RouterBOARD 435G

Quick Setup Guide and Warranty Information

The RB435G is a device with three Gigabit Ethernet ports, five miniPCI slots and two USB ports.

Assembling the Hardware

- Insert the miniPCI cards. RouterBOARD 435G provides five miniPCI slots. miniPCI cards must be installed without force, with proper card locking and RF shield/heatsink must not touch any other surface
- Install the board in a case
- Connect antenna cables to the miniPCI cards. Avoid powering the device with no antenna attached to the miniPCI, it can damage the cards.
- Connect other peripherals and cables and close the case if you use one.
- Plug in power cable or PoE cable to turn on the board.

Powering

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

- Direct input power jack accepts 8-30V DC
- LAN1 Ethernet port accepts 8-30 V DC input (at the board; higher voltage is needed to compensate for power loss on long cables – at least 18V suggested) from non-standard (passive) Power over Ethernet injectors. The board **does not** work with IEEE802.3af compliant 48V power injectors.

Max 3,3V load for miniPCI cards 19W (6A) at 24V power with no active cooling.
Max 3,3V load for miniPCI cards 40W (12A) at 24V power with active cooling.

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.

The RouterOS system will then load. It will be also indicated by two beeps.

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 pin out given in the User's manual.

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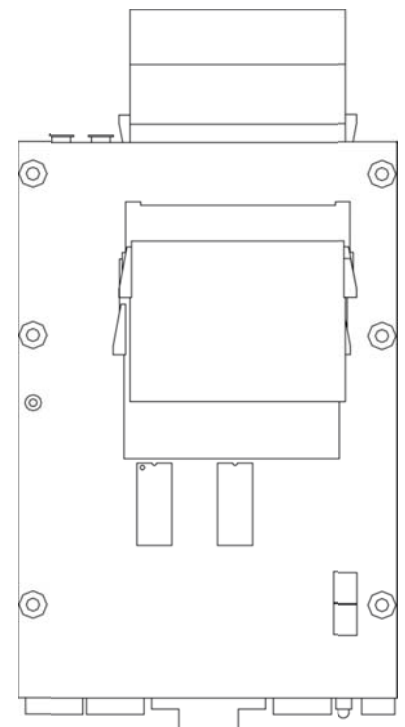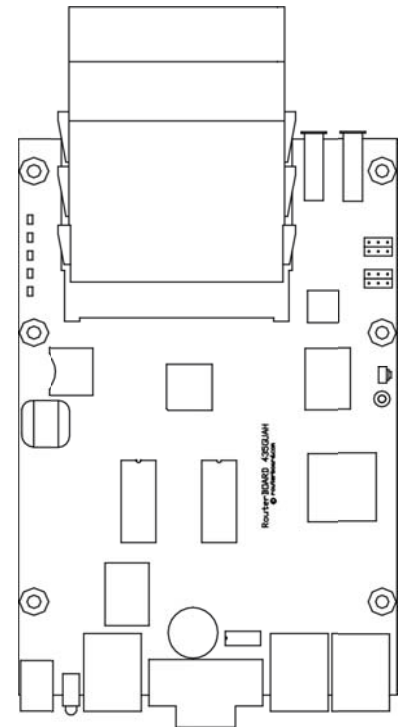
See the User's manual for more information and protocol details. Note that you must connect the RouterBOARD you want to boot and the BOOTP/DHCP and TFTP servers to the same broadcast domain (i.e., there must not be any routers between them – they must be on the same Ethernet switch).

More information on connecting to the device: **http://wiki.mikrotik.com/wiki/Manual:First_time_startup**

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 (marked with the "PoE" label, to the left of the serial port) accepts 8-30 V DC powering from a passive PoE injector. The other Ethernet ports do **not** support PoE powering.
- Five 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 RouterOS version v4.16).

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Hardware. MikroTikls SIA warrants all RouterBOARD series equipment for the term of fifteen (15) months from the shipping date to be free of defects in materials and workmanship under normal use and service, except in case of damage caused by mechanical, electrical or other accidental or intended damages caused by improper use or due to wind, rain, fire or other acts of nature.

If you have purchased your product from a MikroTik Reseller, please contact the Reseller company regarding all warranty and repair issues, the following instructions apply **ONLY** if you purchased your equipment directly from MikroTik Latvia

To return failed unit or units to MikroTikls you must perform the following RMA (Return Material Authorization) procedure. 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.

Instructions are located on our webpage here: **http://rma.mikrotik.com**

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