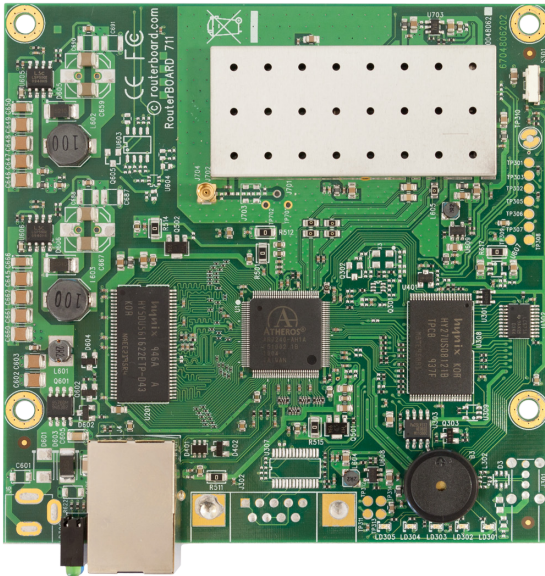


- New RB711
- Training schedule
- MUM in USA, Brazil and Colombia
- Nv2 TDMA protocol
- Wireless latency improved
- Advanced multicore improvements

RouterBOARD 711
200mW high power 5GHz 802.11n radio

\$49



MikroTik is pleased to announce our new series of products, the RB711. These devices have a built-in high power 5GHz 802.11n radio, 10/100 Ethernet port, and a very affordable price of \$49 that makes them the perfect choice for AP and CPE builders and MFM partners. The RB711 supports Nstreme and is compatible with R52 5/10MHz channels.

Visit: www.routerboard.com

Several models are available:

- **RB711-5Hn-M** with MMCX connector
- **RB711-5Hn-U** with uFL connector

Also available is RB711A with more memory, and a Level4 license for AP support:

- **RB711A-5Hn** with MMCX connector.

CPU	Atheros AR7240 400MHz network processor
Memory	32/64MB DDR SDRAM onboard memory (RB711/A)
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	Power over Ethernet: 10..28V DC (except power over datalines). No power jack
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 v4, Level3/4 license (RB711/A)

Trainings before the MUM in USA

Learn everything about RouterOS

MikroTik has many certified trainers around the world, we have personally trained each of them to make sure they provide the highest standard of RouterOS training possible.

In the week before the MUM event in Arizona, our training partners will offer the following **certified RouterOS courses**:

- # [Stephen R.W. Discher](#) (RouterOS basics, MTCNA)
- # [Butch Evans Consulting](#) (RouterOS Wireless, MTCWE)
- # [MikroTik](#) (RouterOS internetworking, MTCINE)

More information about the training classes:
<http://mikrotik.com/trainings/>

MUM in Brazil, Colombia and USA

Come to the MikroTik user meetings

MikroTik User Meeting (MUM) is the best place to learn about new MikroTik products, see them in action, listen to professional presentations, take part in workshops, and meet other MikroTik users.

Announcing two new MUM events this year! Currently registrations are open for these events:

- # Phoenix, Arizona, **USA**. September 30 - October 1, 2010
- # Salvador, **Brazil**. November 11-12, 2010
- # Bogota, **Colombia**. November 18-19, 2010

Register online and receive your entry ticket - both free tickets, and paid tickets are available. Free tickets don't include lunch and RouterOS license. All attendees must register and print tickets before their arrival!

Information about the MUM and online registration:
<http://mum.mikrotik.com/>



More pictures at: <http://mum.mikrotik.com/gallery/>

Nv2 wireless TDMA protocol

MikroTik has developed a new wireless protocol based on TDMA technology (Time Division Multiple Access) - **Nv2** (Nstreme version 2).

TDMA is a channel access method for shared medium networks. It allows several users to share the same frequency channel by dividing the signal into different time slots. The users transmit in rapid succession, one after the other, each using his own time slot. This allows multiple stations to share the same transmission medium (e.g. radio frequency channel) while using only a part of its channel capacity.

The most important benefits of Nv2 are:

- **Increased speed**
- **More client connections in PTM environments**
- **Lower latency**
- **No distance limitations**
- **No penalty for long distances**

Starting from RouterOS v5.0beta5 you can configure Nv2 in the Wireless menu.

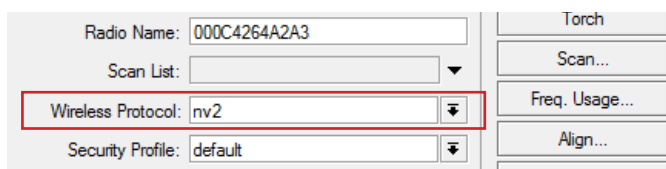
- **5/10/20/40 MHz channel support**
- **802.11n MIMO Atheros AR92xx support**
- **R52, R52H, AR5414 backward compatible**
- **Mixed systems possible**
- **Possibility to set CPE association priorities, so when AP switches to Nv2, all CPEs switch too, allowing easy migration and upgrade**

To make the connection using Nv2 on the AP side you need to select the wireless-protocol=nv2 and on the Station side, select wireless-protocol 'Nv2' or 'any'.

Currently, with 802.11n and Nv2 you can get approximately 97Mbps UDP traffic and 94Mbps TCP traffic through RB711 in one direction using one chain.

More information on Nv2:

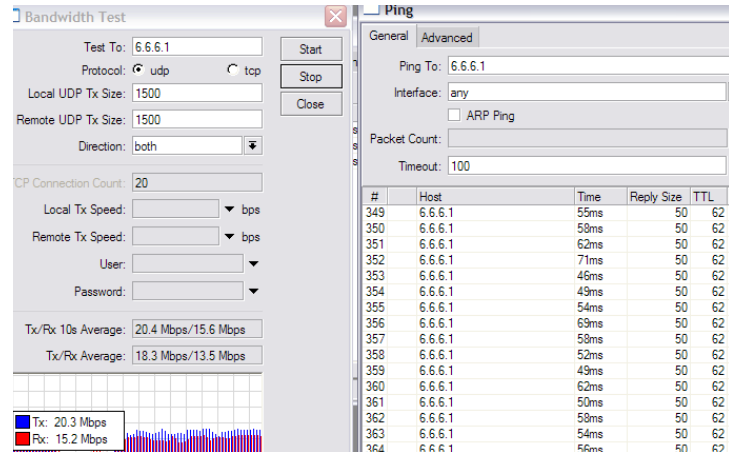
<http://wiki.mikrotik.com/wiki/Manual:Interface/Wireless#Nv2>



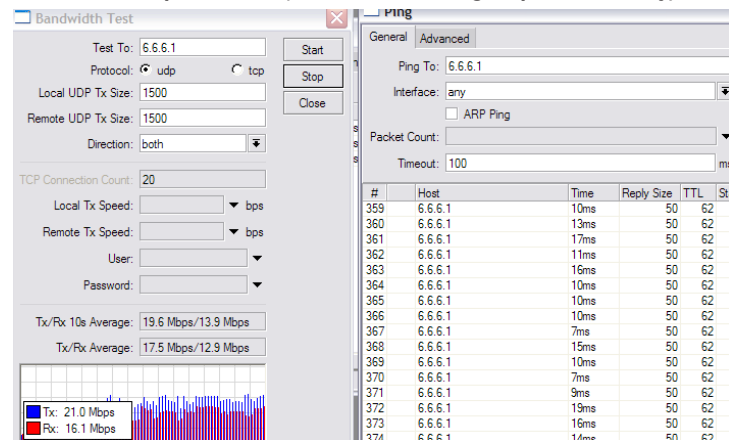
Nv2 latency examples

Starting with v5beta6, Nv2 has a new setting, which enables a special QoS mechanism to give priority to small packets, and improves link latency.

set wlan1 nv2-qos=frame-priority (manual setting, old style):



set wlan1 nv2-qos=default (new default setting, improves latency):



Multicore improvements

Starting with RouterOS v5beta6 RouterOS supports up to 16 cores in your PC system (previous limitation was 8), and has new Intel Ethernet drivers. It is possible to assign a different CPU for each IRQ of each Ethernet card to improve the performance and balance load:

Interface	CPU	Core
27 ether1	auto	0
28 eth0-rx-0	0	0
29 eth0-rx-1	0	0
30 eth0-tx-0	0	0
31 eth0-tx-1	0	0
32 ether2	auto	1
33 eth1-rx-0	0	0
34 eth1-rx-1	0	0
35 eth1-tx-0	0	0
36 eth1-tx-1	0	0