

RouterBOARD 912G-2HPnD

Quick Setup Guide and Warranty Information

RB912G is a dual chain 2GHz 802.11n wireless device with a Gigabit Ethernet port. Two models are available with 2GHz wireless: **RB912UAG-2HPnD** (miniPCle, SIM slot for 3G, USB 2.0 port, 64MB RAM), and **RB911G-2HPnD** (32MB RAM, no SIM, no USB, no MiniPCle).

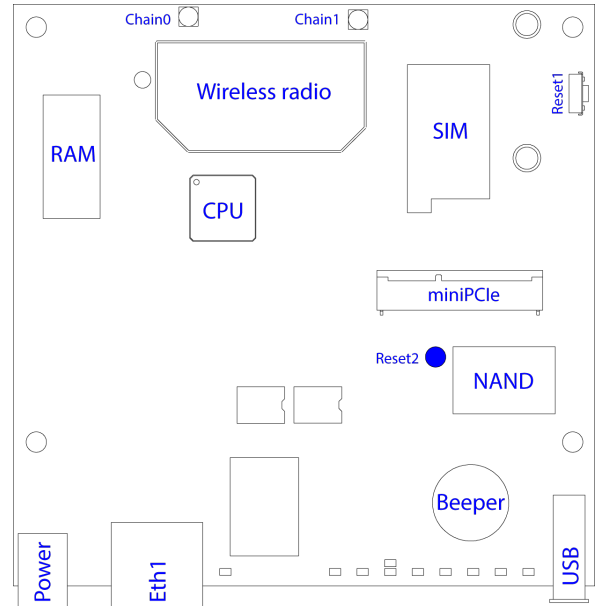
First use

- Connect antenna cables to the built in Wi-Fi connectors
- Device accepts 8-30V with a passive PoE powered Ethernet cable or with a power connector to the Power Jack

Powering

The board accepts power with the following modes:

- With PoE to Ether1 port. It accepts 8-30V DC input (at the board; higher voltage needed to compensate for power loss on long cables; at least 18V suggested) from non-standard (passive) Power over Ethernet injectors (no power over data lines). The board **does not** work with IEEE802.3af compliant 48V power injectors.
- Direct input to the power jack 8-30V



Booting process

RouterOS is the operating system of all RouterBOARD routers. Please see detailed configuration guide here:

<http://wiki.mikrotik.com/wiki/Category:Manual#list>

This device doesn't come fitted with a Serial Port connector, so 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 Groove will start to look for Netinstall servers.

In case IP connection is not available, Winbox can also be used to connect to the MAC address of the device. More information here: http://wiki.mikrotik.com/wiki/First_time_startup

Extension Slots and Ports

- One Gigabit Ethernet port (With Auto MDI/X so you can use either straight or cross-over cables for connecting to other network devices). The Ethernet port accepts 8-30V DC powering from a passive PoE injector.
- Built-in 802.11b/g/n WiFi card (AR9342) with two MMCX connectors
- **Only RB912UAG-2HPnD:** miniPCI-e slot for either a 802.11 Wireless card, or a 3G modem (when a 3G modem is used in miniPCle slot, USB port will become inactive. In RouterOS you can select which of the 3G modems you want to use, USB or miniPCle). SIM slot is available for miniPCle 3G cards.
- **Only RB912UAG-2HPnD:** USB 2.0 port

Buttons and Jumpers

- RouterOS reset jumper hole (Reset2 in above image) – resets RouterOS software to defaults. Must short circuit the metallic sides of the hole (with a screwdriver, for example) and boot the device. Hold screwdriver in place until RouterOS configuration is cleared.
- Reset button (Reset1 in above image) – Holding this button during boot time will make the RouterBOARD look for Netinstall servers. Release the button after the LED light goes out.

Operating System Support

Currently tested operating system is MikroTik RouterOS (starting from version v5.19).

Copyright and Warranty Information

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Hardware. MikroTik 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.

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 MikroTik 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>

Manual. This manual is provided “as is” without a warranty of any kind, expressed or implied, including, but not limited to, the implied warranty of merchantability and fitness for a particular purpose. The manufacturer has made every effort to ensure the accuracy of the contents of this manual, however, it is possible that it may contain technical inaccuracies, typographical or other errors. No liability is assumed for any inaccuracy found in this publication, nor for direct or indirect, incidental, consequential or other damages that may result from such an inaccuracy, including, but not limited to, loss of data or profits. Please report any inaccuracies found to support@mikrotik.com

Federal Communication Commission Interference Statement (FCC ID: TV7RB912G-2HPND)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.



This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This device and its antenna must not be co-located or operation in conjunction with any other antenna or transmitter.

IMPORTANT: Exposure to Radio Frequency Radiation.

63 cm minimum distance has to be maintained between the antenna and the occupational user and 140 cm to general public. Under such configuration, the FCC radiation exposure limits set forth for an population/uncontrolled environment can be satisfied.

List of additional approved antennas:

- Omni Directional (fiberglass pole) WLO-2450-15 15 dBi
- Omni Directional (hor. polarization) HP, ODH 24-13 13 dBi
- Sector SA 24-90-17-WB 17 dBi
- Panel WLP-2450-20 20 dBi
- Dish DC 24-HD-PFIP 24 dBi

Antenna Installation. WARNING: It is installer's responsibility to ensure that when using the authorized antennas in the United States (or where FCC rules apply); only those antennas certified with the product are used. The use of any antenna other than those certified with the product is expressly forbidden in accordance to FCC rules CFR47 part 15.204. The installer should configure the output power level of antennas, according to country regulations and per antenna type. Professional installation

is required of equipment with connectors to ensure compliance with health and safety issues.

CE Declaration of Conformity

Hereby MikroTik declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The Declaration of Conformity may be obtained by contacting sales@mikrotik.com

