

User Manual - CRS504-4XQ-OUT



Safety Warnings

Before you work on any equipment, be aware of the hazards involved with electrical circuitry, and be familiar with standard practices for preventing accidents.

Ultimate disposal of this product should be handled according to all national laws and regulations.

The Installation of the equipment must comply with local and national electrical codes.

This unit is intended to be installed in the rackmount. Please read the mounting instructions carefully before beginning installation. Failure to use the correct hardware or to follow the correct procedures could result in a hazardous situation for people and damage to the system.

This product is intended to be installed indoors. Keep this product away from water, fire, humidity, or hot environments.

Use only the power supply and accessories approved by the manufacturer, which can be found in the original packaging of this product.

Read the installation instructions before connecting the system to the power source.

We cannot guarantee that no accidents or damage will occur due to the improper use of the device.

Please use this product with care and operate at your own risk!

In the case of device failure, please disconnect it from power. The fastest way to do so is by unplugging the power plug from the power outlet.

It is the customer's responsibility to follow local country regulations, including operation within legal frequency channels, output power, cabling requirements, and Dynamic Frequency Selection (DFS) requirements. All Mikrotik devices must be professionally installed.

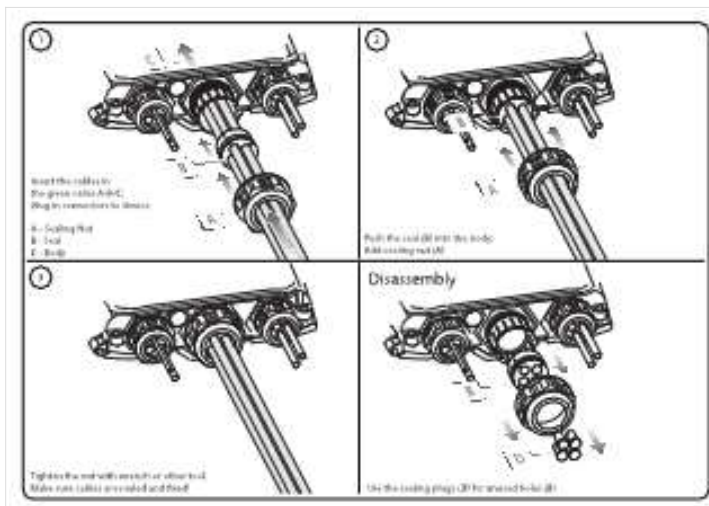
Quick start

- Connect an ethernet cable to the device;
- Download the configuration tool <https://mt.lv/winbox>;

- Open the *Neighbors* tab and connect to the device using the MAC address;
- The user name: *is admin*, by default, there is no password (or, for some models, check user and wireless passwords on the sticker);
- To update the device to the latest software version download the latest RouterOS software from <https://mikrotik.com/download>;
- Choose MIPSBE packages, and save them to your computer;
- Return to the WinBox and upload downloaded packages;
- Restart the device.

The device should be used in optical fiber applications where cables can be pulled through the cable glands and then connected to the QSFP modules. It also supports DAC, AOC, and Breakout cables with no-separable connectors, however, the use of them in some ports is possible only with the removed cable glands. Note that using this device without a cable gland will reduce its IP code from IP66 to IP54.

Mounting



PDF

Powering

- Number of DC inputs 3 (PoE-in, DC jack, 2-pin terminal)
- PoE-in input Voltage 43-57 V 802.3bt
- DC jack input Voltage 36-57 V
- 2-pin terminal input Voltage 36-57 V
- Power adapter nominal voltage 48 V

- Power adapter nominal current 0.95 A
- Max power consumption (without attachments) 25 W
- Max power consumption 38 W

Configuration

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: https://wiki.mikrotik.com/wiki/Manual:CRS3xx_series_switches.

The Initial connection has to be done via the Ethernet cable, using the MikroTik Winbox utility. For recovery purposes, it is possible to reinstall the device from the network, by pressing the reset button while powering on the device.

In case the IP connection is not available, the Winbox tool (<https://mt.lv/winbox>) can also be used to connect to the MAC address of the device.

Extension Slots and Ports

- 4CRS504-4XQ-OUT
- Product code CRS504-4XQ-OUT
- CPU QCA9531 650 MHz
- CPU architecture MIPSBE
- CPU core count 1
- Size of RAM 128 MB
- Storage 32 MB, Flash
- Number of 100M Ethernet ports 1
- Number of 100G QSFP28 ports 4
- Switch chip model 98DX4310
- IP rating IP66
- Dimensions 330 x 200 x 70 mm
- Operating system RouterOS v7, License level 5
- Operating temperature -40°C to +70°C

Reset button

To use the reset button, hold it and then turn on the device, while still holding the button.

- Release the button when the green LED starts flashing, to reset the RouterOS configuration. To not load the backup bootloader, you can start holding the button after power is already applied.
- Release the button after the LED is no longer flashing (~20 seconds) to cause the device to look for Netinstall servers (required for reinstalling RouterOS over the network). You can also release the button at the time when the device has appeared in the Netinstall utility device list. 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

The package includes the following accessories that come with the device:



48 V 0.95 A
power adapter



Gigabit PoE injector



Hose clamps



Fastening set

Please visit the wiki pages for the MikroTik SFP module compatibility table: https://wiki.mikrotik.com/wiki/MikroTik_SFP_module_compatibility_table

Operating system support

The device supports RouterOS v7.7. The specific factory-installed version number is indicated in the RouterOS menu /system resource. Other operating systems have not been tested.

Safety Notice

Electric shock hazard. This equipment is to be serviced by trained personnel only.

Federal Communication Commission Interference Statement



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

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense

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.

Note: This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance.

Innovation, Science, and Economic Development Canada

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science, and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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; 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [A] est conforme à la norme NMB-003 du Canada.

CAN ICES-003 (A) / NMB-003 (A)

UKCA marking



(EN) Technical Specifications / (DE) Technische Spezifikationen / (FR) Spécifications techniques / (IT) Specifiche tecniche / (ES) Especificaciones técnicas / (RU) Технические характеристики:

(EN) Product Power Input Options (DE) Produkt Stromquellen Optionen (FR) Options d'entrée d'alimentation du produit (IT) Opzioni di ingresso alimentazione del prodotto (ES) Opciones de entrada de energía del producto (RU) Варианты входной мощности продукта	(EN) Power Adapter Output Specification (V/A) (DE) Ausgangsspezifikationen des Gleichstromadapters, (V/A) (FR) Spécifications de sortie de l'adaptateur de courant continu, (V/A) (IT) Specifiche di uscita dell'adattatore di corrente continua, (V/A) (ES) Especificaciones de salida del adaptador de corriente continua, (V/A) (RU) Выходные характеристики адаптера постоянного тока, (В/А)		(EN) Degrees of protection provided by enclosure (IP Code) (DE) IP-Klasse des Gehäuses (FR) Classe IP du boîtier (IT) Classe IP della custodia (ES) Clase de IP del recinto (RU) Класс защиты корпуса IP	(EN) Operating Temperature (DE) Betriebstemperatur (FR) température de fonctionnement (IT) temperatura di esercizio (ES) Temperatura de funcionamiento (RU) Рабочая Температура
	Voltage, V	Current, A		
DC Jack (36 - 57 V DC)				
PoE in Ethernet Port (42.5 - 57 V DC)	48	0.95	IP66	-33°..+70°C

(EN) Technical Specifications / (DE) Technische Spezifikationen / (FR) Spécifications techniques / (IT) Specifiche tecniche / (ES) Especificaciones técnicas / (RU) Технические характеристики:

2 - PIN Terminal (36 - 57 V DC)				
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