

MikroTik RB4011iGS+5HacQ2HnD-IN

MikroTik RB4011iGS+5HacQ2HnD-IN Router User Manual

Model: RB4011iGS+5HacQ2HnD-IN | Brand: MikroTik

1. PRODUCT OVERVIEW

The MikroTik RB4011iGS+5HacQ2HnD-IN is a high-performance router designed for demanding networking environments. It combines powerful hardware with MikroTik's versatile RouterOS, offering extensive configuration options for both home and professional users.

Key features include:

- Ten Gigabit Ethernet ports for high-speed wired connections.
- SFP+ 10Gbps interface for fiber connectivity.
- IPsec hardware acceleration for secure VPN tunnels.
- Quad-core Cortex A15 CPU and 1GB RAM for robust performance.
- Dual-band (2.4GHz and 5GHz) Wi-Fi with four chains, supporting up to 1733 Mbps in 5GHz.
- PoE output on Ethernet port #10 to power compatible devices.
- Durable and compact solid metal enclosure.



Front view of the MikroTik RB4011iGS+5HacQ2HnD-IN router, showing the ten Gigabit Ethernet ports, SFP+ port, and status LEDs.



Angled view of the MikroTik RB4011iGS+5HacQ2HnD-IN router, highlighting its compact design and multiple antennas.

2. SETUP GUIDE

2.1. Package Contents

Before you begin, ensure all components are present:

- MikroTik RB4011iGS+5HacQ2HnD-IN Router
- Power Adapter
- Power Cord
- Mounting Screws and Wall Plugs (if applicable)



The power adapter for the MikroTik RB4011iGS+5HacQ2HnD-IN router.



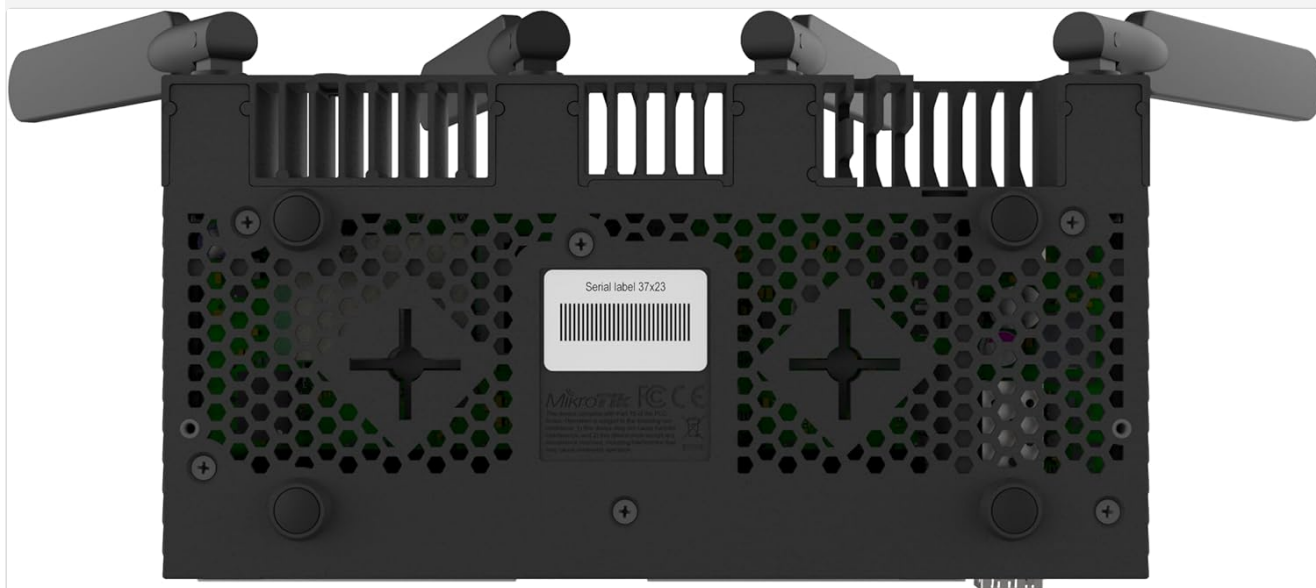
Included mounting screws and wall plugs for installation.

2.2. Physical Installation

1. **Placement:** Position the router in a central location to maximize Wi-Fi coverage. Ensure adequate ventilation around the device, as the metal enclosure acts as a heatsink.
2. **Power Connection:** Connect the power adapter to the router's DC input port and then plug it into a power outlet.
3. **Ethernet Connections:** Connect your internet source (e.g., modem) to one of the Gigabit Ethernet ports (typically port 1, but configurable). Connect your wired devices (computers, switches) to the remaining

Ethernet ports.

4. **SFP+ Connection:** If using a fiber connection, insert a compatible SFP+ module into the SFP+ port and connect your fiber optic cable.



Rear view of the router, showing the power input, console port, and ventilation.



Bottom view of the router, showing the serial label and mounting points.

2.3. Initial Configuration

The RB4011 runs MikroTik's RouterOS, which offers extensive configuration options. For initial setup, it is recommended to use the WinBox utility or access the web interface (WebFig).

1. **Connect to the Router:** Connect your computer directly to one of the router's Ethernet ports.
2. **Access RouterOS:**
 - **WinBox:** Download the WinBox utility from the MikroTik website. Launch WinBox, and it should discover the router. Connect using the default credentials (usually no password for the 'admin' user on first boot).
 - **WebFig:** Open a web browser and navigate to the router's default IP address (commonly 192.168.88.1). Log in with the default credentials.
3. **Run Quick Set:** RouterOS typically presents a 'Quick Set' interface for basic configuration, including setting up internet access, Wi-Fi networks, and changing the default password. It is crucial to change the default password immediately for security.
4. **Update Firmware:** After initial setup, it is highly recommended to update RouterOS to the latest stable

version. This can resolve known issues, including Wi-Fi performance improvements. Refer to the MikroTik wiki for detailed update procedures.

3. OPERATION

3.1. Network Connectivity

The RB4011 provides robust wired and wireless connectivity:

- **Ethernet Ports:** All ten Gigabit Ethernet ports support high-speed data transfer. Port 10 also supports Power over Ethernet (PoE) output, allowing you to power compatible devices like IP cameras or access points directly from the router.
- **SFP+ Port:** The 10Gbps SFP+ port is ideal for connecting to a fiber optic network or a high-speed backbone. Ensure compatibility of SFP+ modules; the RB4011 does not support Passive DAC modules, 1GB copper SFP modules, or SFP GPON modules.

3.2. Wireless Configuration

The router supports dual-band Wi-Fi (2.4GHz and 5GHz). For optimal performance, especially on the 5GHz band, manual tuning may be required.

- **SSID and Security:** Configure your Wi-Fi network names (SSIDs) and security protocols (WPA2/WPA3).
- **Channel Selection:** Use the built-in Wi-Fi scanner in RouterOS to identify clear channels in your environment. Manually selecting less congested channels can significantly improve wireless performance.
- **Channel Width:** For 5GHz, experiment with channel widths (e.g., 20/40/80MHz) to balance range and speed. Be aware of DFS (Dynamic Frequency Selection) requirements in certain regions, which may cause temporary interruptions if radar signals are detected.
- **Transmit Power:** Adjust transmit power settings to optimize coverage and minimize interference with neighboring networks.

3.3. Advanced Features

RouterOS provides a comprehensive suite of advanced networking features:

- **VPN:** Support for various VPN protocols, including OpenVPN and IPsec, for secure remote access or site-to-site connections.
- **Firewall:** Robust firewall rules for network security, traffic filtering, and port forwarding.
- **VLANs:** Virtual Local Area Network (VLAN) tagging for network segmentation and management.
- **Routing:** Advanced routing tables and protocols for complex network topologies.
- **Quality of Service (QoS):** Prioritize network traffic for critical applications.

4. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your MikroTik router.

- **Firmware Updates:** Periodically check the MikroTik website for RouterOS updates. Keeping the firmware current is essential for security, stability, and performance improvements, especially for Wi-Fi functionality.
- **Heat Management:** The router's metal enclosure acts as a heatsink. Ensure it is placed in a location with good airflow and is not obstructed. While the unit may run warm, this is normal. Monitor the CPU temperature via RouterOS if concerns arise.
- **Cleaning:** Keep the router free from dust accumulation, especially around ventilation slots, to prevent overheating. Use a soft, dry cloth for cleaning.

- **Backup Configuration:** Regularly back up your router's configuration. This allows for quick restoration in case of accidental changes or system issues.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your RB4011 router.

- **No Internet Access:**
 - Verify physical connections from your modem to the router and from the router to your devices.
 - Check the WAN interface status in RouterOS to ensure it's receiving an IP address from your ISP.
 - Confirm DNS settings are correct.
- **Slow Wi-Fi Performance:**
 - Ensure RouterOS firmware is up to date, as older versions had known 5GHz Wi-Fi issues.
 - Manually tune Wi-Fi channels and channel widths to avoid interference from neighboring networks.
 - Check for physical obstructions or distance from the router.
- **Unit Runs Warm:**

It is normal for the RB4011 to run warm, as its metal casing is designed for passive heat dissipation. Ensure adequate ventilation and avoid enclosing the device in confined spaces.
- **Difficulty with RouterOS Configuration:**

RouterOS has a steep learning curve for new users. Consult the official MikroTik Wiki (wiki.mikrotik.com) and community forums for detailed guides and support. The WinBox utility often provides a more intuitive interface than the command line for beginners.
- **PoE Output Not Working:**

Verify that the device connected to port 10 is PoE compatible and that PoE output is enabled and configured correctly in RouterOS.

6. TECHNICAL SPECIFICATIONS

Feature	Specification
Model Name	RB4011iGS+5HacQ2HnD-IN
Product Dimensions	11.81 x 11.81 x 3.94 inches
Item Weight	0.071 ounces
CPU	Quad-core Cortex A15
RAM	1GB
Ethernet Ports	10 x Gigabit Ethernet
SFP+ Port	1 x 10Gbps
Wireless Standard	802.11ac
Frequency Band Class	Dual-Band (2.4GHz, 5GHz)
Max Data Rate (5GHz)	Up to 1733 Mbps

Feature	Specification
PoE Output	Yes (Port #10)
Color	Black
Manufacturer	Mikrotik
Country of Origin	Latvia

7. WARRANTY AND SUPPORT

Specific warranty details for the MikroTik RB4011iGS+5HacQ2HnD-IN are not provided within this manual. For comprehensive warranty information, technical support, and additional resources, please refer to the official MikroTik website or contact your authorized MikroTik reseller.

MikroTik provides extensive documentation and a vibrant community forum on their website, which can be invaluable for advanced configurations and troubleshooting.