QRT 5 ac

The QRT is an outdoor CPE unit with the following hardware specifications:

Quickstart

Please follow these quick steps to set up your device:

✓ Mount unit in your desired place, please see Mounting paragraph.
✓ Slide off latch to access Ethernet port. Please see Opening latch section.
✓ Connect your PoE cable to the Ethernet port, please see Powering section.
✓ Set your computer IP configuration to automatic (DHCP).
✓ From your PC connect to the wireless network name which starts with “MikroTik”.
✓ Once connected to the wireless network, open http://192.168.88.1 in your web browser to start configuration, since there is no password by default, you will be logged in automatically.
✓ We recommend clicking the “Check for updates” button and updating your RouterOS software to the latest version to ensure the best performance and stability.
✓ Choose your country, to apply country regulation settings and set up your password in the screen that loads.

Powering

The device accepts power from the PoE to the Ethernet port:

• Passive Power over Ethernet 8-30 V DC.

The power consumption under maximum load can reach 11,5 W.

Connecting to a POE Adapter:

1. Connect the Ethernet cable from the device to the POE+DATA port of the POE adapter.
2. Connect an Ethernet cable from your local network (LAN) to the POE adapter.
3. Connect the power cord to the adapter, and then plug the power cord into a power outlet.

Configuration

We recommend clicking the “Check for updates” button and updating your RouterOS software to the latest version to ensure the best performance and stability. RouterOS includes many configuration options in addition to what is described in this document. We suggest starting here to get yourself accustomed to the possibilities: http://mt.lv/help. In case IP connection is not available, the Winbox tool (http://mt.lv/winbox) can be used to connect to the MAC address of the device from the LAN side (all access is blocked from the internet port by default). For recovery purposes, it is possible to boot the device from a network, see the section Reset button.

Extension slots and ports

• Gigabit Ethernet port, passive PoE on Ethernet port.
• 5 GHz wireless, supported protocol 802.11a/n/ac, antenna gain 24 (dBi).
### Opening latch

To access the Ethernet port and reset button, please open latch:

- Pull the latch out downwards from the device.
- Lift the latch, but do not remove them completely.

### Front status LED behavior

RouterOS allows to configure each LEDs activity the way that user wishes. It is possible to configure the LEDs to display wireless strength, blink the LEDs on interface traffic activity and many other options. For further information please visit [https://wiki.mikrotik.com/wiki/Manual:System/LEDs](https://wiki.mikrotik.com/wiki/Manual:System/LEDs)

Default factory configuration for this device:

1. **Solid Blue** – The device is powered on.
2. **Solid Green** – Connected Ethernet port.
3. **Solid Green** – User-defined LED.
4. **Solid Green** – The set of five green LEDs, shows the signal strength.
Mounting

The device is designed to be used outdoors and mounted on the mast with all needed cables connecting through the latch of the unit.

*Mounting and configuration of this device should be done by a qualified person.*

When mounting on the mast, please ensure that cable feed is pointing downwards.

The IP rating scale of this device is IP54. We recommend using Cat5/6 shielded cables.

Warning! This equipment should be installed and operated with a minimum distance of 30 cm between the device and your body. Operation of this equipment in the residential environment could cause radio interference.

The QRT box contains several parts that need to be assembled. Please follow this process:

- Attach the two brackets (A) to the swivel adjuster (B), by using the four provided screws (use a PH1 screwdriver).

![Diagram of mounting process](image1)

- Place the two U-bolts (C) around the mast or pole, and guide them through the holes on the swivel adjuster (D). Then, tighten the U-bolts, each with one regular washer, one spring washer, and one nut, as shown in the image to the right. All nuts need to be tightened using a size 10 (3/8 in) wrench. Maximum diameter of the pole can be up to 70 mm.

![Diagram of U-bolt installation](image2)
• Use the mounting bracket (E), and put it on to the back of the antenna. Install with one rubber ring, one washer, and one nut for each of the built-in bolts (in that order).

• Attach the swivel adjuster to the mounting bracket. Use the long bolt in the position (F). Put one regular washer, and one spring washer onto the shorter screws, then put them in positions (G). Do not tighten too much, as you need to adjust the antenna now.

• Once antenna level and angle are adjusted according to the wireless signal in software, tighten all nuts. Note the degrees of angle for future reference.
Grounding

The installation infrastructure (towers and masts), as well as the router itself, must be properly grounded. The device includes a grounding wire attachment screw on the backside of the unit. Attach your grounding wire to the grounding screw, then attach the other end of the grounding wire to the grounded mast, please see the picture:

![Grounding](image)

Reset button

The reset button has three functions:

- Hold this button during boot time until LED light starts flashing, release the button to reset RouterOS configuration (total 5 seconds).
- Keep holding for 5 more seconds, LED turns solid, release now to turn on CAP mode. The device will now look for a CAPsMAN server (total 10 seconds).
- Or Keep holding the button for 5 more seconds until LED turns off, then release it to make the RouterBOARD look for Netinstall servers (total 15 seconds).

Regardless of the above option used, the system will load the backup RouterBOOT loader if the button is pressed before power is applied to the device. Useful for RouterBOOT debugging and recovery.

Accessories

Package includes accessories that come with the device:

- Montage elements: QRT U Bolt, Steel - Zinc plated, DIA 6 mm, U mast clamp, antenna mount.
- K-QRT_Fastening set for QRT.
- ZCPOEC006-R2_Gigabit POE injector cable with shielded connector.

Operating System Support

The device supports RouterOS software with the version number 6.44.5 at or above what is indicated in the RouterOS menu /system resource. Other operating systems have not been tested.

Specifications

For more information about this product, specifications, pictures, downloads and test results please visit our web page: [https://mikrotik.com/product/RB911G-5HPacD-QRT](https://mikrotik.com/product/RB911G-5HPacD-QRT)

MikroTik mobile app

Use the MikroTik smartphone app to configure your router in the field, or to apply the most basic initial settings for your MikroTik home access point.

![MikroTik mobile app](image)
Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This device and its antenna must not be co-located or operation in conjunction with any other antenna or transmitter.

IMPORTANT: Exposure to Radio Frequency Radiation.

This equipment complies with the FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 30 cm between the radiator and any part of your body.

Antenna Installation. WARNING: It is installer's responsibility to ensure that when using the authorized antennas in the United States (or where FCC rules apply); only those antennas certified with the product are used. The use of any antenna other than those certified with the product is expressly forbidden in accordance to FCC rules CFR47 part 15.204. The installer should configure the output power level of antennas, according to country regulations and per antenna type. Professional installation is required of equipment with connectors to ensure compliance with health and safety issues.

Industry Canada

IC:7442A-9225HPACT

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IMPORTANT: Exposure to Radio Frequency Radiation.

This equipment complies with the IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 30 cm between the radiator and any part of your body.

Cet équipement est conforme aux limites d'exposition au rayonnement IC définies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 30 cm entre le radiateur et toute partie de votre corps.

CAN ICES-3 (B)/NMB-3(B)FCC
Note. Information contained here is subject to change. Please visit the product page on www.mikrotik.com for the most up to date version of this document.
Connect the power adapter to turn on the device. Open 192.168.88.1 in your web browser, to configure it. More information on http://mt.lv/help.

See mikrotik.com/products for the latest version of this document.