



RSI GR Gigabit Router Series



**RSI-GR450 Gigabit
MiniRouter**



**RSI-GR205 GIGABIT
1X Router AP**



**RSI-GR209 Gigabit
9X Router AP**

RSI-GR450 5X WIRED GIGABIT ROUTER

Performance: Atheros 680MHz CPU
Memory: 256MB SDRAM / 512MB NAND storage
Connectivity: 5x 10/100/1000 Gigabit Ethernet AUTO-MDI-X ports
Frequency: 2400-2500 MHz
Mounting: 3/8" Mounting Brackets Included
RouterOS Generic V5 Level 5 License Included
Power: 24VDC, 120/240 VAC Power Supply Included

RSI-GR205 1X GIGABIT ROUTER-AP

Performance: Atheros 680MHz CPU
Memory: 64MB SDRAM NAND storage
Connectivity: One Gigabit Ethernet port with Auto-MDI/X
Frequency: 2400-2500 MHz
Wireless: Built in 2GHz 802.11b/g/n
Mounting: 3/8" Mounting Brackets Included
RouterOS Generic V5 Level 4 License Include
Power: 24VDC, 120/240 VAC Power Supply Included

RSI-GR209 9X GIGABIT ROUTER-AP

Performance: Atheros 680MHz CPU
Memory: 128 Memory /64MB storage
Connectivity: Nine Gigabit Ethernet ports, 1-DB9
Frequency: 2400-2500 MHz
Wireless: Built in 2GHz 802.11a/b/g/n
Mounting: 3/8" Mounting Brackets Included
RouterOS Generic V5 Level 5 License Include
Power: 24VDC, 120/240 VAC Power Supply Included

ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

GENERIC WIRED AND WIRELESS OPERATING SYSTEM SPECIFICATIONS V4, LEVEL 4 SOFTWARE UP

TCP/IP protocol suite: Firewall and NAT - stateful packet filtering; Peer-to-Peer protocol filtering; source and destination NAT; classification by source MAC, IP addresses (networks or a list of networks) and address types, port range, IP protocols, protocol options (ICMP type, TCP flags and MSS), interfaces, internal packet and connection marks, ToS (DSCP) byte, content, matching sequence/frequency, packet size, time and more...

Routing - Static routing; Equal cost multi-path routing; Policy based routing (classification done in firewall); RIP v1 / v2, OSPF v2, BGP v4

Data Rate Management - Hierarchical HTB QoS system with bursts; per IP / protocol / subnet / port / firewall mark; PCQ, RED, SFQ, FIFO queue; CIR, MIR, contention ratios, dynamic client rate equalizing (PCQ), bursts, Peer-to-Peer protocol limitation

HotSpot - HotSpot Gateway with RADIUS authentication and accounting; true Plug-and-Play access for network users; data rate limitation; differentiated firewall; traffic quota; real-time status information; walled-garden; customized HTML login pages; iPass support; SSL secure authentication; advertisement support

Point-to-Point tunneling protocols - PPTP, PPPoE and L2TP Access Concentrators and clients; PAP, CHAP, MSCHAPv1 and MSCHAPv2 authentication protocols; RADIUS authentication and accounting; MPPE encryption; compression for PPPoE; data rate limitation; differentiated firewall; PPPoE dial on demand

Simple tunnels - IPsec tunnels, EoIP (Ethernet over IP) IPsec - IP security AH and ESP protocols; MODP Diffie-Hellman groups 1,2,5; MD5 and SHA1 hashing algorithms; DES, 3DES, AES-128, AES-192, AES-256 encryption algorithms; Perfect Forwarding Secrecy (PFS) MODP groups 1,2,5

Proxy - FTP and HTTP caching proxy server; HTTPS proxy; transparent DNS and HTTP proxying; SOCKS protocol support; DNS static entries; support for caching on a separate drive; access control lists; caching lists; parent proxy support

DHCP - DHCP server per interface; DHCP relay; DHCP client; multiple DHCP networks; static and dynamic DHCP leases; RADIUS support

VRRP - VRRP protocol for high availability

UPnP - Universal Plug-and-Play support

NTP - Network Time Protocol server and client; synchronization with GPS system Monitoring/Accounting - IP traffic accounting, firewall actions logging, statistics graphs accessible via HTTP

SNMP - read-only access

M3P - MikroTik Packet Packer Protocol for Wireless links and Ethernet

MNDP - MikroTik Neighbor Discovery Protocol; also supports Cisco Discovery Protocol (CDP)

Tools - ping; traceroute; bandwidth test; ping flood; telnet; SSH; packet sniffer; Dynamic DNS update tool

Layer 2 connectivity:

Wireless - IEEE802.11a/b/g wireless client and access point (AP) modes; Nstreme and Nstreme2 proprietary protocols; Wireless Distribution System (WDS) support; virtual AP; 40 and 104 bit WEP; WPA pre-shared key authentication; access control list; authentication with RADIUS server; roaming (for wireless client); AP bridging

Bridge - spanning tree protocol; multiple bridge interfaces; bridge firewalling, MAC NATting

VLAN - IEEE802.1q Virtual LAN support on Ethernet and wireless links; multiple VLANs; VLAN bridging

Synchronous - V.35, V.24, E1/T1, X.21, DS3 (T3) media types; sync-PPP, Cisco HDLC, Frame Relay line protocols; ANSI-617d (ANDI or annex D) and Q933a (CCITT or annex A) Frame Relay LMI types

Asynchronous - serial PPP dial-in / dial-out; PAP, CHAP, MSCHAPv1 and MSCHAPv2 authentication protocols; RADIUS authentication and accounting; onboard serial ports; modem pool with up to 128 ports; dial on demand

ISDN - ISDN dial-in / dial-out; PAP, CHAP, MSCHAPv1 and MSCHAPv2 authentication protocols; RADIUS authentication and accounting; 128K bundle support; Cisco HDLC, x75i, x75ui, x75bui line protocols; dial on demand **SDSL** - Single-line DSL support; line termination and network termination modes

Full network-based installation - PCI Ethernet network interface card supported by MikroTik RouterOS (see the Device Driver List for the list) with PXE or EtherBoot extension booting ROM (you might need also to check if the router's BIOS supports booting from network)

Configuration possibilities RouterOS provides powerful command-line configuration interface. You can also manage the router through WinBox - the easy-to-use remote configuration GUI for Windows -, which provides all the benefits of the command-line interface, without the actual "command-line", which may scare novice users. Web-based configuration is provided for some most popular functionality.

Major features: Clean and consistent user interface Runtime configuration and monitoring Multiple connections User policies Action history, undo/redo actions safe mode operation Scripts can be scheduled for executing at certain times, periodically, or on events. All command-line commands are supported in scripts

Router may be managed through the following interfaces (note that until a valid IP configuration is entered, telnet and SSH connections are not possible):

Local terminal console - AT, PS/2 or USB keyboard and VGA-compatible video controller card with monitor

Serial console - any (you may choose any one; the first, also known as COM1, is used by default) RS232 asynchronous serial port, which is by default set to 9600bit/s, 8 data bits, 1 stop bit, no parity, hardware (RTS/CTS) flow control

Telnet - telnet server is running on 23 TCP port by default

SSH - SSH (secure shell) server is running on 22 TCP port by default (available only if security package is installed)

MAC Telnet - MAC Telnet protocol server is by default enabled on all Ethernet-like interfaces

Winbox - Winbox is a RouterOS remote administration GUI for Windows, that uses 8291 TCP port. It may also connect routers by their MAC addresses