CCR2116-12G-4S+

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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.

Firs Use

- Connect with your computer to the device;
- 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 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;
- Restart the device.

Powering

The device accepts powering from two redundant power supplies, each accepts 100-240 V AC power. You can use either, or both at the same time. Up to 60 W power consumption.

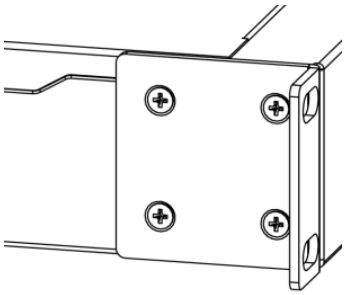
Extension Slots and Ports

- 12x 10/100/1000 Ethernet ports.
- 4x 10G SFP ports.
- One M.2 slot, type PCIe x4
- RJ45 console port

> The CCR2116-12G-4S+ has PCIe Gen 3.0 x4 connection to the M.2 slot.
> Recommended are NVMe M.2 2280mm M key SSD disks with a capacity of up to 1TB.

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 in the picture.
2. Place the device in a 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 shielded Cat5/6 cables for our devices. The mounting *and configuration of this device should be done by a qualified person.*

Buttons and Jumpers

The RouterBOOT reset button has the following functions. Press the button and apply the power, then:

- Release the button when the green LED starts flashing, to reset RouterOS configuration to defaults.
- Release the button when the LED turns solid green to clear all configuration and defaults.
- Release the button after LED is no longer lit (~20 seconds) to cause the device to look for Netinstall servers (required for reinstalling RouterOS over the network).

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.
The Mode button is not functional by default but can be assigned any script in the menu /system routerboard mode-button

LEDs

The device has four LED lights. PWR1/2 indicates which power supply is being used. FAULT indicates a problem with the cooling fans. USER can be configured in software.

Accessories

PLUG1, PLUG2_EU/US power cord, D03+QT3 H05VV-F 3x0.75mm2 1.83m RoHS;
CASE3, CASE4_ 1U rackmount bracket white;
SET1_Fastening set K-57r1v1;

Operating System Support

The device supports RouterOS software with version v7. or above, the number 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. This is a class A device, operating it near residential radio equipment could cause radio interference.

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 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

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. 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 EAC, 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 for the most up to date version of this document.