

# User Manual

## Cloud Core Router 2004-1G-12S+2XS



The CCR2004 is a high-performance multicore router with twelve 10G SFP+ ports and two 25G SFP28 ports.

### **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 to 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, and 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 with your computer to the device using Ethernet cable;
- Download the configuration tool <https://mt.lv/winbox>;

- Open the *Neighbors* tab and connect to the device using MAC address;
- The user name: *admin*, by the 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 ARM64 packages, and save them to your computer;
- Return to the WinBox and upload downloaded packages to the Files menu;
- Restart the device.
- Detailed info on how to upgrade the device <https://mt.lv/upgrade>;
- Set a strong password.

## Powering

The device has dual integrated power supply units AC ~ 110-240V (5 A) with standard IEC compatible sockets with Maximum power consumption of 32 W, with attachments 49 W.

## Configuration

The Ethernet port 1 has a default IP address for connecting: 192.168.88.1. The username is admin and there is no password. The device doesn't have any other configuration applied by default, please set up WAN IP addresses, user password, and update the device. 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://mt.lv/help>. In case the IP connection is not available, the Winbox tool (<https://mt.lv/winbox>) can be used to connect to the MAC address of the device from the LAN side

For recovery purposes, it is possible to boot the device for reinstallation, see a section [Reset button](#).

## Specifications

Size of RAM notice - RouterOS v6 will support 1792MB ECC / to fully utilize please use RouterOS v7 4GB ECC.

## Reset button

The reset button has two functions:

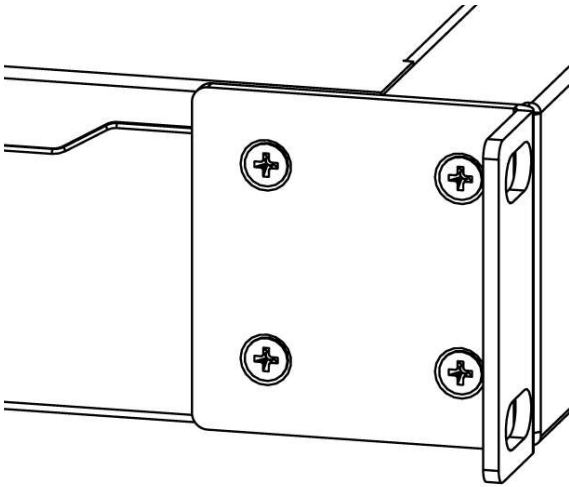
- Hold this button during boot time until LED light starts flashing, release the button to reset RouterOS configuration.

- Or Keep holding the button for 5 more seconds until LED turns off, then release it to make the RouterBOARD look for Netinstall servers.

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.

## Mounting

The device is designed to use indoors and it can be mounted in a rackmount enclosure using provided rack mounts, or it can be placed on the desktop. Use a Phillips screwdriver to attach rackmount ears on both sides of the device if designated use is for rackmount enclosure:



1. Attach rack ears to both sides of the device and tighten four screws to secure them in place, as shown on the picture to the right;
2. Place the device in rackmount enclosure and align with the holes so that the device fits conveniently;
3. Tighten screws to secure it in place.

The device has no protection from water contamination, please ensure the placement of the device in a dry and ventilated environment. We recommend Cat6 cables for our devices.

# Included Parts



2x IEC cords



Screw and feet kit  
(K10)



Rackmount bracket  
white

# Operating System Support

The device supports RouterOS software with the version number v7 at or above what 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.

To avoid pollution of the environment, please separate the device from household waste and dispose of it in a safe manner, such as in designated waste disposal sites. Familiarize yourself with the procedures for the proper transportation of the equipment to the designated disposal sites in your area.

# 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 or more 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.

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 complies with Industry Canada's license-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.

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

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

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

## **UKCA marking**



# Eurasian Conformity Mark

Информация о дате изготовления устройства указана в конце серийного номера на его наклейке через дробь. Первая цифра означает номер года (последняя цифра года), две последующие означают номер недели.

Изготовитель: Mikrotikls SIA, Aizkraukles iela 23, Riga, LV-1006, Латвия, [support@mikrotik.com](mailto:support@mikrotik.com).  
Сделано в Китае, Латвии или Литве. См. на упаковке.

Для получения подробных сведений о гарантийном обслуживании обратитесь к продавцу.

Информация об импортерах продукции MikroTik в Российскую

Федерацию: <https://mikrotik.com/buy/europe/russia>

Продукты MikroTik, которые поставляются в Евразийский таможенный союз, оцениваются с учетом соответствующих требований и помечены знаком ЕАС, как показано ниже:



# Norma Oficial Mexicana

EFICIENCIA ENERGETICA CUMPLE CON LA NOM-029-ENER-2017.

La operacion de este equipo esta sujeta a las siguientes dos condiciones:

- Es posible que este equipo o dispositivo no cause interferencia perjudicial y.
- Este equipo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operacion no deseada.

Fabricante: Mikrotikls SIA, Brivibas gatve 214i, Riga, LV-1039, Latvia.

País De Origen: Letonia; Lituania; China (Republica Popular); Estados Unidos De America; Mexico.

Por favor contacte a su distribuidor local para preguntas regionales específicas. La lista de importadores se puede encontrar en nuestra página de inicio

– <https://mikrotik.com/buy/latinamerica/mexico>.

# CE Declaration of Conformity

Manufacturer: Mikrotikls SIA, Brivibas gatve 214i Riga, Latvia, LV1039.

The full text of the EU Declaration of Conformity is available at the following internet address: <https://mikrotik.com/products> 

*Information contained here is subject to change. Please visit the product page on [www.mikrotik.com](http://www.mikrotik.com) for the most up to date version of this document.*