RouterBOARD 493
Quick Setup Guide and Warranty Information

Assembling the Hardware

- Insert the MiniPCI cards. RouterBOARD 493 provides three MiniPCI slots.

- Connect antenna cables to the MiniPCI cards.

- Install the board in a case and connect other peripherals and cables.

- Plug in power 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 **J901** (5.5mm outside and 2mm inside diameter, female, pin positive plug) accepts 9..28 V DC (overvoltage protection starts at 28.5V-29V).

- LAN1 Ethernet port **J601** accepts 9..28 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 (no power over datalines). The board **does not** work with IEEE802.3af compliant 48V power injectors.

CAUTION: all power inputs are always active, but only one of them may be used at a time to avoid damage of equipment.

The maximum output of the power supply available for extension cards is normally 10W (3.0A).

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 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 192 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 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).

Extension Slots and Ports

- Nine 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 and detached from the 8-port block) accepts 9..28 V DC powering from a passive PoE injector. The other eight Ethernet ports (placed as a block) **do not** support PoE powering.

- Three 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 ROS version 3.0).
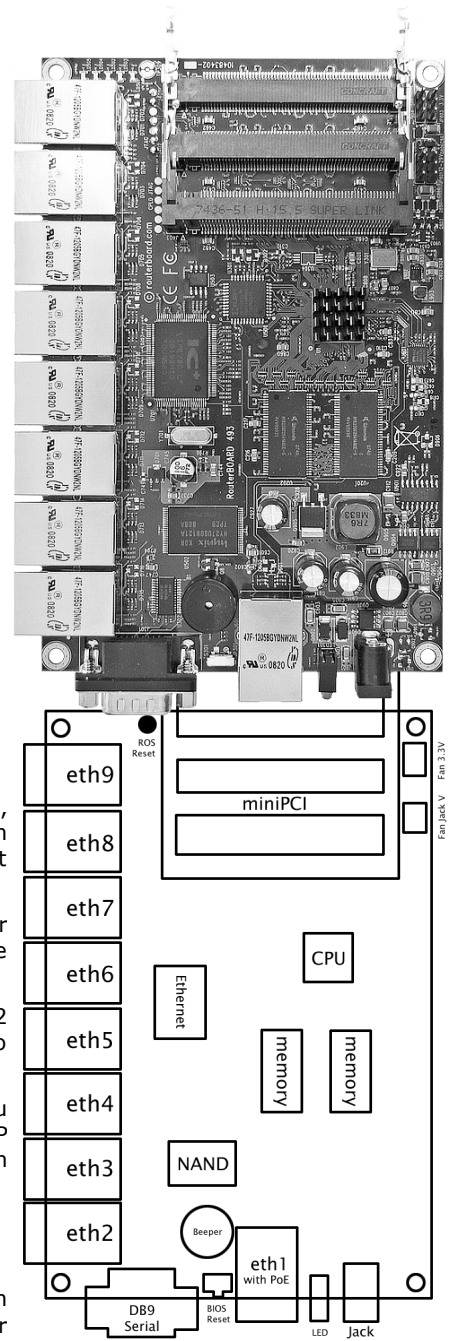
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Hardware. MikroTikls SIA warrants all RouterBOARD series equipment for the term of one year from the shipping date to be free of defects in materials and workmanship under normal use and service, except in case of damage caused by mechanical, electrical or other accidental or intended damages caused by improper use or due to wind, rain, fire or other acts of nature.

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