

RouterBOARD

Quick Install Guide

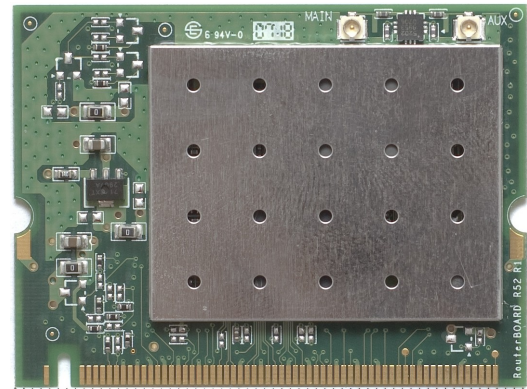
Mikrotik
Wireless
Mini PCI Adapter

RouterBOARD R52

Version 1.1



Introduction



This mini PCI adapter, RouterBOARD R52 contains a dual-mode single chip MAC/BB/Radio for IEEE 802.11a, 11g and 11b Wireless LAN. It can support high-speed data transmission of up to 54 Mbps in the 2.4GHz and 5GHz frequency bands based on 802.11b/g and 802.11a respectively.

Based on the latest industry standard Wi-Fi Certified IEEE 802.11a/g specification, the RouterBOARD R52 offers maximum channel speeds of up to 54 Mbps. It supports key security features like Wi-Fi Protected Access (WPA), WPA2, WEP and 802.1x.

You can find this adapter that is seated inside the wireless products such as the notebook computers or any other devices containing Mini PCI socket. R52 can be removed from or inserted on the PCBA of the RouterBOARD® products.

Package Content

RouterBOARD R52 retail package contains the following items:

- 1 x RouterBOARD R52 Wireless Mini PCI adapter

Application of Mini PCI

1. Align the R52 adapter to the Mini PCI socket.
2. Adjust and push down the R52 adapter gently until the metal-locking levers aside from the Mini PCI socket is fastened.
!! R52 adapter can only fit in one direction due to the keyed notch. Wrong orientation will cause improper installation and may damage the Mini PCI socket !!
3. Connect antenna/s on R52 adapter.

FCC NOTICE (FCC ID: TV7-R52) This device 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 device 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 device does cause harmful interference to radio or television reception, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Caution: Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

FCC Compliance Statement: 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.

Products that contain a radio transmitter are labeled with FCC ID and may also carry the FCC logo.

Caution: Exposure to Radio Frequency Radiation.

To comply with the FCC RF exposure compliance requirements, the following antenna installation and device operating configurations must be satisfied:

For configurations using an approved external antenna, the separation distance between the antenna and any person's body (including hands, wrists, feet and ankles) must be at least 65cm (25.6 inches).

Caution: Professional Installation Attestation

MIKROTIKLS SIA addresses the following items to ensure that the above referenced equipment is professionally installed:

- (1) The TV7-R52 will only be sold by MIKROTIKLS SIA or one of its authorized dealers. MIKROTIKLS SIA and its authorized dealers will be under strict marketing control and will only market and sell the TV7-R52 to professionals.
- (2) Professional installation is required for the TV7-R52 and will be performed only by someone knowledgeable of its use. MIKROTIKLS SIA will ensure that the TV7-R52 is only marketed and sold to professionals.
- (3) The TV7-R52 is not sold to the general public and is sold only for industrial or commercial use by professional installers.

List of approved antennas and power settings used for Class 2 permissive change. Installer shall be responsible for ensuring that the proper antenna is employed so that the limits in FCC Part 15 are not exceeded.

DECLARATION OF CONFORMITY: MIKROTIKLS SIA declares that the product:

Product Name: Mikrotik RouterBoard R52 Wireless Mini PCI Adapter

Model No.: R52

conforms to the following Product Standards:

Radiated Emission Standards: ETSI EN 300 328-2: July 2000; FCC: 47 CFR Part 15, Subpart B, ANSI C63.4-1992; 47 CFR Part 15, Subpart C (Section 15.247), ANSI C63.4-1992.

Conducted Emission Standards: ETS 300 826: Nov. 1997.

Immunity Standards: IEC 801-2; IEC 801-3; IEC 801-4

Low Voltage Directive: EN 60 950:1992+A1: 1993+A2: 1993+A3; 1995+A4; 1996+A11: 1997

Therefore, this product is in conformity with the following regional standards: **FCC Class B** – following the provisions of FCC Part 15 directive; **CE Mark** – following the provisions of the EC directive.

Manufacturer's Name: Mikrotik, SIA

Address: 46 Pernavas street ,
Riga, LV-1009, Latvia

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Manual Number: **M-R52-1.1A** September 2007

5.725-5.825 Ghz

Antenna Type	Model number	Gain (dBi)	Power settings	EIRP	Limit	Operational Mode
Omni	OD58-12	12	18	30	36	PTMP
Panel	PA58-24	24	18	42	53	PTP
Dish	DA5W-32-DP	32	18	50	53	PTP
Grid Dish	GD5W-28P	28	18	46	53	PTP
Sector	SA58-90-17-WB	17	18	35	47	PTP
Sector	SA58-90-17-WB	17	18	35	36	PTMP

2.4Ghz (802.11b)

Antenna Type	Model number	Gain (dBi)	Power settings	EIRP	Limit	Operational Mode
Omni (vertical)	OD24-12	12	19	31	36	PTMP
Omni (horizontal)	ODH24-13	13	19	32	36	PTMP
Sector	SA24-90-17	17	19	36	43	PTP
Sector	SA24-90-17	17	19	36	36	PTMP
Grid (die cast)	DC24HDPP1P	24	19	43	48	PTP
Panel	PA24-19	19	19	38	44	PTP