

RouterBOARD 800

Quick Setup Guide and Warranty Information

Assembling the Hardware

First use of the device:

- Insert the MiniPCI cards. RouterBOARD 800 provides four MiniPCI slots and one miniPCI-e slot. SIM slot is not provided, so this slot can't be used with 3G cards.
- (Optional) attach a daughterboard for additional Interfaces
- Connect antenna cables to the MiniPCI cards.
- Install the device in a case
- Plug in power cable to turn on the board
- If installing this device in an outdoor location, ensure proper grounding is installed as well.

Powering

The board accepts powering from either the power jack or the LAN1 Ethernet port:

- direct-input power jack **J14** (5.5mm outside and 2mm inside diameter, female, pin positive plug) accepts 10..56 V DC.
- LAN1 Ethernet port **J12** accepts 38..56 V DC input (at the RouterBOARD. Higher voltage needed to compensate for power loss on long cables; 48V suggested) from Power over Ethernet injectors. RB800 supports 802.3af PoE standard powering.

The maximum output of the power supply to the extension cards is normally at about 25W (7.5A at 3.3V), however with appropriate cooling, the onboard power supply is capable to provide higher power output to the extension cards. Without load and extension cards, RB800 consumes ~8.2W.



Booting process

First, RouterBOOT loader is started. It displays some useful information on the onboard RS232C asynchronous serial port. The 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 in case the serial console does not work as expected, and if it does not help, make a new cable using the pinout given in the MikroTik Online Wiki. The loader may be configured to boot the system from the onboard NAND, and/or from network. See the respective section of User's manual on how to configure booting sequence and other BIOS parameters.

DHCP or BOOTP (configurable in loader) protocols allow the RouterBOARD 800 series board to get an initial IP address, and provide the address of a TFTP server to download an ELF boot image from. It is especially useful for software installation.

See the User's manual for more information. Note that you must connect the RouterBOARD you want to boot and the BOOTP/DHCP and TFTP servers to the same broadcast domain (i.e., there must not be any routers between them – they must be on the same Ethernet switch).

Extension Slots and Ports

- Three Gigabit Ethernet ports, supporting automatic cross/straight cable correction (Auto MDI/X), so you can use either straight or cross-over cables for connecting to other network devices. The first Ethernet port accepts 38..56 V DC powering from a PoE injector (802.3af PoE supported). The other two Ethernet ports **do not** support PoE powering.
- Four MiniPCI Type IIIA/IIIB ports with 3.3V power signaling.
- DB9 RS232C asynchronous serial port.

Operating System Support

Currently tested operating system is MikroTik RouterOS (starting from v4).

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Follow the instructions below to save time, efforts, avoid costs, and improve the speed of the RMA process. Take into account that all goods have one year warranty.

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