

# RouterBOARD 450Gx4

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## First use

The RB450Gx4 is an Ethernet router with five Gigabit Ethernet ports, a serial port, two power jacks and a microSD card slot. It is powered by MikroTik RouterOS. It comes without an enclosure, you are free to use it in your own.

- Install the board in a case.
- Connect Ethernet cables and plug in the microSD card (optional).
- Plug in power cable, or PoE powered ethernet cable in Ether1 to turn on the device.

## Powering

The device accepts power in the following ways:

- direct-input power jacks J1/J2 (5.5mm outside and 2mm inside diameter, female, pin positive plug) both accept 10-57V DC.
- Ether1 Ethernet port accepts 12-57V DC input (at the board; higher voltage needed to compensate for power loss on long cables) from 802.3af/at or passive Power over Ethernet sources.

Max total power consumption with all interfaces loaded is 5 W. You can use any or all inputs at the same time, they will work in failover mode.

## Booting process

RouterOS is the operating system of all RouterBOARD routers. Please see documentation: <http://mt.lv/help>

This device is not preconfigured other than an IP address on the ethernet port. Other configuration has to be applied according to the documentation manual linked above.

Initial connection has to be done via the ethernet cable, using the MikroTik Winbox utility. Winbox should be used to connect to the default IP address of 192.168.88.1 with the username admin and no password.

In case you wish to boot the device from network, for example to use MikroTik Netinstall, hold the reset button of the device when starting it until the LED light turns off, and the device will start to look for Netinstall servers.

In case IP connection is not available, the Winbox utility can also be used to connect to the MAC address of the device. More information in the documentation.

## Extension slots and ports

- Five Gigabit Ethernet ports (Auto MDI/X). The first Ethernet port accepts 8-30V DC powering from a passive PoE injector or 802.3af/at PoE switch. Use 12V or more to compensate for any losses in cables. The other four Ethernet ports do not support PoE input.
- The Ether5 port is capable of powering another RouterBOARD device with passive PoE (up to 57 V). The maximum output current is 500 mA.
- Onboard DB9 RS232C asynchronous serial port is set by default to 115200bit/s, 8 data bits, 1 stop bit, no parity. Note that the device does not fully implement the hardware (RTS/CTS) flow control, so it is suggested to try to disable hardware flow control in the terminal emulation program.
- microSD card for additional file storage.

## Buttons and jumpers

**RouterBOOT reset button.** This button has the following functions:

- To use the reset button, hold it and then turn on the device, while still holding the button.
- Release the button when green LED starts flashing, to reset RouterOS configuration. To not load backup bootloader, you can start holding the button after power is already applied.
- Release the button after LED is no longer flashing (~20 seconds) to cause device to look for Netinstall servers (required for reinstalling RouterOS over 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.

## Operating system support

The device only 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>

[EN] English	Hereby, MIKROTIKLS SIA declares that this RouterBOARD is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EC.
[BG] Bulgarian	С настоящето, MIKROTIKLS SIA декларира, че RouterBOARD е в съответствие със съществените изисквания и другите приложими разпоредби на Директива 2014/53/EC.
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[DK] Danish	Undertegnede MIKROTIKLS SIA erklærer herved, at følgende udstyr RouterBOARD overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EF.
[DE] German	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.
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[ES] Spanish	Por la presente, MIKROTIKLS SIA declara que este RouterBOARD cumple con los requisitos esenciales y otras exigencias relevantes de la Directiva 2014/53/EC.
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[RO] Romanian	Prin prezenta, MIKROTIKLS SIA declară că aparatul RouterBOARD este în conformitate cu cerințele esențiale și cu alte prevederi pertinente ale Directivei 2014/53/CE.
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[FI] Finnish	MIKROTIKLS SIA vakuuttaa täten että RouterBOARD tyyppinen laite on direktiivin 2014/53/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
[SE] Swedish	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] Norwegian	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. Инструкция:** 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 veebilehitseja 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 määritystä 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>