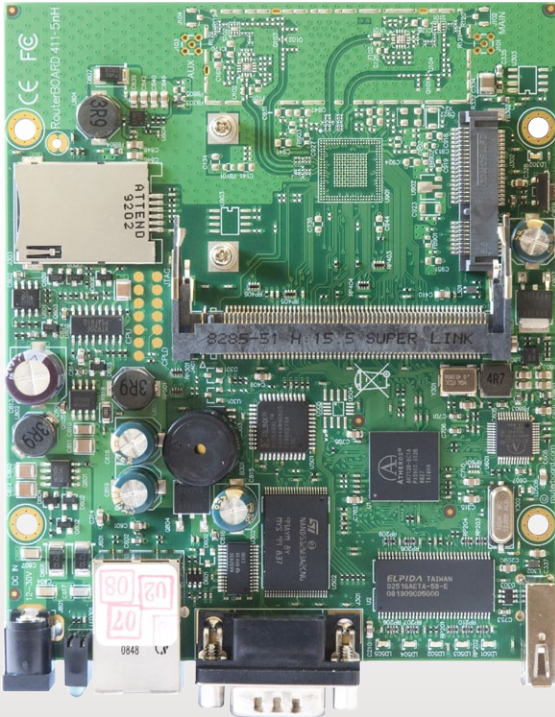
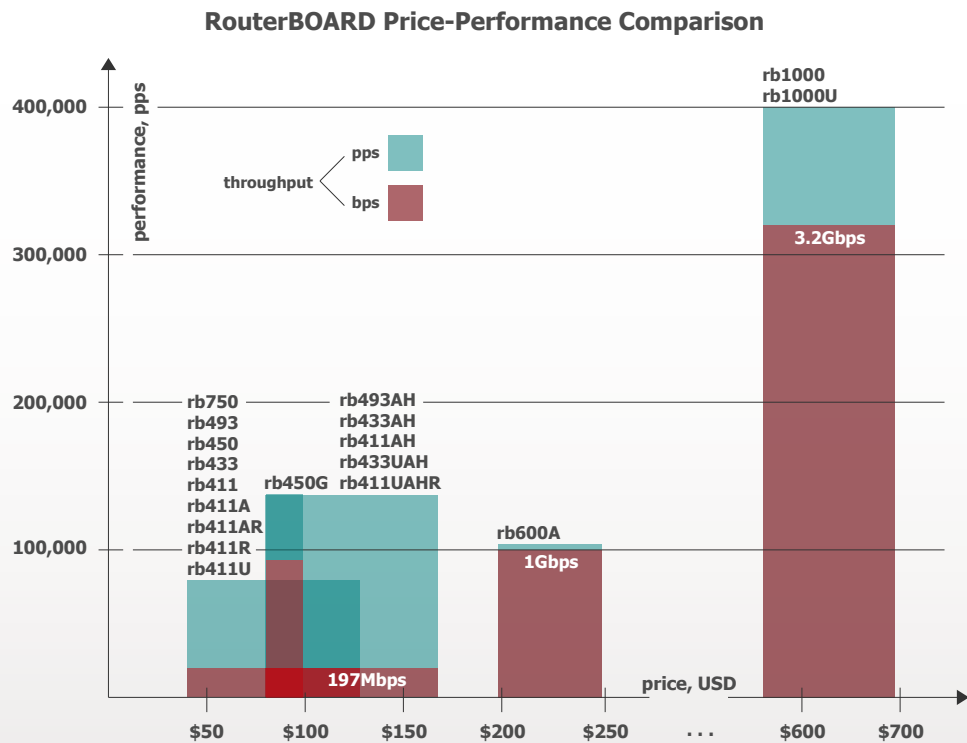


Product catalog Q3-Q4 2009



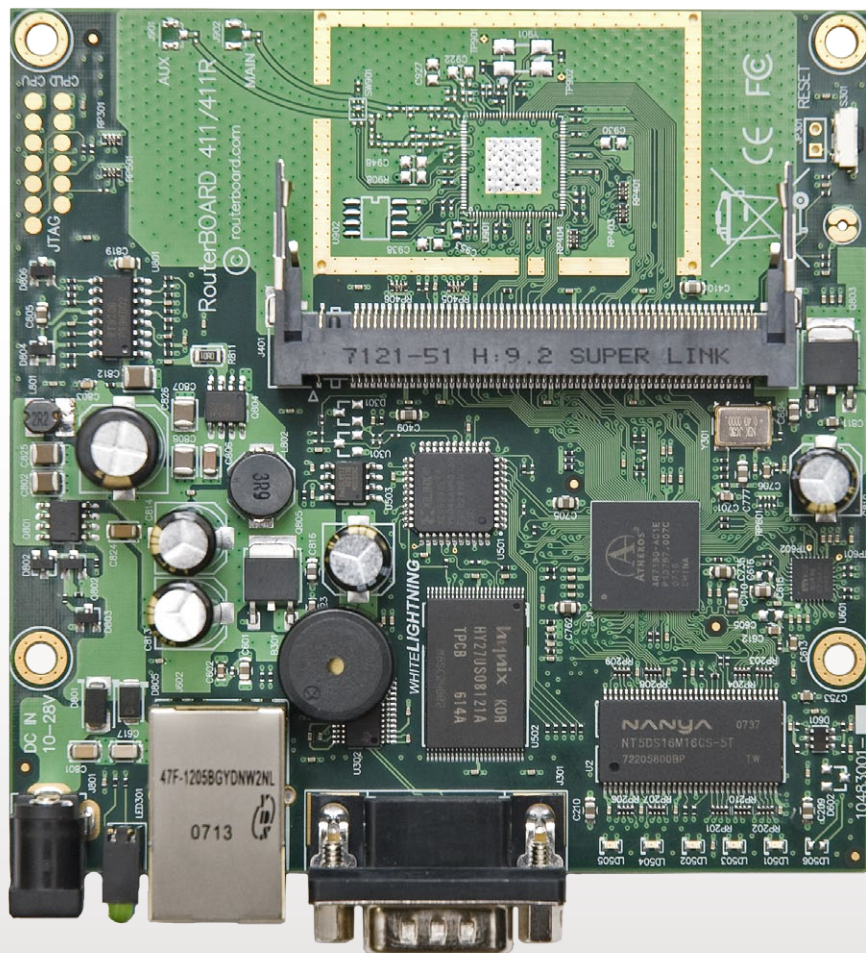
RouterBOARD



RouterBOARD Selection Guide

High End Backbone												✓
3G Device		✓	✓			✓						
Gigabit Eth								✓			✓	✓
Heavy Load Multi AP					✓	✓				✓	✓	
Heavy Load AP			✓		✓	✓				✓	✓	
Avarage Load AP			✓	✓	✓	✓			✓	✓	✓	
Easy Load AP		✓		✓					✓			
Heavy Load Ethernet router					✓	✓		✓		✓	✓	✓
Avarage Load Ethernet router				✓	✓	✓	✓	✓	✓	✓	✓	
Easy Load Ethernet router				✓			✓		✓			
Low Cost CPE	✓											
	411/411R	411A/411AR/411U	411AH/411UAHR	433	433AH	433UAH	450/750	450G	493	493AH	600A	1000/1000U

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 RB411A adds more memory 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
Memory	32MB DDR SDRAM onboard memory (64MB for RB411A 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	Power over Ethernet: 10..28V DC (except power over datalines). Power jack: 10..28V DC
Dimensions	105 mm x 105 mm, Weight: 82 g
Power consumption	~3W without extension cards, maximum – 12 W
Operating System	MikroTik RouterOS v3, Level3 license without AP support (RB411A has Level4 with AP support)

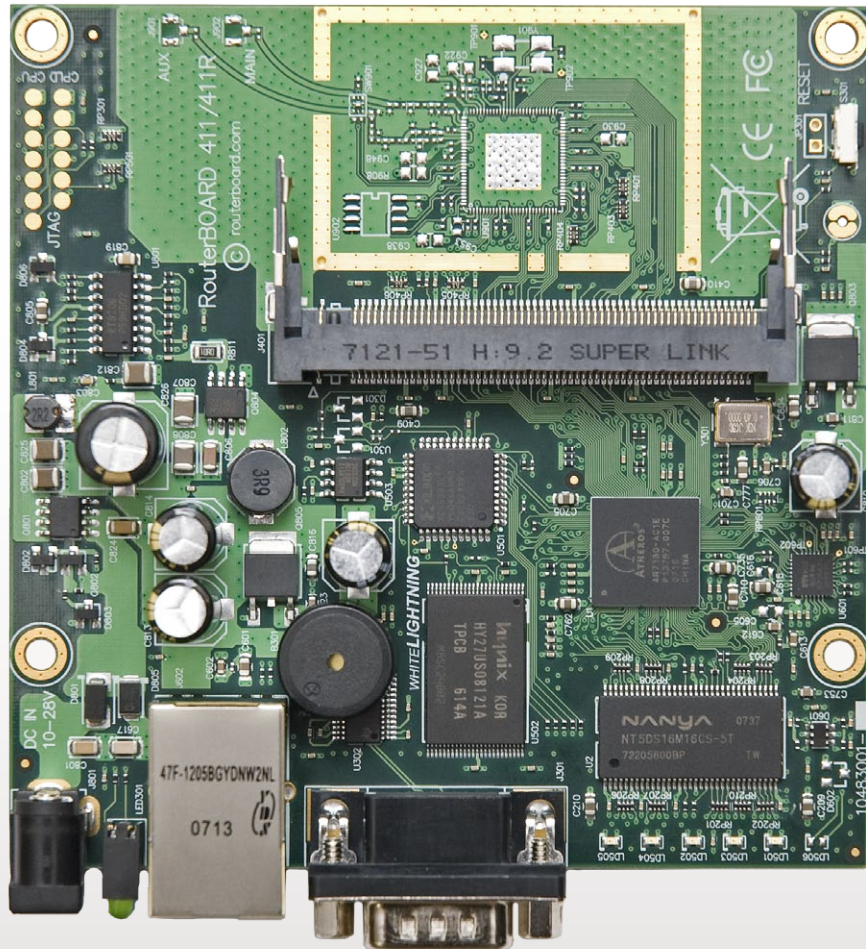
RB411AH

For more power but the same small form factor - the RB411AH comes in.

This model uses a more advanced Atheros 680MHz CPU which increases it's processing capability almost twofold.

Whether it's a record breaking point-to-point WiFi link, a Wireless access point for your university campus, or an office firewall - RB411AH is up to all these tasks.

The RB411AH 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	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
Extras	Reset switch, Beeper
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	Power over Ethernet: 10..28V DC (except power over datalines). Power jack: 10..28V DC
Dimensions	105 mm x 105 mm, Weight: 82 g
Power consumption	~3W without extension cards, maximum – 12 W
Operating System	MikroTik RouterOS v3, Level4

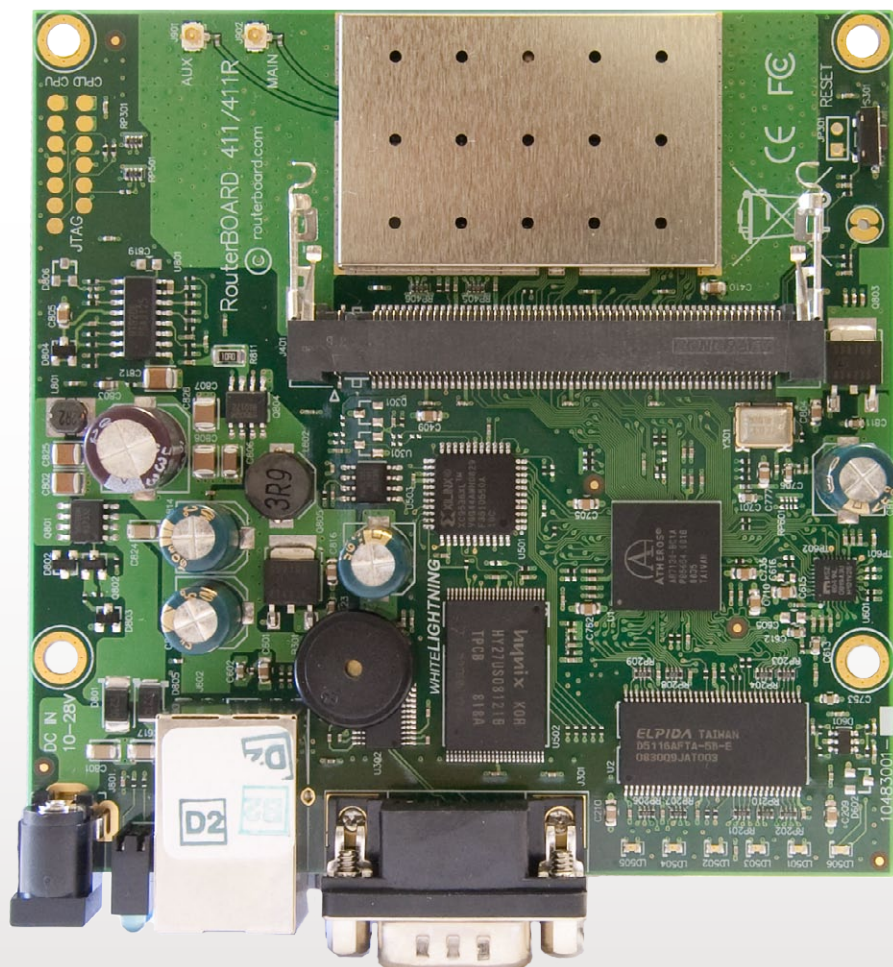
RB411AR

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

Not only you have a readymade 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
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	Power over Ethernet: 10..28V DC (except power over datalines). Power jack: 10..28V DC
Dimensions	105 mm x 105 mm, Weight: 82 g
Power consumption	~3W without extension cards, maximum – 12 W
Operating System	MikroTik RouterOS v3, Level4 license

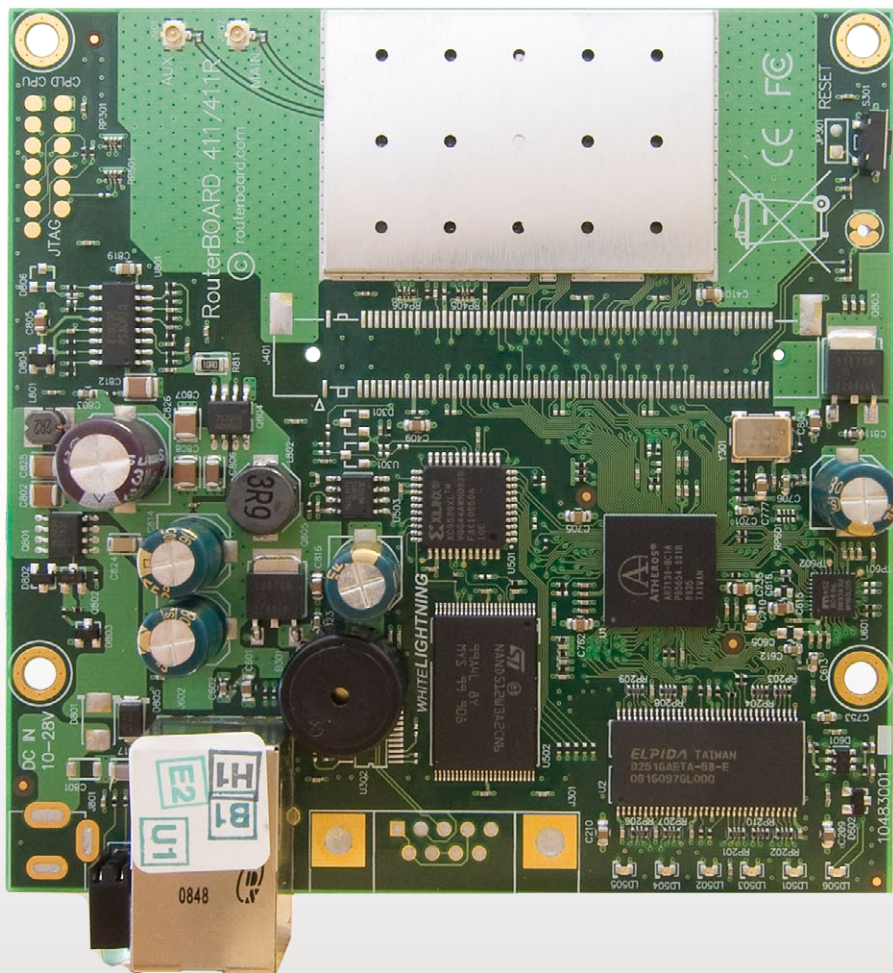
RX sensitivity	802.11g: -87 dBm @ 6Mbps to -69 dBm @ 54 Mbps 802.11b: -92 dBm @ 1Mbps to -83 dBm @ 11 Mbps
TX power	Up to 20 dBm
Modulations	802.11g: OFDM, 64QAM, 16QAM, QPSK, BPSK 802.11b: CCK, DSS, DQPSK, DBPSK

RB411R

The RB411R is a small CPE type RouterBOARD wireless router with an integrated 2.4GHz wireless card.

The RB411R has a very low power consumption rating - only 5.6W, ideal for solar panel installations.

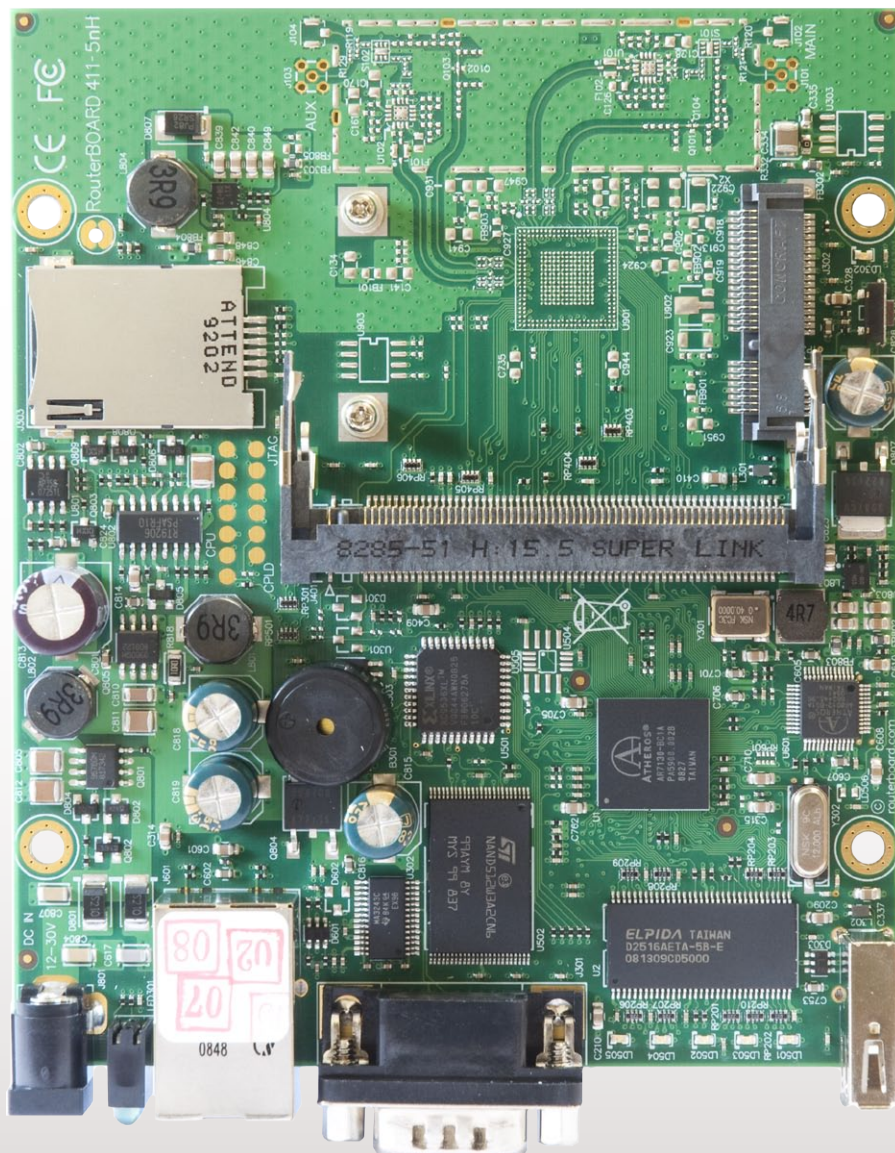
The perfect simple CPE - no extra ports, no unused features - just the things you need. Attach an antenna, plug in your PoE powered ethernet, and connect to a remote AP.



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	none
Wireless	Built in AR2417 802.11b/g wireless device, 2x uFl connectors
Extras	Reset switch, Beeper
Serial port	none
LEDs	Power, NAND activity, 5 user LEDs
Power options	Power over Ethernet: 10..28V DC (except power over datalines). No power jack
Dimensions	105 mm x 105 mm, Weight: 67g
Power consumption	Up to 5W with wireless at full activity
Operating System	MikroTik RouterOS v3, Level3 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

RB411U



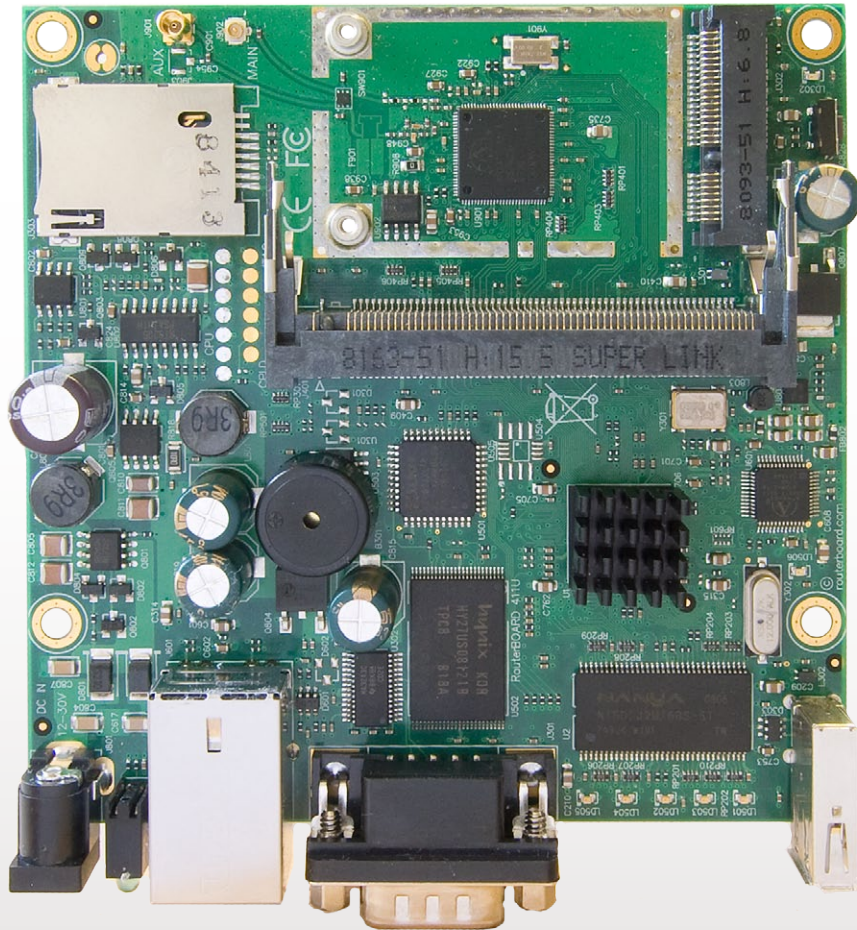
The RB411U is a versatile yet very small device. It includes all - a miniPCI slot, a USB 2.0 port and a miniPCI-E slot for connecting a 3G card. A SIM card slot for 3G is also present on the RB411U.

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 MiniPCle slot for 3G modem only (onboard SIM connector)
Wireless	not built in, possible by adding a miniPCI card
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	Power over Ethernet: 10..28V DC (except power over datalines). Power jack: 10..28V DC
Dimensions	105 mm x 105 mm, Weight: 104g
Power consumption	3-12W
Operating System	MikroTik RouterOS v3, Level4 license

RB411UAHR



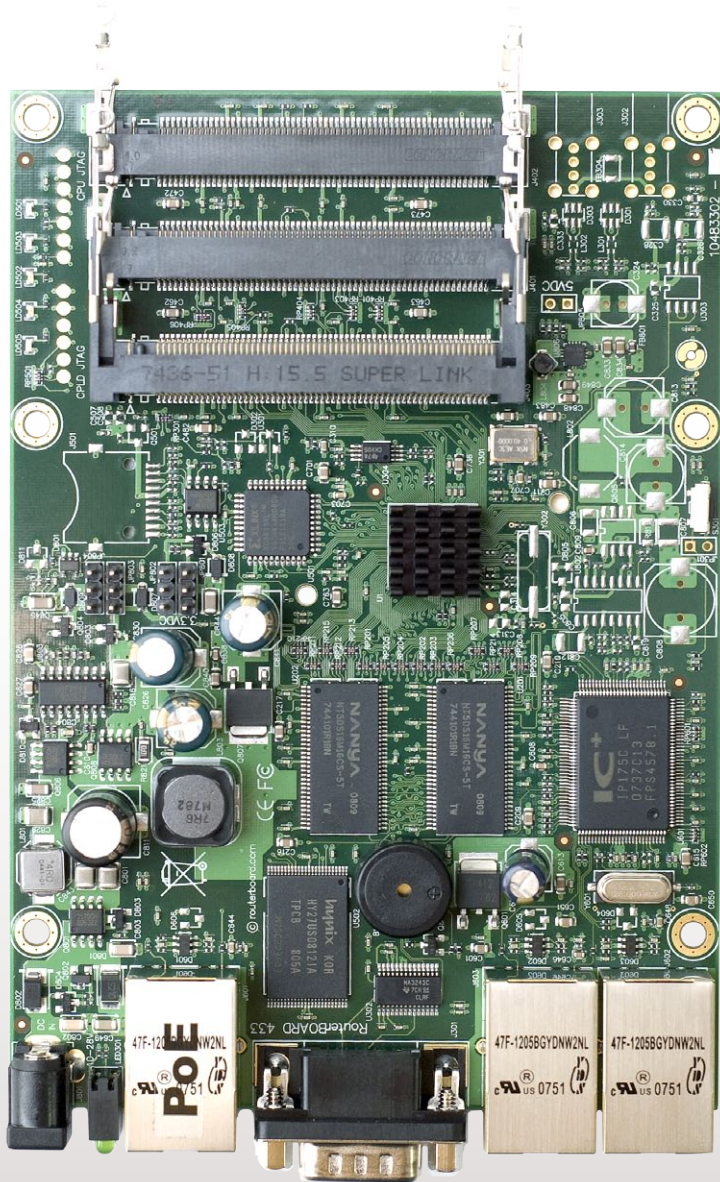
The RB411UAHR has it all, just as the name suggests. It has the popular high-speed CPU, a miniPCI-e slot and a SIM slot for 3G modems, a USB 2.0 port for attaching external storage, a regular miniPCI card slot for 802.11abgn wireless cards, a Ethernet port and a built-in wireless radio.

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	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)
Wireless	Built in AR2417 802.11b/g wireless, 1uFL and 1MMCX connectors
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	Power over Ethernet: 10..28V DC (except power over datalines). Power jack: 10..28V DC. Includes voltage monitor
Dimensions	105 mm x 105 mm, Weight: 82 g
Power consumption	Up to 5W with wireless at full activity
Operating System	MikroTik RouterOS v3, 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.

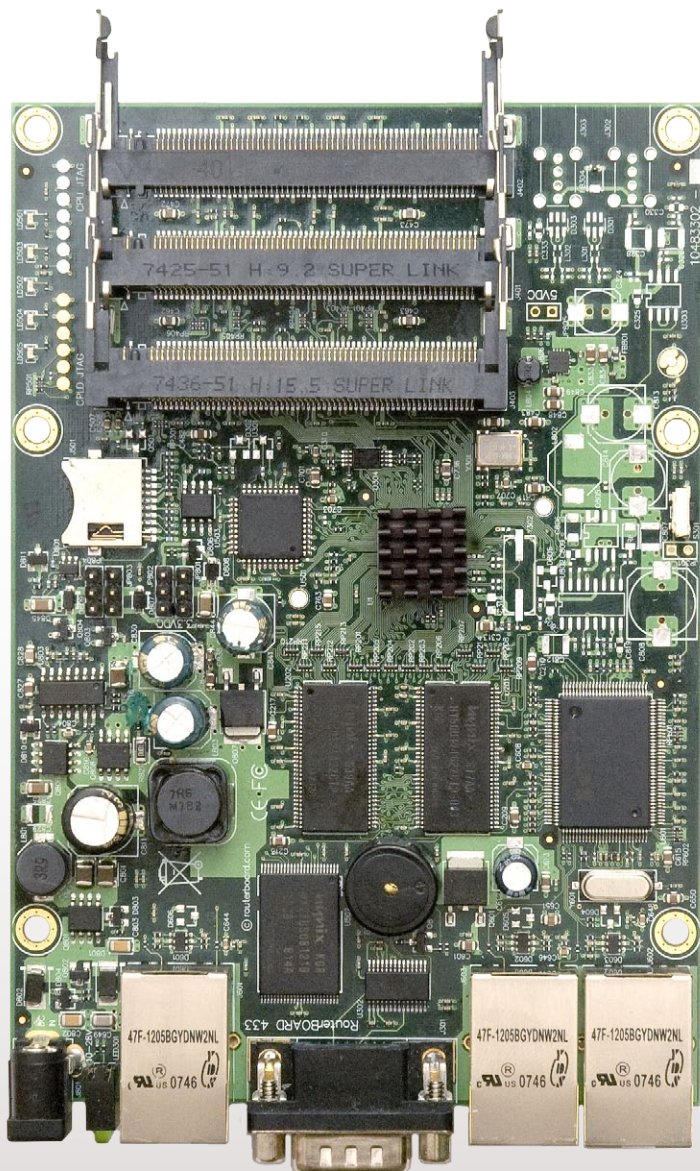
Three miniPCI slots and three Ethernet ports give you enough connectivity options to use the RB433 as the central part of your network.

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
Memory	64MB DDR SDRAM onboard memory
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	Power over Ethernet: 10..28V DC (except power over datalines). Power jack: 10..28V DC. Voltage monitor.
Dimensions	105 mm x 150 mm, Weight: 137g
Power consumption	~3W without extension cards, maximum – 25 W, 16W output to cards
Operating System	MikroTik RouterOS v3, L4 license

RB433AH



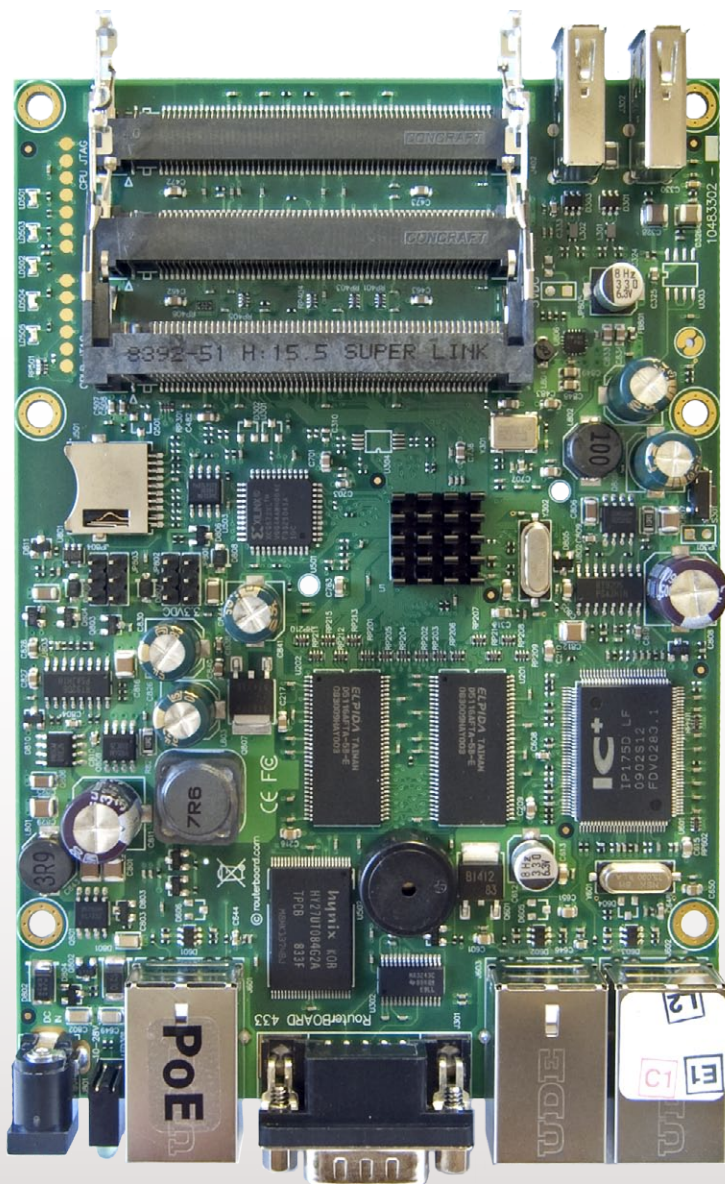
Three miniPCI slots and three Ethernet ports give you enough connectivity options to use the RB433 as the central part of your network. In addition to our regular model, the AH version adds more RAM and our popular high-speed Atheros 680MHz CPU making this the perfect universal choice for serious networks.

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

The RB433AH 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	64MB 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
Extras	Reset switch, Beeper
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	Power over Ethernet: 10..28V DC (except power over datalines). Power jack: 10..28V DC. Voltage monitor.
Dimensions	105 mm x 105 mm, Weight: 137 g
Power consumption	~3W without extension cards, maximum – 25 W, 16W output to cards
Operating System	MikroTik RouterOS v3, L5 license

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	64MB 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
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	Power over Ethernet: 10..28V DC (except power over datalines). Power jack: 10..28V DC. Voltage monitor.
Dimensions	105 mm x 105 mm, Weight: 137g
Power consumption	~3W without extension cards, maximum – 25 W, 16W output to cards
Operating System	MikroTik RouterOS v3, L5 license

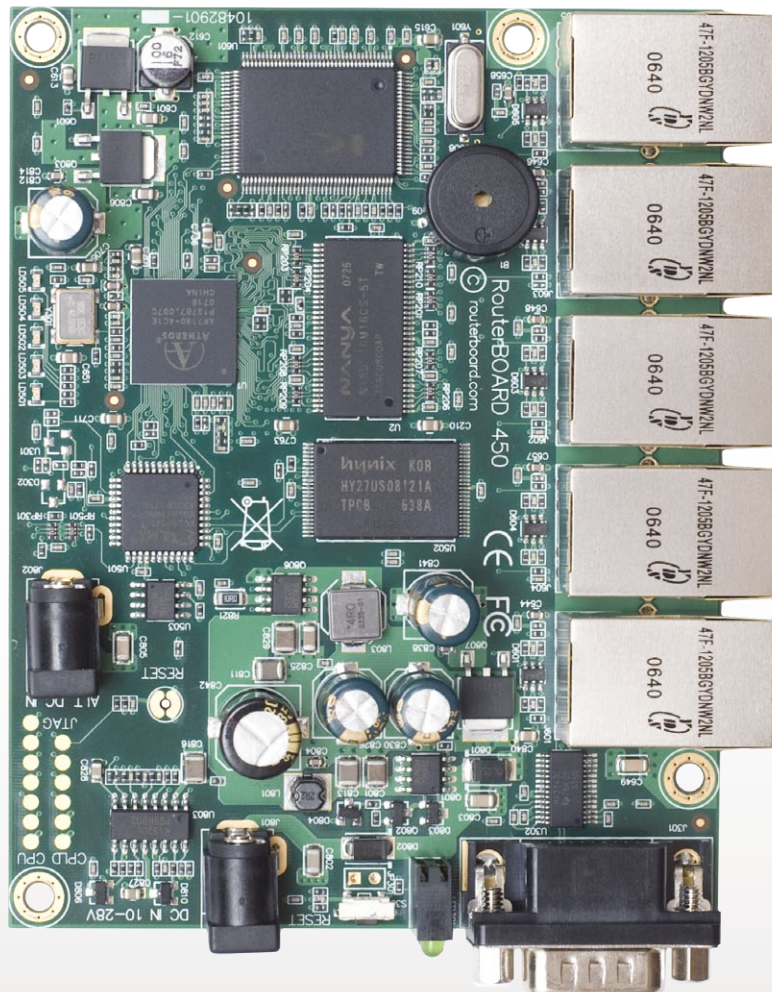
RB450

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	Power over Ethernet: 10..28V DC (except power over datalines). Power jack: 10..28V DC
Dimensions	90mm x 115mm, 105 g
Power consumption	~3W
Operating System	MikroTik RouterOS v3, Level5 license

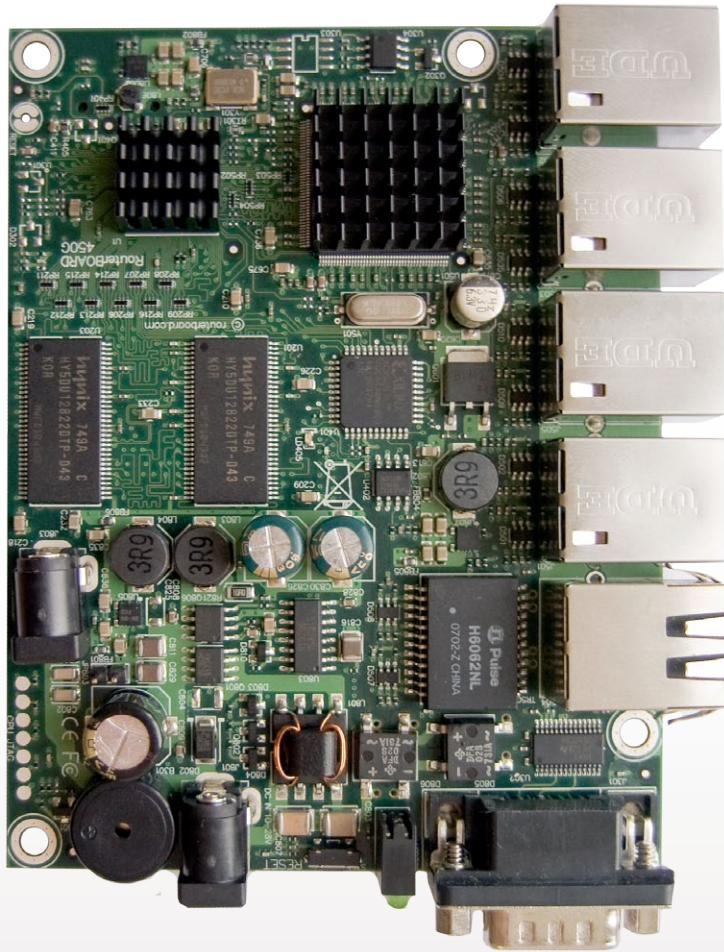
RB450G

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.

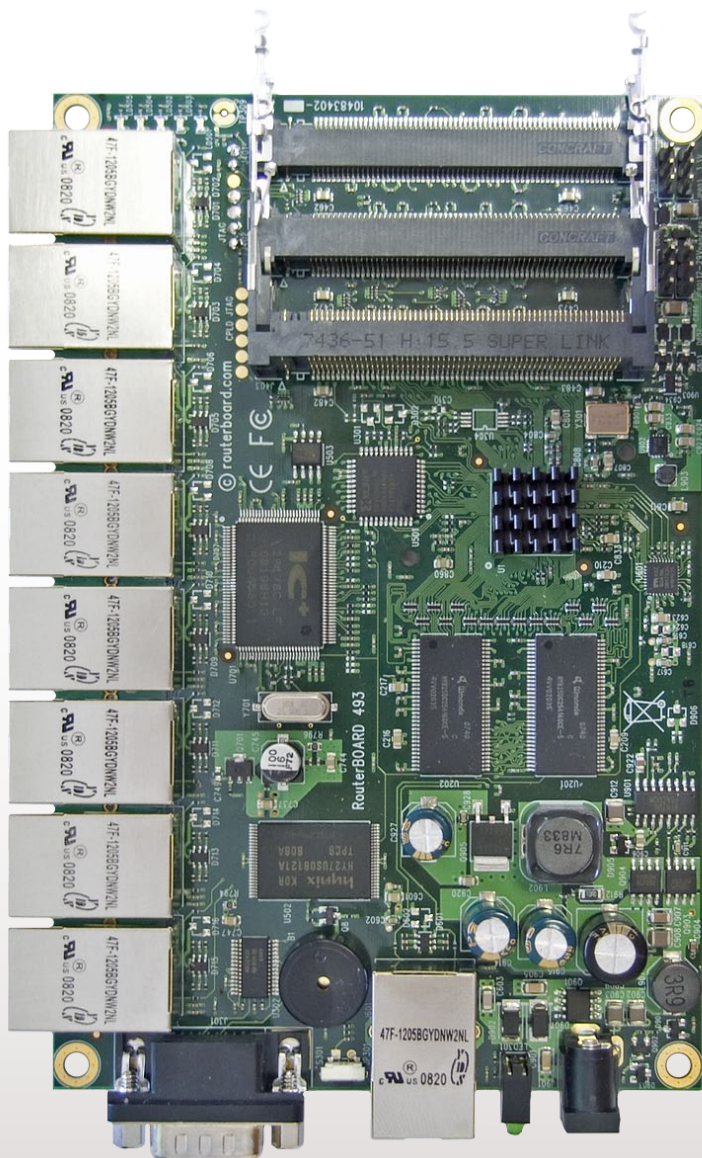
RB450 includes RouterOS - the operating system, which will turn this powerful system into a highly sophisticated router, firewall or bandwidth manager.

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
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	Power over Ethernet: 18-28V DC (except power over datalines). Power jack: 8-28V DC
Dimensions	90mm x 115mm, 105 g
Operating System	MikroTik RouterOS v3, Level5 license
Tested throughput	Ether1 <-> Ether2 = 1Gbps Ether2 <-> Ether3 = 650Mbps

RB493



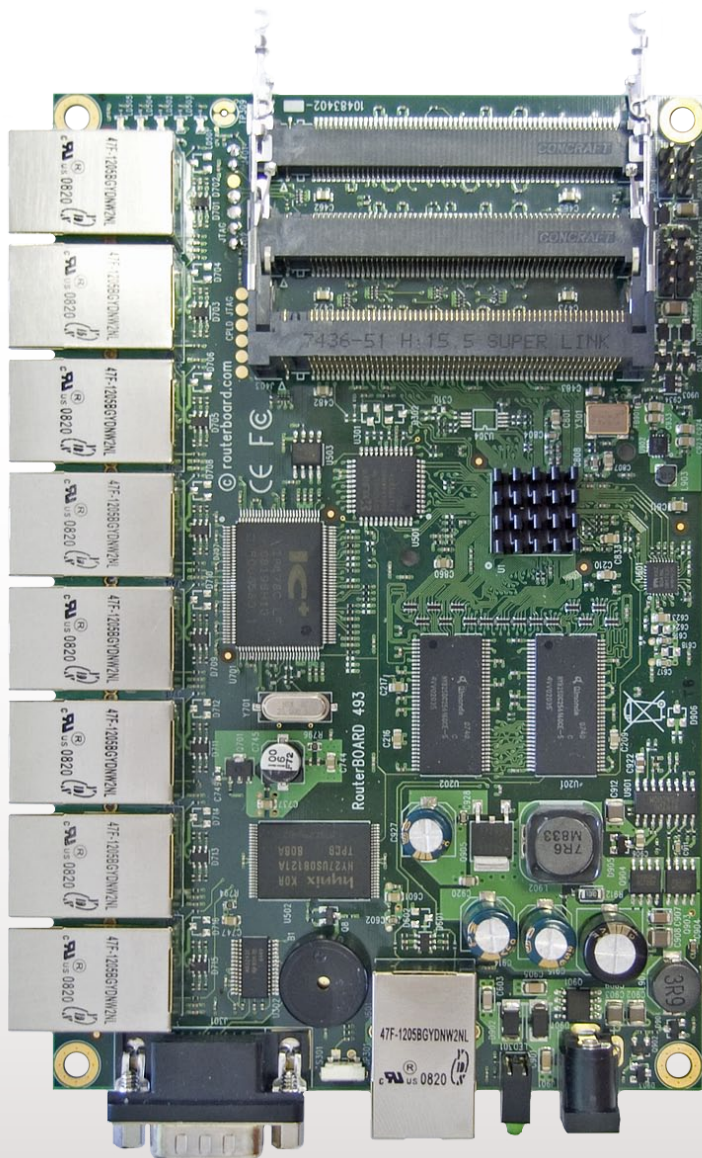
The RB493 has nine ethernet ports and three miniPCI slots, it also has a switch chip, so the ethernet ports of your choice can be grouped together to make it act as a switch.

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.

CPU	Atheros AR7130 300MHz
Memory	64MB DDR SDRAM onboard memory
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	Power over Ethernet: 10..28V DC (except power over datalines). Power jack: 10..28V DC
Dimensions	105mm x 160mm, 189 grams
Power consumption	~3W without extension cards, maximum – 16 W
Operating System	MikroTik RouterOS v3, Level4 license

RB493AH



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.

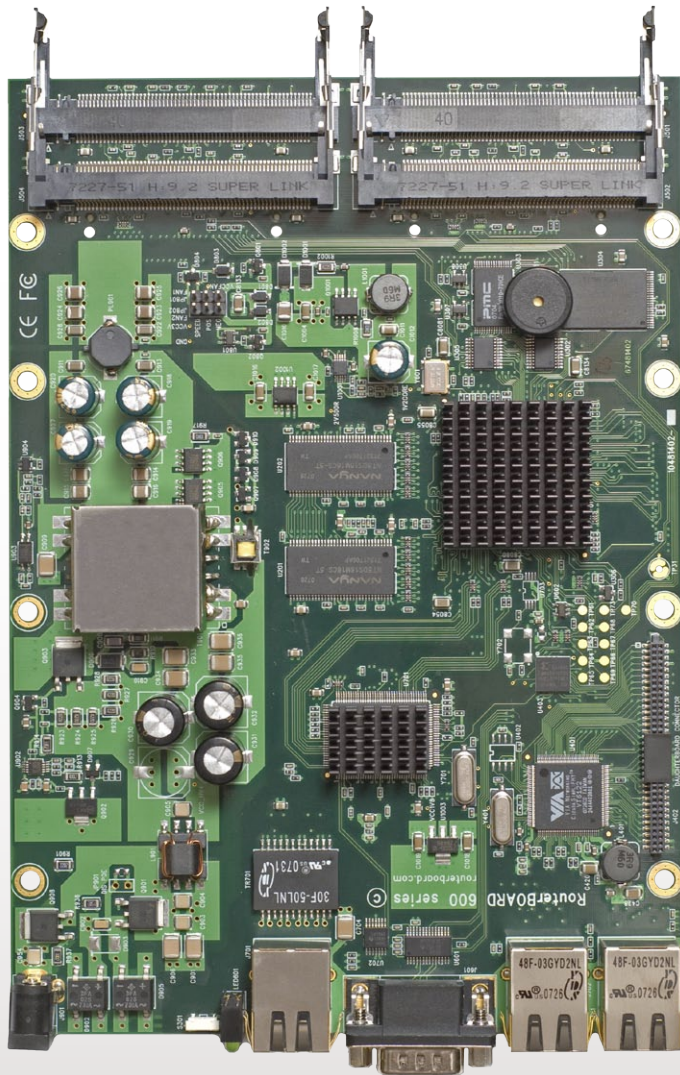
RB493 includes RouterOS - the operating system, which will turn this powerful system into a highly sophisticated router, firewall or bandwidth manager.

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 AR7161 680MHz
Memory	128MB DDR SDRAM onboard memory
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	Power over Ethernet: 10..28V DC (except power over datalines). Power jack: 10..28V DC
Dimensions	105mm x 160mm, 189 grams
Power consumption	~3W without extension cards, maximum – 16 W
Operating System	MikroTik RouterOS v3, Level5 license

RB600A



The high performance wireless platform. It has four miniPCI slots and three gigabit ethernet ports and it is the the fastest from our wireless routers.

The heart of this device is the state of the art PowerPC CPU which makes the RB600 faster than any other MikroTik product, introducing a whole new class to the RouterBOARD brand.

Two Compact flash slots for webproxy cache and configuration backups of the User Manager database or The Dude server. RB600 includes RouterOS - the operating system, which will turn this powerful system into a highly sophisticated router, firewall, bandwidth manager or hotspot. It is also the only RouterBOARD with 48V DC support.

Your definitive choice for an expandable gigabit system.

CPU	MPC8343E 266/400MHz network processor
Memory	128MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	64MB onboard NAND memory chip
Ethernet	Three 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
miniPCI	Four MiniPCI Type IIIA/IIIB slots
Expansion	Daughterboard support
Compact Flash	Two independent CompactFlash slots (TrueIDE Microdrive supported)
Serial port	One DB9 RS232C asynchronous serial port
Beeper	yes
Power options	IEEE802.3af PoE: 38..56V DC including over datalines. Power jack: 10..56V DC
Fan control	Two 5V DC fan power output headers with rotation sensor and automatic fan switching (maximum output current - 300mA total)
Dimensions	140mm x 200mm, 227g
Power consumption	~9W without extension cards, maximum – 35+ W
Operating System	MikroTik RouterOS v3, Level4 license

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.

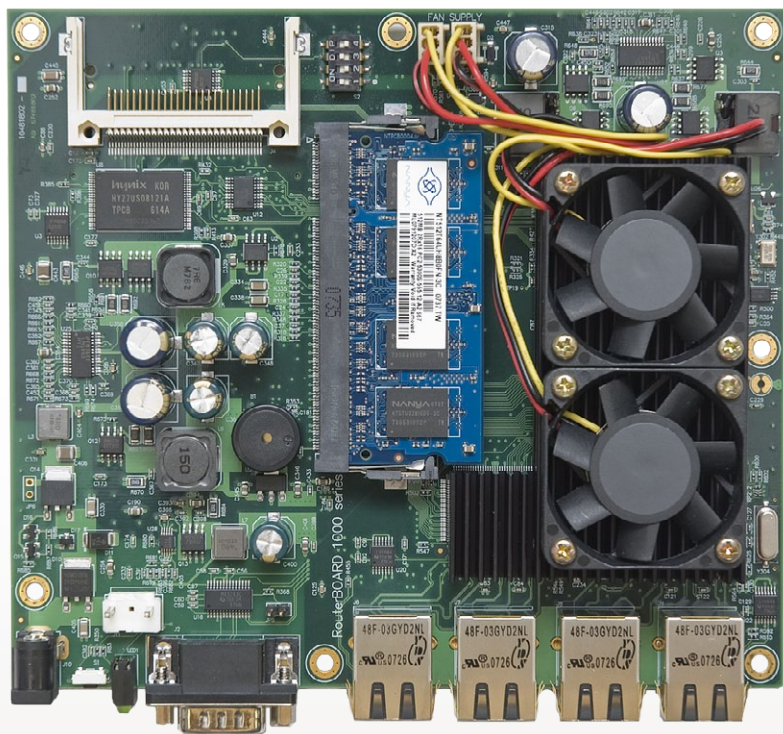
Not only it's affordable, small, good looking and easy to use - It's probably the most affordable MPLS capable router on the market. No more compromise between price and features - RB750 has both.

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



CPU	AR7240 300MHz CPU (overclock up to 400MHz)
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
Serial port	no serial port
LEDs	Power, NAND activity, 5 Ethernet LEDs
Power options	Power over Ethernet: 9-28V DC (except power over datalines). Power jack: 9.28V DC
Dimensions	113x89x28mm. Weight without packaging and cables: 130g
Power consumption	Up to 3W
Operating System	MikroTik RouterOS v3, Level4 license

RB1000

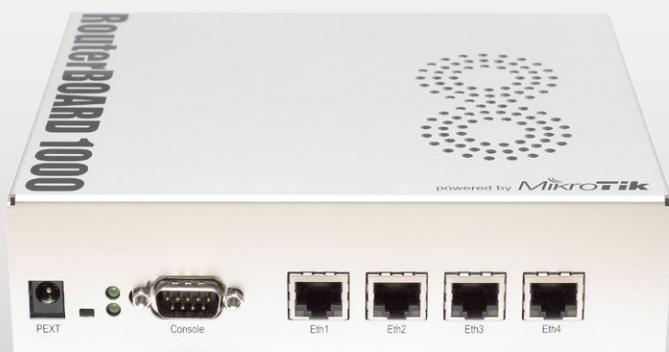


The top of the line core router.

The heart of this device is a new state of the art PowerPC networking processor which makes the RB1000 faster than any other MikroTik product. The IPsec encryption accelerator chip increases the IPsec performance in RouterOS several times.

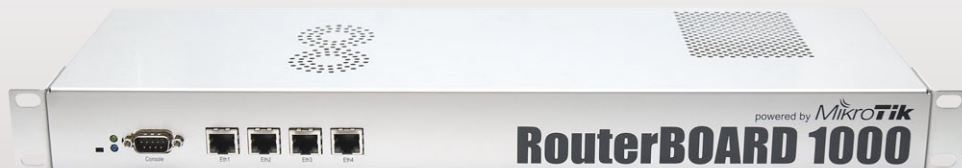
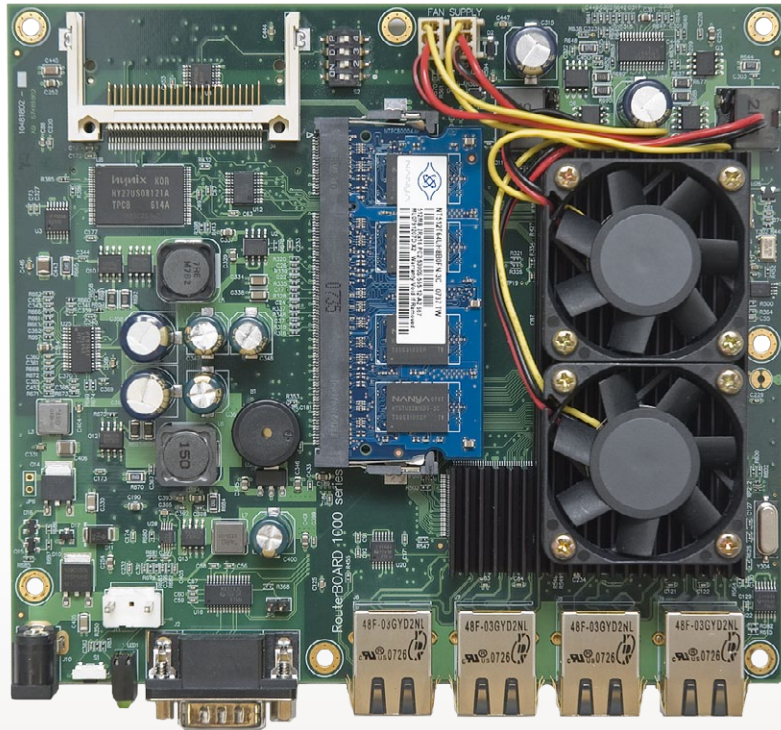
Our tests have shown that it can throughput up to 400000pps or 3.2Gbps total throughput! Two Compact Flash slots for webproxy cache, configuration backups of the User Manager database or The Dude server are also present.

RB1000 includes RouterOS - the operating system, which turns this powerful system into a highly sophisticated router, firewall or bandwidth manager. The unstoppable power of RouterOS and RouterBOARD combined, we bring you the fastest MikroTik router yet.



CPU	PPC8547 1333MHz 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	Four 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
miniPCI	none
Compact Flash	Two CompactFlash slot (TrueIDE Microdrive supported)
Serial port	One DB9 RS232C asynchronous serial port
Extras	Reset switch, Beeper, IPSec encryption hardware support (with RouterOS)
Power options	Power jack: 12V DC (includes power supply)
Fan	Dual fan with failover support
Case	Desktop case included
Dimensions	140mm x 160mm, 300g board only. With case 522g.
Operating System	MikroTik RouterOS v3, Level 6 license

RB1000U



The top of the line core router, integrated into a stylish aluminium rackmount case.

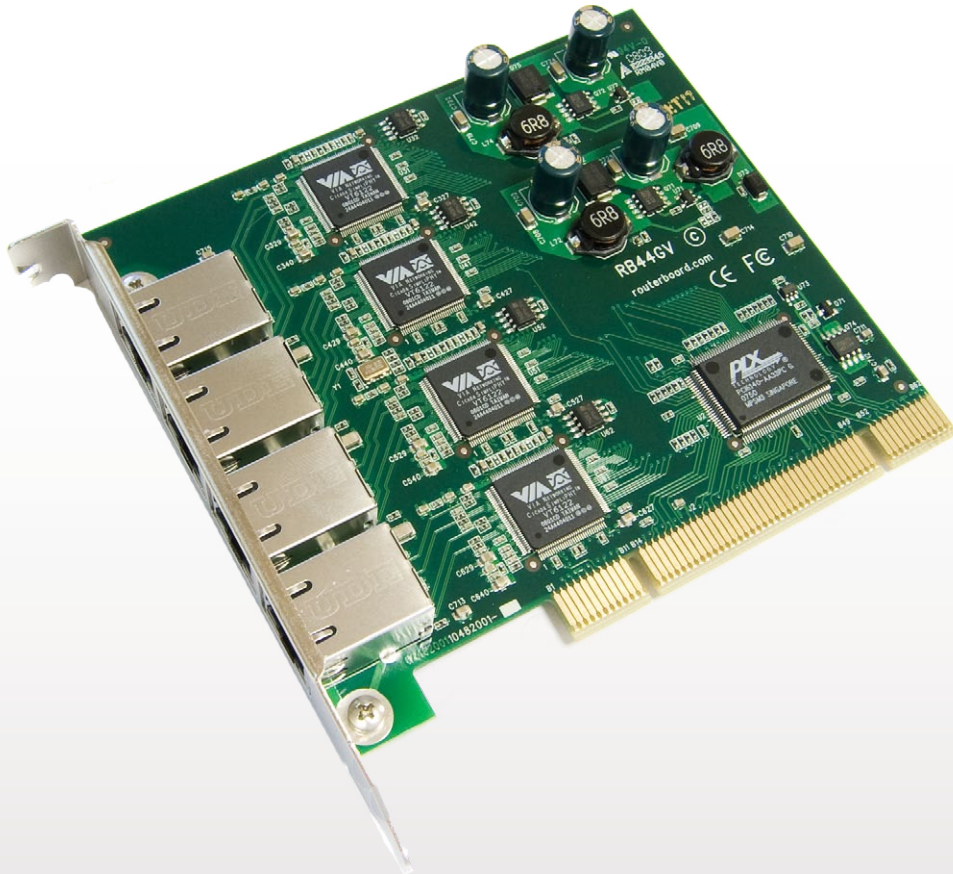
The heart of this device is a new state of the art PowerPC networking processor which makes the RB1000 faster than any other MikroTik product. The IPsec encryption accelerator chip increases the IPsec performance in RouterOS several times.

Our tests have shown that it can throughput up to 400000pps or 3.2Gbps total throughput! Two Compact Flash slots for webproxy cache, configuration backups of the User Manager database or The Dude server are also present.

RB1000 includes RouterOS - the operating system, which turns this powerful system into a highly sophisticated router, firewall or bandwidth manager. The unstoppable power of RouterOS and RouterBOARD combined, we bring you the fastest MikroTik router yet.

CPU	PPC8547 1333MHz 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	Four 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
miniPCI	none
Compact Flash	Two CompactFlash slot (TrueIDE Microdrive supported)
Serial port	One DB9 RS232C asynchronous serial port
Extras	Reset switch, Beeper, IPSec encryption hardware support (with RouterOS)
Power options	Rackmount case has built in power supply, 110/220V power jack.
Fan	Dual fan with failover support
Case	1U rackmount case included
Dimensions	140mm x 160mm, 300g board only. With case 1045g.
Operating System	MikroTik RouterOS v3, Level 6 license

RB44GV



The Gigabit Ethernet card with four ports. Perfect for saving that precious PCI slot space in your PC motherboard. Each port works as a separate interface, and has a dedicated VIA chip. The RB44GV card works at 10/100/1000Mbps speeds, and supports MDI/X crossover/straight cable autodetection.

Your choice to connect multiple high speed networks to one router, or to expand your network without extra costs and without sacrificing PCI slots.

Ports	Four Gigabit Ethernet ports 10/100/1000
Chipset	VIA VT6122
Features	MDI/X: cross /straight cable autodetection
Compatibility	IEEE 802.3 10BaseT; IEEE 802.3u 100BaseTX Fast Ethernet; VLAN 802.1q
Dimensions	107 x 124 x 19 mm
OS	RouterOS, Windows, Linux, BSD

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 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.



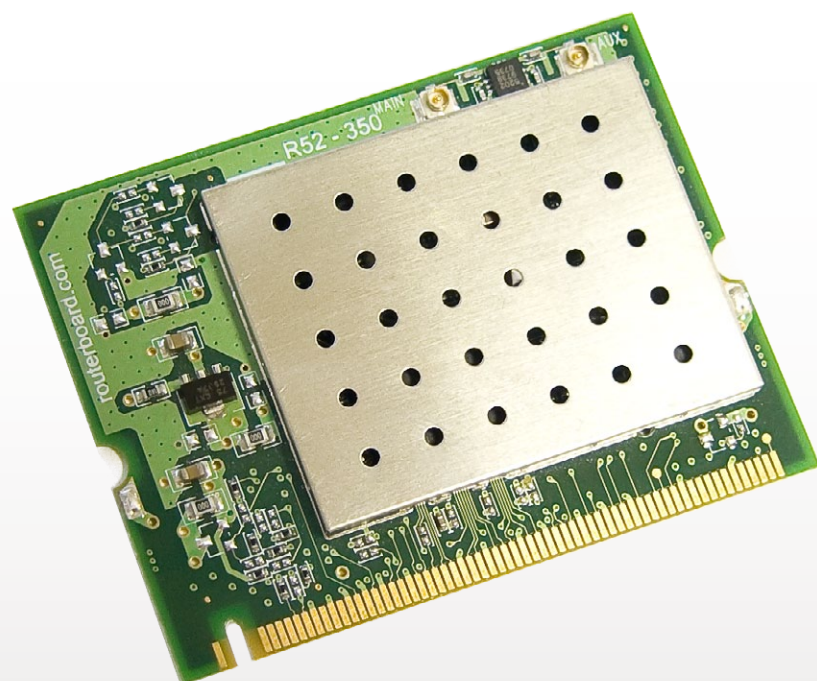
Chipset:	Atheros AR5414
Standards:	IEEE802.11a, IEEE802.11b, IEEE802.11g
Media Access:	CSMA/CA with ACK architecture 32-bit MAC
Security:	Hardware 64/128 bit WEP, TKIP and AES-CCM encryption, WPA, WPA2, 802.1x
Modulation:	802.11b+g: DSSS, OFDM for data rate >30Mbps 802.11a: OFDM
Connectors:	Two U.fl 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	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 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	24dBm / -90dBm @ 6Mbps 19dBm / -70dBm @ 54Mbps
802.11b	25dBm / -92dBm @ 1Mbps 25dBm / -87dBm @ 11Mbps
802.11g	25dBm / -90dBm @ 6Mbps 20dBm / -70dBm @ 54Mbps

R5H

This industrial grade 802.11a wireless card from MikroTik is a new standard in quality. MMCX antenna connector provides a secure connection to your antenna, and a special screw allows you to securely fasten the card in its place.

The R5H provides three kinds of filters in RX path for selection to reject unwanted signals, so that more bandwidth can be used for communication. Because of the high sensitivity of R5H, it can achieve the same distance as competing products with higher power.

- Atheros AR5414A B2B
- Average power up to 25dBm
- External Screw hole reserved against vibration
- DIP type MMCX RF connectors provide robust assembly for antenna
- Heat sink design provides reliable high power RF performance
- Integrated RF ESD and surge protector
- High rejection filter to reduce interference



Average Sensitivity

Condition	MIN	TYP	MAX	Units
6Mbps	-96	-93	-90	dBm
9Mbps	-96	-93	-90	
12Mbps	-94	-91	-88	
18Mbps	-92	-89	-86	
24Mbps	-89	-86	-83	
36Mbps	-85	-82	-79	
48Mbps	-80	-77	-74	
54Mbps	-78	-75	-72	

Average TX Power

5GHz	MHz					
	5170	5400	5500	5700	5805	5825
6M	23.5	24	24.5	25	25	25
9M	23.5	24	24.5	25	25	25
12M	23.5	24	24.5	25	25	25
18M	23.5	24	24.5	25	25	25
24M	23.5	24	24	25	25	25
36M	22.5	23	24	24	24	24
48M	20	20	21	22	21.5	21.5
54M	19.5	19.5	20	21	20.5	20.5

ESD Surge Protection

[illegible]



- 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 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

R52N

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

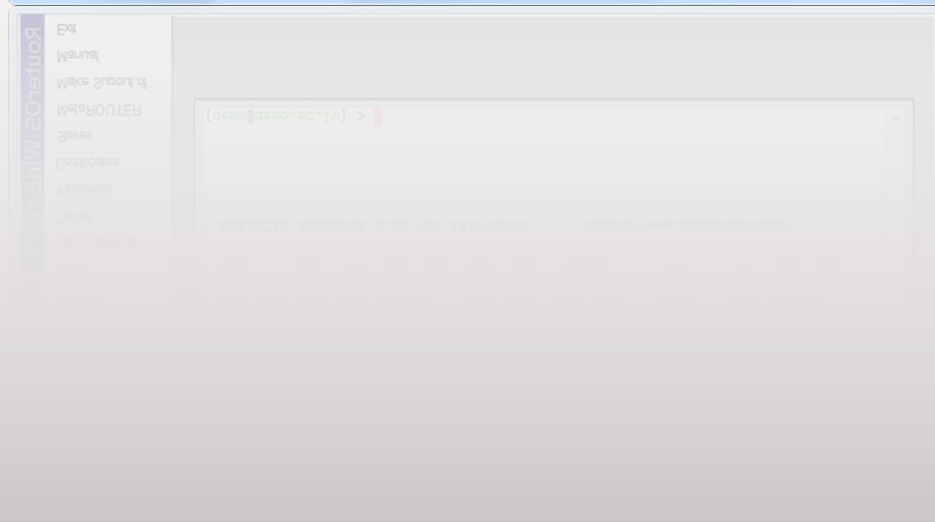
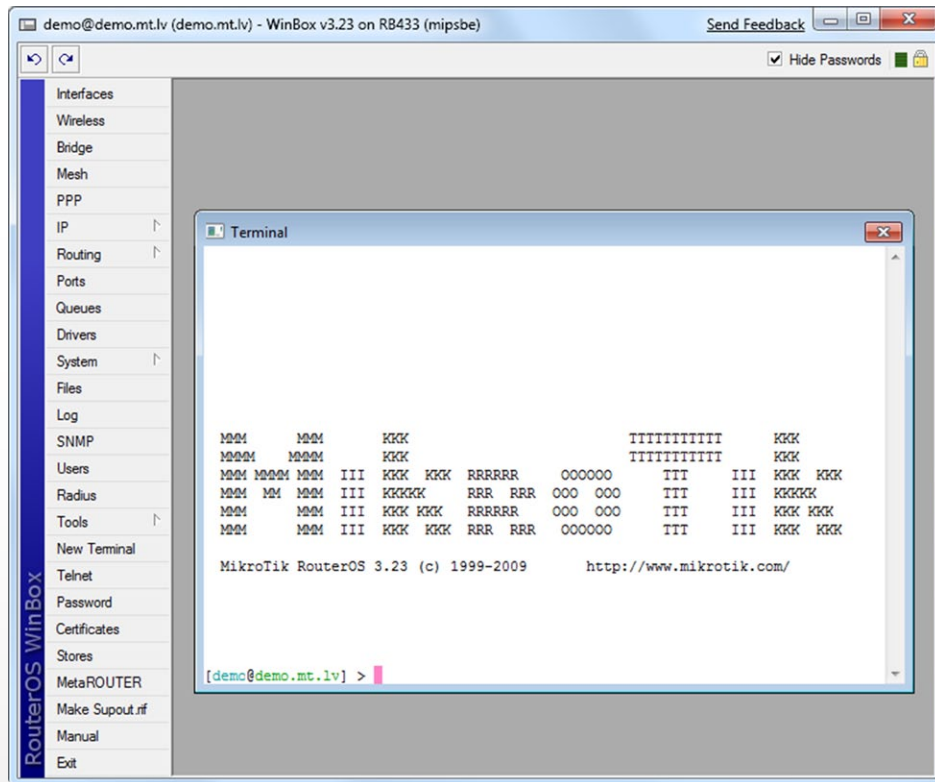
MikroTik RouterOS is the operating system of MikroTik RouterBOARD hardware.

It can also be installed on a PC and will turn it into a router with all the necessary features - 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.

You can try RouterOS today, go to www.mikrotik.com and download the installation CD image. The free trial provides all of the features with no limitations.

In the following pages you will find examples of some of the most important RouterOS features.





To obtain MikroTik hardware and software, visit our distributors.
For more information and latest news go to www.mikrotik.com