

CRS112-8P series

The CRS112 is a network switch with eight gigabit ethernet ports and four SFP ports. It is already configured, with all ports switched together. We recommend you to set up a password to secure your device. This unit is compatible with 1.25G SFP modules. The CRS112-8P is capable of powering other devices through PoE.

Powering

The device has two direct-input power jacks (5.5 mm outside and 2 mm inside, female, pin positive plug). One DC input supports 48-57 V DC, the other supports 18-28 V DC. Only a 28 V PSU is included. You can use either one, or both inputs at the same time. This will also affect the PoE output functionality (see below section).

The power consumption of this device itself under maximum load is up to 12 W.

PoE output

This device can supply PoE powering to external devices from its ethernet ports. The output voltage will be selected automatically, depending on what kind of adapter is connected, and what kind of voltage the connected device requires. The device can power 802.3af/at devices, but a 48 V PSU must be acquired separately.

By default the PoE mode is set to auto, it will not damage non PoE devices and will auto-detect devices with PoE support and the needed voltage. Once a PoE device is detected, it will be powered and the PoE LEDs will turn on.

With the included 28 V PSU the max power output of each ethernet port in this mode is 1 A, total maximum for all ports is 2.8 A. At 802.3af/at high power mode the max power output is 450 mA per port, total max 1.4 A.

Configuration

The device is set up as a switch, with 192.168.88.1 as the management IP of the bridge interface. RouterOS includes many configuration options in addition to what is described in this document. We suggest to start 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.

The device is equipped with an RJ45 serial port, set by default to 115200 bit/s, 8 data bits, 1 stop bit, no parity. Standard RJ45 to COM cable can be used, pinout can be found in the documentation (see link above).

For recovery purposes, it is possible to boot the device from network, see the next section.

Buttons and Jumpers

The reset button has these functions:

- Hold this button during boot time until LED light starts flashing, release the button to reset RouterOS configuration.
- Keep holding the button for 5 more seconds or until until the user LED turns off, then release it to make the RouterBOARD look for Netinstall servers. The first ethernet port is used for the Netinstall process. See RouterOS documentation about using the Netinstall recovery utility.

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. This is useful for RouterBOOT debugging and recovery.

LED indicators

- Power LED is lit when the router is powered from the DC jack.
- The user LED can be configured from RouterOS.
- The square port LEDs indicate the individual ethernet and SFP port activity.
- Triangle LEDs indicate PoE out status. Green LED indicates that the respective port uses low voltage, a red LED indicates high voltage. Flashing single green LED: problem to start low voltage device. Flashing single red LED: problem with high voltage device. All PoE LEDs flashing: wrong voltage PSU plugged into one of the ports.

Grounding

The device has a grounding wingnut attached to the back of it's case. You can attach a grounding wire to this wingnut and connect it to a grounding bus bar that is typically available in a server room and which is then connected to an earth ground.

Operating System Support

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

CE Declaration of Conformity

Full Declaration of Conformity (DoC) may be obtained by visiting our product page on <https://mikrotik.com/products>.
 Manufacturer: Mikrotikls SIA, Brivibas gatve 214i Riga, Latvia, LV1039.



EN	Hereby, Mikrotikls SIA declares that this routerboard is in compliance with the essential requirements and other relevant provisions of directive 2014/53/EC.
BG	С настоящето, Mikrotikls SIA декларира, че routerboard е в съответствие със съществените изисквания и другите приложими разпоредби на директива 2014/53/EC.
CZ	Mikrotikls SIA tímto prohlašuje, že routerboard splňuje základní požadavky a všechna příslušná ustanovení směrnice 2014/53/ES.
DK	Undertegnede Mikrotikls SIA erklærer herved, at følgende udstyr routerboard overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EF.
DE	Hiermit erkläre Mikrotikls SIA dass sich das gerät routerboard in übereinstimmung mit den grundlegenden anforderungen und den übrigen einschlägigen bestimmungen der richtlinie 2014/53/EG befindet.
EE	Käesolevaga kinnitab Mikrotikls SIA seadme routerboard vastavust direktiivi 2014/53/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
GR	Με την παρούσα ο κατασκευαστής Mikrotikls SIA δηλώνει ότι routerboard συμμορφώνεται προς τις ουσιαστές απαιτήσεις και τις λοιπές σχετικές διατάξεις της οδηγίας 2014/53/ΕΚ
ES	Por la presente, Mikrotikls SIA declara que este routerboard cumple con los requisitos esenciales y otras exigencias relevantes de la directiva 2014/53/EC.
IT	Con la presente Mikrotikls SIA dichiara che questo routerboard è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/CE.
LV	Ar šo Mikrotikls SIA deklarē, ka routerboard atbilst direktīvas 2014/53/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
LT	Šiuo Mikrotikls SIA deklaruoja, kad šis routerboard atitinka esminius reikalavimus ir kitas 2014/53/EB direktyvos nuostatas
HU	A Mikrotikls SIA ezzennel kijelenti, hogy a routerboard típusú beren-dezés teljesíti az alapvető követelményeket és más 2014/53/EK irányelvben meghatározott vonatkozó rendelkezéseket.
NL	Hierbij verklaart Mikrotikls SIA dat het toestel I routerboard in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EG.
PL	Niniejszym Mikrotikls SIA deklaruje że routerboard jest zgodny z zasadniczymi wymaganiami i innymi właściwymi postanowieniami dyrektywy 2014/53/EC.
PT	Eu, Mikrotikls SIA declaro que o routerboard cumpre os requisitos essenciais e outras provisões relevantes da directiva 2014/53/EC.
RO	Prin prezenta, Mikrotikls SIA declară că aparatul routerboard este în conformitate cu cerințele esențiale și cu alte prevederi pertinente ale directivei 2014/53/CE.
SL	Mikrotikls SIA tímto vyhlasuje, že routerboard splňa základné požiadavky a všetky príslušné ustanovenia smernice 2014/53/ES.
SI	Mikrotikls SIA izjavlja, da je ta routerboard v skladu z bistvenimi zahtevami in drugimi relevantnimi določili direktive 2014/53/ES.
FI	Mikrotikls SIA vakuuttaa täten että routerboard tyyppinen laite on direktiivin 2014/53/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
SE	Härmed intygar Mikrotikls SIA att denna routerboard är i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EG.
NO	Mikrotikls SIA erklærer herved at routerboard er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 2014/53/EF.

EN. Instruction manual: 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>
BG. Инструкции: Свържете адаптера на захранване, за да включите устройството. Отворете 192.168.88.1 в уеб браузър, за да настроите продукта. Повече информация в <http://mt.lv/help>
CZ. Návod k použití: Připojte napájecí adaptér k zapnutí přístroje. Otevřete 192.168.88.1 ve webovém prohlížeči pro konfiguraci produktu. Více informací najdete v <http://mt.lv/help>
DK. Instruktionsbog: Tilslut strømadapteren for at tænde for enheden. Åbn 192.168.88.1 i en webbrowser til at konfigurere produktet. Mere information i <http://mt.lv/help>
FR. Mode d'emploi: Connectez l'adaptateur d'alimentation pour allumer l'appareil. Ouvrez 192.168.88.1 dans un navigateur Web pour configurer le produit. Plus d'informations dans <http://mt.lv/help>
DE. Bedienungsanleitung: Verbinden Sie das Netzteil, um das Gerät einzuschalten. Öffnen Sie 192.168.88.1 in einem Web-Browser, um das Produkt zu konfigurieren. Weitere Informationen im <http://mt.lv/help>
EE. Kasutusjuhend: Ühendage toiteadapter seadme sisselülitamiseks. Avatud 192.168.88.1 in veebilehite seadistada toodet. Rohkem teavet <http://mt.lv/help>
ES. Manual de instrucciones: Conecte el adaptador de alimentación para encender la unidad. Abra 192.168.88.1 en un navegador web para configurar el producto. Más información en <http://mt.lv/help>
IT. Manuale di istruzioni: Collegare l'adattatore di alimentazione per accendere l'unità. Aprire 192.168.88.1 in un browser Web per configurare il prodotto. Maggiori informazioni in <http://mt.lv/help>
LV. Lietošanas instrukcija: Pievienojiet Strāvas adapteri, lai ieslēgtu ierīci. Atvērt 192.168.88.1 ar interneta pārlūku, lai konfigurētu produktu. Plašāka informācija <http://mt.lv/help>
LT. Naudojimosi instrukcija: Prijunkite maitinimo adapterį įjunkite įrenginį. Į interneto naršyklę 192.168.88.1 Atidarykite galite konfigūruoti gaminį. Daugiau informacijos rasite <http://mt.lv/help>
HU. Használati utasítás: Csatlakoztassa a hálózati adaptert a készülék bekapcsolásához. Megnyitása 192.168.88.1 egy webböngészőben beállítani a terméket. Több információ <http://mt.lv/help>
NL. Handleiding: Sluit voedingsadapter aan op het apparaat in te schakelen. Open 192.168.88.1 in een webbrowser om het product te configureren. Meer informatie in <http://mt.lv/help>
PL. Instrukcja obsługi: Podłącz adapter zasilania, aby włączyć urządzenie. Otwórz 192.168.88.1 w przeglądarce internetowej, aby skonfigurować urządzenie. Więcej informacji w <http://mt.lv/help>
PT. Manual de instruções: Conecte o adaptador de alimentação para ligar o aparelho. Abra 192.168.88.1 em um navegador da web para configurar o produto. Mais informações em <http://mt.lv/help>
RO. Instrucțiuni de utilizare: Conectați adaptorul de alimentare pentru a porni aparatul. Deschide 192.168.88.1 într-un browser web pentru a configura produsul. Mai multe informații în <http://mt.lv/help>
SK. Návod na použitie: Pripojte napájací adaptér k zapnutiu prístroja. Otvorte 192.168.88.1 vo webovom prehliadači pre konfiguráciu produktu. Viac informácií nájdete v <http://mt.lv/help>
SI. Navodila: Priključite napajalnik za vklop naprave. Odprite 192.168.88.1 v spletnem brskalniku nastaviti izdelek. Več informacij v <http://mt.lv/help>
FI. Käyttöohje: Kytke virtalähde päälle laitteen. Avaa 192.168.88.1 in selaimen määrittää tuotteen. Lisää tietoa <http://mt.lv/help>
SE. Instruktionsmanual: Anslut nätadaptern för att slå på enheten. Öppna 192.168.88.1 i en webbläsare för att konfigurera produkten. Mer information på <http://mt.lv/help>
NO. Bruksanvisningen: Koble strømadapteren for å slå på enheten. Åpne 192.168.88.1 i en nettleser for å konfigurere produktet. Mer informasjon på <http://mt.lv/help>
GR. εγχειρίδιο οδηγιών: Συνδέστε τον προσαρμογέα τροφοδοσίας για να ενεργοποιήσετε τη μονάδα. Ανοίξτε 192.168.88.1 σε ένα πρόγραμμα περιήγησης στο Web για να διαμορφώσετε το προϊόν. Περισσότερες πληροφορίες στο <http://mt.lv/help>
RU. Руководство по эксплуатации: подключите адаптер питания чтобы включить устройство. Откройте 192.168.88.1 в своем веб-браузере для конфигурации. Дополнительная информация: <http://mt.lv/help>

MPE statement

This equipment complies with EU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

Frequency bands terms of use

Frequency range (for applicable models)	Channels used	Maximum Output Power (EIRP)	Restriction
2412-2472 MHz	1 - 13	20 dBm	Without any restriction to use in all EU Member States
5150-5250 MHz	26 - 48	23 dBm	Restricted to indoor use only*
5250-5350 MHz	52 - 64	20 dBm	Restricted to indoor use only*
5470-5725 MHz	100 - 140	27 dBm	Without any restriction to use in all EU Member States

* 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 radio devices must be professionally installed!

