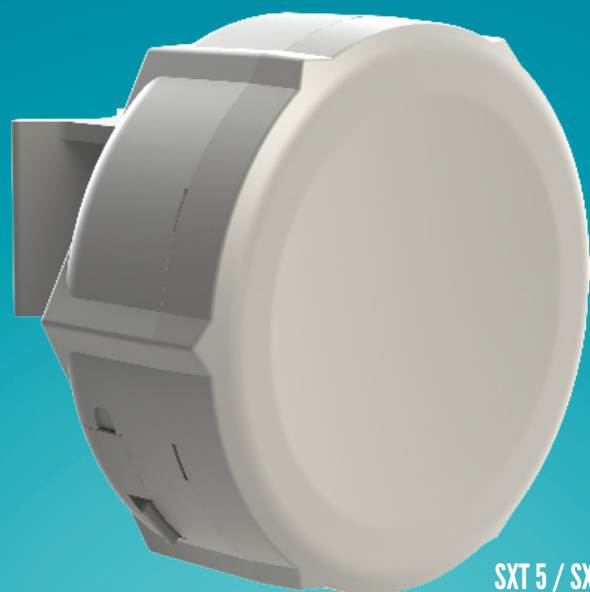
Gigabit PoE injector

SXT 5

SXT is a low cost, high speed 5GHz weatherproof outdoor wireless device. Several models are available.

Complete with a ready to mount enclosure and built-in antenna, SXT contains everything you need to make a point to point link, or connect to an AP.

The Lite5 is low cost and very simple, perfect for CPE installations. SXT 5 has higher power, and the HG model has an improved antenna and a Gigabit port. The SXT SA model offers a completely different, wide beamwidth antenna for use as a sector.



SXT 5 / SXT Lite5 / SXT SA5



SXT HG5



Power adapter



Mounting ring



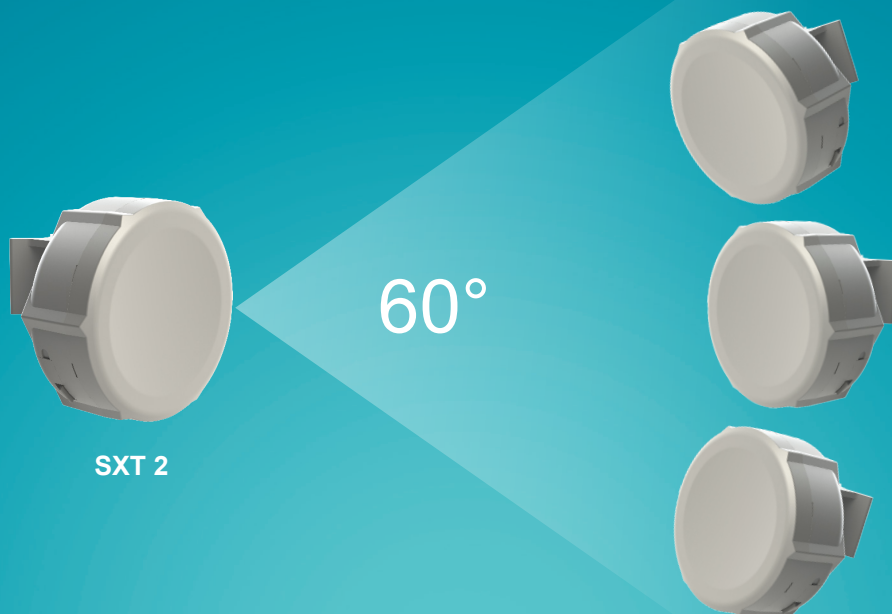
Pole mounting bracket



PoE injector

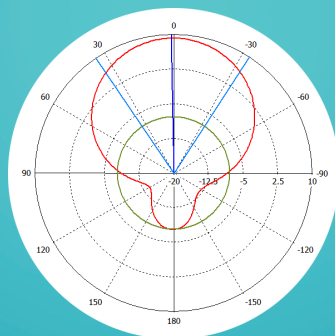
| Model | SXT 5 | SXT Lite5 | SXT HG5 | SXT SA5 |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Product code | RBSXT5HPnDr2 | RBSXT5nDr2 | RBSXTG-5HPnD-HGr2 | RBSXTG-5HPnD-SAr2 |
| CPU | AR9344 600MHz | | | |
| Memory | 64MB DDR2 | | | |
| Ethernet | 1x 10/100 Ethernet port | | 1x 10/100/1000 Gigabit Ethernet | |
| Wireless cards | Onboard dual chain 5GHz 802.11a/n Atheros AR9344 wireless module; 10kV ESD protection on each RF port. | | | |
| Frequency range | 4920-5920MHz (Limited by country regulatory rules) | | | |
| Extras | Reset switch, beeper, USB 2.0 port, voltage and temperature monitors | Reset switch, beeper | Reset switch, beeper, USB 2.0 port, voltage and temperature monitors | |
| LEDs | Power LED, Ethernet LED, 5 wireless signal LED | | | |
| Power input | PoE in: 8-30V DC Packaged with 24V DC 0.8A power adapter and passive PoE injector | PoE in: 8-30V DC Packaged with 24V DC 0.38A power adapter and passive PoE injector | PoE in: 8-30V DC Packaged with 24V DC 0.8A power adapter and passive PoE injector | PoE in: 8-30V DC Packaged with 24V DC 0.8A power adapter and passive PoE injector |
| Dimensions | 140x140x56mm | | 140x140x105mm | 140x140x56mm |
| Max consumption | 11W at 24V | 8W at 24V | 11W at 24V | 11W at 24V |
| Operating temp. | -40°C .. +70°C tested | | | |
| OS | MikroTik RouterOS, Level 3 license | | MikroTik RouterOS, Level 4 AP license | |
| Package contains | SXT wireless device with integrated antenna, pole mounting bracket, mounting ring, PoE injector (SXT 5 and SXT Lite5), Gigabit PoE injector (for HG5 and SA5), power adapter, quick setup guide | | | |
| Certifications | FCC, CE, ROHS | | | |

| | SXT 5 | SXT Lite5 | SXT HG5 | SXT SA5 |
|-----------------|---------------------------------------------------------------------|----------------|----------------------------------------------------------------------------------|------------------------------------------------------------|
| TX/RX at MCS0 | 30dBm / -96dBm | 27dBm / -95dBm | 30dBm / -93dBm | 30dBm / -95dBm |
| TX/RX at MCS7 | 26dBm / -77dBm | 22dBm / -77dBm | 26dBm / -71dBm | 26dBm / -73dBm |
| TX/RX at 6Mbit | 30dBm / -96dBm | 27dBm / -95dBm | 31dBm / -92dBm | 30dBm / -96dBm |
| TX/RX at 54Mbit | 27dBm / -81dBm | 23dBm / -80dBm | 28dBm / -77dBm | 27dBm / -80dBm |
| Antenna | Dual pol. 25deg, 5GHz antenna, 16dBi, -35 dB port to port isolation | | Dual pol. 24deg, 5GHz antenna, 16.5dBi, -30 dB port to port isolation, 1.43 VSWR | Dual pol. 90 deg, -35dB port to port isolation, 14dBi gain |



SXT 2

SXT Lite2



Approximately 60° beamwidth in all polarizations



Power adapter



Mounting ring



Pole mounting bracket

Gigabit PoE injector
(SXT 2)Gigabit PoE injector
(SXT Lite2)

SXT 2

SXT is a low cost, high speed 2GHz outdoor wireless device, now also available as a high power Gigabit, or as a low cost Lite version. SXT can be used for point to point links, as a CPE for point to multipoint installations or even as an AP/Sector (G model) because of it's wide beamwidth antenna.

Complete with a ready to mount enclosure and built-in 10dBi antenna, the package contains everything you need to set it up in a matter of minutes.

| Model | SXT 2 | SXT Lite2 |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Product code | RBSXTG2HnD | RBSXT2nDr2 |
| CPU | AR7242 400MHz | AR9344 600MHz |
| Memory | 32MB DDR SDRAM onboard memory | 64MB DDR2 |
| Ethernet | 10/100/1000 (Gigabit) Ethernet port L2MTU frame size up to 4076 | 10/100 Ethernet port |
| Wireless | Onboard dual chain 2GHz 802.11b/g/n .10kV ESD protection on each RF port | |
| Extras | Reset switch, beeper, USB 2.0 port, voltage and temperature monitors | Reset switch, beeper |
| LEDs | Power LED, Ethernet LED, 5 wireless signal LED | |
| Power input | PoE in: 8-30V DC. Packaged with 24V PSU and passive PoE injector | |
| Dimensions | 140x140x56mm | |
| Power consumption | Up to 7W | Up to 8W |
| Operating temp. | -40°C .. +70°C tested | |
| License | Level 4 license (CPE, PtP or AP as sector) | Level 3 license (CPE or PtP modes) |
| Package contains | SXT wireless device with integrated antenna, pole mounting bracket, mounting ring, PoE injector, 24V 0.8A power adapter (SXT 2), 24V 0.38A power adapter (SXT Lite2), quick setup guide | |
| Certifications | FCC, CE, ROHS | |

| | SXT 2 | SXT Lite2 |
|-----------------|-------------------------------------------------------------------------------------------------------------|----------------|
| TX/RX at MCS0 | 32dBm / -95dBm | 27dBm / -95dBm |
| TX/RX at MCS7 | 25dBm / -74dBm | 22dBm / -77dBm |
| TX/RX at 6Mbit | 32dBm / -96dBm | 27dBm / -95dBm |
| TX/RX at 54Mbit | 29dBm / -80dBm | 23dBm / -80dBm |
| Antenna | Dual polarization 2GHz antenna, 10dBi, -18 dB port to port isolation, Beam-Width: H-Plane, E-Plane typ. 60° | |

SEXTANT G

Outdoor point to point solution

The SEXTANT is a 18dBi 5GHz antenna with a built in RB911 router. It has two polarizations to give you all benefits of 2x2 MIMO in 802.11n.

Inside is the high power RB911 dual chain wireless device with high performance, high output power wireless transmitter. It has a Gigabit Ethernet port, to fully utilise the benefit of 802.11n high speed wireless.

Easy to use and quick to deploy, SEXTANT is ideal for point to point links.



| | |
|---------------------------------------|---------------------------------|
| Frequencies | 5.17 - 5.825 GHz |
| Gain | 18dBi |
| VSWR | 1.6:1 |
| 3 dB Beam-Width, H-Plane | 16.8 ° |
| 3 dB Beam-Width, E-Plane, typ. | 22.8 ° |
| Polarization | Linear, Vertical and Horizontal |
| Port to Port Isolation | - 35 dB |



Power adapter



Mounting rings



Pole mounting bracket



Gigabit PoE injector

| | |
|------------------------|------------------------------------------------------------------------------------------------------|
| Product code | RBSEXTANTG5HPnD |
| Features | 1 Ethernet, Gigabit, High power, Dual chain |
| CPU | Atheros AR9342 600MHz network processor |
| Memory | 64MB DDR onboard memory |
| Data storage | onboard NAND memory chip |
| Ethernet | One Gigabit port with Auto-MDI/X |
| Wireless | Built in 5GHz 802.11a/n, 2x MMCX connectors |
| Extras | beeper, signal and status LEDs, voltage and temperature sensors |
| Expansion | - |
| Power input | PoE in: 8-30V DC on Ether1 (Non 802.3af). |
| Operating temp. | -40°C .. +70°C tested |
| Dimensions | Ø250mm, height 90mm |
| Max consumption | 11W at 24V |
| OS | MikroTik RouterOS, Level 3 license (supports wireless CPE/PtP mode) |
| Included | SEXTANT antenna, 24V 0.8A power adapter, mounting rings, pole mounting bracket, Gigabit PoE injector |

| | TX power / RX sensitivity |
|-----------------|---------------------------|
| TX/RX at MCS0 | 30dBm / -96dBm |
| TX/RX at MCS7 | 24dBm / -78dBm |
| TX/RX at 6Mbit | 30dBm / -96dBm |
| TX/RX at 54Mbit | 27dBm / -80dBm |
| Frequency range | 4900-5920MHz |



Metal 5 SHPn



Power adapter



2x Mounting loops



PoE injector



Angled N connector

6dBi omni antenna
(only for 2SHPn model)

2x Metal rings

Metal

Completely waterproof, rugged, and super high powered. The serious outdoor wireless device. Fully sealed, industrial design metal case, powered by RouterBOARD and RouterOS.

It has a built-in N-male connector, and pole attachment points, so you can attach it to an antenna directly, or use a standard antenna cable. LED signal indicators make it easy to install and align.

Shipped complete with power injector, adapter (US type only for 9HPn model) and mounting kit. Available in three versions - 900MHz, 2GHz and 5GHz.

Metal 9HPn is compatible only with another Metal 9HPn. It will not work with any other 900MHz manufacturer product.

| Product code | RBMetal9HPn | RBMetal2SHPn | RBMetal5SHPn |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| CPU | Atheros AR7241 400MHz network processor | | |
| Memory | 64MB DDR SDRAM onboard memory | | |
| Ethernet | One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X, L2MTU up to 2030 | | |
| Wireless | Wireless Built-in 900MHz 1x1 MIMO, N-male connector | Wireless Built-in 2 GHz 1x1 MIMO, N-male connector | Wireless Built-in 5 GHz 1x1 MIMO, N-male connector |
| Extras | Reset switch, Beeper, Voltage monitor, Temperature monitor | | |
| LEDs | 5 wireless signal LEDs, ethernet activity LED (configurable) | | |
| Power input | Passive 8-30V PoE in only. 16KV ESD protection on RF port | | |
| Consumption | Up to ~0,5A at 24V (11.5W) | | |
| Dimensions | 215x60x38mm. Must be mounted with ethernet pointing down. | | |
| Operating temperature | -40°C ... +70°C tested | | |
| Operating system | MikroTik RouterOS Level 4 license (station, point-to-point or AP modes) | | |
| Package contains | Metal unit, mounting loops, PoE injector, angled N connector, 6dBi omni antenna (only for 2SHPn model), mounting rings, 24V 0.8A power adapter. (EU, US, UK, AR, AU type available - select one) | | |

| | | |
|----------------|-------------|------------------------------------------------------------------------------------------------------------------|
| RX sensitivity | 5SHPn model | 802.11a: -93 dBm @ 6Mbps to -77 dBm @ 54 Mbps 802.11n: -93 dBm @ MCS0 to -71 dBm @ MCS7 |
| | 2SHPn model | 802.11b/g: -93 dBm @ 6Mbps to -77 dBm @ 54 Mbps 802.11n: -92 dBm @ MCS0 to -72 dBm @ MCS7 40MHz |
| | 9HPn model | 900MHz: -93dBm @ 11Mbps -75 dBm @ 54 Mbps |
| TX power | 5SHPn model | 802.11a: 31dBm @ 6Mbps to 27dBm @ 54 Mbps 802.11n: 30dBm @ MCS0 to 26dBm @ MCS7 |
| | 2SHPn model | 802.11b/g: 32dBm @ 1-11/6Mbps to 29dBm @ 54 Mbps 802.11n: 32dBm @ MCS0 to 28dBm @ MCS7 |
| | 9HPn model | 900Mhz: 27 dBm @ 11Mbps to 24dBm @ 54 Mbps |



Groove

2GHz / 5GHz outdoor unit

Our smallest outdoor series model - a fully featured wireless RouterBOARD powered by RouterOS. Weatherproof, durable and ready to use. It has one 10/100 Ethernet port with PoE support and a built in wireless radio. It has software selectable 2 or 5GHz wireless mode, and high 500mW output power!

With the Nv2 TDMA technology, up to 125Mbit aggregate throughput is possible! It has a built-in N-male connector, and pole attachment points, so you can attach it to an antenna directly, or use a standard antenna cable. LED signal indicators make it easy to install and align.

CPE or AP versions are available. Groove runs RouterOS with all it's features.

| | |
|------------------|---------------------------------------------------------------------------------------------------------------------|
| CPU | AR9342 600Mhz |
| Memory | 64MB |
| Ethernet | One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X, L2MTU up to 2030 |
| Wireless | 5 or 2GHz (software selectable) radio, N-male antenna connector |
| Extras | Reset switch, Beeper, Voltage monitor, Temperature monitor |
| LEDs | 5 wireless signal LEDs, ethernet activity LED (configurable) |
| Power input | Passive 9-30V PoE in only. 16KV ESD protection on RF port. Up to 0,19A at 24V (4.56W) |
| Dimensions | 177x44x44mm. Must be mounted with ethernet pointing down |
| Operating temp. | -40°C .. +70°C tested |
| RouterOS | 52HPn: Level 3 license (station or ptp), A-52HPn: Level 4 license (AP, station or ptp) |
| Package contains | Groove unit, mounting loops, PoE injector, 24V 0.8A power adapter, 2.4/5 GHz Omni antenna (only for Groove A model) |

| | 5GHz | 2GHz |
|------------------------|----------------------------------------------|----------------------------------------------|
| RX sensitivity 802.11a | -93 dBm @ 6Mbps to -77 dBm @ 54 Mbps | -93 dBm @ 6Mbps to -77 dBm @ 54 Mbps |
| RX sensitivity 802.11n | -93 dBm @ MCS0 20MHz to -76 dBm @ MCS7 40MHz | -93 dBm @ MCS0 20MHz to -76 dBm @ MCS7 40MHz |
| TX power 802.11a | 27dBm @ 6Mbps to 22Bm @ 54 Mbps | 27dBm @ 6Mbps to 24Bm @ 54 Mbps |
| TX power 802.11n | 26dBm @ MCS0 to 22dBm @ MCS7 | 27dBm @ MCS0 to 23dBm @ MCS7 |
| Frequency range | 4900-5920MHz | 2400MHz-2500MHz |

BaseBox

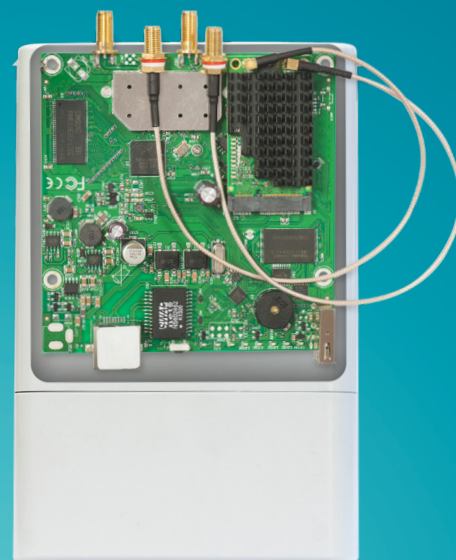
The BaseBox is an outdoor wireless device, based on our popular RB912 model, fitted with two SMA connectors for antennas, and a cable hood for protection against moisture. Also available are three additional places for antenna connectors, in case you wish to use the BaseBox miniPCle slot for one more wireless interface to make a dual band device, or a 3G/4G modem.

The case can be opened with one hand, and is protected against the elements. USB, Ethernet and a Grounding wire exits are provided on the bottom, behind a protective door. Two models are available - BaseBox 2 and BaseBox 5 (2 or 5GHz wireless, respectively).

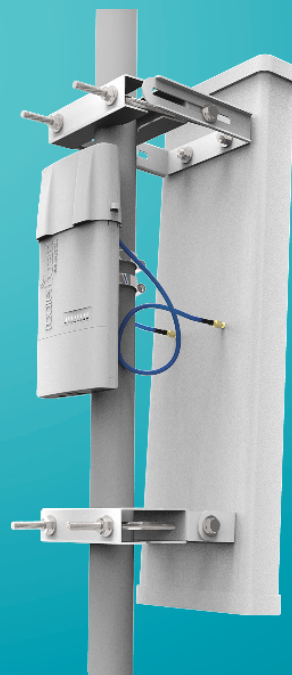
Comes with a mounting loop for tower/pole mounting, and a separate DIN rail mount is also provided. Package also includes a PoE injector and power supply unit.

| Model | BaseBox 5 | BaseBox 2 |
|-----------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Order code | RB912UAG-5HPnD-OUT | RB912UAG-2HPnD-OUT |
| Features | 1 Ethernet, 1 miniPCle, USB, Additional memory, Gigabit, High power, Dual chain, Outdoor case | |
| CPU | Atheros AR9342 600MHz network processor | |
| Memory | 64MB DDR onboard memory | |
| Ethernet | One Gigabit port with Auto-MDI/X | |
| Wireless | Built in 5GHz 802.11a/n, 2x RP-SMA connectors | Built in 2GHz 802.11b/g/n, 2x RP-SMA connectors |
| Connector type | RP-SMA Female (outside thread) | |
| Extras | beeper, signal and status LEDs, SIM slot (requires 3g miniPCle card), voltage and temperature sensors | |
| Expansion | miniPCle slot for 802.11 or 3G (using 3G disables the USB port), USB 2.0 port | |
| Power input | PoE in: 8-30V DC on Ether1 (Non 802.3af). Consumption: 14W at 24V | |
| Operating temp. | -40°C .. +70°C tested | |
| Dimensions | 246x135x50mm | |
| OS | MikroTik RouterOS, Level 4 license (supports wireless AP mode) | |
| Kit includes | RB912 outdoor unit, 24V 0.8A power adapter, PoE injector, mounting loop, DIN rail mount, mounting ring | |

| | RB912UAG-5HPnD-OUT | RB912UAG-2HPnD-OUT |
|-----------------|--------------------|--------------------|
| TX/RX at MCS0 | 30dBm / -96dBm | 30dBm / -96dBm |
| TX/RX at MCS7 | 24dBm / -78dBm | 24dBm / -78dBm |
| TX/RX at 6Mbit | 30dBm / -96dBm | 30dBm / -96dBm |
| TX/RX at 54Mbit | 27dBm / -80dBm | 27dBm / -80dBm |
| Frequency range | 4900-5920MHz | 2400MHz-2500MHz |



Rendered image shows internals of BaseBox with optional second wireless card



Power adapter

Mounting loops

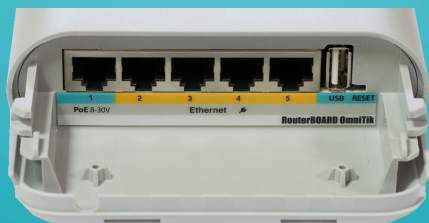
Metal ring



Gigabit PoE injector

DIN mount

Using the optionally available Flexguide cable, you can use the Basebox with any 3rd party antenna



Power adapter



Mounting bracket



Metal ring



PoE injector

OmniTik

OmniTik is a weatherproof outdoor AP with dual-polarized omni antennas - the perfect companion for our SXT, or for any other 5GHz 802.11a/n standard device. Weatherproof, durable and ready to use. It has five 10/100 Ethernet ports, PoE support and a built-in 400mW 802.11a/n wireless radio. It supports Nv2 TDMA technology with up to 200Mbit aggregate throughput.

LED signal indicators on it's back are fully customizable, show Ethernet activity or wireless signal - or any other information from RouterOS. The USB port gives the ability to connect a 3G modem or a storage drive.

The OmniTik UPA also features power output on it's ethernet ports. Ports 2-5 can power other PoE capable devices with the same voltage as applied to the unit. Less power adapters to worry about.

| Model | OmniTIK U-5HnD | | OmniTIK UPA-5HnD |
|------------------|------------------------------------------------------------------------------------------------------------|--|------------------------------------|
| CPU | Atheros AR7241 400MHz network processor | | |
| Memory | 32MB DDR SDRAM onboard memory | | 64MB DDR SDRAM onboard memory |
| Ethernet | Five 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X, L2MTU up to 2030 | | |
| Wireless | Wireless Built-in 5GHz 802.11a/n 2x2 MIMO | | |
| Antenna | Two 7.5dBi (+/-1dBi) omni with different polarities (ch0 horizontal, ch1 vertical) | | |
| Extras | Reset switch, Beeper, USB 2.0 port, Voltage monitor, Temperature monitor | | |
| LEDs | 5 programmable LEDs (Ethernetactivity by default), one power LED | | |
| Power input | Passive 9-30V PoE in only. 16KV ESD protection on RF port | | |
| Dimensions | 177x44x44mm | | |
| Operating temp. | -40°C .. +70°C tested | | |
| Operating system | MikroTik RouterOS, Level 4 license | | MikroTik RouterOS, Level 5 license |
| Package contains | OmniTIK unit, mounting bracket, hose clamp, PoE injector, 24V 0.38A PSU (U-5HnD), 24V 2.5A PSU (UPA-5HnD), | | |
| | OmniTIK UPA-5HnD | | |
| Power Output | Supports PoE output on ports 2-5. Max current 500mA per port, 1A per port with software upgrade | | |

| | |
|----------------|----------------------------------------------------------------------------------------------------------|
| RX sensitivity | 802.11a: -96 dBm @ 6Mbps to -80 dBm @ 54 Mbps 802.11n: -96 dBm @ MCS0 to -77 dBm @ MCS7 |
| TX power | 802.11a: 26dBm @ 6Mbps to 22dBm @ 54 Mbps 802.11n: 25dBm @ MCS0 to 19dBm @ MCS7 |
| Modulations | OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK |

Cloud Router Switch

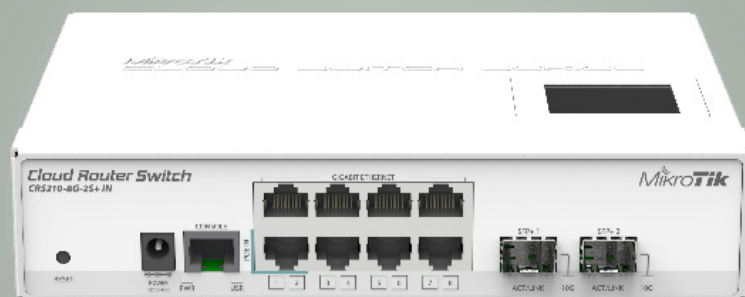
CRS 8 Ethernet port series

The CRS series combine the best features of a fully functional router and a Layer 3 switch, is 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.

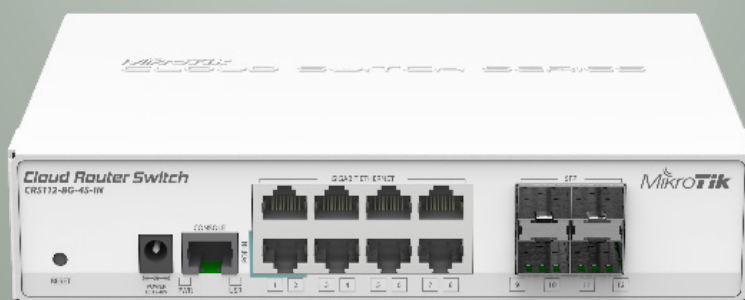
These 8 Ethernet port devices share the same form factor, but each comes with slightly different port set and features.



CRS109-8G-1S-2HnD-IN



CRS210-8G-2S+IN



CRS112-8G-4S-IN



Power adapter



microUSB cable



Rackmount ears

| Product code | CRS109-8G-1S-2HnD-IN | CRS210-8G-2S+IN | CRS112-8G-4S-IN |
|-------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------|
| CPU | Qualcomm Atheros AR9344 600MHz | QCA8519-AC2C 400 MHz | QCA8511-AL1C 400 MHz |
| Memory | 128MB | 64MB | 128MB |
| Ethernet | 8x 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X | | |
| SFP | One 1G Ethernet SFP cage, DDMI support. | 2x 10G SFP+ cage, DDMI support. | 4x 1G Ethernet SFP cage, DDMI support. |
| Serial port | One RJ45 serial port | | |
| Extras | Reset switch; beeper; voltage and temperature monitoring, touchscreen LCD, microUSB | Reset switch; beeper; voltage and temperature monitoring, touchscreen LCD | Reset switch; voltage and temperature monitoring |
| Power input | 10-57V, 24V 0.8A PSU included, PoE in: 10-57V on Ether1 | | |
| Power consumption | 13W | | |
| Case dimensions | 200x144x47mm | | |
| Operating temp. | -20°C .. +70°C tested | | |
| Antennas | 2x built in 4dBi swivel antennas | - | |
| OS | MikroTik RouterOS v6, Level 5 license | | |
| Included | CRS switch, 24V 0.8A power adapter, microUSB type B to USB type A adapter | CRS switch, 24V 0.8A power adapter, rackmount ears | CRS switch, 24V 0.8A power adapter |

CRS109-8G-1S-2HnD-IN wireless specifications

| Datarate | TX power dBm | RX sensitivity |
|----------|--------------|----------------|
| 1MBit/s | 29 | -97 |
| 11MBit/s | 28 | -90 |
| 6MBit/s | 30 | -96 |
| 54MBit/s | 25 | -76 |
| MCS0 | 30 | -96 |
| MCS7 | 23 | -73 |

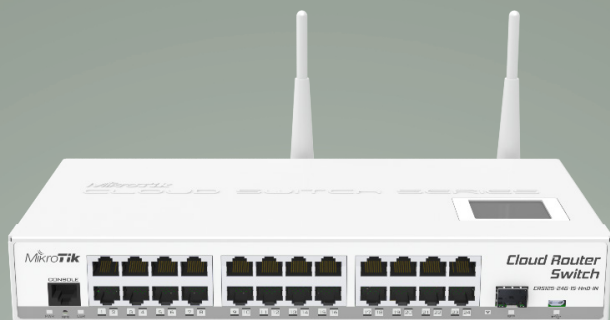
Cloud Router Switch

CRS 24 port series

Cloud Router Switch is our new Smart Switch series. It combines the best features of a fully functional router and a Layer 3 switch, is 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.

Four models are available:

- RM models come with 1U rackmount case
- IN with desktop case
- 2HnD have a 2.4GHz Dual-chain wireless
- 226 series supports SFP+ 10G.



CRS125-24G-1S-2HnD-IN



CRS125-24G-1S-IN



CRS125-24G-1S-RM



CRS226-24G-2S+RM



Power adapter



USB cable

| Model | CRS125-24G-1S | | CRS226-24G-2S+ |
|-----------------|--------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Case type | IN, RM | 2HnD-IN | RM |
| CPU | Qualcomm Atheros AR9344 600 MHz | | Qualcomm Atheros QCA8519 400 MHz |
| Memory | 128MB | | 64MB |
| Ethernet | 24x 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X | | |
| Wireless AP | - | 802.11b/g/n built in | - |
| SFP | One 1.25G Ethernet SFP cage (Mini-GBIC; SFP module not included), DDMI support | | First port supports 1.25G/10G modules, second port only 10G modules. SFP+ port supports only modules up to 10KM LR (long reach), DDMI support |
| Expansion | microUSB port | | - |
| Storage | 128MB Onboard NAND with multiple OS partition support | | |
| Serial port | One RJ45 serial port | | |
| Extras | Reset switch, beeper, voltage and temperature monitoring, touchscreen LCD | | |
| Power input | 8-28V, 24V 0.8A PSU included, PoE in: 8-30V on Ether1 | 8-28V, 24V 1.2A PSU included, PoE in: 8-30V on Ether1 | |
| Case dimensions | 285x145x45mm (IN models), 443x145x45mm (RM models) | | |
| Operating temp. | -20°C .. +70°C tested | | |
| OS | MikroTik RouterOS v6, Level 5 license | | |
| Included | CRS switch, power adapter and USB OTG cable (for 4G dongle or USB drive) | | CRS switch, power adapter |

CRS125-24G-1S-2HnD-IN wireless specifications

| | |
|----------------|-------------------------------------------------------------------------------------------|
| Antennas | 2x built in 4dBi swivel antennas |
| RX sensitivity | 802.11g: -96dBm @ 6Mbit/s to -80dBm @ 54Mbit/s 802.11n: -96dBm @ MCS0 to -78dBm @ MCS7 |
| TX power | 802.11g: 30dBm @ 6Mbps to 25dBm @ 54 Mbps 802.11n: 30dBm @ MCS0 to 23dBm @ MCS7 |
| Modulations | OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK |

Cloud Router Switch

CRS212-1G-10S-1S+IN

Cloud Router Switch 212-1G-10S-1S+IN is new “small size low cost” member of our CRS series. It comes with one Gigabit Ethernet RJ45 port, ten SFP cages and one 10G SFP+ cage, as well as LCD panel and serial port (RJ45). Product includes indoor desktop case and power supply.

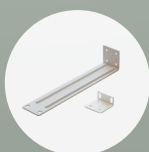
Our CRS series combines the best features of a fully functional router and a Layer 3 switch, is powered by the familiar RouterOS. All the specific Switch configuration options are available in a special Switch menu, but if you want, ports can be removed from the switch configuration, and used for routing purposes.



| | |
|-------------------|--------------------------------------------------------------------------------------|
| CPU | Qualcomm Atheros 8519 400MHz |
| Memory | DDR2 64MB |
| Ethernet | 1x 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X |
| SFP | 1x 10G SFP+ cage, 10x SFP cages (Mini-GBIC; SFP+ module not included), DDMI support. |
| Storage | 128MB Onboard NAND with multiple OS partition support |
| Serial port | One RJ45 serial port |
| Extras | Reset switch; beeper; voltage and temperature monitoring, touchscreen LCD |
| Power input | 8-30V, 24V 1.2A PSU included |
| Power consumption | 20W |
| Operating temp. | -20°C .. +70°C tested |
| Case dimensions | 200x144x47mm |
| OS | MikroTik RouterOS v6, Level 5 license |
| Included | CRS switch, 24V 1.2A power adapter, rackmount ears |



Power adapter



Rackmount ears

RB260GS series

The RB260GS is a small SOHO switch. Two models are available, the RB260GS, and the RB260GSP, which features power output on its ethernet ports. Ports 2-5 can power other PoE capable devices with the same voltage as applied to the unit.

Both devices have five Gigabit Ethernet ports and one SFP cage, switching is done by an Atheros Switch Chip.

The devices are 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.

Tested and recommended to use with MikroTik SFP modules: S-85DLC05D, S-31DLC20D and S-35/53LC20D (not included)



Power adapter

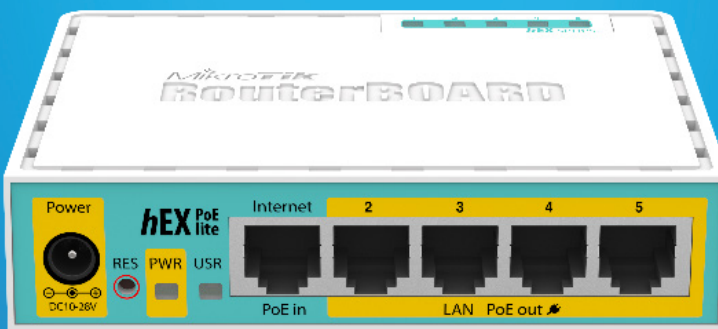
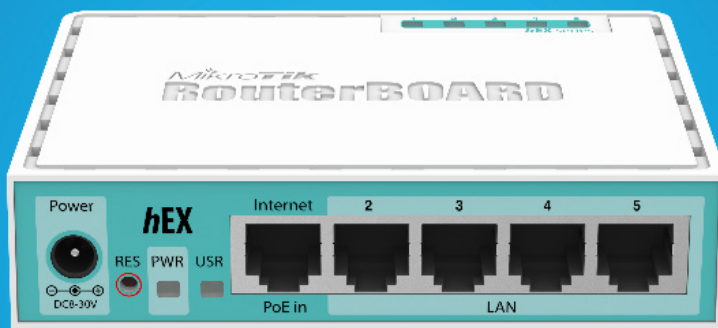
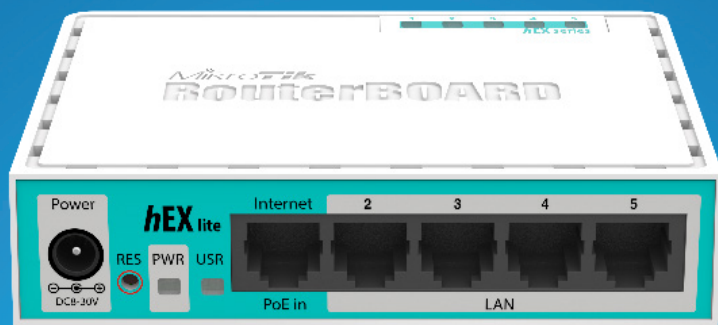


| | |
|-----------------------|----------------------------------------------------------------------------------------------------|
| CPU | Taifatech TF470 |
| Memory | Embedded 96K SRAM |
| Ethernet | Five 10/100/1000 Ethernet ports, Atheros switch AR8327 |
| PoE output | RB260GSP only: Passive PoE output on ports 2-5. Max current 1A per port, 2A total current limit |
| SFP | One fixed Gigabit Ethernet SFP cage with DDM support (Mini-GBIC; SFP module not included) |
| Serial port | No serial port |
| LEDs | Power, NAND activity, 5 Ethernet activity LEDs |
| Extras | Hardware watchdog |
| Power input | PoE in: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC |
| Dimensions | 113x138x29mm |
| Power consumption | Up to 6W |
| Operating temperature | -20°C .. +70°C tested |
| Operating System | MikroTik SwOS |
| Included | RB switch, power adapter |

hEX

The hEX is a small five port ethernet router in a nice plastic case. Not only this is an attractive looking tiny SOHO unit, its price is lower than the RouterOS license alone - there simply is no choice when it comes to managing your wired home network, the hEX has it all.

You have a choice between the hEX lite with 10/100Mbit ports, the hEX PoE lite with PoE-out and hEX, which has Gigabit Ethernet ports.



Power adapter

| Model | hEX | hEX lite | hEX PoE lite |
|-------------------|-------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------|
| Product code | RB750Gr2 | RB750r2 | RB750UPr2 |
| CPU | QCA9556 720MHz CPU | QCA9531 850MHz CPU | QCA9531 650 MHz CPU |
| RAM | 64MB | | |
| Data storage | 16MB flash | | |
| Ethernet | 5x 10/100/1000 Ethernet ports with Auto-MDI/X | 5x 10/100 Ethernet ports with Auto-MDI/X | |
| LEDs | Power, user, 5 Ethernet LEDs | | |
| Power input | PoE in: 6V-30V DC on Ether1; Jack: 6V-30V DC | | |
| Power output | - | | On ports 2-5, Ourput: 1A max per port; 2A max total |
| Operating temp. | -20°C .. +70°C tested | | |
| Dimensions | 113x89x28mm | | |
| Power consumption | 4W | 2W | 3W |
| Operating System | MikroTik RouterOS, Level 4 license | | |
| Package contains | RouterBOARD in a plastic case, 12V 0.5A power adapter | RouterBOARD in a plastic case, 12V 1A power adapter | RouterBOARD in a plastic case, 24V 2.5A power adapter |

PowerBOX

The PowerBOX is an outdoor five Ethernet port router with PoE output on four ports. You can use this device to supply power to four PoE capable devices such as our SXT or others. Since the device has a waterproof outdoor case, you can mount it on a tower, or in other outdoor locations.

The unit has five shielded Ethernet ports, four of which can power other PoE capable devices with the same voltage as applied to the unit (max current out is 1A per port, max total out is 2A).

Less power adapters and cables to worry about!



IEC cord



Metal ring



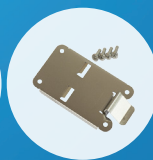
Mounting loop



POE injector



Power adapter



DIN mount

| | |
|-----------------|--------------------------------------------------------|
| Product code | RB750P-PBr2 |
| CPU | QCA9531 650MHz CPU |
| Memory | 64MB 200MHz DDR RAM, 64MB Flash |
| Ethernet | 5x 10/100 Mbit/s Ethernet with Auto-MDI/X |
| Extras | Reset switch, voltage and temperature monitors |
| LEDs | 11x LED (5x user LEDs) |
| Power input | PoE in: 5-30V; packaged with 24V DC 2.5A power adapter |
| Dimensions | 125x178x48mm |
| Max consumption | 3W at 24V |
| Operating temp. | -40°C .. +60°C tested |
| OS | MikroTik RouterOS, Level 4 license |

RB2011 Series

RB2011 are multifunctional routers with 5 Gigabit Ethernet ports and 5 Fast Ethernet ports, and multiple models available. The RB2011iL are lower cost, but the RB2011Ui series have full features.

All RB2011 devices are powered by a new generation Atheros 600MHz 74K MIPS CPU.



RB2011iLS-IN



RB2011iL-IN



RB2011UiAS-IN



RB2011iL-RM



RB2011UiAS-RM



Power adapter

| Model | RB2011iL | RB2011UiAS |
|-----------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------|
| CPU | Atheros AR9344 600MHz | |
| Memory | 64MB DDR SDRAM onboard memory | 128MB DDR SDRAM onboard memory |
| Ethernet | Five 10/100 Mbit Fast Ethernet ports with Auto-MDI/X Five 10/100/1000 Mbit Gigabit Ethernet ports with Auto-MDI/X | |
| Extras | Reset button, Reset jumper | |
| LEDs | Power, User, Ethernet activity | |
| Power input | Jack 8-28V DC; PoE in: 8-28V DC on Ether1 (Non 802.3af). | |
| Power output | 500mA on Port 10 | |
| Operating temperature | -20°C .. +70°C tested | |
| Board dimensions | 214x86mm | 214x86mm |
| Power consumption | 8W max | 15W max |
| Operating System | MikroTik RouterOS, Level 4 license | MikroTik RouterOS, Level 5 license |
| Package includes | RB2011, 24V 0.8A power supply | |

| Feature / Model | 2011iL-IN | 2011iL-RM | 2011iLS-IN | 2011UiAS-IN | 2011UiAS-RM |
|-----------------|-----------|-----------|------------|-------------|-------------|
| Enclosure | Desktop | Rackmount | Desktop | Desktop | Rackmount |
| SFP port | - | - | Yes | Yes | Yes |
| USB | - | - | - | Yes | Yes |

RB3011 Series

The RB3011 is a new multi port device, our first to be running an ARM architecture CPU for higher performance than ever before. The RB3011 has ten Gigabit ports divided in two switch groups, an SFP cage and for the first time a super speed USB 3.0 port, for adding storage or an external 3G/4G modem.

The RB3011UiAS-2HnD-IN also has wireless AP functionality, provided by the 2GHz wireless card, which is mounted in a internal miniPCI-e slot. This means, that the RB3011 is also upgradable with future wireless modules.

In addition, both units feature a touchscreen LCD panel, a serial console port, and PoE output functionality on the last Ethernet port.



RB3011UiAS-2HnD-IN



RB3011UiAS-RM



Power adapter

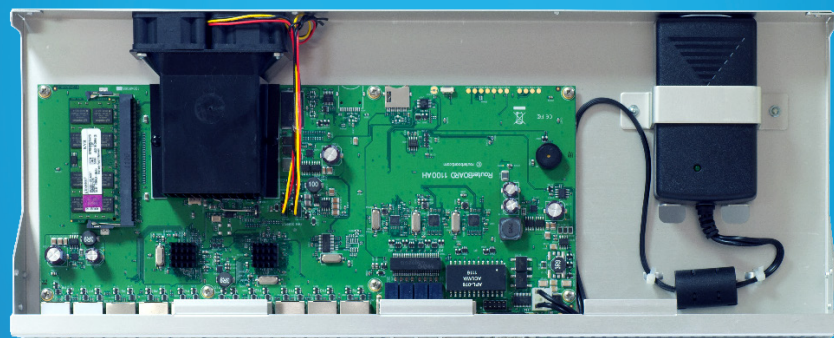
| Product code | RB3011UiAS-2HnD-IN | RB3011UiAS-RM |
|-----------------------|-------------------------------------------------------------|---------------|
| CPU | Two core QCA8337-AL3C 1.4 GHz CPU | |
| Memory | 1GB DDR3 RAM | |
| Ethernet | Ten 10/100/1000 Mbit Gigabit Ethernet ports with Auto-MDI/X | |
| Extras | One USB 3.0 type A slot, Reset button, Reset jumper | |
| LEDs | Power, User, Ethernet activity | |
| Power input | Jack 10-30V DC; PoE in: 10-30V DC on Ether1 | |
| Power output | 1A on Port 10 | |
| Operating temperature | -20°C .. +70°C tested | |
| Board dimensions | 230x90x25mm | 443x92x44mm |
| Serial port | RJ45 | |
| Power consumption | 16W | 10W |
| Enclosure | Desktop | Rackmount |
| SFP port | One SFP cage | |
| USB port | One USB 3.0 type A | |
| Operating System | MikroTik RouterOS, Level 5 license | |
| Package includes | RB3011, 24V 1.2A power adapter | |

RB1100AHx2

This device is a high performance 1U rackmount Gigabit Ethernet router. It has thirteen individual gigabit Ethernet ports, two 5-port switch groups, and includes Ethernet bypass capability.

RB1100AHx2 has a dual core 1066MHz CPU with hardware accelerated IPsec encryption, a SODIMM slot for RAM, one microSD card slot, a beeper and a serial port.

It comes preinstalled in a 1U aluminium rackmount case, assembled and ready to deploy.



| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------|
| CPU | PowerPC 1066MHz Dual Core with hardware encryption |
| Memory | SODIMM DDR Slot; 2GB installed |
| Boot loader | RouterBOOT, 1Mbit Flash chip |
| Data storage | Onboard NAND memory chip |
| Ethernet | Thirteen 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X Includes switch to enable Ethernet bypass mode in two ports |
| Storage | Onboard NAND, one microSD slot |
| Serial port | One DB9 RS232C asynchronous serial port |
| Extras | Reset switch, beeper, voltage and temperature sensors |
| Power input | IEC C14 standard connector 110/220V |
| Operating temp. | -20°C .. +70°C tested |
| Fan | Dual fan with failover support mounted at case back |
| Dimensions | 1U case: 44x176x442mm |
| Operating System | MikroTik RouterOS, Level 6 license |
| Included | RB router, IEC cord, rackmount ears (aluminum), screw and feet kit (K10) |



IEC cord



Rackmount ears



Screw and feet kit

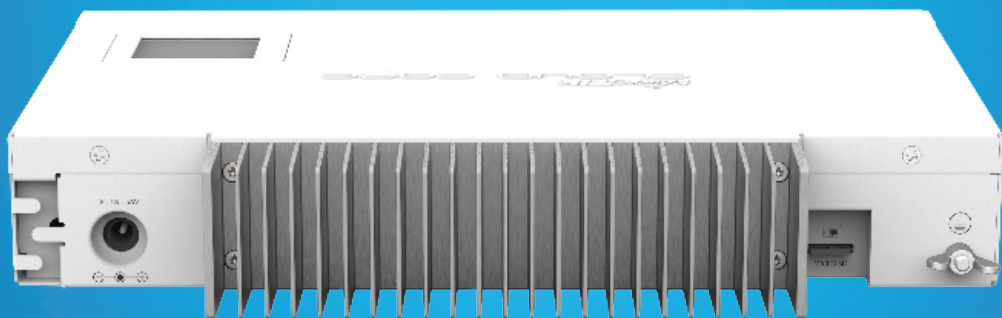
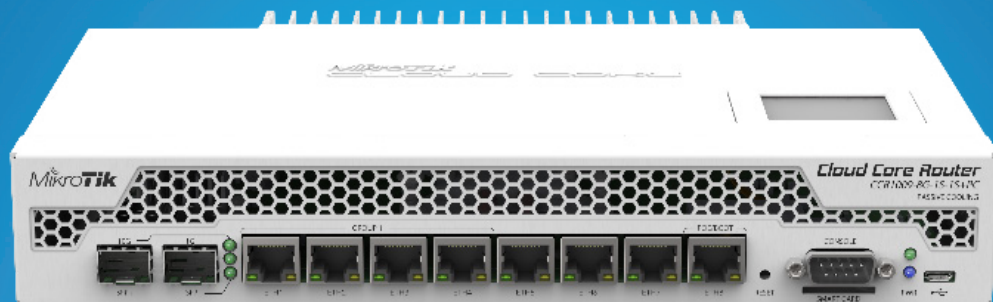
Cloud Core Router

CCR1009-8G-1S-1S+PC

Our popular 9-core Cloud Core Router is now available in a new passive cooling enclosure. This CCR1009 unit is equipped with two heat-pipes and a specially designed heat-sink, so its completely silent.

The unit is powered by an external 24v 2.5A AC/DC adapter and supports power redundancy if you also power it from the PoE input port.

The device comes with a desktop enclosure, but special rackmount brackets are also included, so it can be used either on desk or in rack.



IEC cord



USB cable



Rackmount ears



Power adapter

| | |
|------------------|------------------------------------------------------------------------|
| CPU | TILE-Gx8009 (9-cores, 1Ghz per core) |
| Memory | Built in 2GB RAM 533 Mhz |
| Ethernet | 8x 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X |
| SFP | 1x SFP cage, 1x SFP+ cage, DDIM support |
| Expansion | microUSB port, SmartCard slot, MicroSD slot |
| Storage | 128MB Onboard NAND |
| Serial port | One DB9 RS232C asynchronous serial port |
| Extras | Reset switch; beeper; voltage, current and temperature monitoring, LCD |
| Power options | External 18-58V PSU included, Passive PoE input 18-58V |
| Operating temp. | -20°C .. +70°C tested |
| Board dimensions | 444x175x47mm |
| OS | MikroTik RouterOS v6, Level 6 license |

Cloud Core Router

CCR1009 Series

The CCR1009 is a powerful Ethernet router based on the cutting edge TILERA 9 core CPU.

Two models are available:

- low-cost model CCR1009-8G-1S with 1GB of RAM, eight Gigabit Ethernet ports, and one SFP cage (SFP module not included).
- full feature model CCR1009-8G-1S-1S+ with 2GB of RAM, eight Gigabit Ethernet ports, one SFP port and one SFP+ port with 10G support (SFP module not included). CCR1009-8G-1S-1S+ model also have dual power supplies built in for redundancy (if one power line fails, the other one will take over automatically). Also, CCR1009-8G-1S-1S+ supports a Smart card, to store your private key for use in all features that support Certificate based authentication.



CCR1009-8G-1S



CCR1009-8G-1S-1S+



IEC cord



USB cable



Rackmount ears

| Model | CCR1009-8G-1S | CCR1009-8G-1S-1S+ |
|-----------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| CPU | Tilera TILE-Gx8009 CPU (9-cores, 1.2Ghz per core) | |
| Memory | RAM: 1GB DDR3 800 MHz | RAM: 2GB DDR3 800 MHz |
| Network interfaces | Eight 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X | |
| SFP | 1x SFP cage. | 1x SFP cage, 1x SFP+ cage. SFP+ port supports only modules up to 10KM LR (long reach). |
| Expansion | microUSB port | microUSB port, SmartCard slot, MicroSD slot |
| Storage | 128MB Onboard NAND | |
| Serial port | One DB9 RS232C asynchronous serial port | |
| Extras | Reset switch; beeper; voltage, current and temperature monitoring; speed controlled fan | Reset switch; beeper; voltage, current and temperature monitoring; speed controlled fan, LCD |
| Power input | 1x IEC C14 power jack AC 110/220V, PoE in 12-58V, 802.3af/at compliant | 2x IEC C14 power jacks AC 110/220V, PoE in 12-58V, 802.3af/at compliant |
| Max power consumption | 34W (with loaded SFP) | 35W (with loaded SFP) |
| Unit dimensions | 444x175x47mm | |
| Operating temp. | -20°C .. +70°C tested | |
| OS | MikroTik RouterOS v6 (64bit), Level 6 license | |
| Included | router in a 1U case, IEC power cable, USB cable, rackmount ears | router in a 1U case with LCD, 2x IEC power cables, USB cable, rackmount ears |

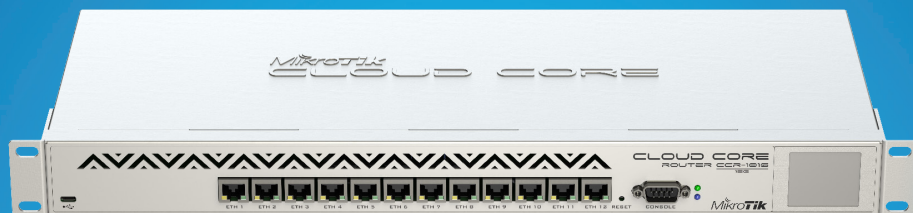
Cloud Core Router

CCR1016 Series

CCR1016 is an industrial grade router with a cutting edge 16 core Tilera CPU. If you need many millions of packets per second - Cloud Core Router is your best choice.

Two models are available. **CCR1016-12G** has twelve Gigabit ethernet ports, a serial console cable and a USB port.

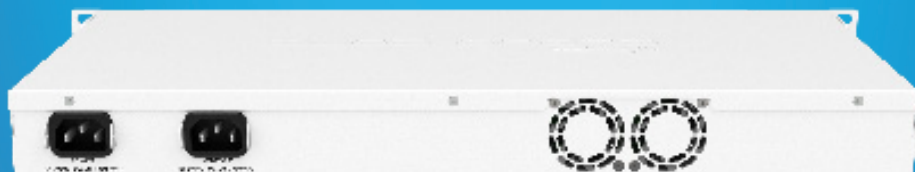
CCR1016-12S-1S+ has twelve SFP ports and one SFP+ port for 10G connectivity. It is available in a 1U rackmount case and also has a serial console port, a touchscreen LCD and a USB port.



CCR1016-12G



CCR1016-12S-1S+



IEC cord



RJ45 SFP copper module

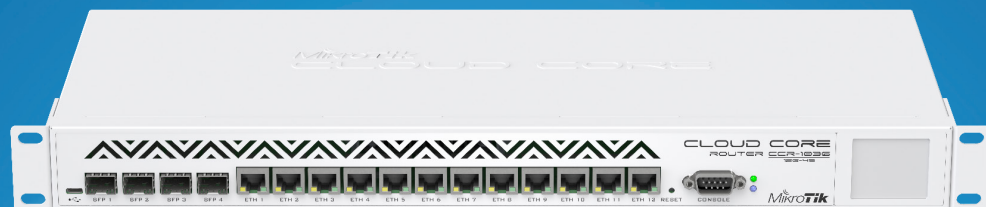


Rackmount ears



USB cable

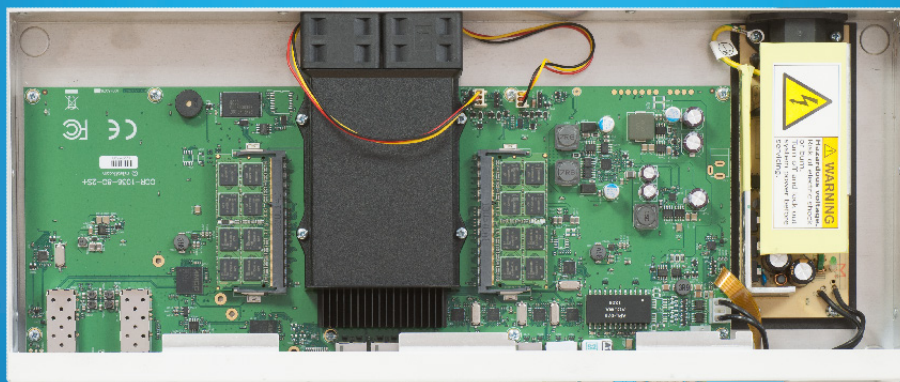
| Model | CCR1016-12G | CCR1016-12S-1S+ |
|-----------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| CPU | Tilera Tile-Gx16 CPU (16-cores, 1.2Ghz per core) | |
| Memory | Two SODIMM DDR3 slots, 2x 1GB installed (no hw or software max limit) | 2GB built-in RAM |
| Ethernet | Twelve 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X | - |
| SFP | - | Twelve SFP ports and one SFP+ port |
| Expansion | microUSB port | |
| Storage | 512MB Onboard NAND | 128MB Onboard NAND |
| Serial port | One DB9 RS232C asynchronous serial port | |
| Extras | Reset switch; beeper; voltage, current and temperature monitoring; speed controlled fan | |
| Power input | 1x PSU unit built in, 110/220V. IEC C14 standard connector | 2x PSU units built in, 110/220V. IEC C14 standard connectors |
| Dimensions | 442x185x45mm | 442x195x45mm |
| Operating temp. | Max ambient temperature 60°C @ 1.2GHz | Max ambient temperature 60°C @ 1.2GHz |
| OS | MikroTik RouterOS v6, Level 6 license | |
| Included | router in a 1U case, IEC power cable, usb cable | router in a 1U case, IEC power cable, RJ45 SFP 10/100/1000M copper module |



CCR1036-12G-4S



CCR1036-8G-2S+



IEC cord



Rackmount ears



USB cable

Cloud Core Router

CCR1036 Series

Cloud Core Router is an industrial grade Ethernet router with a cutting edge 36 core TILERA CPU. These are our top of the line routers and can deliver up to 42 million packets per second, or 28 Gigabits throughput (CCR1036-8G model).

Two models are available, the CCR1036-12G-4S has 12 Gigabit ports and 4 SFP ports. The CCR1036-8G-2S+ has 8 Gigabit ports, and two SFP+ ports for 10G connectivity. Both of the units are also available with 16GB of RAM (-EM upgrade).

| Model | CCR1036-12G-4S | CCR1036-8G-2S+ |
|------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| CPU | Tilera Tile-Gx36 CPU (36-cores, 1.2Ghz per core) | |
| Memory | Two SODIMM DDR3 slots, 2x2GB installed (no hw or software max limit) "-EM" models: 2x8GB RAM installed | |
| Ethernet | Twelve 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X | Eight 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X |
| SFP | Four 1.25G Ethernet SFP cage (Mini-GBIC; SFP module not included), DDMI support | Two 10G Ethernet SFP+ cages (Mini-GBIC; SFP module not included), DDMI support. SFP+ port supports only modules up to 10KM LR (long reach). |
| Expansion | microUSB port | |
| Storage | 1GB Onboard NAND | |
| Serial port | One DB9 RS232C asynchronous serial port | |
| Extras | Reset switch; speed controlled fan; beeper; voltage, current and temperature monitoring | |
| Power input | IEC C14 standard connector 110/220V (PSU included), up to 60W power consumption | |
| Board dimensions | 355x145mm55mm | |
| Operating temp. | Max ambient temperature 60°C @ 1.2GHz | |
| OS | MikroTik RouterOS v6, Level 6 license | |
| Included | Router in a 1U case, power cable, usb cable, rackmount ears | |

Cloud Core Router

CCR1072-1G-8S+

Our new flagship router, the CCR1072, is powered by a Tilera 72 core CPU, each core is clocked at 1GHz, making this our most powerful product.

The unit comes equipped with two removable (hot plug) power supplies for redundancy, smart card slot, eight SFP+ ports and 16GB of built in ECC RAM.

Thanks to the unique 72 core processor and ports that are directly connected to the CPU, CCR1072 is capable of up to 100 million packets per second throughput for small packets.

New generation CPU

- 72 core CPU
- 1GHz clock per core
- State of the art TILE GX architecture

Highest performance

- up to 100 million pps small packet throughput
- up to 80 Gbps big packet throughput

Full set of features

- 1U rackmount case
- 8x SFP+ ports
- Color touchscreen LCD
- Ports directly connected to CPU



2x IEC cords



Screw and feet kit



Rackmount ears

| | |
|--------------------|------------------------------------------------------------------------------------------|
| CPU | Tilera Tile-Gx72 CPU (72-cores, 1Ghz per core) |
| Memory | Built in 16GB ECC RAM |
| Ethernet | One 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X |
| SFP | Eight 10G Ethernet SFP+ cages (Mini-GBIC; SFP module not included), DDML support |
| Expansion | 1x microUSB, 1x regular USB 2.0, full size Smart Card slot. |
| Storage | 1GB Onboard NAND, microSD slot |
| Serial port | One RJ45 serial port |
| Extras | Reset switch; speed controlled fans; beeper; voltage, current and temperature monitoring |
| Power options | 2x IEC C14 standard connectors 110/220V (Two redundant PSU) |
| Power consumption | 100W |
| Operating temp. | Max ambient temperature 60°C @ 1.2GHz |
| Product dimensions | 443x310x44.5mm |
| OS | MikroTik RouterOS v6, Level 6 license |

mAP 2n

The mAP is a tiny size wireless Access Point with full RouterOS capabilities. It is very portable, since it accepts power from a wide variety of sources - USB, PoE and power jack.

In addition to using this device as a small and portable AP, it also works as a PoE injector - the second Ethernet port provides up to 500mA of power to another device, for example, you can connect a SXT CPE device to it.

- PoE in 10-57V
- Built in 2.4GHz AP
- microUSB for a 3G/4G modem, or for power input
- Station or AP mode wireless
- Passive PoE output (same as input voltage)



USB adapter



Power adapter

| Product code | RouterBOARD mAP 2n |
|-------------------|----------------------------------------------------------------------------|
| CPU | Qualcomm Atheros AR9331 400 MHz |
| RAM | 64MB DDR2 |
| Ethernet | 2x 10/100 Mbit/s Ethernet with Auto-MDI/X |
| Storage | 16MB built in flash storage |
| Wireless | AR9331, 2GHz 802.11b/g/n built in |
| Antenna | 1.3dBi built in |
| Power input | Passive PoE 10-57V, 24V 0.8A PSU included, supports powering from USB |
| Power output | Passive PoE output, up to 500mA on Ether 2 |
| Power consumption | 2W |
| Case dimensions | 68x68x19mm |
| Operating temp. | -20°C .. +70°C tested |
| OS | MikroTik RouterOS v6, Level 4 license |
| Included | mAP device, 24V 0.8A power adapter, microUSB type B to USB type A adapter. |

| Datarate | TX power dBm | RX sensitivity |
|----------|--------------|----------------|
| 1MBit/s | 17 | -96 |
| 11MBit/s | 17 | -88 |
| 6MBit/s | 15 | -92 |
| 54MBit/s | 11 | -73 |
| MCS0 | 15 | -92 |
| MCS7 | 10 | -70 |

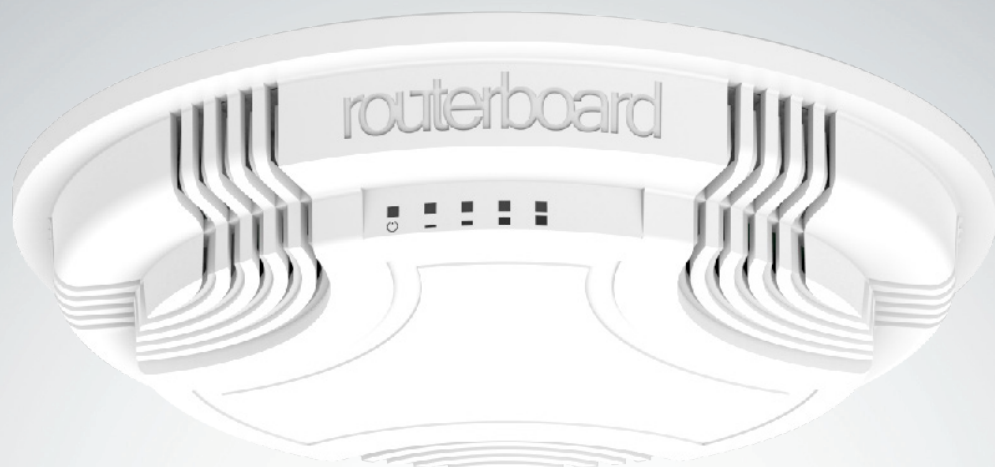
cAP 2n

RouterBOARD cAP-2n is our first 2.4GHz ceiling AP. Inconspicuously designed, it blends into the environment, perfect for hospitality business like hotels, airports, shopping malls etc.

cAP 2n supports 802.11b/g/n and can be powered by PoE. It's a perfect companion for the MikroTik CAPsMAN (controlled AP system manager), allowing you to control all your AP devices from one central location.

Unlike traditional controller software, which requires a separate PC/Mac to run, our CAPsMAN runs on any existing RouterBOARD device in your network. No need for a separate controller machine.

Everything is included to get you started, wall/ceiling mount, PoE injector, power adapter and even the screws and screw anchors.



Power adapter



Ceiling mount base



Ceiling mount attachment



PoE injector

| | |
|-----------------------|-------------------------------------------------------------------------------------|
| CPU | Atheros AR9331-AL1A 400MHz network processor |
| Memory | 64MB DDR RAM |
| Ethernet | One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X |
| Wireless | Wireless Built-in 2.4 GHz 802.11b/g/n, one chain |
| Extras | Reset switch |
| LEDs | 5x LEDs, 1x user LED |
| Power input | Passive PoE input, 12-56V |
| Consumption | 2W |
| Dimensions | ø 185mm, height: 31mm |
| Operating temperature | -20°C ... +70°C tested |
| Operating system | RouterOS, WISP AP (level 4) license |
| Package contains | 24V 0.38A power adapter, PoE injector, ceiling mount base, ceiling mount attachment |
| Antenna | Max gain 2dBi |

| 802.11b/g | RX Sensitivity | TX Power |
|-----------|----------------|----------|
| 1Mbit | -96dBm | 17dBm |
| 11Mbit | -88dBm | 17dBm |
| 6Mbit | -92dBm | 15dBm |
| 54Mbit | -73dBm | 11dBm |
| 802.11n | RX Sensitivity | TX power |
| MCS0 | -92dBm | 15dBm |
| MCS7 | -70dBm | 10dBm |

wAP

The wAP (wall AP) is a small weatherproof wireless access point for your mobile devices, perfect for installation outside your house, in the garden, on your porch or anywhere else where you need wireless access from your phone or computer.

The device has one 10/100 Ethernet port and can be mounted on a wall to provide basic internet access in any location. It looks unobtrusive and sleek, available in two colours - black (RBwAP2nD-BE) and white (RBwAP2nD).

It is waterproof and can be attached to any external wall from the inside of the case - so that it is not easy to detach from it's mounting location. The bottom door can also be secured with a special screw, which can only be opened by the owner.

It is also possible to run the Ethernet cable directly behind the unit, to inside the wall, there is a special opening on the back of the case. This way, the unit doesn't attract attention and blends into any environment.



| Model | RBwAP2nD (white), RBwAP2nD-BE (black) |
|-----------------------|-------------------------------------------------------------------------------------|
| CPU | QCA9531-AL3 650 MHz CPU |
| Memory | 64MB RAM |
| Ethernet | One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X |
| Wireless | Built-in 2.4 GHz 802.11b/g/n, dual-chain |
| Antenna | Max gain 2dBi |
| Antenna beam width | 360° |
| LEDs | 5x LEDs, 1x user LED |
| Power input | 11V-57V (Passive PoE and 802.3af/at with unshielded cable) |
| Consumption | 4W |
| Dimensions | 185 x 85 x 30 mm |
| Operating temperature | -20°C .. +70°C tested |
| Operating system | RouterOS, WISP AP (level 4) license |
| Package contains | 24V 0.38A power adapter, PoE injector, ceiling mount base, ceiling mount attachment |

| 802.11b/g | RX Sensitivity | TX Power |
|-----------|----------------|----------|
| 1Mbit | -96dBm | 22dBm |
| 11Mbit | -89dBm | 22dBm |
| 6Mbit | -93dBm | 20dBm |
| 54Mbit | -74dBm | 18dBm |
| 802.11n | RX Sensitivity | TX power |
| MCS0 | -93dBm | 20dBm |
| MCS7 | -71dBm | 16dBm |



24V 0.38A Power adapter



Screw kit



2x plastic straps



Ceiling mount base



PoE injector



hAP lite



hAP

USB power adapter 5V
0.7A (hAP lite)Power adapter 24V
0.8A (hAP)

hAP

The home Access Point (hAP) is an ideal little device for your apartment, house or office.

It supports button triggered WPS, for the convenience of not typing a complicated password when somebody wants to have wireless internet access, and can also be told to change to cAP mode and join a CAPsMAN centrally managed network by the push of a button.

Of course, the device runs RouterOS with all the features, bandwidth shaping, firewall, user access control and many others.

| Model | hAP | hAP lite |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Product code | RB951Ui-2nD | RB941-2nD-TC |
| CPU | QCA9531 650MHz CPU | |
| Memory | 64MB DDR2 RAM | 32MB DDR RAM |
| Ethernet | 5x 10/100 Mbit/s Ethernet with Auto-MDI/X | 4x 10/100 Mbit/s Ethernet with Auto-MDI/X |
| Wireless cards | Onboard dual chain 2.4GHz 802.11b/g/n QCA9531 wireless module; 10kV ESD protection on each RF port, WPS support via button | |
| Extras | Reset switch | |
| LEDs | Power LED, 5x Ethernet LED, user LED | Power LED, 4x Ethernet LED, user LED |
| Power input | Packaged with 24V DC 0.8A power adapter | Packaged with 5V DC 0.7A power adapter |
| Power output | Yes (Ether5) | - |
| USB | 1x USB type A | 1x USB type A (power only) |
| Dimensions | 113x89x28mm | 124x100x54mm |
| Max consumption | 5W | 3W |
| Operating Temp | -20C .. +70C tested | |
| OS | MikroTik RouterOS, Level 4 license (AP support) | |

| hAP and hAP lite | |
|------------------|----------------|
| TX/RX at 1Mbps | 22dBm / -96dBm |
| TX/RX at 11Mbps | 22dBm / -89dBm |
| TX/RX at 6Mbps | 20dBm / -93dBm |
| TX/RX at 54Mbps | 18dBm / -74dBm |
| TX/RX at MCS0 | 20dBm / -93dBm |
| TX/RX at MCS7 | 16dBm / -71dBm |
| Antenna | 1.5dBi gain |

RB951 high power series

The RB951 High Power is a wireless SOHO AP with a new generation Atheros CPU and more processing power. It has 600MHz CPU, 128MB RAM, high power 2.4GHz 1000mW 802.11b/g/n wireless AP with antennas built in and USB port for external 3G/4G modem. The device is very small and will look good in any home or office, wall mounting anchor holes are provided.

Two models are available:

- The RB951G-2HnD has five Gigabit Ethernet ports;
- The RB951Ui-2HnD has five 10/100Mbps Ethernet ports and PoE output function for port 5 - it can power other PoE capable devices with the same voltage as applied to the unit. Maximum load on the port is 500mA.



RB951G-2HnD



12V 1A adapter



RB951Ui-2HnD



24V 0.8A adapter

| Model | RB951G-2HnD | RB951Ui-2HnD |
|-------------------|--------------------------------------------------------------|---------------------------------------------------------------|
| Features | Gigabit, USB, 2GHz, 802.11n, dual chain | USB, power injector, 2GHz, 802.11n, dual chain |
| CPU | Atheros AR9344 600MHz CPU | |
| Memory | 128MB DDR2 onboard memory | |
| Ethernet | Five independent 10/100/1000 Gigabit Ethernet ports | Five independent 10/100 Ethernet ports |
| LEDs | Power, NAND activity, 5 Ethernet LEDs, wireless activity LED | |
| Power input | PoE in: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC | |
| Power out | - | PoE out passive on port 5, same voltage as input, max: 500 mA |
| Dimensions | 113x138x29mm | |
| Power consumption | Up to 7W | |
| Operating temp. | -20°C .. +70°C tested | |
| Operating System | MikroTik RouterOS, Level 4 license | |
| Package contains | RouterBOARD in a plastic case, power adapter (12V, 1A) | RouterBOARD in a plastic case, power adapter (24V 0.8A) |

| | |
|----------------|-------------------------------------------------------------------------------------------|
| Antennas | 2x2 MIMO PIF antennas, max gain 2.5dBi |
| RX sensitivity | 802.11g: -96dBm @ 6Mbit/s to -80dBm @ 54Mbit/s 802.11n: -96dBm @ MCS0 to -78dBm @ MCS7 |
| TX power | 802.11g: 30dBm @ 6Mbps to 25dBm @ 54 Mbps 802.11n: 30dBm @ MCS0 to 23dBm @ MCS7 |
| Modulations | OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK |

RB2011UiAS-2HnD-IN

RouterBOARD 2011UiAS-2HnD has most features and interfaces from all our Wireless routers. It's powered by the new Atheros 600MHz 74K MIPS network processor, has 128MB RAM, five Gigabit LAN ports, five Fast Ethernet LAN ports and SFP cage (SFP module not included!). Also, it features powerful (up to 1W!) dual chain 2.4Ghz 802.11bgn wireless, RJ45 serial port, microUSB port and RouterOS Level 5 license.

RB2011UiAS-2HnD-IN comes with desktop enclosure, two indoor antennas for wireless, power supply and touchscreen LCD panel.



Power adapter



USB cable

| General specifications | |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| CPU | Atheros AR9344 600MHz |
| Memory | 128MB DDR2 SDRAM onboard memory |
| Ethernet | Five 10/100 Mbit Fast Ethernet ports with Auto-MDI/X Five 10/100/1000 Mbit Gigabit Ethernet ports with Auto-MDI/X |
| Wireless | Built in 2GHz dual chain 802.11b/g/n wireless device Also includes two 2.5dBi swivel antennas |
| Expansion | One fixed Gigabit Ethernet SFP cage (Mini-GBIC; SFP module not included) |
| Extras | Reset button, Reset jumper, RJ45 serial port, LCD panel, Temperature and Voltage sensors, powered micro-B USB connector, Beeper |
| Power input | Jack 8-28V DC; PoE in: 8-28V DC on Ether1 (Non 802.3af), 11W max consumption |
| Power output | 500mA on Port 10 |
| Operating temperature | -20°C .. +70°C tested |
| Dimensions | 214mm x 86mm |
| Operating System | MikroTik RouterOS, Level 5 license |
| Package includes | RB2011, power supply, USB cable |

| Feature / Model | 2011UiAS-2HnD-IN |
|-----------------|-------------------------|
| Enclosure | Desktop |
| SFP port | Yes |
| Serial port | Yes |
| USB | Yes |
| Wireless | Yes |
| Antennas | 2x built in 4dBi swivel |
| LCD display | Yes |

| 802.11b/g | RX Sensitivity | TX Power | 802.11n | RX Sensitivity | TX power |
|-----------|----------------|----------|---------------|----------------|----------|
| 1Mbit | -96 | 30dBm | MCS0/8 20MHz | -95 | 30dBm |
| 11Mbit | -80 | 28dBm | MCS0/8 40MHz | -92 | 30dBm |
| 6Mbit | -96 | 30dBm | MCS7/15 20MHz | -76 | 25dBm |
| 54Mbit | -80 | 27dBm | MCS7/15 40MHz | -73 | 25dBm |

RB411

Perfect for building custom AP and CPE devices

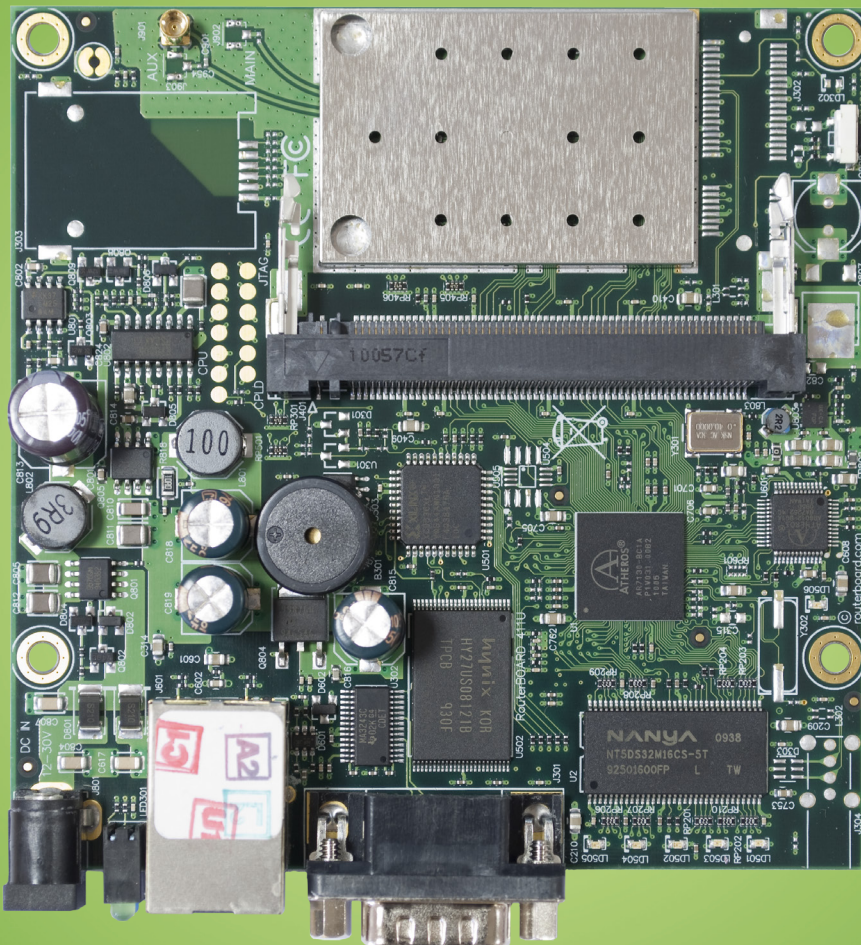
The RB411 are our low cost customizable routers with one Ethernet and one miniPCI slot. The new RB411L series are lower cost, and don't have some of the ports present on other RB411 devices. There are six models in the RB411 series.

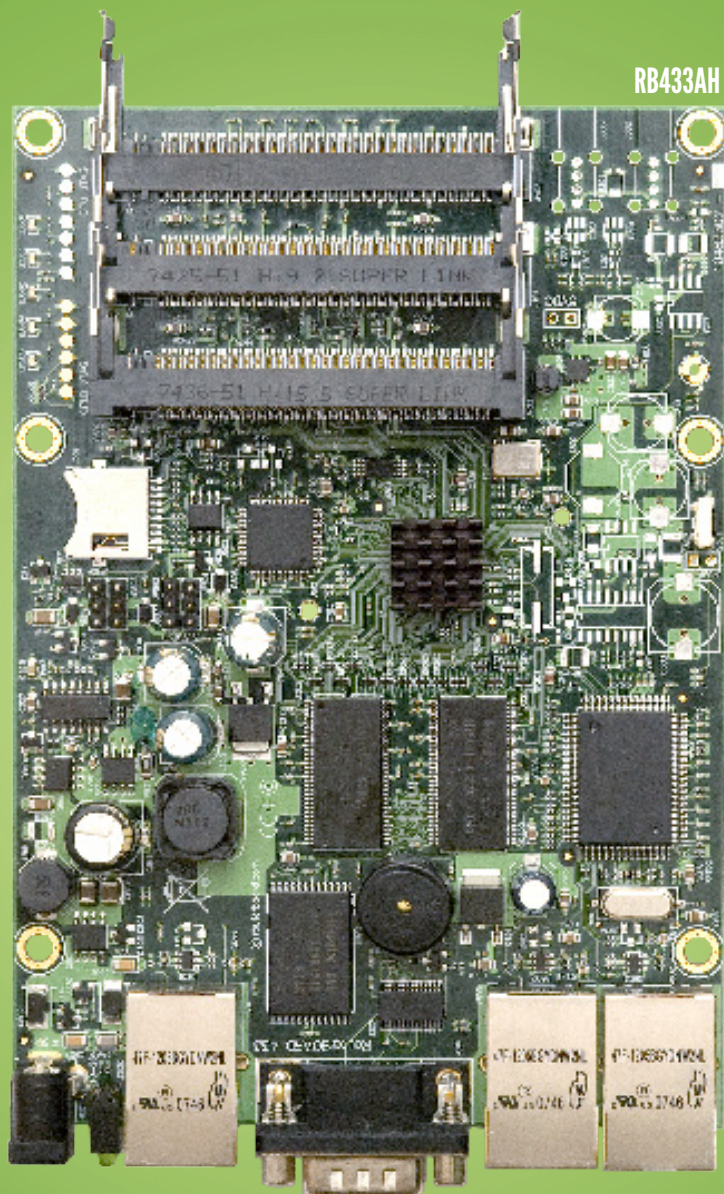
Use this device in an outdoor case for a AP/CPE device, or a point to point wireless link installation. The miniPCI slot allows you to choose your own preferred wireless card model.

| | |
|-----------------------|-------------------------------------------------|
| Data storage | NAND memory chip |
| Ethernet | One 10/100 Mbit/s Ethernet port with Auto-MDI/X |
| miniPCI | One MiniPCI Type IIIA/IIIB slot |
| Extras | Reset switch, beeper |
| LEDs | Power, NAND activity, 5 user LEDs |
| Power input | PoE in: 8-28V DC on Ether1 (Non 802.3af). |
| Operating temperature | -40°C .. +70°C tested |
| Dimensions | 105x105mm |
| Power consumption | 1,4W board only, 10W available to miniPCI card |
| Operating System | MikroTik RouterOS |

| Feature / Model | 411L | 411 | 411U | 411AR | 411AH | 411GL |
|---------------------|---------|---------|---------|---------|---------|---------|
| CPU MHz | 300 | 300 | 300 | 300 | 680 | 680 |
| RAM MB | 32 | 32 | 32 | 32 | 64 | 64 |
| Power jack | - | yes | yes | yes | yes | yes |
| Serial port | - | yes | yes | yes | yes | - |
| USB | - | - | yes | - | - | yes |
| miniPCI express | - | - | yes | - | - | - |
| Integrated wireless | - | - | - | 2.4GHz | - | - |
| Gigabit LAN | - | - | - | - | - | yes |
| RouterOS License | Level 3 | Level 3 | Level 4 | Level 4 | Level 4 | Level 4 |

RB411AR





RB433

Perfect for building custom AP devices

The RB433 is a multi port device. Use it in an outdoor case for a sector AP installation, or for a wireless backhaul. Three ports give you plenty of configuration options for many wireless scenarios.

New to the RB433 family is the RB433L series - a light version with only the most essential features and available at a lower cost.

We currently have four different models in the RB433 series.

| | |
|-----------------------|-----------------------------------------------------------------|
| CPU | Atheros AR7130/ AR7161 |
| Memory | DDR SDRAM onboard memory |
| Boot loader | RouterBOOT |
| Data storage | NAND memory chip |
| Ethernet | Three 10/100 Mbit/s Ethernet ports with Auto-MDI/X |
| miniPCI | Three MiniPCI Type IIIA/IIIB slots |
| Extras | Reset switch, beeper, voltage monitor |
| LEDs | Power, NAND activity, 5 user LEDs |
| Power input | PoE in: 8-28V DC on Ether1 (Non 802.3af), Power jack (8-28V DC) |
| Operating temperature | -40°C .. +70°C tested |
| Dimensions | 105x154mm |
| Power consumption | 2W board only, 14W available to miniPCI cards |
| Operating System | MikroTik RouterOS |

| Feature / Model | 433UL | 433 | 433AH | 433GL |
|------------------|---------|---------|---------|---------|
| CPU Mhz | 300Mhz | 300Mhz | 680Mhz | 680Mhz |
| RAM MB | 64MB | 64MB | 128MB | 128MB |
| Serial port | - | yes | yes | - |
| USB | yes | - | - | yes |
| Gigabit LAN | - | - | - | Yes |
| RouterOS License | Level 4 | Level 4 | Level 5 | Level 5 |

RB435G

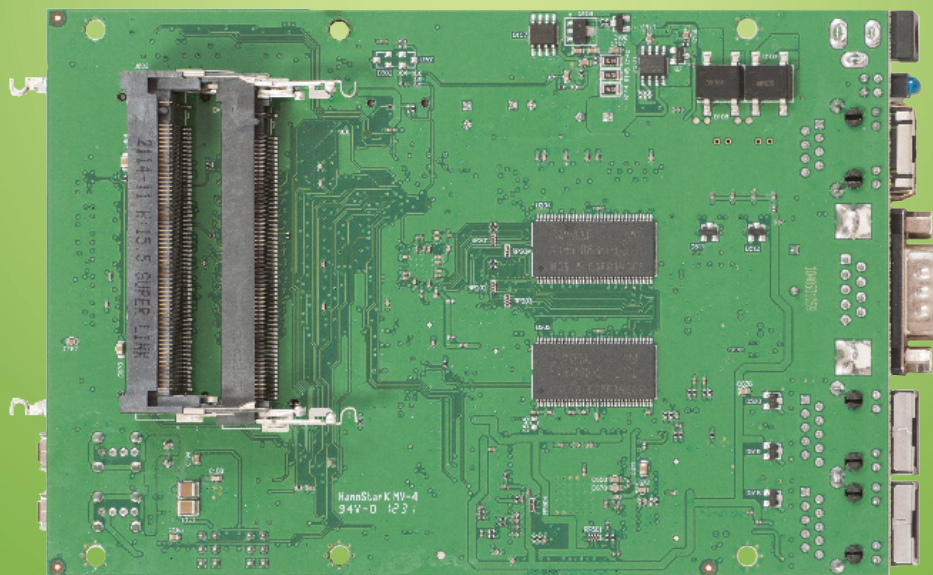
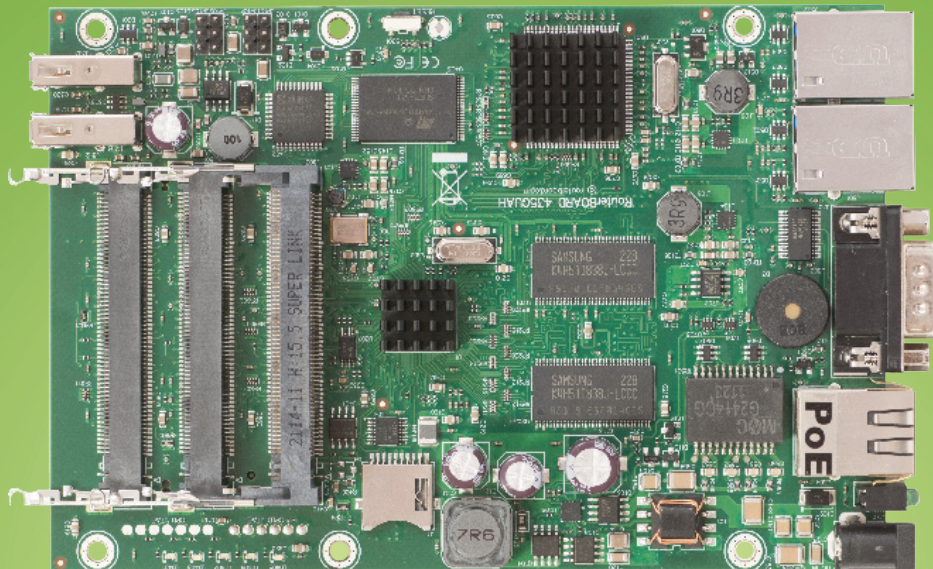
Five miniPCI slots and three Gigabit Ethernet ports give you enough connectivity options to use the RB435G as the central part of your network. Now with Gigabit ports, to properly utilize all the speed 802.11n with Nv2 wireless.

Five miniPCI slots to be used for four sectors and a backbone, or any other configuration you need.

The two USB 2.0 ports can be used for extending storage, adding a 3G wireless modem for backup connectivity, for a mobile installation or all together.

The RB435G comes with a 680MHz Atheros CPU and is preinstalled with a Level 5 RouterOS license.

| | |
|-----------------------|-----------------------------------------------------------------|
| CPU | Atheros AR7161 680MHz |
| Memory | 256MB DDR SDRAM onboard memory |
| Boot loader | RouterBOOT |
| Data storage | NAND memory chip and microSD slot for expansion |
| Ethernet | Three 10/100/1000 Gigabit Ethernet ports with Auto-MDI/X |
| miniPCI | Five miniPCI Type IIIA/IIIB slots |
| Expansion | Two USB 2.0 ports with powering (5V 1A supply) |
| Extras | Reset switch, beeper, temperature, voltage and current monitors |
| Serial port | One DB9 RS232C asynchronous serial port |
| LEDs | Power, NAND activity, 5 user LEDs |
| Power input | PoE in: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC |
| Operating temperature | -40°C .. +70°C tested |
| Dimensions | 105x154mm |
| Power consumption | ~4.5W without extension cards |
| Output to cards | 19W without any cooling, up to 40W with active cooling |
| Operating System | MikroTik RouterOS, Level 5 license |



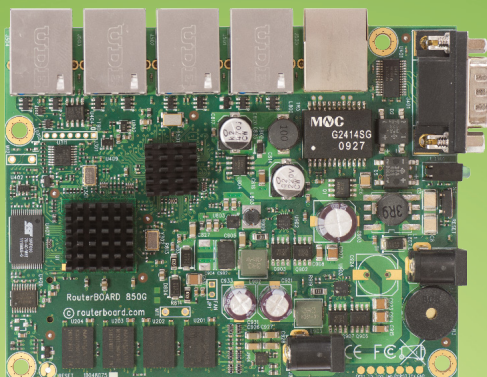
RB850/450

The RB450/RB850 is our five Ethernet port RouterBOARD line with DB9 RS232C serial port.

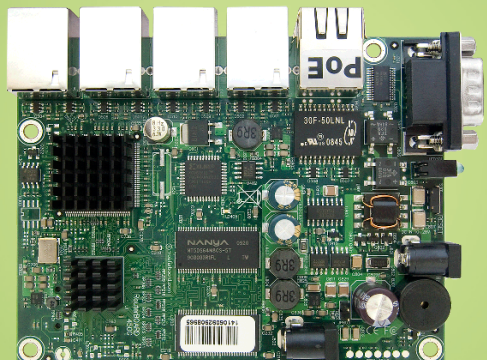
Three models with same form factor are available:

- RB450 - basic model with 300Mhz CPU, 32MB RAM and five 10/100Mbps Ethernet ports;
- RB450G- advanced model with 680Mhz CPU, 256MB RAM, five Gigabit Ethernet ports and microSD slot;
- RB850Gx2 - new generation model with dual core CPU, 512MB RAM, five Gigabit Ethernet ports and microSD slot.

RB850Gx2



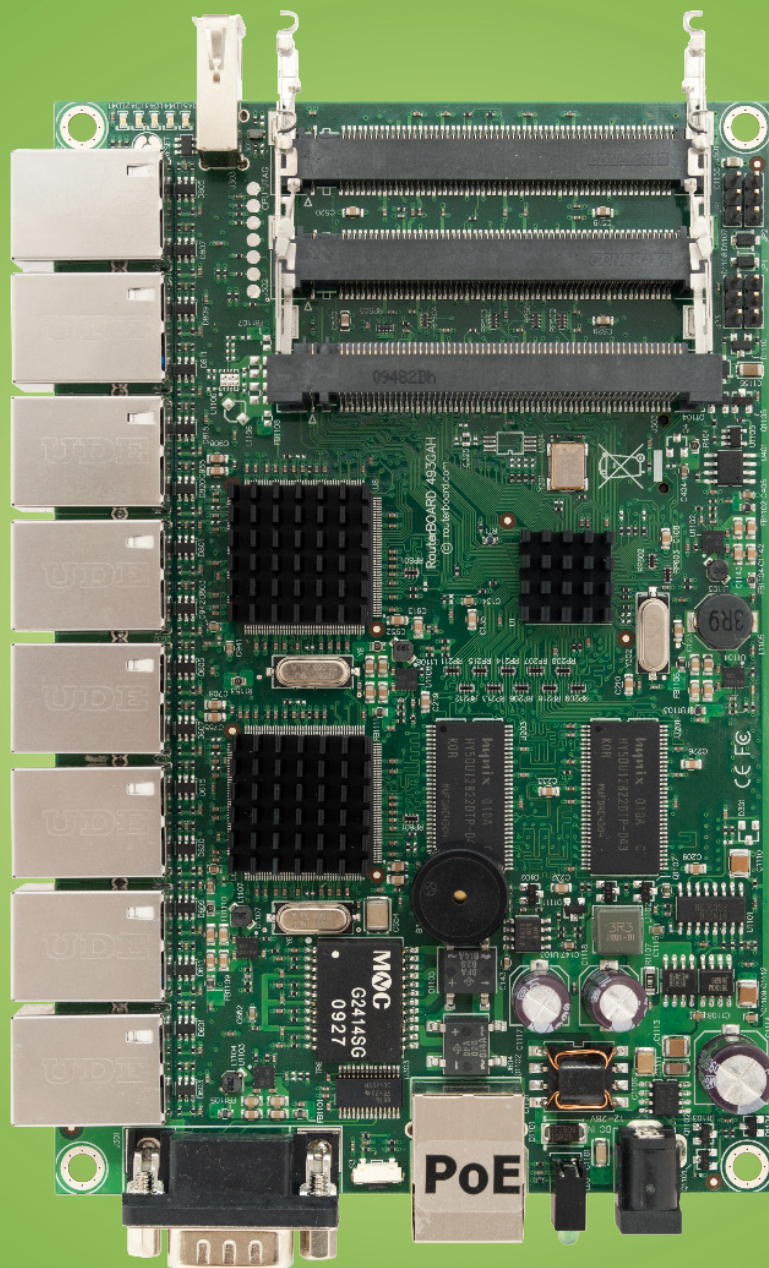
RB450G



RB450



| Model | RB850Gx2 | RB450G | RB450 |
|-------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| CPU | P1023 533MHz (Dual core) | AR7161 680MHz | AR7130 300MHz |
| Memory | 512MB DDR3 667MHz RAM | 256MB DDR SDRAM | 32MB DDR SDRAM |
| Data storage | 512MB NAND memory chip, microSD slot | | 128MB NAND memory chip |
| Ethernet | Five 10/100/1000 Mbit/s Gigabit ports with Auto-MDI/X, Hardware switch chip and port mirror support | | Five 10/100 Mbit/s Ethernet ports with Auto-MDI/X, Hardware switch chip and port mirror support |
| Extras | Reset switch, beeper, voltage and temperature monitors | Reset switch, beeper, voltage and temperature monitors | Reset switch, beeper, voltage and temperature monitors |
| Serial port | One DB9 RS232C asynchronous serial port | | |
| LEDs | Power, NAND activity, 5 user LEDs | | |
| Power input | PoE in: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC | | |
| Operating temp. | -40°C .. +70°C tested | | |
| Power consumption | 8W | 6W | 4W |
| Dimensions | 90x115mm | | |
| RouterOS License | Level 5 | | |



RB493

The RB493 has nine ethernet ports and three miniPCI slots, it also has a switch chip, so the ethernet ports of your choice can be grouped together to make it act as a switch.

RB493 includes RouterOS - the operating system, which will turn this powerful system into a highly sophisticated router, firewall or bandwidth manager.

With nine Ethernet ports, and three miniPCI slots, this is our most versatile RouterBOARD model.

The RB493AH model includes the higher speed Atheros 680MHz CPU, more memory, and a Level5 license for more a simultaneous tunnel interfaces and hotspot users and RB493G adds a Gigabit port and a USB port.

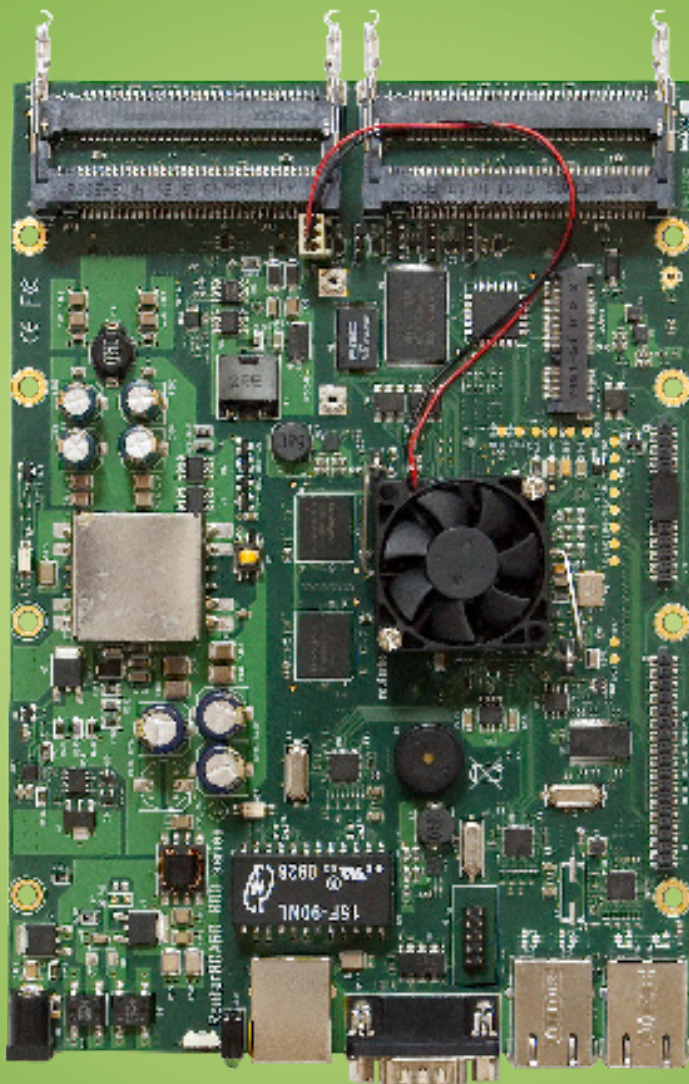
| Model | RB493AH | RB493G |
|------------------|-------------------------------------------------------|------------------------------------------------------------|
| CPU | AR7161 680MHz | AR7161 680MHz |
| RAM | 128MB | 128MB |
| External storage | - | microSD |
| Ethernet | Nine 10/100 Mbit/s | Nine 10/100/1000 Gbit/s |
| miniPCI | Three miniPCI slots | |
| Extras | - | 1x unpowered USB 2.0 port, temperature and voltage sensors |
| Serial port | One DB9 RS232C asynchronous serial port | |
| LEDs | Power, NAND activity, 5 user LEDs | |
| Power options | PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC | |
| Dimensions | 105mm x 160mm, 189 grams | |
| Consumption | ~3W without extension cards, maximum – 16 W | |
| License | Level5 license | |

RB800

The RB800 is an advanced high performance wireless platform. It has four miniPCI slots, three Gigabit Ethernet ports, two daughterboard connectors, a miniPCI-e slot and a compact flash slot.

The two daughterboard connectors allow you to expand the number of wired and wireless ports, and the new high power CPU is capable of supporting them all. You can use various daughterboards to expand the number of interfaces on this device - RB502 and RB604 are available separately.

Combined with RouterOS - RB800 is the most powerful and sophisticated wireless router, firewall and bandwidth manager. With many expansion options. Our top of the line wireless device.



| | |
|-----------------------|-----------------------------------------------------------------------------|
| CPU | MPC8544 800MHz |
| Memory | 256MB DDR2 SDRAM onboard memory |
| Boot loader | RouterBOOT |
| Data storage | NAND memory chip, CF slot on back |
| Ethernet | Three 10/100/1000 Mbit/s Ethernet ports with Auto-MDI/X |
| miniPCI | 4 x miniPCI, 1 x miniPCI-e |
| Expansion | PCI daughterboard port |
| Extras | Reset switch, beeper, 4x fan headers, voltage and temperature sensors |
| Serial port | One DB9 RS232C asynchronous serial port, One serial port header |
| LEDs | Power, 1x User LED |
| Power input | PoE in: 36-56V DC (including power over datalines) Power jack: 10-56V DC |
| Operating temperature | -40°C .. +70°C tested |
| Dimensions | 140x200mm |
| Operating System | MikroTik RouterOS, Level 6 license |

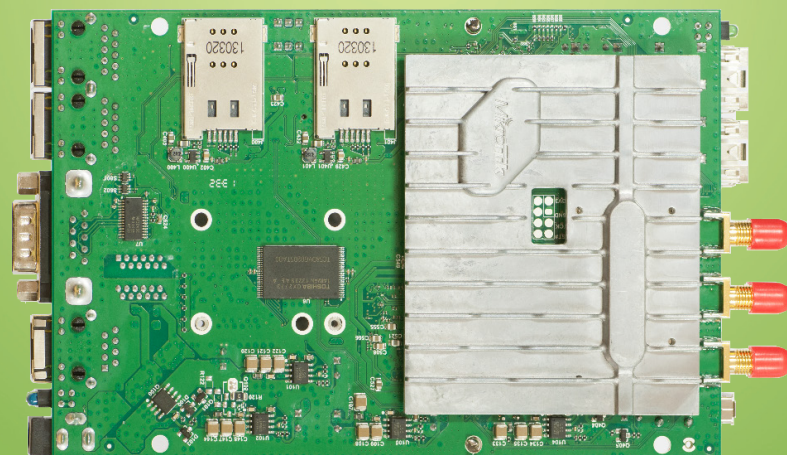
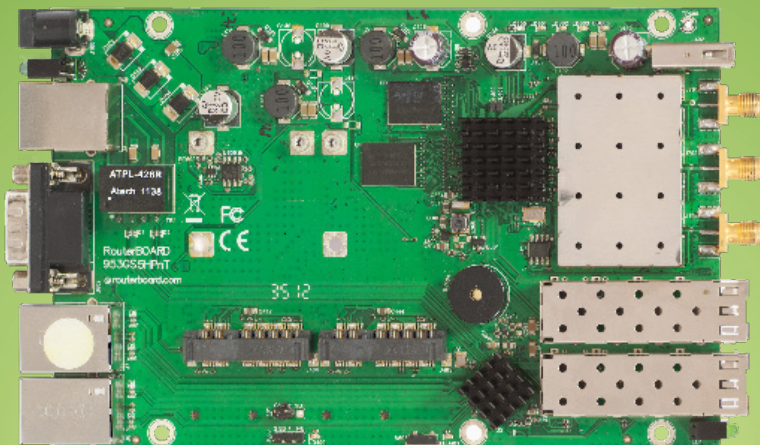
RB953GS-5HnT-RP

RouterBOARD 953GS-5HnT-RP is our first product with 5GHz 3x3 MIMO Triple Chain support. It has powerful (up to 1600mW!) Atheros QCA9558 802.11a/n wireless chip with three RPSMA connectors onboard.

RB953GS-5HnT-RP is equipped with new Scorpion 720Mhz CPU, 128MB RAM and three Gigabit Ethernet ports, to take advantage of high-speed 3x3 MIMO wireless. Moreover, it comes with two SFP cages to accommodate FTTH requirements.

Handy additions are two miniPCI-express slots and two SIM slots, for multiple 3G/4G connections or wireless expansion.

Unit comes with preinstalled RouterOS Level 5 license.



| Model | 953GS-5HnT-RP |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU | QCA9558 720MHz |
| Memory | 128MB DDR2 onboard memory |
| Data storage | NAND 128MB memory chip |
| Ethernet | 3x10/100/1000 Gigabit Ethernet ports with Auto-MDI/X |
| Wireless | Built-in 5GHz 802.11a/n, three chains, 3x RPSMA connectors |
| miniPCIe | 2x MiniPCIe slots for 802.11 or 3G (using 3G disables the USB port) |
| SFP | 2x SFP cages |
| Switching chip | AR8327 |
| Extras | PCB temperature monitor, voltage monitor, 2x fan headers, beeper, 1x USB, 2x SIM slots (for use with 3G modems that need to be installed in the miniPCIe slot) |
| Serial Port | 1x DB9 RS232C asynchronous serial port, 1x serial port header |
| LEDs | 9x total, 6x user LEDs |
| Power input | PoE in: 8-30V, Power jack: 8-30V DC |
| Operating temperature | -40°C .. +70°C tested |
| Dimensions | 183x105x24mm |
| Power consumption | 25W |
| Operating System | MikroTik RouterOS, WISP AP (Level 5) license |

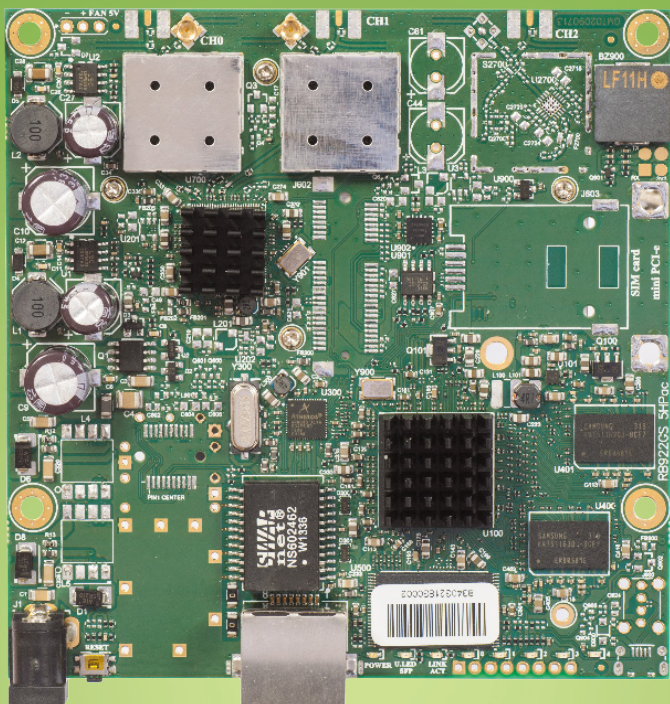
| | TX power / RX sensitivity |
|-----------------|---------------------------|
| TX/RX at MCS0 | 32dBm / -96dBm |
| TX/RX at MCS7 | 29dBm / -77dBm |
| TX/RX at 6Mbit | 32dBm / -96dBm |
| TX/RX at 54Mbit | 30dBm / -81dBm |
| Frequency range | 4900-5920MHz |

RB911 Series

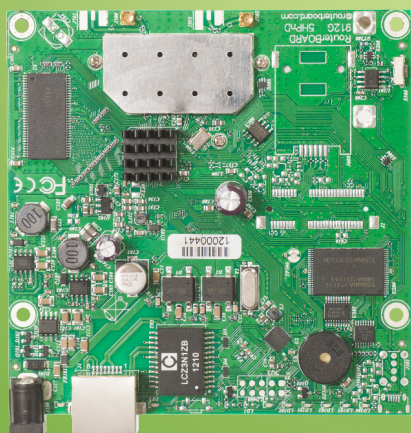
The RB911 series devices are perfect for building low cost CPE devices, and now a new model has been added to our line up - with 802.11ac support, to reach speeds not possible before.

The RB911 series are small wireless routers with an integrated wireless cards. They are equipped with powerful CPU, providing superb value for money.

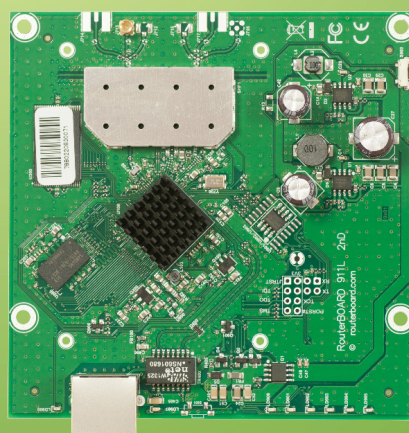
These devices include RouterOS, the operating system which can be a router, firewall, bandwidth manager, a CPE and more, all at the same time. All devices have built-in 16kV ESD protection on the RF port.



RB911G-5HPnD



RB911G-5HPnD



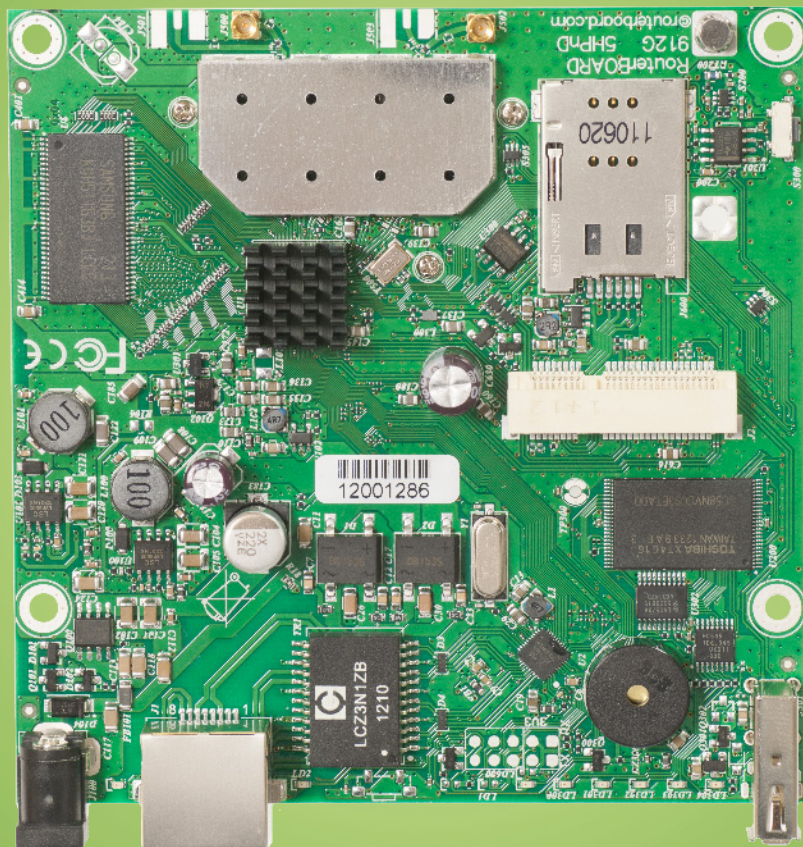
RB911-2Hn

| Model | RB911-5Hn | RB911-5HnD | RB911-2Hn | RB911G-5HPnD | RB911G-2HPnD | RB911G-5HPacD |
|-------------------------|-----------------------------------------|------------|-----------|--------------|--------------|---------------|
| Band | 5GHz | 5GHz | 2.4GHz | 5GHz | 2.4GHz | 5GHz |
| Chains | 1 | 2 | 1 | 2 | 2 | 2 |
| Gigabit | - | - | - | + | + | + |
| 802.11ac | - | - | - | - | - | + |
| High Power | - | - | - | + | + | + |
| Power jack | - | - | - | + | + | + |
| Consumption | 5W | 7W | 4W | 11W | 11W | 12W |
| Beeper | - | - | - | + | + | + |
| Voltage monitor | - | - | - | + | + | + |
| PCB temperature monitor | - | - | - | + | + | + |
| Supported channels | 20/40MHz | | | | | 20/40/80MHz |
| Max TX power | 23dBm | 26dBm | 24dBm | 30dBm | 30dBm | 31dBm |
| Dimensions | 105x105mm | | | | | |
| Power input | PoE in: 8-30V DC on Eth 1 (Non 802.3af) | | | | | |
| Operating temp. | -40°C .. +70°C tested | | | | | |
| RouterOS Licence | WISP CPE (Level 3) license | | | | | |

RB912

The RB912 is a small wireless router with an integrated high power wireless card and an additional miniPCle slot for 802.11 wireless, or 3G card. Both 2GHz and 5GHz models are available. The Gigabit port helps to utilize the full potential of 802.11n wireless speeds.

The integrated wireless card is capable of up to 1000mW output power. It has built in 16kV ESD protection on both the Ethernet and the MMCX ports.

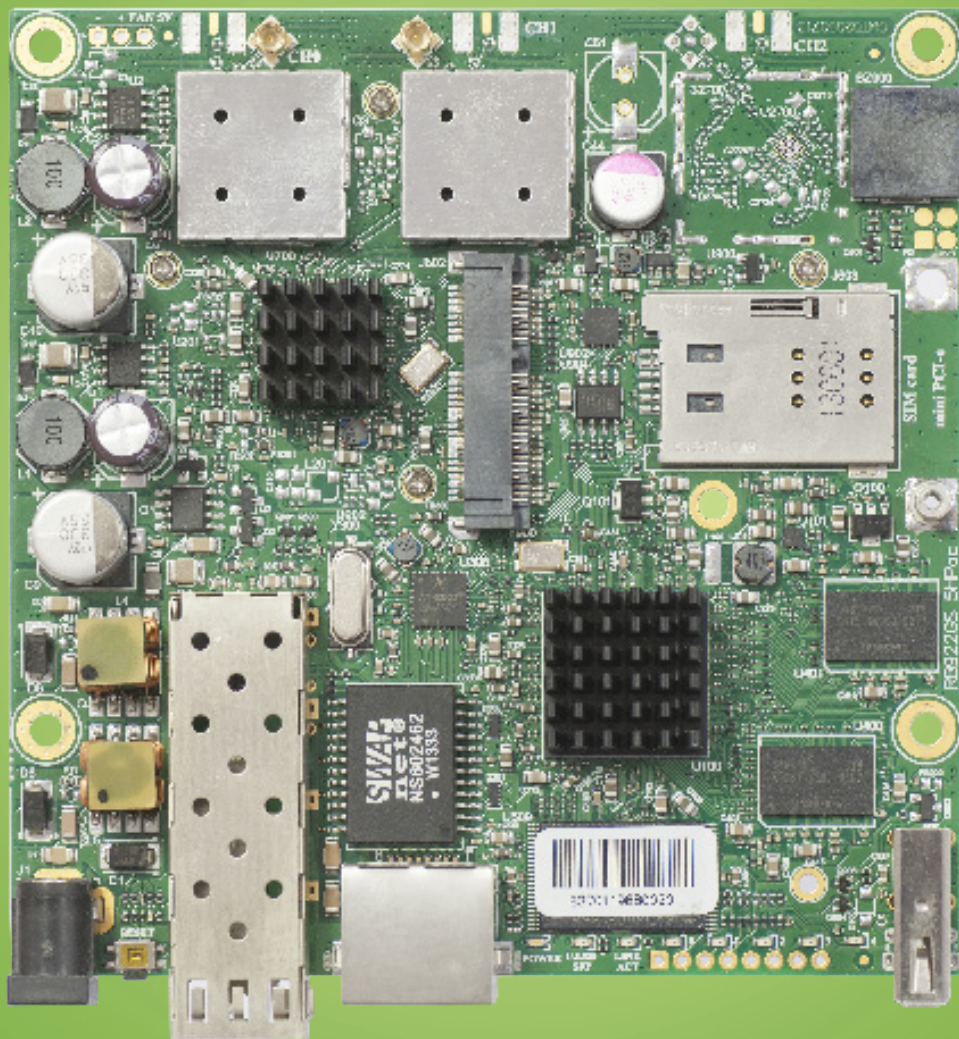


| Model | RB912UAG-5HPnD | RB912UAG-2HPnD |
|-----------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Features | 1 Ethernet, 1 miniPCle, USB, Additional memory, Gigabit, High power, Dual chain | |
| CPU | Atheros AR9342 600MHz network processor | |
| Memory | 64MB DDR onboard memory | |
| Data storage | onboard NAND memory chip | |
| Ethernet | One Gigabit port with Auto-MDI/X | |
| Wireless | Built in 5GHz 802.11a/n, 2x MMCX connectors | Built in 2GHz 802.11b/g/n, 2x MMCX connectors |
| Extras | beeper, signal and status LEDs, SIM slot (requires 3g miniPCle card), voltage and temperature sensors | |
| Expansion | miniPCle slot for 802.11 or 3G (using 3G disables the USB port), USB 2.0 port | |
| Power input | PoE in: 8-30V DC on Ether1 (Non 802.3af). | |
| Operating temp. | -40°C .. +70°C tested | |
| Dimensions | 105x105mm | |
| Max consumption | 14W at 24V | |
| OS | MikroTik RouterOS, Level 4 license (supports wireless AP mode) | |

| | RB912UAG-5HPnD | RB912UAG-2HPnD |
|-----------------|----------------|-----------------|
| TX/RX at MCS0 | 30dBm / -96dBm | 30dBm / -96dBm |
| TX/RX at MCS7 | 24dBm / -78dBm | 24dBm / -78dBm |
| TX/RX at 6Mbit | 30dBm / -96dBm | 30dBm / -96dBm |
| TX/RX at 54Mbit | 27dBm / -80dBm | 27dBm / -80dBm |
| Frequency range | 4900-5920MHz | 2400MHz-2500MHz |

RB922UAGS-5HPacD

The RB922 is a very versatile wireless router, perfect for assembling your own solution. It supports the new 802.11ac standard for high speed wireless (up to 866Mbit datarate and 20/40/80MHz channels). The device has ports and slots for many uses: 1x SFP cage, miniPCle slot with SIM for 3G/4G modem, USB port, Gigabit Ethernet port and two MMCX connectors for the built in 802.11ac radio.



| Order code | RB922UAGS-5HPacD |
|--------------------|----------------------------------------------------------------------|
| CPU | QCA9557 720MHz network processor |
| Memory | 128MB DDR2 onboard memory |
| Ethernet | One Gigabit port with Auto-MDI/X |
| Wireless | QCA9882 5GHz 802.11ac, 2x MMCXconnectors, Dual chain |
| Supported channels | 20/40/80MHz |
| SFP | 1x SFP cage available |
| Extras | Beeper, signal and status LEDs, voltage and temperature sensors |
| Expansion | USB 2.0 port, 1x MiniPCle slot, SIM slot (requires 3g miniPCle card) |
| Power input | PoE in: 8-30V DC on Ether1 (Non 802.3af). Consumption: 17W |
| Operating temp. | -40°C .. +70°C tested |
| Dimensions | 105x105mm |
| OS | MikroTik RouterOS, Level 4 license |

| Wireless transmit/receive specifications | |
|------------------------------------------|---------------------------------------------------------------|
| TX/RX at MCS0 | 30dBm / -96dBm |
| TX/RX at MCS7 | 27dBm / -77dBm |
| TX/RX at MCS9 | 22dBm / -72dBm |
| TX/RX at 6Mbit | 31dBm / -96dBm |
| TX/RX at 54Mbit | 27dBm / -81dBm |
| Frequency range | 4920-6100 MHz, Operating range limited by Country Regulations |

mANT30 series

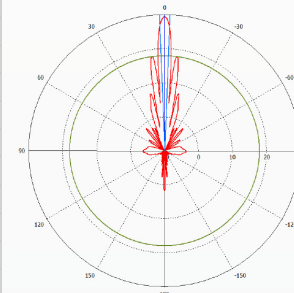
mANT30 is a professional class 5 GHz 30dBi dish antenna, built to the highest industry standards. Built to seamlessly accommodate our BaseBox and NetMetal series products, also NetBox, but can be used for any pole mounted wireless device due to the adequate length of the included FlexGuide cable.

Two antennas are available, with a **standard type mount (MTAD-5G-30D3)**, and with a **precision alignment mount (MTAD-5G-30D3-PA)**. The antennas come packaged with all necessary accessories and cables.

Electrical Specifications

| | |
|----------------------------|-----------------------------------------------------------|
| Frequency Range | 4.7-5.875 GHz |
| Gain | 30 dBi typically |
| Polarization | Dual (Vertical and Horizontal) |
| 3dB Beamwidth | 3 deg |
| Standards | Complies with EN 302 326 DN1, DN2, DN3, DN5 |
| VSWR | ≤ 1.4 typ, ≤ 1.8 max |
| Port to Port Isolation | >40dB min |
| Front-to-Back Ratio | >30 dB |
| Cross Polarization | >40 dB |
| Power Rating | 100 watts |
| Impedance | 50 ohms |
| Elevation adjustment range | +/- 20 deg (MTAD-5G-30D3), +/- 15 deg (MTAD-5G-30D-PA) |

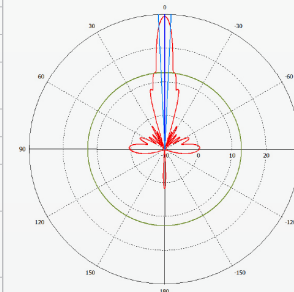
Horizontal polarization



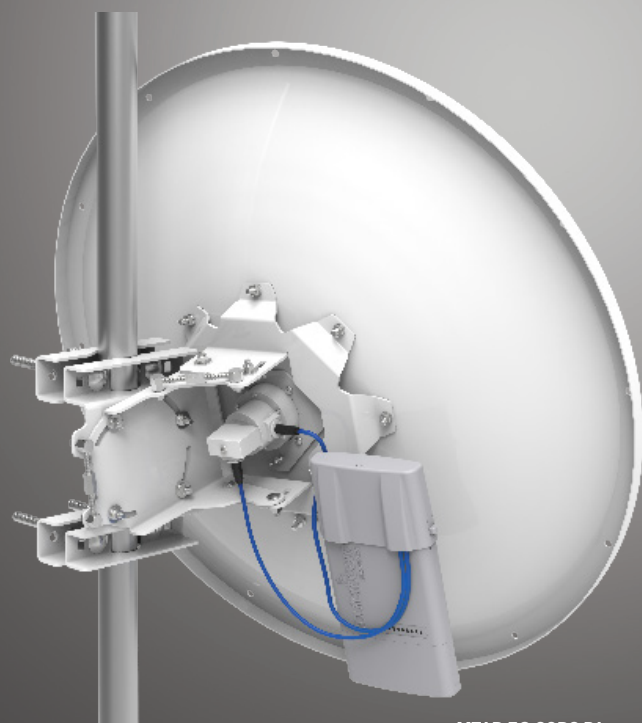
Physical/Environmental Specifications

| | |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Diameter x Depth | 70 x 45cm (27.5 x 17.8in) |
| Weight neto | 5.7kg (12.6 lbs) PA and 4.8kg (10.7 lbs) standard version |
| Reflector | Aluminum |
| Outdoor Rating | ETSI EN 300 019-2-4 |
| Wind Survivability | 201kph (125mph) |
| Wind Load (125 mph) | 181.4kg (400 lbs) |
| Operating temperature | -40°C .. 70°C tested |
| Pole Mount Diameter Range | (MTAD-5G-30D3): 3 to 7cm (1.2 to 2.75in) (MTAD-5G-30D-PA): 3 to 10cm (1.2 to 3.9in) |
| Connector (2) | RP-SMA Female (outside thread) |
| Packaged size | 73x73x20cm (29x29x8in) |
| Packaged weight | (MTAD-5G-30D3): 7.5 kg (16.5 lbs), (MTAD-5G-30D3-PA): 8.4 kg (18.5) |
| Compatible with | Can directly mount Basebox and other future RouterBOARD devices, or accept any pole-mounted device |
| Package includes | FlexGuide RPSMA RF Cables (RP-SMA-male to RP-SMA-male) x 2pcs; Bracket for mounting BASEBOX series radio; Self-Bonding Tape for insulating the RF cables x 2 slices; Precise alignment mechanisms (PA Version only) |

Vertical polarization

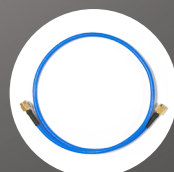


MTAD-5G-30D3
(With standard type mount)



MTAD-5G-30D3-PA
(With precision alignment mount)

Available separately, the Radome reduces wind load, protects reflector surfaces from harsh environment.



FlexGuide

Note: Basebox radio not included, available separately.

Wireless miniPCI cards

We are offering wide range of miniPCI wireless cards for expansions, covering from 2.192GHz up to 6.100GHz, with output power from 50mW up to 1600mW.

We have a cards that features built-in LED indicators for wireless mode, connection status (connected, searching, disabled), TX and RX activity and wireless signal strength - just looking at the card will help with installation and alignment.

See the tables for more information on specifications.



| Model | R5SHPn | | R2SHPn | | R52H | | R52Hn | | R52n-M | |
|----------------|--------|-------|--------|-------|------|-------|-------|-------|---------|-------|
| 802.11a | RX | TX | RX | TX | RX | TX | RX | TX | RX | TX |
| 6Mbit | -93 | 29dBm | - | - | -90 | 24dBm | -97 | 25dBm | -97/-95 | 21dBm |
| 54Mbit | -77 | 25dBm | - | - | -70 | 19dBm | -80 | 21dBm | -80/-79 | 19dBm |
| 802.11b | RX | TX | RX | TX | RX | TX | RX | TX | RX | TX |
| 1Mbit | - | - | -93 | 32dBm | -92 | 25dBm | -93 | 24dBm | -95/-94 | 23dBm |
| 11Mbit | - | - | -77 | 30dBm | -87 | 25dBm | -93 | 24dBm | -92 | 23dBm |
| 802.11g | RX | TX | RX | TX | RX | TX | RX | TX | RX | TX |
| 6Mbit | - | - | -93 | 32dBm | -90 | 25dBm | -94 | 25dBm | -95/-94 | 25dBm |
| 54Mbit | - | - | -77 | 29dBm | 70 | 20dBm | -81 | 22dBm | -80 | 21dBm |
| 802.11n 2.4GHz | RX | TX | RX | TX | RX | TX | RX | TX | RX | TX |
| MCS0 20MHz | - | - | -93 | 32dBm | - | - | -94 | 25dBm | -95/-94 | 23dBm |
| MCS0 40MHz | - | - | -93 | 31dBm | - | - | -92 | 24dBm | -91 | 21dBm |
| MCS7 20MHz | - | - | -74 | 28dBm | - | - | -78 | 21dBm | -77 | 20dBm |
| MCS7 40MHz | - | - | -72 | 27dBm | - | - | -75 | 20dBm | -74 | 20dBm |
| 802.11n 5GHz | RX | TX | RX | TX | RX | TX | RX | TX | RX | TX |
| MCS0 20MHz | -93 | 28dBm | - | - | - | - | -97 | 24dBm | -97/-95 | 21/19 |
| MCS0 40MHz | -89 | 29dBm | - | - | - | - | -92 | 22dBm | -93/-91 | 19 |
| MCS7 20MHz | -74 | 24dBm | - | - | - | - | -77 | 18dBm | -78/-76 | 16 |
| MCS7 40MHz | -71 | 24dBm | - | - | - | - | -74 | 17dBm | -75/-73 | 13 |

| Model | R5SHPn | R2SHPn | R52H | R52Hn | R52n-M |
|-----------------------|----------------------------------------------------------|----------------------------------------------------------|-----------------------------|----------------------------------|----------------------------------|
| Chipset | Atheros AR9220 | Atheros AR9223 | Atheros AR5414 | Atheros AR9220 | Atheros AR9220 |
| Frequency range (MHz) | 4800-6075 | 2192-2539 | 4920-6100 2192-2539 | 4800-6100 2200-2700 | 4800-6100 2200-2700 |
| Standards | 802.11a/n | 802.11b/g/n | 802.11a/b/g | 802.11a/b/g/n | 802.11a/b/g/n |
| Max output power | 800mW | 1600mW | 316mW | 316mW | 316mW |
| Format | miniPCI | | | | |
| Dimensions | 60x60x19mm (incl. heatsink) | 60x60x19mm (incl. heatsink) | 60x45x3mm | 60x45x7mm | 60x45x |
| Connectors | 1x MMCX (single chain) | 1x MMCX (single chain) | Two U.fl connectors | 2 X MMCX Antenna Connector | 2 X MMCX Antenna Connector |
| Features | 9 LED indicators, ESD protection | 9 LED indicators, ESD protection | | | |
| Temperature | Starting -5°C to +65°C Operating -30°C to +65°C | Starting -5°C to +65°C Operating -30°C to +65°C | Operating -20°C to +70°C | Operating -50°C to +60°C | Operating -20°C to +60°C |
| Power consumption | Up to 10W at maximum power | Up to 10W at maximum power | 3.5W | Idle: 0.4W Max: 7W | Max: 2.4W |

R11e series

High power wireless cards in miniPCI-e format. Ideally suited for the BaseBox, NetBox, NetMetal, RB800, RB912, RB922 or RB953 or our miniPCIe adapter card - RB14e/RB14eU.

The card features built-in LED indicators for wireless mode, connection status (connected, searching, disabled), TX and RX activity and wireless signal strength - just looking at the card will help with installation and alignment.

The new 5HacD card supports 802.11ac for up to 866Mbit datarate, 256-QAM modulation and 80MHz channels. 802.11ac opens up new possibilities and speeds never possible before.

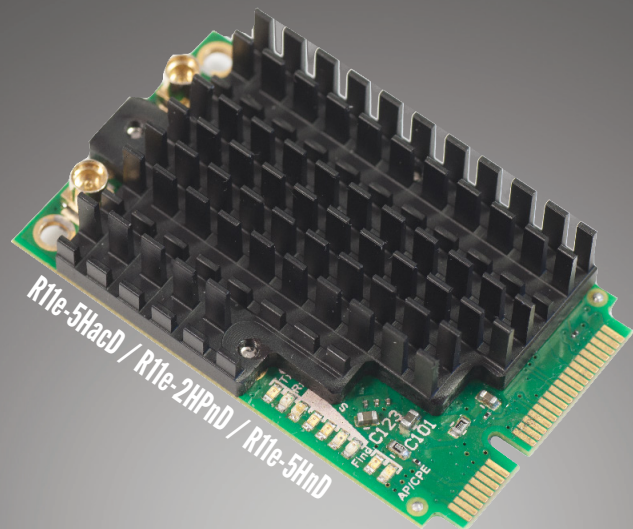
Four models are available:

R11e-2HnD (2GHz, uFL connector, small heatsink)

R11e-2HPnD (2GHz, MMCX, high output power, larger heatsink)

R11e-5HnD (5GHz, MMCX, larger heatsink)

R11e-5HacD (5GHz, 802.11ac, MMCX, larger heatsink)



| Model | 2HnD | 2HPnD | 5HnD | 5HacD |
|-----------------------|--------------------------------------------------|----------------|----------------|----------------|
| Chipset | AR9580 | | | QCA9882 |
| Frequency range | 2312-2732 MHz | | 4920-6100MHz | |
| Standards | 802.11b/g/n | 802.11b/g/n | 802.11a/n | 802.11ac |
| Max output power | 800mW | 1000mW | 500mW | |
| Format | miniPCIe | | | |
| Dimensions | 51x30x6mm | 51x30x13mm | | |
| Connectors | 2x uFL | 2x MMCX | | |
| Features | 9 LED indicators, ESD protection | | | |
| Supported channels | 20/40MHz | | | 20/40/80MHz |
| Temperature | Starting -5°C to +65°C; Operating -40°C to +70°C | | | |
| MAX power consumption | 5W | 7W | 5W | 4.5W |
| TX/RX at MCS0 | 29dBm / -96dBm | 30dBm / -96dBm | 26dBm / -96dBm | 26dBm / -96dBm |
| TX/RX at MCS7 | 24dBm / -76dBm | 24dBm / -76dBm | 23dBm / -76dBm | 23dBm / -77dBm |
| TX/RX at 6Mbit | 29dBm / -96dBm | 30dBm / -96dBm | 27dBm / -96dBm | 27dBm / -96dBm |
| TX/RX at 54Mbit | 24dBm / -80dBm | 24dBm / -76dBm | 24dBm / -76dBm | 23dBm / -81dBm |

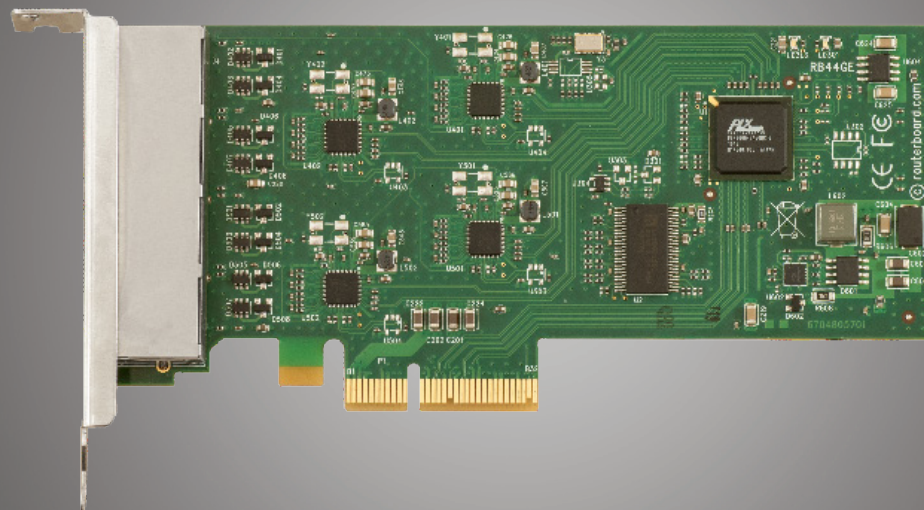
RB44Ge

Four port Gigabit server adapter

The brand new Gigabit Ethernet card features four 10/100/1000T Gigabit Ethernet ports on a single card, giving you the opportunity to add even more ports to your router, and saving valuable PCIe slots. Bring maximum throughput and port density to your device, and with PCIe - bus speed is no longer the limit.

The card use the high end Atheros AR8131/M chip:

- Checksum offload features for IP, TCP, and UDP, lowering CPU utilization and optimizing network performance
- Wake-On- LAN (WOL) and AMD Magic Packet™.
- IEEE 802.3x compliant flow control support
- Interrupt coalescing
- Advanced DSP architecture implementing digital adaptive equalization, echo and crosstalk cancellation
- Cable Diagnostic Test (CDT) for open, short cable, cable length detection, and incorrect or mismatched impedance.
- Intelligently reduces power based on cable length detected
- Green Ethernet feature support
- Supports Energy Star 4.0
- Two brackets included, low profile and regular



| General specifications | |
|------------------------|--------------------------------------------------------------------------|
| Chip | Atheros AR8131M |
| Format | PCIe 4X |
| Ethernet | Four independent 10/100/1000 Mbit Gigabit Ethernet ports with Auto-MDI/X |
| Dimensions | 150x69mm (excluding bracket) |
| Operating System | RouterOS, Windows, Linux |

48V Gigabit PoE converter

This device lets you use any 48V PoE source (including Passive PoE, Telecom PoE, 802.3af and 802.3at) to power RouterBOARD devices.

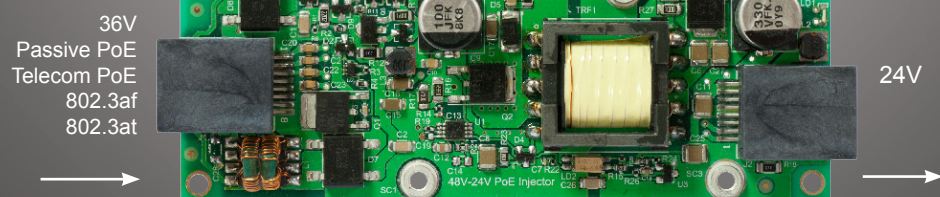
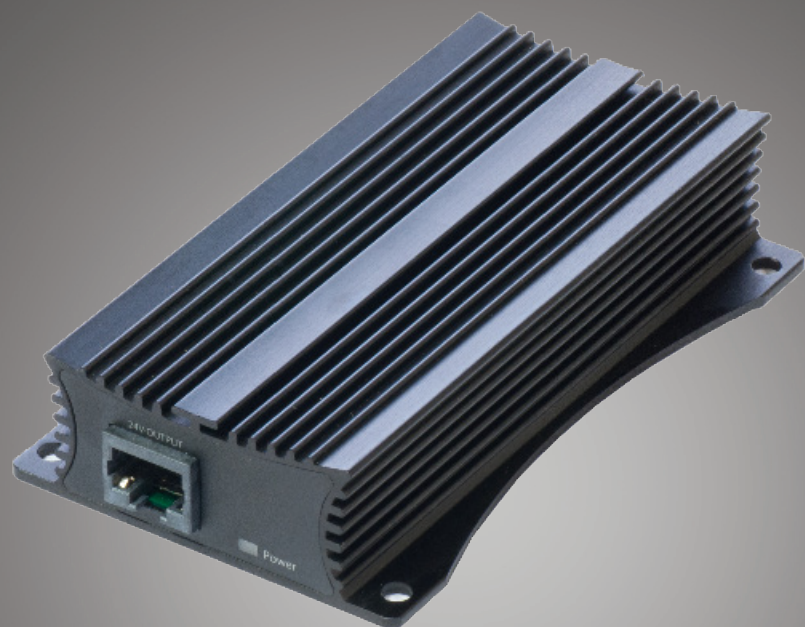
Simply plug any 48V PoE powered ethernet cable into one port, and any 8-30V capable RouterBOARD device into the other. This device is capable to provide high power output - up to 24W (up to 1A at 24V).

You can power it with virtually any 36-57V PoE solutions available on market today (Passive, Telecom, 802.3af and 802.3at PoE plus supported)

The device is a rugged metallic design, with high capacity components and integrated heatsink design. The case also has mounting holes so you can attach it to a wall.

Ethernet shield pins are inside the Ethernet connectors, so that shielded ethernet can be used, to ground either at the converter itself, or at the devices at both ends.

| Name | RouterBOARD POE-CON-HP |
|--------------|-------------------------------------------------------------------------|
| Ethernet | Two Gigabit Ethernet ports with grounding pins - one input, one output. |
| Dimensions | 107x66x24mm |
| Power Input | 36-57V (Passive, Telecom, 802.3af and 802.3at PoE plus supported) |
| Power Output | 24V 1A |
| Output pins | 4,5 "+"; 7,8 "-" |



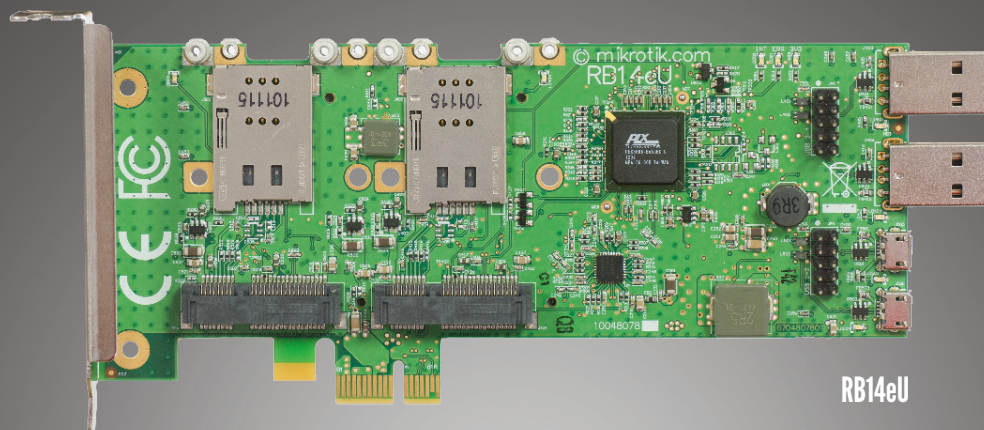
RB14e

RB14e is an adapter card for using four miniPCle wireless cards in a PC with a PCIe slot. This gives you the ability to use our new R11e wireless interfaces in conventional PC computers.

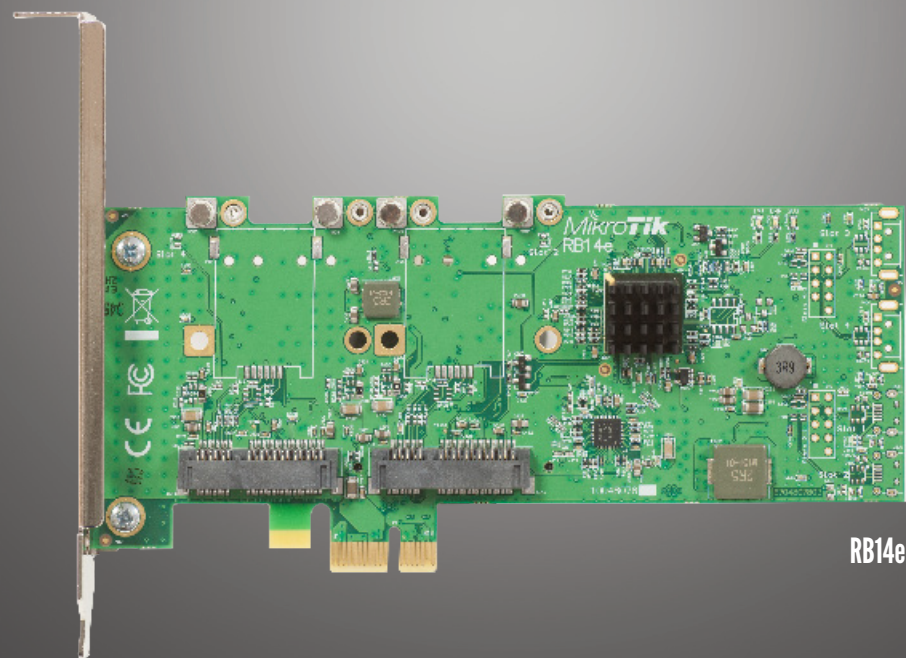
Another model, the RB14eU is available for using 3G miniPCle cards, in addition to wireless cards. For this purpose, SIM card slots are provided for all four interfaces, as well as USB ports to ensure USB connectivity to the host PC, which is required for 3G miniPCle cards.

Use this new adapter to expand your connectivity and upgrade your device to use the latest miniPCle interface cards.

Each comes with both low and regular profile brackets. Brackets include holes for mounting SMA connectors, or for using as cable exit holes.



RB14eU



RB14e

| Model | RB14e | RB14eU |
|--------------------------|---------------------------------------------------------------|-----------------------------|
| Form factor | PCIe x1 | |
| Number of miniPCle slots | 4 | |
| USB to PC connectors | - | 6 |
| Intended use | Wireless cards | Wireless cards and 3G cards |
| Bracket includes | Both normal, and low profile. Holes for cables provided (6/8) | |
| SIM slot | - | 4 |

| Model | Specifications |
|----------------------------|--------------------------------------------------------------------------------------------------------------------|
| S-85DLC05D | 1.25G, 850nm Dual LC connector, 550m, MM, DDMI |
| S-31DLC20D | 1.25G, 1310nm Dual LC connector, 20km, SM, DDMI |
| S-3553LC20D two module kit | S-35LC20D: 1.25G SM, 20km, T1310nm/R1550nm, LC, DDMI S-53LC20D: 1.25G SM, 20km, T1550nm/R1310nm, LC, DDMI |
| S+85DLC03D | SFP+ module 10G MM 300m 850nm LC-connector DDMI |
| S+31DLC10D | SFP+ module 10G SM 10km 1310nm LC-connector, DDMI |
| S+2332LC10D two module kit | S+23LC10D: 10G, SM, 10KM, Tx:1270nm Rx:1330nm, LC, DDMI S+32LC10D: 10G, SM, 10KM, Tx:1330nm Rx:1270nm, LC, DDMI |

S-3553LC20D, S-53LC20D and S-31DLC20D modules (1.25G, 20KM modules)

| Transmit | Min | Typ | Max | Unit |
|--------------------|-----|-----|-----|------|
| Output Opt. Power | -9 | - | -3 | dBm |
| Receive | | | | |
| Avg Rx sensitivity | - | - | -24 | dBm |
| Max Received pwr | 0 | - | - | dBm |
| LOS De-assert | - | - | -24 | dbm |
| LOS Assert | -36 | - | - | dBm |

S-85DLC05D (1.25G, 550m module)

| Transmit | Min | Typ | Max | Unit |
|--------------------|-----|-----|-----|------|
| Output Opt. Power | -9 | - | -3 | dBm |
| Receive | | | | |
| Avg Rx sensitivity | -0 | - | -20 | dBm |
| Max Received pwr | -2 | - | - | dBm |
| LOS De-assert | - | - | -24 | dbm |
| LOS Assert | -35 | - | - | dBm |

S+31DLC10D (10G, 10KM module)

| Transmit | Min | Typ | Max | Unit |
|----------------------|-----|-----|-------|------|
| Output Opt. Power | -6 | - | 0.5 | dBm |
| Receive | | | | |
| Receiver sensitivity | - | - | -14.4 | dBm |
| Max Received pwr | 0.5 | - | - | dBm |
| LOS De-assert | - | - | -15 | dBm |
| LOS Assert | -30 | - | - | dBm |

S+85DLC03D (10G, 300m module)

| Transmit | Min | Typ | Max | Unit |
|----------------------|------|-----|------|------|
| Output Opt. Power | -7.3 | - | -1 | dBm |
| Receive | | | | |
| Receiver sensitivity | - | - | -9.9 | dBm |
| Max Received pwr | -1 | - | - | dBm |
| LOS De-assert | - | - | -13 | dBm |
| LOS Assert | -30 | - | - | dBm |

S+2332LC10D, S+23LC10D and S+32LC10D modules (10G, 10KM modules)

| Transmit | Min | Typ | Max | Unit |
|--------------------|-----|-----|-----|------|
| Output Opt. Power | -5 | - | 0 | dBm |
| Receive | | | | |
| Avg Rx sensitivity | - | - | -14 | dBm |
| Max Received pwr | 0.5 | - | - | dBm |
| LOS De-assert | - | - | -18 | dbm |
| LOS Assert | -30 | - | - | dBm |

SFP transceivers

To complement our SFP cage equipped devices, several types of SFP modules are available for the most popular SFP use scenarios.

We currently offer two SFP models, one SFP module kit, two SFP+ modules, two Direct Attach cable kits and one SFP to RJ45 fiber to copper module.



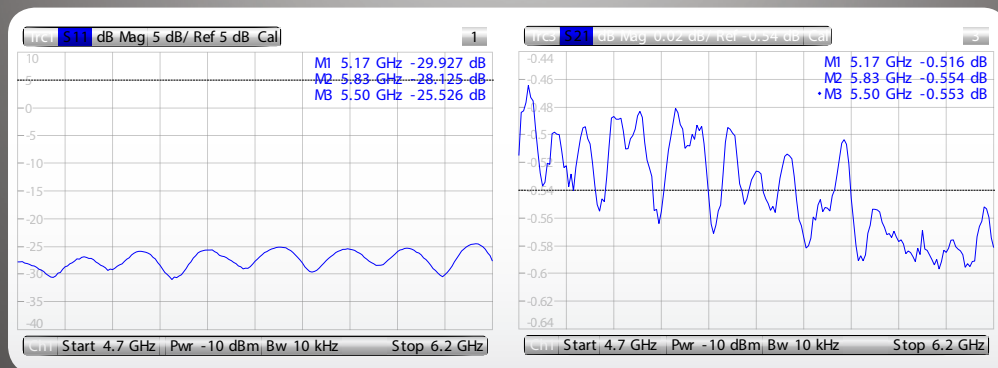
Flex-guide

super low loss cable assembly

A super low loss RPSMA cable for superior connection quality, suited for indoor and outdoor use, this cable provides superior matching and loss values.

The name of this cable comes from combining the words “flexible” and “waveguide”, to denote the high end features of this product.

The inner conductor is silver plated copper, and both connectors are soldered, not crimped, for the best possible signal quality. Ideally suited for our BaseBox and other products with RPSMA connectors, and works with most antennas.



| | |
|------------------------------|---------------------------------------------------|
| Product order code | ACRPSMA |
| RPSMA | Soldered on both ends |
| Connector type | RP-SMA Male (inside thread) |
| Inner conductor | Silver plated copper |
| Frequency | up to 6 GHz |
| Total signal loss at 6GHz | 0.59 (Includes connectors. See chart for details) |
| Matching | Better than -20dB |
| Suited for | outdoor use |
| Cable length | 500mm (19.7") |
| Outer diameter | 4.2mm (0.2") |
| Min. bending radius static | 8mm (0.3") |
| Min. bending radius repeated | 40mm (1.6") |
| Operating temperature | -55 to 125C |

FTC

The FTC is a Fiber to Copper converter. Unlike many other media converters available on market, FTC has an outdoor waterproof case with lock screw. The device supports 12-57V PoE with 802.3af/at support. Comes with PoE injector and power supply. The case has a mounting system that is secured by a screw from inside the lockable case, making the device hard to access by unauthorised people.

- PoE support
- Outdoor fully weather proof wall/pole/din mounting
- Supports 1.25G 1000Base-X fiber to FE/GigE copper

| | |
|-----------------------|---------------------------------------------------------------|
| Power | 12-57V Passive or 802.3af PoE |
| Operating temperature | -40 to +70C |
| Ethernet | One 10/100/1000Mbit ethernet connector with PoE input support |
| Dimensions | 185x85x30 mm |
| SFP | One 1.25Gbit port (SFP module not included) |

quickMOUNT

QuickMOUNT is a basic wall mount adapter for small point to point and sector antennas.

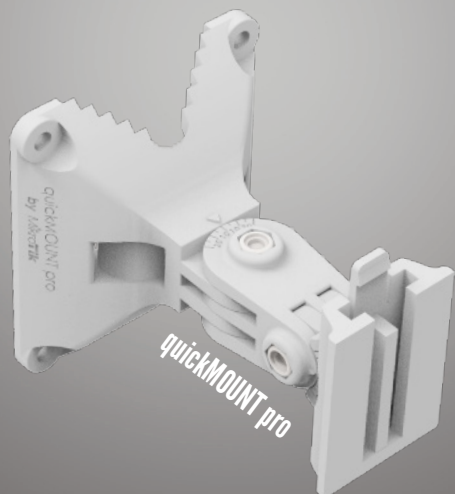
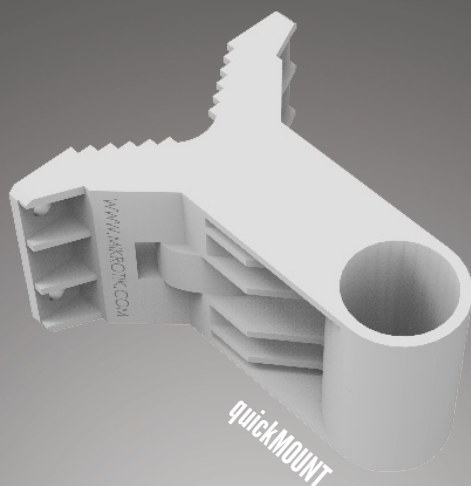
You can mount it on the wall or use it as an adapter from large diameter pole to small size antenna mounting clip ensuring reliable fitment. The quickMOUNT gives possibility to turn antenna horizontally within 190°.

With the quickMOUNT it is possible to simultaneously mount two SXTs, thus creating a repeater access point or creating large sector coverage.

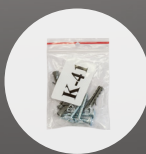
You can use the quickMOUNT with any pole mountable device with weight less than 1.5 Kg

The adapter is very durable due to it's special material composite - anvilNITE (TM)

QuickMOUNT pro makes it possible to turn antenna within 140° both in horizontal and vertical plane. With the quickMOUNT pro it is possible to perfectly set antenna alignment using integrated graduated scale.



Mounting ring



K-41 screw kit

| Model | quickMOUNT | quickMOUNT pro |
|--------------------------------------------------|------------------------------------------------------------------------------|----------------|
| Product code | QM | QMP |
| Dimensions | 96x107.5x56 mm | 95x88x112mm |
| Tube diameter | 35 mm | |
| Max tube diameter to which mount can be attached | 65 mm | |
| Maximum antenna weight | 1.5 kg | |
| Maximum wind load | 100N | |
| Compatible devices | SXT series, Omnitik, 3rd party antennas that are designed to be pole mounted | |
| Turn angle for MikroTik products | 190° | 140° |
| Operational temperature range | ±40° C | |
| Material | anvilNITE™ | |
| Included | quickMOUNT, metal ring, K-41 screw kit | |



To obtain MikroTik hardware and software, visit our distributors.
For more information and latest news go to
routerboard.com and mikrotik.com