

Product catalog Q1-Q2 2011



*Mikro***Tik**

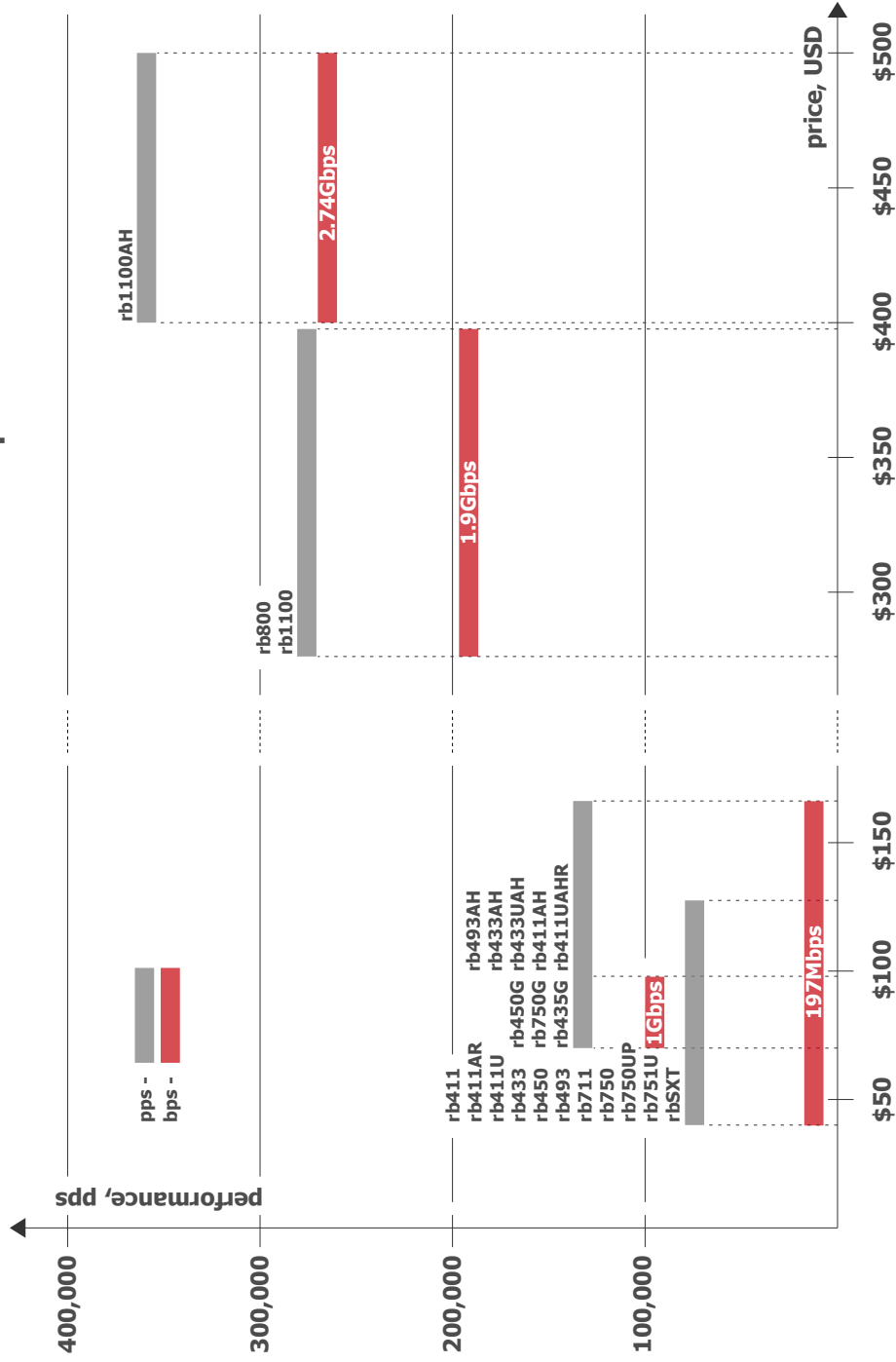


**routerboard**

# RouterBOARD Selection Guide

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## RouterBOARD Price-Performance Comparison



# SXT 5HnD



SXT 5HnD is a low cost, high speed 5GHz outdoor wireless device, which can be used for point to point links or as a CPE for point to multipoint installations.

Dual chain 802.11n and TDMA technology help to achieve even 200Mbit real throughput. Complete with a ready to mount enclosure and built-in 16dBi antenna, the package contains everything you need to make a point to point link, or connect to an AP.

The SXT is powered by RouterOS, the most advanced router, bandwidth controller and firewall.



Features	5HnD (5Ghz, High power wireless, 802.11n, Dual-chain)
CPU	Atheros AR7241 400MHz CPU
Memory	32MB DDR SDRAM onboard memory
Ethernet	One 10/100 Ethernet port, L2MTU frame size up to 4076
Wireless cards	Onboard dual chain 5GHz 802.11a/n Atheros AR9280 wireless module; 10kV ESD protection on each RF port
Extras	Reset switch, beeper, USB 2.0 port, voltage and temperature monitors
LEDs	Power LED, Ethernet LED, 5 wireless signal LED
Power options	Power over Ethernet: 8-30V DC Packaged with 24V DC 0.8A power adapter and passive PoE injector
Dimensions	140x140x56mm. Weight without packaging, adapters and cables: 265g
Power consumption	Up to 7W
Operating Temp	-30C .. +80C
OS	MikroTik RouterOS, Level3 license
Package contains	SXT wireless device with integrated antenna, pole mounting bracket, mounting ring, PoE injector, power adapter, quick setup guide
Certifications	FCC, CE, ROHS
Antennas	Dual polarization 5GHz antenna, 16 ±2 dBi, - 35 dB port to port isolation
TX power	802.11g: 26dBm @ 6Mbps to 22 dBm @ 54 Mbps 802.11n: 25dBm @ MCS0 to 18dBm @ MCS7
Modulations	OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK

# RB250GS

The RB250GS is a small SOHO switch device in a plastic case. It has five Gigabit Ethernet ports powered by an Atheros Switch Chip.

It is powered by a new operating system designed specifically for MikroTik Switch products - SwOS.

SwOS is configurable from your web browser. It gives you all the basic functionality for a managed switch, plus more: Allows to manage port-to-port forwarding, apply MAC filter, configure VLANs, mirror traffic, apply bandwidth limitation and even adjust some MAC and IP header fields.

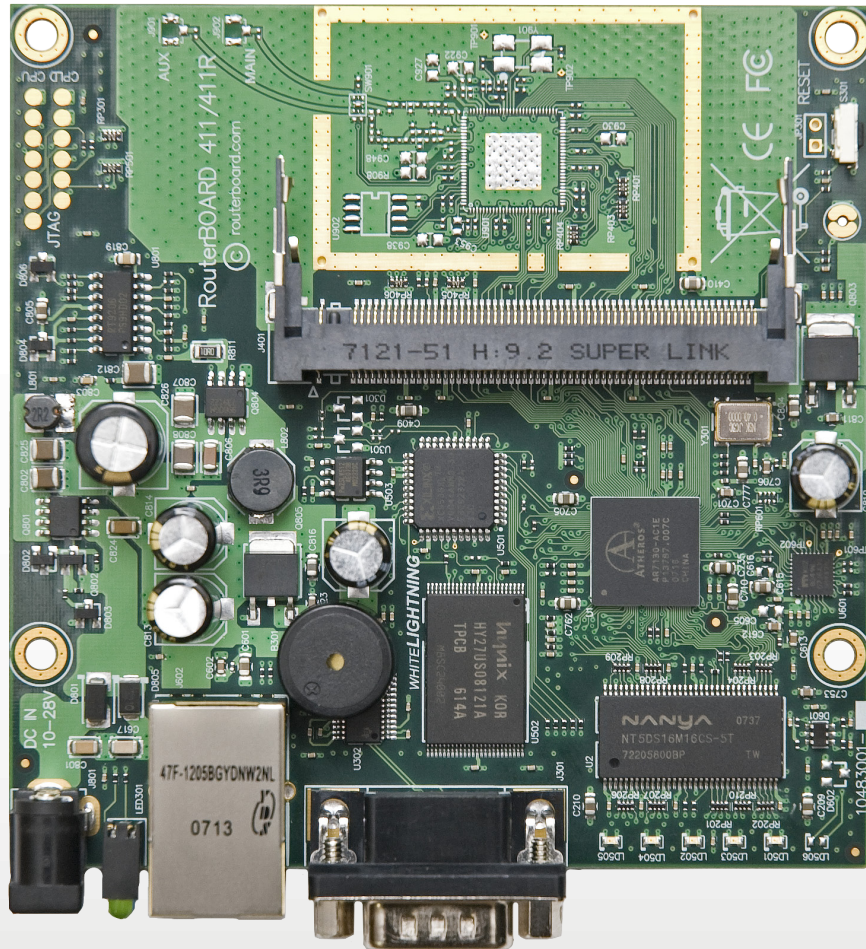
- Smart switch
- Small and compact
- Plastic case
- Five Gigabit ports
- Web interface controlled
- Smarter than smart



CPU	Taifatech TF470
Memory	Embedded 96K SRAM
Ethernet	Five 10/100/1000 Ethernet ports, Atheros switch AR8316
Serial port	No serial port
LEDs	Power, NAND activity, 5 Ethernet activity LEDs
Extras	Hardware watchdog
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	113x89x28mm. Weight without packaging and cables: 142g
Power consumption	Up to 6W
Operating Temperature	-25C .. +65C
Operating System	MikroTik SwOS



# RB411



The RB411 series is designed with size and cost in mind. This small device will fit perfectly into small CPE devices, will host your SOHO AP, or even run your wireless backup link. The powerful Atheros CPU gives it the ability to do all of this and more.

It comes in different versions - the RB411AH adds more memory, faster CPU and a Level4 license to use as an AP.

The RB411 includes RouterOS - the operating system, which will turn this powerful system into a highly sophisticated router, firewall or bandwidth manager.

One small device - with all the power of RouterOS, and our most affordable one.

CPU	Atheros AR7130 300MHz (AR7161 680MHz for AH model)
Memory	32MB DDR SDRAM onboard memory (64MB for RB411AH model)
Boot loader	RouterBOOT
Data storage	64MB onboard NAND memory chip
Ethernet	One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X
miniPCI	One MiniPCI Type IIIA/IIIB slot
Extras	Reset switch, Beeper
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	105 mm x 105 mm, Weight: 82 g
Power consumption	~3W without extension cards, maximum – 12 W
Operating System	MikroTik RouterOS, Level3 license without AP support RB411AH has Level4 with AP support

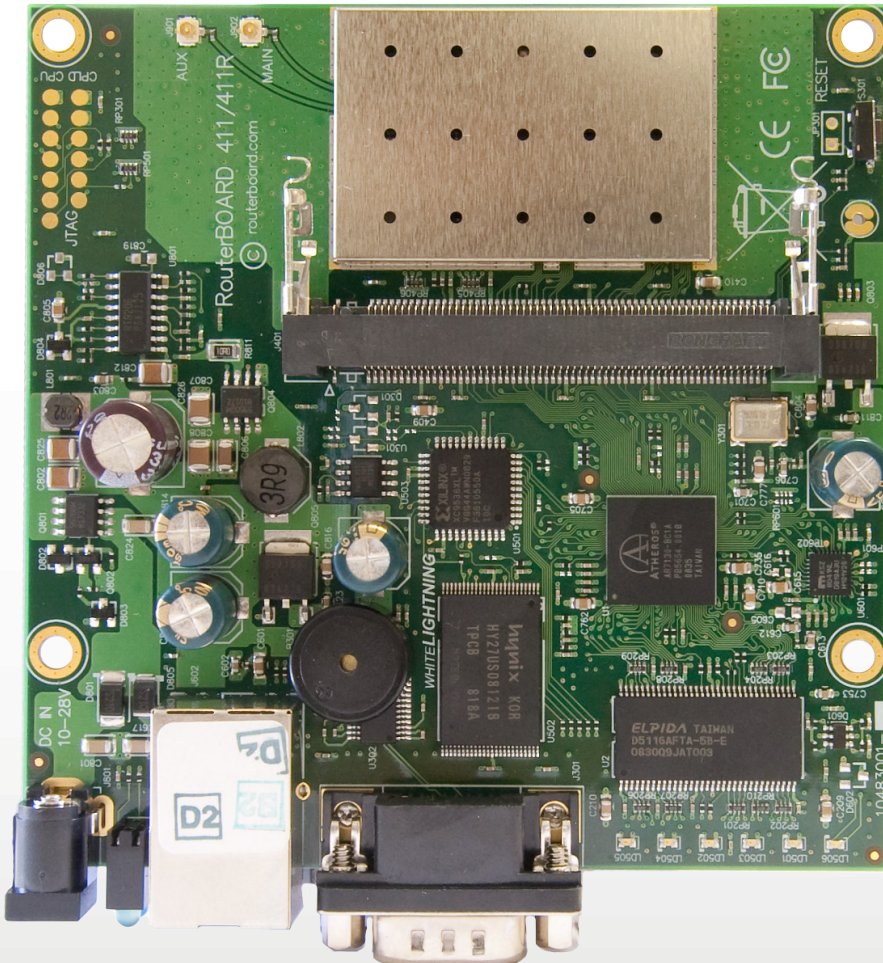
# RB411AR

The RB411AR adds a b/g wireless card to the popular RB411 series.

Not only you have a ready-made wireless solution, but also you have a spare miniPCI card slot for another wireless card.

With this device you can connect to a remote AP and serve your local area with internet both at the same time!

It has the same familiar footprint as the other RB400 series devices, which means you can mount it into any supported outdoor enclosure, and upgrading to this model will take just minutes.

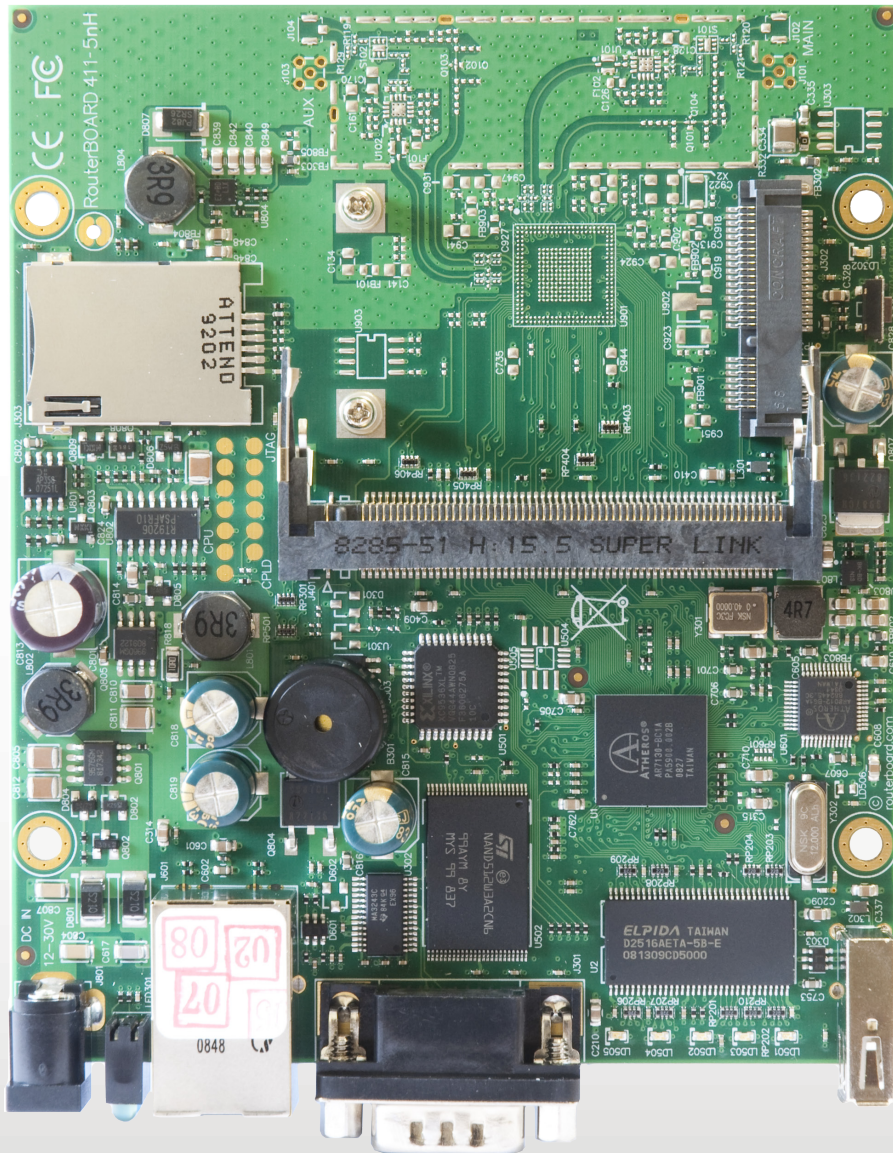


CPU	Atheros AR7131 300MHz network processor
Memory	64MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	64MB onboard NAND memory chip
Ethernet	One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X
miniPCI	One miniPCI Type IIIA/IIIB slot
Wireless	Built in AR2417 802.11b/g wireless device
Extras	Reset switch, beeper, voltage monitor
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	105 mm x 105 mm, Weight: 82 g
Power consumption	~3W without extension cards, maximum – 12 W
Operating System	MikroTik RouterOS, Level4 license

RX sensitivity	802.11g: -87 dBm @ 6Mbps to -69 dBm @ 54 Mbps 802.11b: -92 dBm @ 1Mbps to -83 dBm @ 11 Mbps
TX power	Up to 20 dBm
Modulations	802.11g: OFDM, 64QAM, 16QAM, QPSK, BPSK 802.11b: CCK, DSS, DQPSK, DBPSK



# RB411U



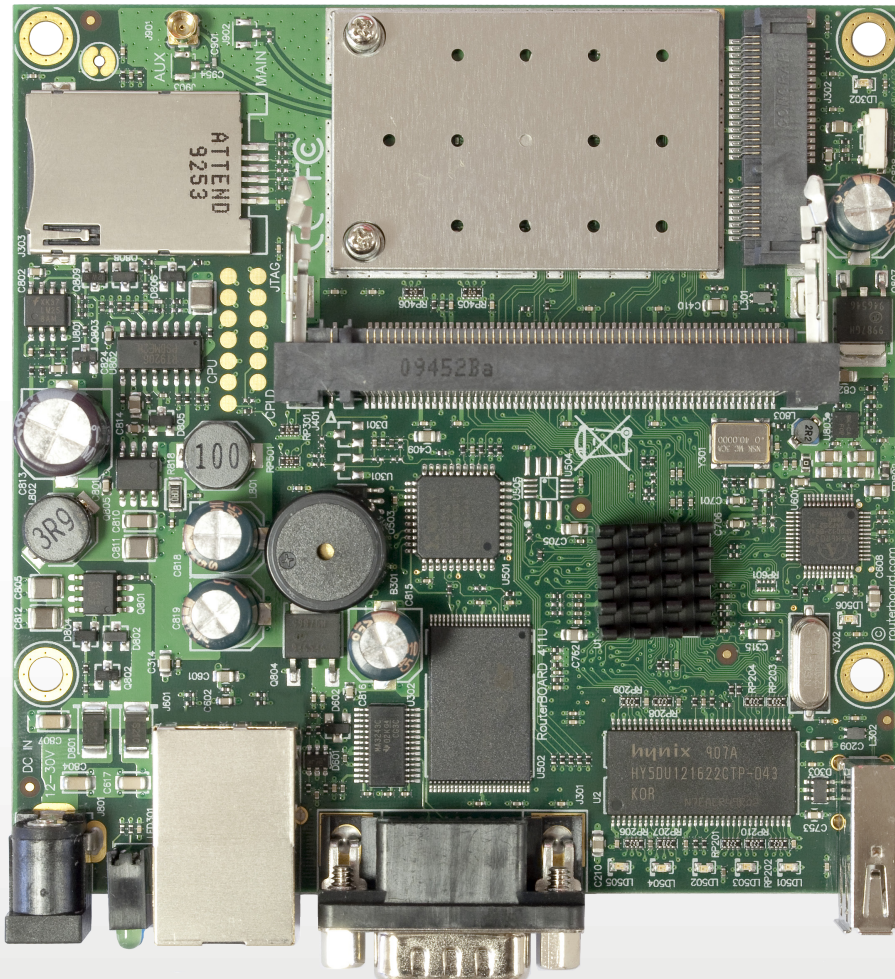
The RB411U is a versatile yet very small device. It includes all - a miniPCI slot, a USB 2.0 port and a miniPCI-E slot for connecting a 3G card. A SIM card slot for 3G is also present on the RB411U.

RB411U includes RouterOS - the operating system, which can be a router, firewall, bandwidth manager, a mobile 3G router, and more - all at the same time.

You can use the USB port to attach a secondary storage device, or a USB 3G modem. The RB411U mounting holes are in the same location as other RB411 models, so you can easily mount it into any supported outdoor case/antenna.

CPU	Atheros AR7130 300MHz network processor
Memory	32MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	64MB onboard NAND memory chip
Ethernet	One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X
miniPCI	One miniPCI Type IIIA/IIIB slot One miniPCIe slot for 3G modem only (onboard SIM connector)
Expansion	One USB 2.0 port with 5V 1A supply
Extras	Reset switch, Beeper, Input voltage monitor
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	105 mm x 105 mm, Weight: 104g
Power consumption	3-12W
Operating System	MikroTik RouterOS, Level4 license

# RB411UAHR



The RB411UAHR has it all, just as the name suggests. It has the popular high-speed CPU, a miniPCI-e slot and a SIM slot for 3G modems, a USB 2.0 port for attaching external storage, a regular miniPCI card slot for 802.11abgn wireless cards, a Ethernet port and a built-in wireless 802.11bg radio.

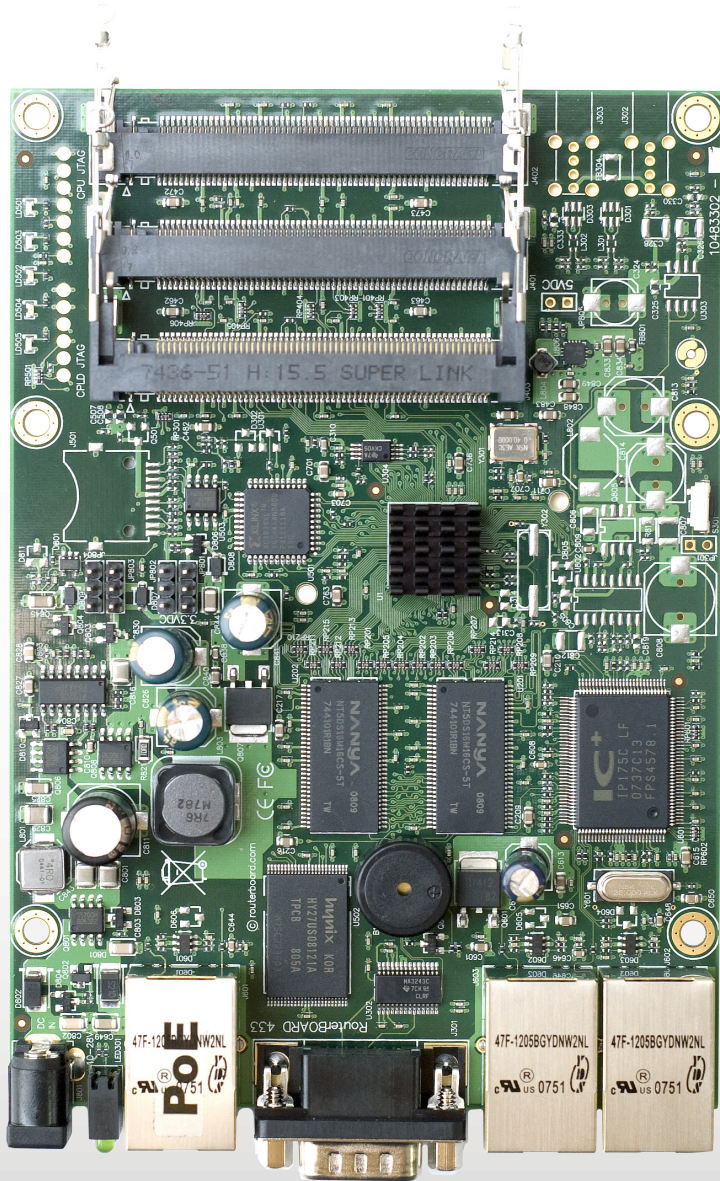
RB411UAHR includes RouterOS - the operating system, which can be a router, firewall, bandwidth manager, a mobile 3G router, and more - all at the same time.

CPU	Atheros AR7161 680MHz
Memory	64MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	128MB onboard NAND memory chip
Ethernet	One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X
miniPCI	One miniPCI Type IIIA/IIIB slot One miniPCIe slot for 3G modem only (onboard SIM connector)
Wireless	Built in AR2417 802.11b/g wireless, 1MMCX connector
Expansion	One USB 2.0 ports without powering
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	105 mm x 105 mm, Weight: 82 g
Power consumption	Up to 5W with wireless at full activity
Operating System	MikroTik RouterOS, Level4 license

RX sensitivity	802.11g: -87 dBm @ 6Mbps to -69 dBm @ 54 Mbps 802.11b: -92 dBm @ 1Mbps to -83 dBm @ 11 Mbps
TX power	20dB@11Mbit/s 11b, 15dB@54Mbit/s 11g
Modulations	802.11g: OFDM, 64QAM, 16QAM, QPSK, BPSK 802.11b: CCK, DSS, DQPSK, DBPSK



# RB433



The universal wireless access point.

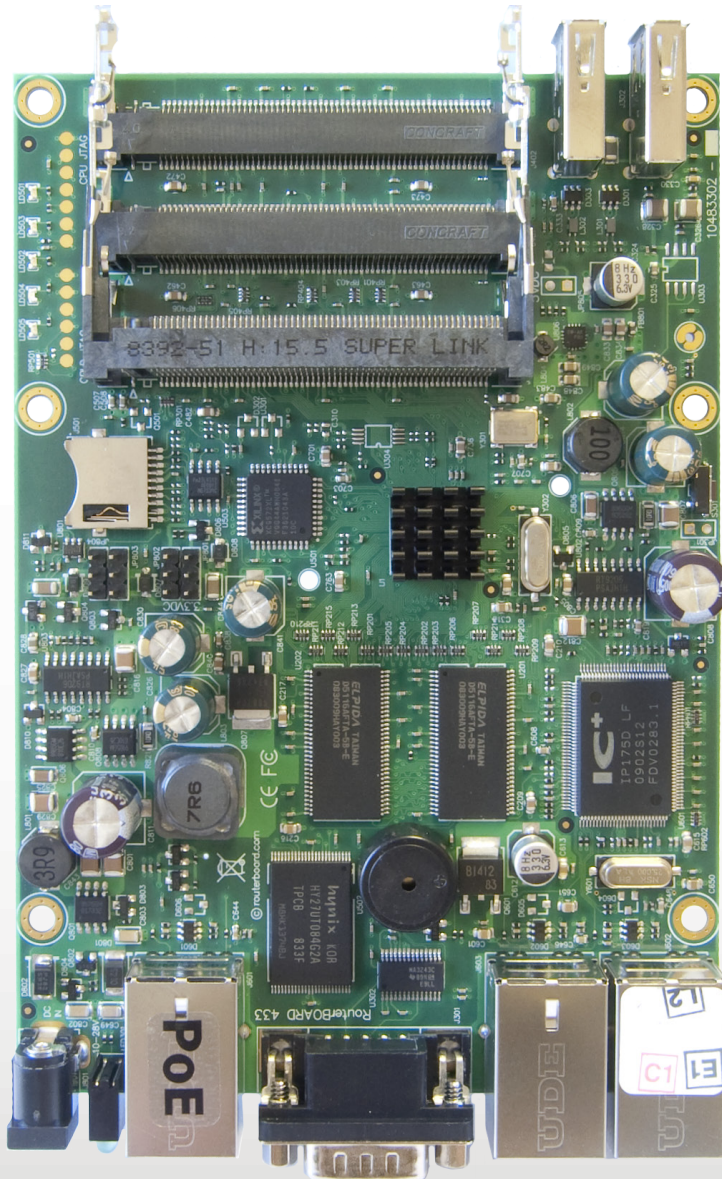
Three miniPCI slots and three Ethernet ports give you enough connectivity options to use the RB433 as the central part of your network.

A wireless repeater plus a local access point, or an AP with multiple sectors - it's all up to you, all of it is made possible by the RB433.

The RB433 comes with a 300MHz Atheros CPU and is preinstalled with a Level4 RouterOS license.

CPU	Atheros AR7130 300MHz (AR7161 680MHz for AH model)
Memory	64MB DDR SDRAM onboard memory (128MB for AH model)
Boot loader	RouterBOOT
Data storage	64MB onboard NAND memory chip and microSD
Ethernet	Three 10/100 Mbit/s Ethernet ports with Auto-MDI/X
miniPCI	Three miniPCI Type IIIA/IIIB slots
Extras	Reset switch, Beeper
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	105 mm x 154 mm, Weight: 137g
Power consumption	~3W without extension cards, maximum – 25 W, 16W output to cards
Operating System	MikroTik RouterOS, L4 license. L5 license for AH model

# RB433UAH



Three miniPCI slots and three Ethernet ports give you enough connectivity options to use the RB433UAH as the central part of your network. In addition to our regular model, the UAH version adds more RAM, our popular high-speed Atheros 680MHz CPU, a microSD card slot and two USB 2.0 ports, making this the perfect universal choice for serious networks.

The two USB 2.0 ports can be used for extending storage, adding a 3G wireless modem for backup connectivity or for a mobile installation, or all together.

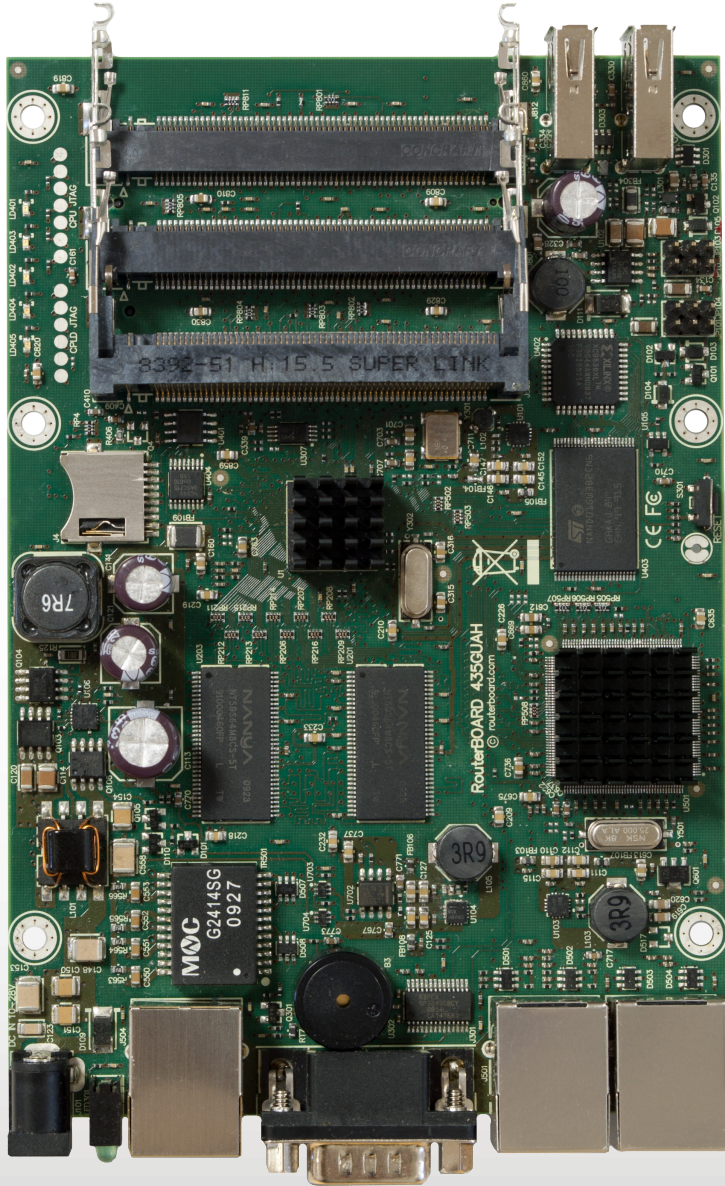
A microSD card gives you the ability to add more storage for Webproxy cache, logs, or Metarouter virtual machines.

The RB433UAH comes with a 680MHz Atheros CPU and is preinstalled with a Level5 RouterOS license.

CPU	Atheros AR7161 680MHz
Memory	128MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	512MB onboard NAND memory chip and microSD slot for expansion
Ethernet	Three 10/100 Mbit/s Ethernet ports with Auto-MDI/X
miniPCI	Three MiniPCI Type IIIA/IIIB slots
Expansion	Two USB 2.0 ports with powering (5V 1A supply)
Extras	Reset switch, beeper, voltage monitor
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	105 mm x 154 mm, Weight: 137g
Power consumption	~3W without extension cards, maximum – 25 W, 16W output to cards
Operating System	MikroTik RouterOS, L5 license



# RB435G



Five miniPCI slots and three Gigabit Ethernet ports give you enough connectivity options to use the RB435G as the central part of your network. Now with Gigabit ports, to properly utilize all the speed 802.11n with Nv2 wireless.

Five miniPCI slots to be used for four sectors and a backbone, or any other configuration you need.

The two USB 2.0 ports can be used for extending storage, adding a 3G wireless modem for backup connectivity, for a mobile installation or all together.

The RB435G comes with a 680MHz Atheros CPU and is preinstalled with a Level5 RouterOS license.

CPU	Atheros AR7161 680MHz
Memory	256MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	128MB onboard NAND memory chip and microSD slot for expansion
Ethernet	Three 10/100/1000 Gigabit Ethernet ports with Auto-MDI/X
miniPCI	Five miniPCI Type IIIA/IIIB slots
Expansion	Two USB 2.0 ports with powering (5V 1A supply)
Extras	Reset switch, beeper, temperature, voltage and current monitors
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	105 mm x 154 mm, Weight: 153g
Power consumption	~4.5W without extension cards
Output to cards	19W without any cooling, up to 40W with active cooling
Operating System	MikroTik RouterOS v4, L5 license

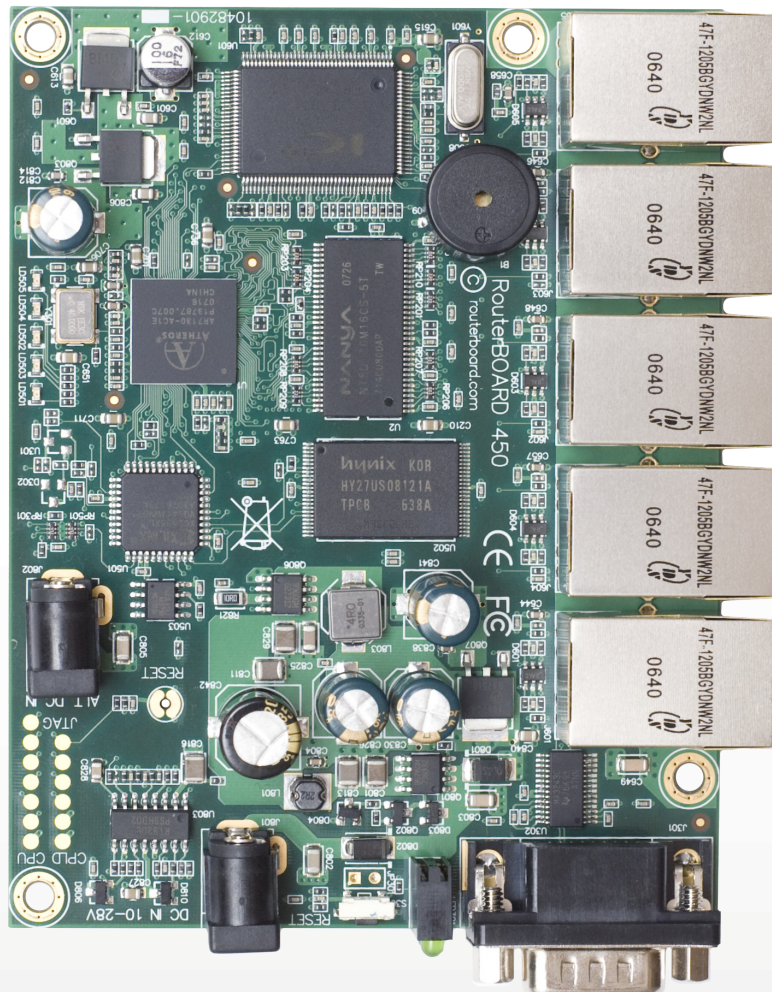
# RB450

The RB450 is a five port ethernet router.

The RB450 includes a switch chip, which means that it's five ports can be combined to function as a switch increasing port to port communication speed.

The RB450 series are your perfect low-cost wired router for installations where wireless interfaces are not required.

The RB450 is available in a sturdy black aluminium case.



CPU	Atheros AR7130 300MHz network processor
Memory	32MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	64MB onboard NAND memory chip
Ethernet	Five 10/100 Mbit/s Fast Ethernet ports with Auto-MDI/X. Hardware switch chip and port mirror support
miniPCI	none
Extras	Reset switch, Beeper
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	90mm x 115mm, 105 g
Power consumption	~3W
Operating System	MikroTik RouterOS, Level5 license



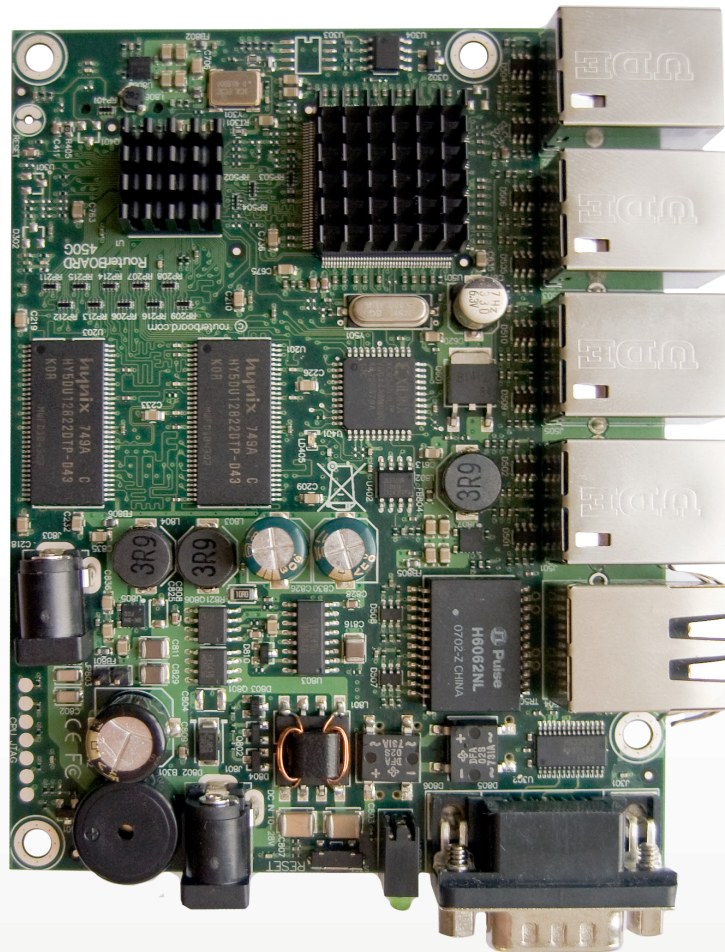
# RB450G

The RB450G is a five port Gigabit ethernet router. Comparing to the RB450, the RB450G not only adds Gigabit speed capability, but also 256Mb of RAM, a faster CPU and a microSD card slot for file storage.

The device is powered by a fast AR7161 680MHz Atheros CPU, and also includes a temperature sensor and voltage monitor.

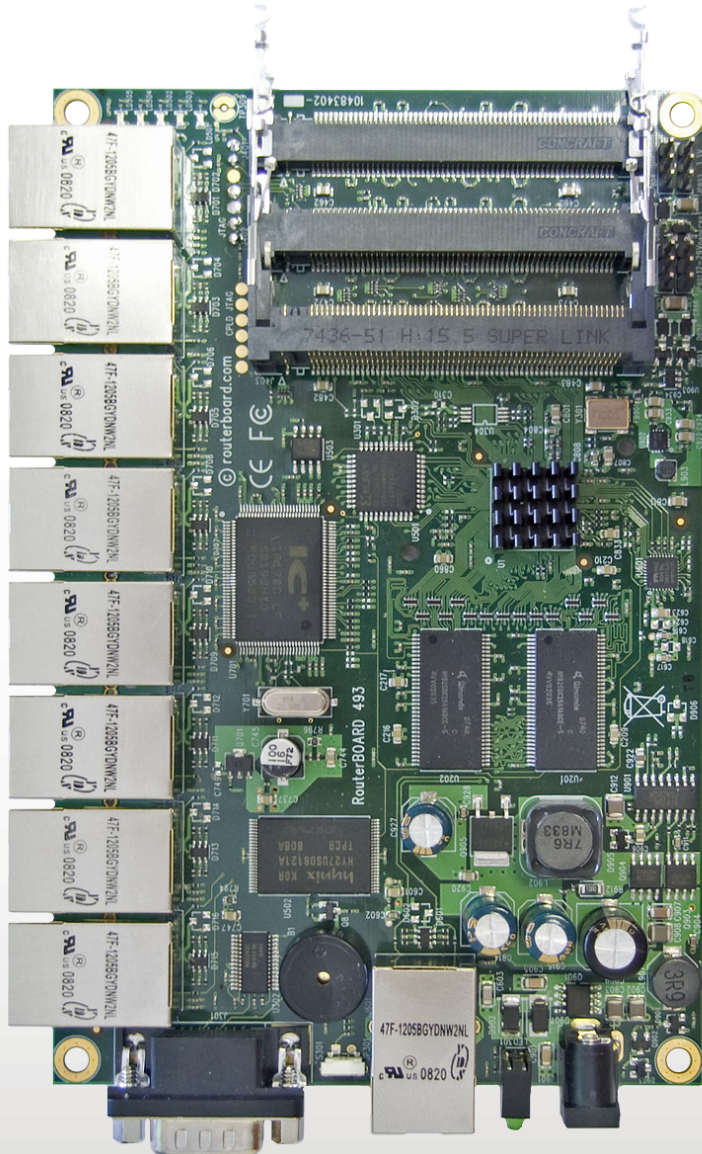
RB450G includes RouterOS - the operating system, which will turn this powerful system into a highly sophisticated router, firewall or bandwidth manager.

One small device - with all the power of RouterOS. At a very special price.



CPU	AR7161 680MHz
Memory	256MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	512MB onboard NAND memory chip, microSD slot on back side
Ethernet	Five 10/100/1000 Mbit/s Ethernet ports with Auto-MDI/X, Hardware switch chip and port mirror support
miniPCI	none
Extras	Reset switch, beeper, voltage and temperature monitors
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	90mm x 115mm, 105 g
Operating System	MikroTik RouterOS, Level5 license
Tested throughput	Ether1 <-> Ether2 = 1Gbps Ether2 <-> Ether3 = 650Mbps

# RB493



The RB493 has nine ethernet ports and three miniPCI slots, it also has a switch chip, so the ethernet ports of your choice can be grouped together to make it act as a switch.

RB493 includes RouterOS - the operating system, which will turn this powerful system into a highly sophisticated router, firewall or bandwidth manager.

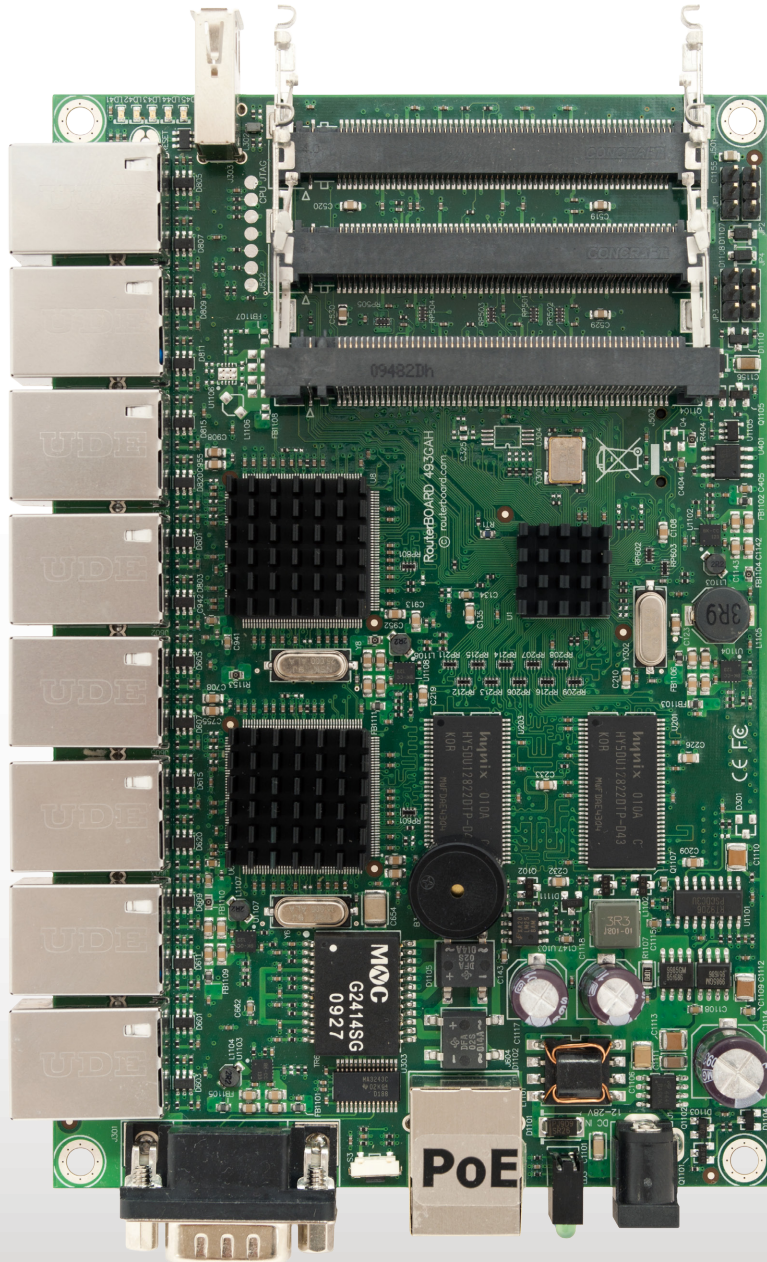
With nine Ethernet ports, and three miniPCI slots, this is our most versatile RouterBOARD model.

The RB493AH model includes the higher speed Atheros 680MHz CPU, more memory, and a Level5 license for more simultaneous tunnel interfaces and hotspot users.

CPU	Atheros AR7130 300MHz (AR7161 680MHz for AH model)
Memory	64MB DDR SDRAM onboard memory (128MB for AH model)
Boot loader	RouterBOOT
Data storage	64MB onboard NAND memory chip
Ethernet	Nine 10/100 Mbit/s Fast Ethernet ports with Auto-MDI/X
miniPCI	Three miniPCI slots
Extras	Reset switch, Beeper
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	105mm x 160mm, 189 grams
Power consumption	~3W without extension cards, maximum – 16 W
Operating System	MikroTik RouterOS, Level4 license / Level5 for AH



# RB493G



The RB493G has nine Gigabit Ethernet ports, three miniPCI slots, and a switch chip, so the Ethernet ports of your choice can be grouped together to make it act as a switch for wire speed throughput.

The RB493G also has a USB 2.0 port and a microSD card slot for adding more storage or a 3G USB modem for backup connectivity.

The heart of this device is a high performance Atheros AR7161 CPU and it features 256MB of built in RAM.

RB493G includes RouterOS - the operating system, which will turn this powerful system into a highly sophisticated router, firewall or bandwidth manager.

CPU	Atheros AR7161 680MHz
Memory	256MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	128MB onboard NAND memory chip
Ethernet	Nine 10/100/1000 Mbit/s Fast Ethernet ports with Auto-MDI/X
miniPCI	Three miniPCI slots
Extras	1x unpowered USB 2.0 port, beeper, temperature and voltage sensors
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	105mm x 160mm, 189 grams
Power consumption	~3W without extension cards, maximum – 16 W
Operating System	MikroTik RouterOS, Level5 license

# RB711-5Hn

Perfect for building CPE devices

The RB711 is a small CPE type RouterBOARD wireless router with an integrated 5GHz 802.11a/n wireless card.

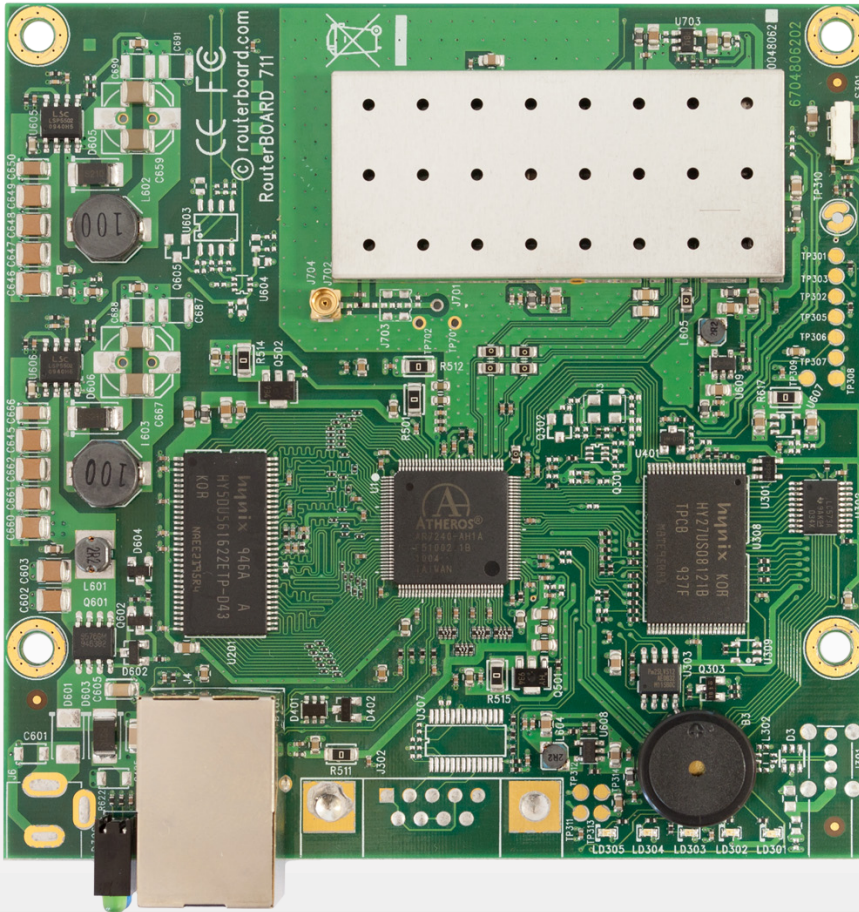
RB711 includes RouterOS - the operating system, which can be a router, firewall, bandwidth manager, a CPE and more - all at the same time.

This device is available either with a u.FI connector or a MMCX connector (models RB711-5Hn-M and RB711-5Hn-U).

The integrated wireless card is capable of up to 23dBm transmit power output. Built in 10kV ESD protection on RF port.

CPU	Atheros AR7241 400MHz network processor
Memory	32MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	64MB onboard NAND memory chip
Ethernet	One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X
miniPCI	none
Wireless	Built in 5GHz AR9280 802.11a/n card, 1 MMCX/uFL connector (depends on model)
Extras	Reset switch, Beeper
Serial port	none
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af).
Dimensions	10.5 cm x 10.5 cm (4.13 in x 4.13 in) Weight: 67g
Power consumption	Up to 4.5W at 18V full load (0.245A)
Operating System	MikroTik RouterOS, Level3 license

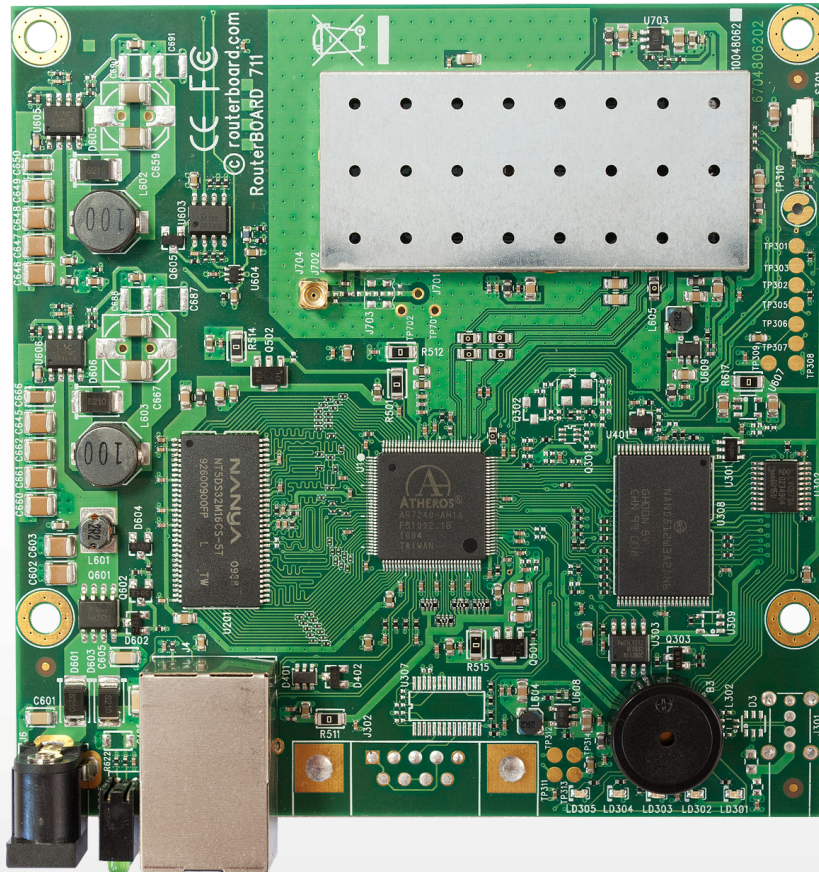
RX sensitivity	<b>802.11a:</b> -92 dBm @ 6Mbps to -76 dBm @ 54 Mbps <b>802.11n:</b> -92 dBm @ MCS0 to -73 dBm @ MCS7
TX power	<b>802.11a:</b> 23dBm @ 6Mbps to 19dBm @ 54 Mbps <b>802.11n:</b> 22dBm @ MCS0 to 15dBm @ MCS7
Modulations	OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK





# RB711A-5Hn

Perfect for building AP/base station devices



The RB711A is a small RouterBOARD wireless router with an integrated 5GHz 802.11a/n wireless card. Perfect for making low cost AP devices.

In addition to RB711, the RB711A has more memory, a Level4 license and a power jack.

This device is available with one MMCX connector (802.11n one chain). The integrated wireless card is capable of up to 23dBm transmit power output. Built in 10kV ESD protection on RF port.

CPU	Atheros AR7241 400MHz network processor
Memory	64MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	64MB onboard NAND memory chip
Ethernet	One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X
miniPCI	none
Wireless	Built in 5GHz AR9280 802.11a/n card, One MMCX connector
Extras	Reset switch, Beeper, Voltage and Temperature monitor
Ports	No serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	10.5 cm x 10.5 cm (4.13 in x 4.13 in) Weight: 67g
Power consumption	Up to 4.5W at 18V full load (0.245A)
Operating System	MikroTik RouterOS, Level4 license

RX sensitivity	<b>802.11a:</b> -92 dBm @ 6Mbps to -76 dBm @ 54 Mbps <b>802.11n:</b> -92 dBm @ MCS0 to -73 dBm @ MCS7
TX power	<b>802.11a:</b> 23dBm @ 6Mbps to 19dBm @ 54 Mbps <b>802.11n:</b> 22dBm @ MCS0 to 15dBm @ MCS7
Modulations	OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK

# RB750

An entirely new class of product in the RouterBOARD lineup, the RB750 is a small five port ethernet router in a nice plastic case.

Not only is this an attractive looking tiny SOHO unit, it's price is lower than the RouterOS license alone - there simply is no choice when it comes to managing your wired home network, the RB750 has it all.

Not only it's affordable, small, good looking and easy to use - It's probably the most affordable MPLS capable router on the market. No more compromise between price and features - RB750 has both.

With it's compact design and clean looks, it will fit perfectly into any SOHO environment.



CPU	AR7241 400MHz CPU
Memory	32MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	64MB onboard NAND memory chip
Ethernet	Five 10/100 Mbit/s Fast Ethernet ports with Auto-MDI/X. Hardware switch chip and port mirror support
Extras	Reset switch
Serial port	no serial port
LEDs	Power, NAND activity, 5 Ethernet LEDs
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	113x89x28mm. Weight without packaging and cables: 130g
Power consumption	Up to 3W
Operating System	MikroTik RouterOS v3, Level4 license
Package contains	RouterBOARD in a plastic case, power adapter

# RB750UP

RB750UP is a small five port ethernet router in a nice plastic case, the UP model includes a USB 2.0 port and PoE output.

Ports 2-5 can power other PoE capable devices with the same voltage as applied to the unit. Less power adapters to worry about.

It is affordable, small, good looking and easy to use - It's probably the most affordable MPLS capable router on the market. No more compromise between price and features - RB750 series has both.

With it's compact design and clean looks, it will fit perfectly into any SOHO environment.



CPU	AR7241 400MHz CPU
Memory	32MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	64MB onboard NAND memory chip
Ethernet	Five 10/100 Mbit/s Fast Ethernet ports with Auto-MDI/X. Hardware switch chip and port mirror support
Extras	One USB 2.0 port, Reset switch
LEDs	Power, NAND activity, 5 Ethernet LEDs
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Power output	Supports PoE output on ports 2-5. Max current 600mA per port
Dimensions	113x89x28mm. Weight without packaging and cables: 130g
Power consumption	Up to 3W
Operating System	MikroTik RouterOS, Level4 license
Package contains	RouterBOARD in a plastic case, 24V 1.6A power adapter

# RB750G

The RB750G is a small SOHO router in a nice plastic case. It has five independent Gigabit ethernet ports and optional Switch Chip functionality for wire speed Gigabit throughput.

It's probably the most affordable MPLS capable Gigabit router on the market. With it's compact design and clean looks, it will fit perfectly into any SOHO environment.

Comparing to RB750, the G version adds not only Gigabit capable ports, but a new 680MHz Atheros 7161 CPU for increased throughput. Up to 580Mbps throughout with larger packets, and up to 91500pps with small packets!



CPU	Atheros AR7161 680MHz CPU
Memory	32MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	64MB onboard NAND storage chip
Ethernet	Five independent 10/100/1000 ethernet ports
miniPCI	none
Extras	Reset button
Serial port	no serial port
LEDs	Power, NAND activity, 5 Ethernet LEDs
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	113x89x28mm. Weight without packaging and cables: 142g
Power consumption	Up to 6W
Operating Temp	-20C .. +50C
Operating System	MikroTik RouterOS, Level4 license
Package contains	RouterBOARD in a plastic case, power adapter



# RB751U-2HnD



The RB751 is the wireless SOHO AP you have been waiting for.

It has five Ethernet ports, one USB 2.0 port and a high power 802.11b/g/n wireless AP with antennas built in.

It's also possible to connect an external MMCX antenna to replace one of the built in antennas.

The device is very small and will look good in any home or office, wall mounting anchor holes are provided.

Features	RB751U-2HnD (USB, 2GHz, 802.11n, dual chain)
CPU	Atheros AR7241 400MHz CPU
Memory	32MB DDR SDRAM onboard memory
Data storage	64MB onboard NAND storage chip
Ethernet	Five independent 10/100 Ethernet ports
LEDs	Power, NAND activity, 5 Ethernet LEDs, wireless activity LED
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	113x138x29mm. Weight without packaging and cables: 230g
Power consumption	Up to 7W
Operating Temp	-20C .. +50C
Operating System	MikroTik RouterOS, Level4 license
Package contains	RouterBOARD in a plastic case, power adapter

Antennas	2x2 MIMO PIF antennas, max gain 2.5dBi; external MMCX option
RX sensitivity	802.11g: -96dBm @ 6Mbit/s to -81dBm @ 54Mbit/s 802.11n: -96 dBm @ MCS0 to -78 dBm @ MCS7
TX power	802.11g: 30dBm @ 6Mbps to 27dBm @ 54 Mbps 802.11n: 30dBm @ MCS0 to 26dBm @ MCS7
Modulations	OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK

# RB751-2n

The RB751 is the wireless SOHO AP you have been waiting for.

It has five Ethernet ports and a 802.11b/g/n wireless AP with an antenna built in.

This model is much smaller than the more powerful 2HnD model, the RB751-2n looks exactly like our popular RB750 series.

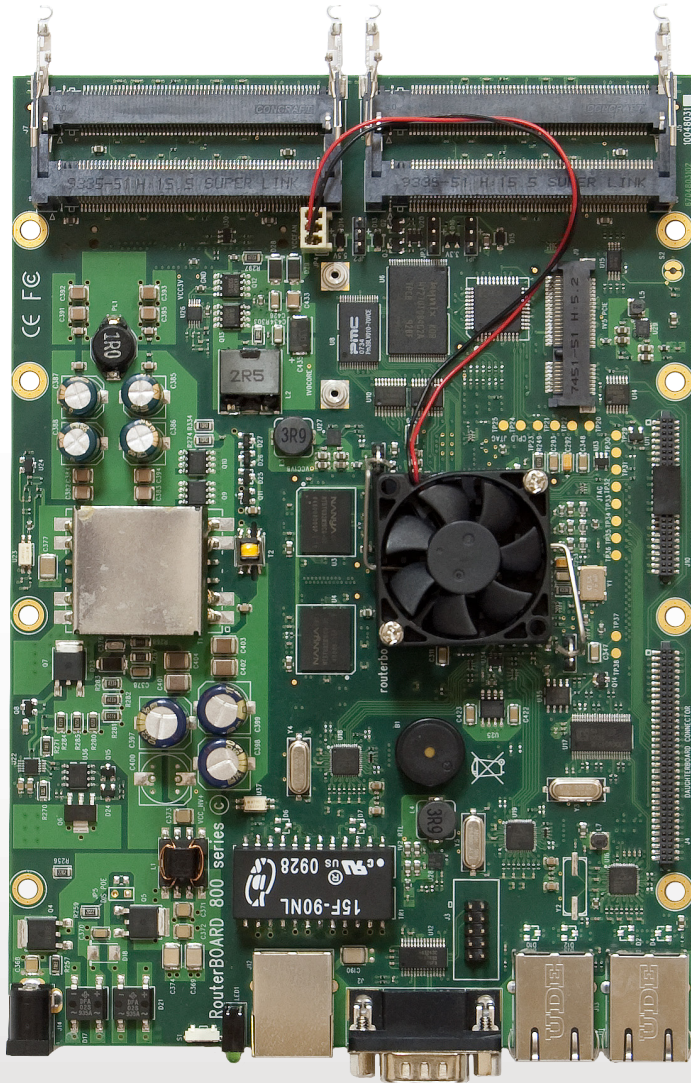
The device is very small and will look good in any home or office, wall mounting anchor holes are provided.



CPU	Atheros AR9331 400MHz CPU
Memory	32MB DDR SDRAM onboard memory
Data storage	64MB onboard NAND storage chip
Ethernet	Five independent 10/100 Ethernet ports
LEDs	Power, NAND activity, 5 Ethernet LEDs
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	113x89x28mm. Weight without packaging and cables: 142g
Power consumption	Up to 4W
Operating Temp	-20C .. +50C
Operating System	MikroTik RouterOS, Level4 license
Package contains	RouterBOARD in a plastic case, power adapter

Antennas	1x1 MIMO with two onboard PIF antennas, max gain 1.5dBi
TX power	802.11g: 18dBm @ 6Mbps to 14 dBm @ 54 Mbps 802.11n: 18dBm @ MCS0 to 13dBm @ MCS7
Modulations	OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK

# RB800



The RB800 is an advanced high performance wireless platform. It has four miniPCI slots, three Gigabit Ethernet ports, two daughterboard connectors, a miniPCI-e slot and a compact flash slot.

The two daughterboard connectors allow you to expand the number of wired and wireless ports, and the new high power CPU is capable of supporting them all.

This is the new definition of wireless networking power.

Combined with RouterOS - RB800 is the most powerful and sophisticated wireless router, firewall and bandwidth manager. With many expansion options.

Our top of the line wireless device.

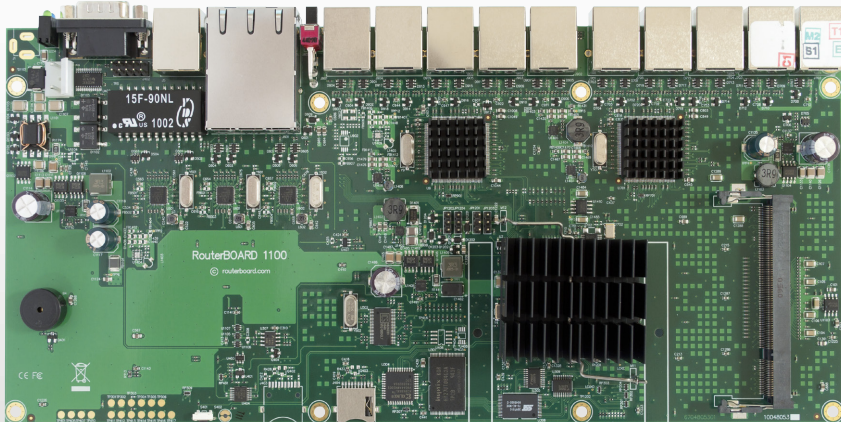
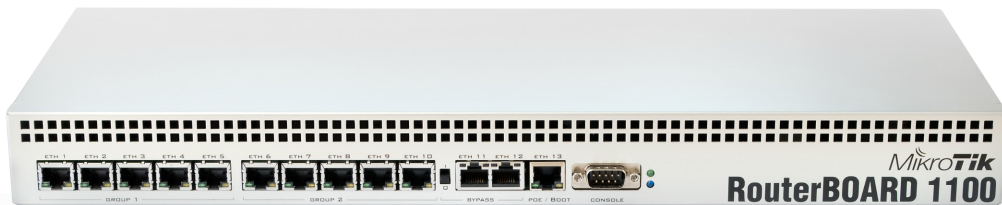
CPU	MPC8544 800MHz
Memory	256MB DDR2 SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	512MB NAND memory chip, CF slot on back
Ethernet	Three 10/100/1000 Mbit/s Ethernet ports with Auto-MDI/X
miniPCI	4 x miniPCI, 1 x miniPCI-e
Expansion	PCI daughterboard port
Extras	Reset switch, beeper, 4x fan headers, voltage and temperature sensors
Serial port	One DB9 RS232C asynchronous serial port, One serial port header
LEDs	Power, 1x User LED
Power options	Power over Ethernet: 36-56V DC (including power over datalines) Power jack: 10-56V DC
Dimensions	14 cm x 20 cm (5.51 in x 7.87 in), 285 g
Operating System	MikroTik RouterOS, Level6 license

# RB1100

A high performance core router with thirteen individual gigabit Ethernet ports, which can be used in two switch groups, and include Ethernet bypass capability.

RB1100 also has a SODIMM RAM slot for upgradable memory, two microSD card slots, a beeper and a serial port.

The RB1100 comes in a 1U aluminium rackmount case.



CPU	800MHz PowerPC MPC8544 network processor
Memory	SODIMM DDR Slot, 512MB installed (supports up to 1.5GB)
Boot loader	RouterBOOT, 1Mbit Flash chip
Data storage	Onboard NAND memory chip
Ethernet	Thirteen 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
Ethernet	Includes switch to enable Ethernet bypass mode in two ports
miniPCI	none
Storage	512MB NAND, one microSD slot
Serial port	One DB9 RS232C asynchronous serial port
Extras	Reset switch, beeper, voltage and temperature sensors
Power options	IEC C14 standard connector 110/220V
Fan	Dual fan with failover support mounted at case back
Dimensions	1U case: 44 x 176 x 442 mm, 1275g. Board only: 365g
Operating System	MikroTik RouterOS, Level 6 license



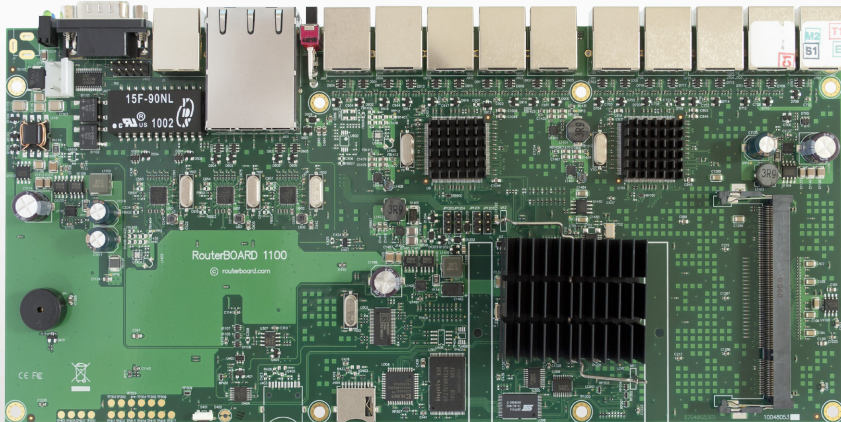
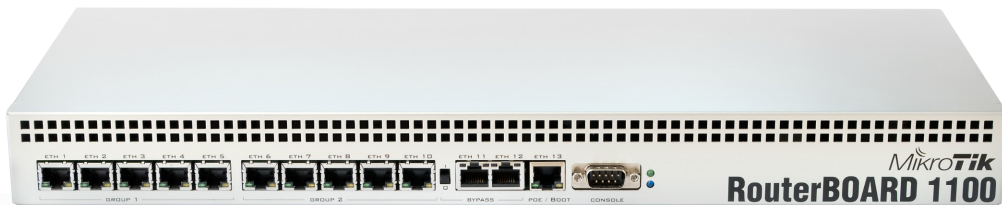
# RB1100AH

The top of the line core router which now has hardware encryption acceleration support built into the CPU.

It has thirteen individual gigabit Ethernet ports, two 5-port switch groups, and includes Ethernet bypass capability.

RB1100AH also has a SODIMM slot with bundled 2GB of RAM, one microSD card slot, a beeper and a serial port.

The RB1100AH comes in a 1U aluminium rackmount case.



CPU	PowerPC MPC8533 1066MHz network CPU with hardware encryption
Memory	SODIMM DDR Slot, 2GB installed (RouterOS supports up to 1.5GB)
Boot loader	RouterBOOT, 1Mbit Flash chip
Data storage	Onboard NAND memory chip
Ethernet	Thirteen 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
Ethernet	Includes switch to enable Ethernet bypass mode in two ports
miniPCI	none
Storage	512MB NAND, one microSD slot
Serial port	One DB9 RS232C asynchronous serial port
Extras	Reset switch, beeper, voltage and temperature sensors
Power options	IEC C14 standard connector 110/220V
Fan	Dual fan with failover support mounted at case back
Dimensions	1U case: 44 x 176 x 442 mm, 1275g. Board only: 365g
Operating System	MikroTik RouterOS, Level 6 license

# RB1200

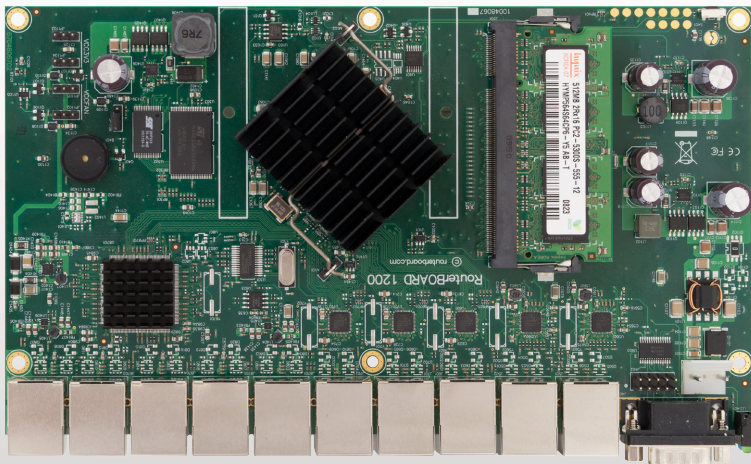
The new and affordable rackmount router.

It has ten individual gigabit Ethernet ports, five of them can be connected together in one 5-port switch group.

RB1200 has a SODIMM slot with bundled 512MB of RAM, a beeper and a serial port.

It has no moving parts and it's operation is completely silent, optional fan header is available.

The RB1200 comes in a 1U aluminium rackmount case.



CPU	PowerPC PPC460GT
Memory	SODIMM DDR Slot, 512MB RAM
Boot loader	RouterBOOT, 1Mbit Flash chip
Ethernet	Ten 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
miniPCI	none
Storage	64MB NAND
Serial port	One DB9 RS232C asynchronous serial port
Extras	Reset switch, Beeper
Power options	IEC C14 standard connector 110/220V
Fan	default none, header for optional fan available
Dimensions	1U case: 44 x 176 x 442 mm, 1200g. Board only: 365g
Operating System	MikroTik RouterOS, Level 6 license

# R52

Your universal wireless card.

R52 is a 65mW 802.11abg wireless card and uses the reliable Atheros AR5414 chipset. It is the logical choice for use in combination with RouterOS and RouterBOARD because of it's high compatibility and reliability.

To further increase the range and speed of your wireless links, use it together with the MikroTik proprietary NStreme protocol, making your MikroTik RouterBOARD system complete.



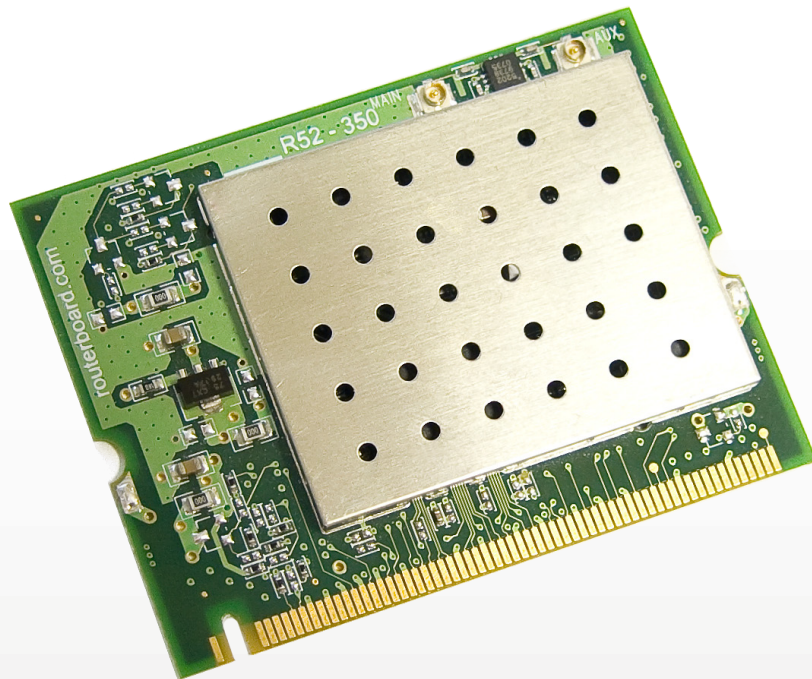
Chipset:	Atheros AR5414
Standards:	IEEE802.11a, IEEE802.11b, IEEE802.11g
Media Access:	CSMA/CA with ACK architecture 32-bit MAC
Security:	Hardware 64/128 bit WEP, TKIP and AES-CCM encryption, WPA, WPA2, 802.1x
Modulation:	802.11b+g: DSSS, OFDM for data rate >30Mbps 802.11a: OFDM
Connectors:	Two U.fl connectors
Certifications:	FCC, EC
Powering:	3.3V +/- 10% DC; 800mA max (600mA typ.)
Frequencies: 802.11b/g	2.192 – 2.507 (5 MHz step); 2.224 – 2.539 (5MHz step)
Frequencies: 802.11a	4.920 – 6.100 (5 MHz step)
Operating temperature	-20 .. +70 C
Standard	Output power / Receive Sensitivity
802.11a	17dBm/-88dBm @ 6Mbps 13dBm/-71dBm @ 54Mbps
802.11b	19dBm/-95dBm @ 1Mbps 19dBm/-90dBm @ 11Mbps
802.11g	18dBm/-90dBm @ 6Mbps 15dBm/-73dBm @ 54Mbps

# R52H

Your universal high power wireless card.

R52 is a 350mW 802.11abg wireless card and uses the same reliable Atheros AR5414 chipset as the regular R52. It is the logical choice for use in combination with RouterOS and RouterBOARD because of its high compatibility and reliability.

To further increase the range and speed of your wireless links, use it together with the MikroTik proprietary NStreme protocol, making your MikroTik RouterBOARD system complete.

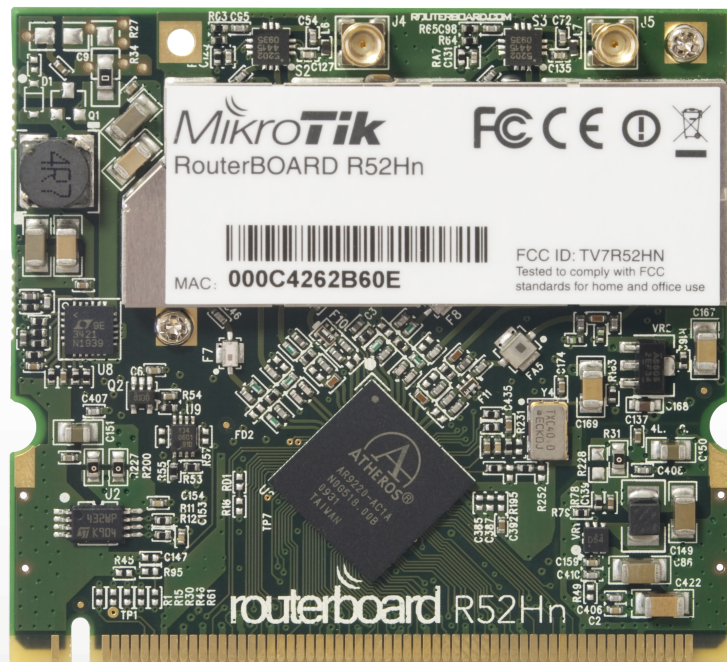


Chipset:	Atheros AR5414
Standards:	IEEE802.11a, IEEE802.11b, IEEE802.11g
Media Access:	CSMA/CA with ACK architecture 32-bit MAC
Security:	Hardware 64/128 bit WEP, TKIP and AES-CCM encryption, WPA, WPA2, 802.1x
Modulation:	802.11b+g: DSSS, OFDM for data rate >30Mbps
	802.11a: OFDM
Connectors:	Two U.fl connectors
Certifications:	FCC, EC
Powering:	3.3V +/- 10% DC; 800mA max (600mA typ.)
Frequencies: 802.11b/g	2.192 – 2.507 (5 MHz step); 2.224 – 2.539 (5MHz step)
Frequencies: 802.11a	4.920 – 6.100 (5 MHz step)
Operating temperature	-20 .. +70 C
Standard	Output power / Receive Sensitivity
802.11a	24dBm / -90dBm @ 6Mbps
	19dBm / -70dBm @ 54Mbps
802.11b	25dBm / -92dBm @ 1Mbps
	25dBm / -87dBm @ 11Mbps
802.11g	25dBm / -90dBm @ 6Mbps
	20dBm / -70dBm @ 54Mbps



# R52Hn

Leading 802.11a/b/g/n performance in both 2GHz and 5GHz bands, supporting up to 300Mbps physical data rates and up to 200Mbps of actual user throughput on both the uplink and downlink. 802.11n in your Wireless device provides higher efficiency for everyday activities such as local network file transfers, Internet browsing, and media streaming. R52Hn has a high power transmitter, bringing you even more range.



- Dual band IEEE 802.11a/b/g/n standard
- Output Power of up to 25dBm @ a/g/n Band
- Support for up to 2x2 MIMO with spatial multiplexing
- Four times the throughput of 802.11a/g
- Atheros AR9220, chipset
- High Performance (up to 300Mbps physical data rates and 200Mbps of actual user throughput) with Low Power Consumption
- 2 X MMCX Antenna Connector
- Modulations:  
OFDM: BPSK, QPSK, 16 QAM, 64QAM  
DSSS: DBPSK, DQPSK, CCK
- Operating temperatures: -50°C to +60°C
- Idle power consumption 0.4W
- Max power consumption 7W
- MiniPCI IIIA+ design (3mm longer than MiniPCI IIIA)
- 1.5mm heatsink, 3mm RF shield thickness
- ±10KV ESD protection on RF ports

802.11b	RX Sensitivity	TX Power
1Mbit	-93	24
11Mbit	-93	24
802.11g		
6Mbit	-94	25
54Mbit	-81	22
802.11n 2.4GHz		
MCS0 20MHz	-94	25
MCS0 40MHz	-92	24
MCS7 20MHz	-78	21
MCS7 40MHz	-75	20

802.11a	RX Sensitivity	TX Power
6Mbit	-97	25
54Mbit	-80	21
802.11n 5GHz		
MCS0 20MHz	-97	24
MCS0 40MHz	-92	22
MCS7 20MHz	-77	18
MCS7 40MHz	-74	17



- 2.4GHz IEEE 802.11b/g/n standard
- Output Power of up to 25dBm @ b/g/n Band
- Support for up to 2x2 MIMO with spatial multiplexing
- Four times the throughput of 802.11g
- Atheros AR9223 chipset
- High Performance (up to 300Mbps physical data rates and 200Mbps of actual user throughput) with Low Power Consumption
- 2 X U.FL Antenna Connector
- Modulations:  
OFDM: BPSK, QPSK, 16 QAM, 64QAM  
DSSS: DBPSK, DQPSK, CCK
- Operating temperatures: -20°C to +60°C
- Power consumption MAX 2.4W
- ESD protection against +/-10kV ESD discharge on Antenna port

# R2N

The RouterBOARD R2n miniPCI network adapter provides leading 802.11b/g/n performance, supporting up to 300Mbps physical data rates and up to 200Mbps of actual user throughput on both the uplink and downlink. Adding Wireless N to your Wireless device, it provides higher efficiency for everyday activities such as local network file transfers, Internet browsing, and media streaming.

## Average RX Sensitivity dBm

802.11b	
1Mbit	-95/-94
11Mbit	-92
802.11g	
6Mbit	-95/-94
54Mbit	-80
802.11n	
MCS0 20MHz	-95/-94
MCS0 40MHz	-91
MCS7 20MHz	-77
MCS7 40MHz	-74

## Average TX Power dBm

802.11b	
1Mbit	23
11Mbit	23
802.11g	
6Mbit	24
54Mbit	21
802.11n	
MCS0 20MHz	22
MCS0 40MHz	20
MCS7/15 20MHz	19
MCS7/15 40MHz	19

## Data Rates

802.11b	
	11Mbps; 5.5Mbps; 2Mbps; 1Mbps
802.11g	
	54Mbps; 48Mbps; 36Mbps; 24Mbps; 18Mbps; 12Mbps; 9Mbps; 6Mbps
802.11n	
20MHz	1Nss: 65Mbps @ 800GI, 72.2Mbps @ 400GI (Max.) 2Nss: 130Mbps @ 800GI, 144.4Mbps @ 400GI (Max.)
40MHz	1Nss: 135Mbps @ 800GI, 150Mbps @ 400GI (Max.) 2Nss: 270Mbps @ 800GI, 300Mbps @ 400GI (Max.)



- Dual band IEEE 802.11a/b/g/n standard
- Output Power of up to 25dBm
- Support for up to 2x2 MIMO with spatial multiplexing
- Four times the throughput of 802.11a/g
- Atheros AR9220 chipset
- High Performance (up to 300Mbps physical data rates and 200Mbps of actual user throughput) with Low Power Consumption
- 2 X MMCX Antenna Connector
- Modulations:  
OFDM: BPSK, QPSK, 16 QAM, 64QAM  
DSSS: DBPSK, DQPSK, CCK
- Operating temperatures: -20°C to +60°C
- Power consumption MAX 2.4W

# R52N-m

The RouterBOARD R52n miniPCI network adapter provides leading 802.11a/b/g/n performance in both 2GHz and 5GHz bands, supporting up to 300Mbps physical data rates and up to 200Mbps of actual user throughput on both the uplink and downlink. Adding Wireless N to your Wireless device, it provides higher efficiency for everyday activities such as local network file transfers, Internet browsing, and media streaming.

802.11b	RX Sensitivity	TX Power
1Mbit	-95/-94	23
11Mbit	-92	23
802.11g		
6Mbit	-95/-94	25
54Mbit	-80	21
802.11n 2.4GHz		
MCS0 20MHz	-95/-94	23
MCS0 40MHz	-91	21
MCS7 20MHz	-77	20
MCS7 40MHz	-74	20

802.11a	RX Sensitivity	TX Power
6Mbit	-97/-95	21
54Mbit	-80/-79	19
802.11n 5GHz		
MCS0 20MHz	-97/-95	21/19
MCS0 40MHz	-93/-91	19
MCS7 20MHz	-78/-76	16
MCS7 40MHz	-75/-73	13

## Data Rates

802.11b	
	11Mbps; 5.5Mbps; 2Mbps; 1Mbps
802.11a/g	
	54Mbps; 48Mbps; 36Mbps; 24Mbps; 18Mbps; 12Mbps; 9Mbps; 6Mbps
802.11n	
20MHz	1Nss: 65Mbps @ 800GI, 72.2Mbps @ 400GI (Max.) 2Nss: 130Mbps @ 800GI, 144.4Mbps @ 400GI (Max.)
40MHz	1Nss: 135Mbps @ 800GI, 150Mbps @ 400GI (Max.) 2Nss: 270Mbps @ 800GI, 300Mbps @ 400GI (Max.)



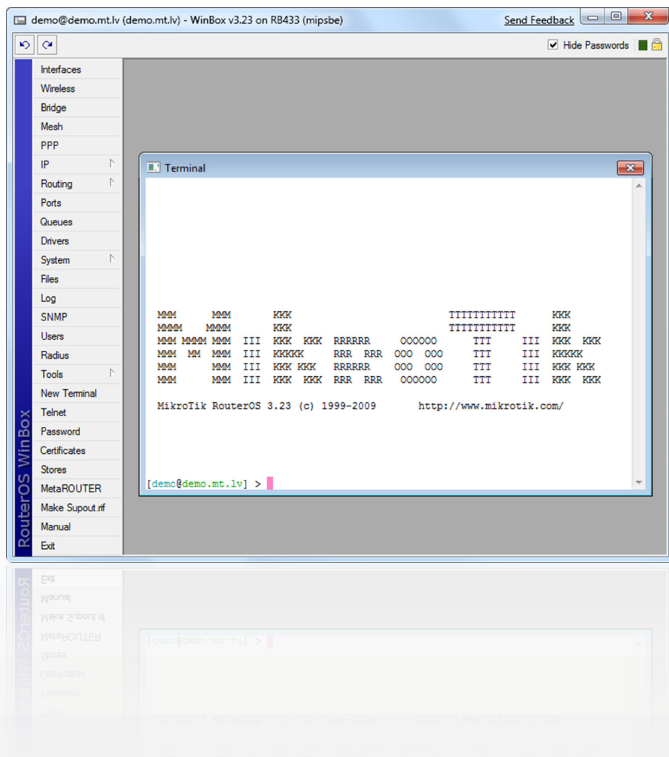
# RouterOS

MikroTik RouterOS is the operating system of MikroTik RouterBOARD hardware.

It has all the necessary features for an ISP - routing, firewall, bandwidth management, wireless access point, backhaul link, hotspot gateway, VPN server and more.

RouterOS is a stand-alone operating system based on the Linux v2.6 kernel, and our goal here at MikroTik is to provide all these features with a quick and simple installation and an easy to use interface.

- Powerful QoS control
- RIP, OSPF, BGP, MPLS routing
- P2P traffic filtering
- Bonding of Interfaces
- Stateful firewall, tunnels
- STP bridging with filtering
- High speed 802.11a/b/g
- Wireless TDMA
- WDS and Virtual AP
- HotSpot for Plug-and-Play access
- Remote WinBox GUI and Web admin
- Telnet/mac-telnet/ssh/console admin
- Real-time configuration and monitoring





To obtain MikroTik hardware and software, visit our distributors.  
For more information and latest news go to [www.mikrotik.com](http://www.mikrotik.com)