

## Product description

Dual directional antenna with lightweight aluminium feed for 2x2 MIMO systems in 5Ghz band. Excels with narrow beam angle (9°) and extra large front-back ratio. Designed to areas with very high interference.

## Typical usage

This antenna is primarily designed to create point-to-point links for medium to long distances. You can easily achieve maximum speed for several kilometers with this antenna. The maximum range naturally depends on the precision of installation and interference in the specific area.



## Technical parameters

Frequency [GHz]:	5
Depth [mm]:	255
Antenna type	Dish
MIMO:	2x2
Polarization:	VH
Usage:	Outdoor
Mounting box:	Available
Back to front ratio [dB]:	32
Width [mm]:	420
Mounting on pole [mm]:	28 - 66
HF connectors:	2x RSMA female
VSWR:	< 1,5
Height [mm]:	420
Beam angle - H. pol. [°]:	9
Beam angle - V. pol. [°]:	9
Antenna gain [dBi]:	24
Part number without box	02-PR-M24-AC
Part number with box	02-PR-M24-AC-BOX

## Real test

Tested on 1km distance with RouterBoard RB911G-5HPacD:

### Bandwidth 20 MHz

Average throughput: **78,5 Mbps**  
Tx/Rx Signal Strength: **-58/58dBm**

### Bandwidth 40 MHz

Average throughput: **171,4 Mbps**  
Tx/Rx Signal Strength: **-59/59dBm**

### Bandwidth 80 MHz

Average throughput: **281,1 Mbps**  
Tx/Rx Signal Strength: **-58/57dBm**

You can check screenshot from mamagement on pages 3-6.

## Mounting box

Dish antenna MaxLink MIMO offers also with the optional mounting box that will allow you to install RouterBoards from the MikroTik or other similar PCB with 105x105mm dimensions. The mounting box is made from high quality UV stable ABS plastic. The dimension of the box itself are 230x230x120mm.

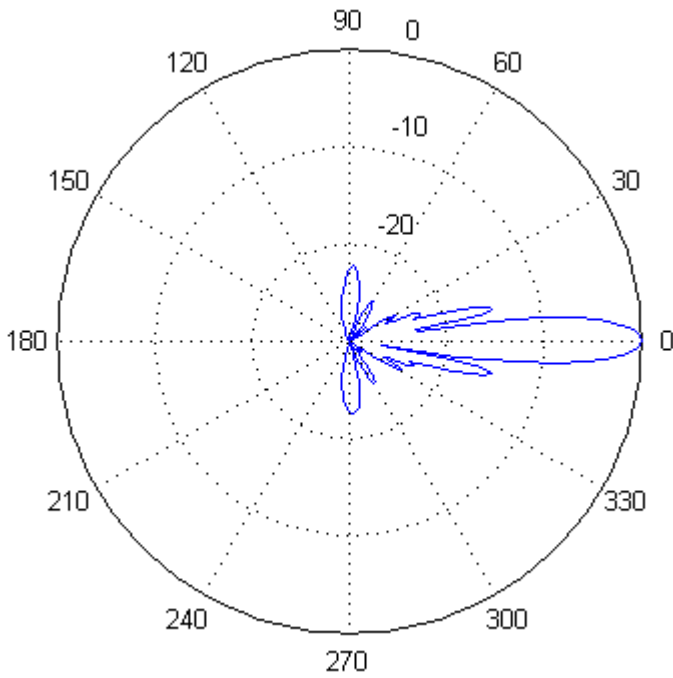


**RB4xx, RB7xx, RB9xx**  
**Compatible**

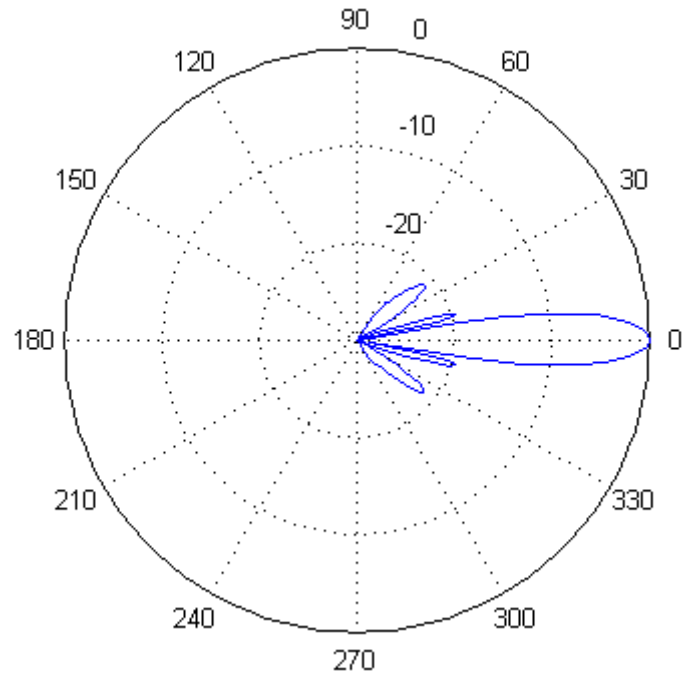


## Antenna Polar Plots

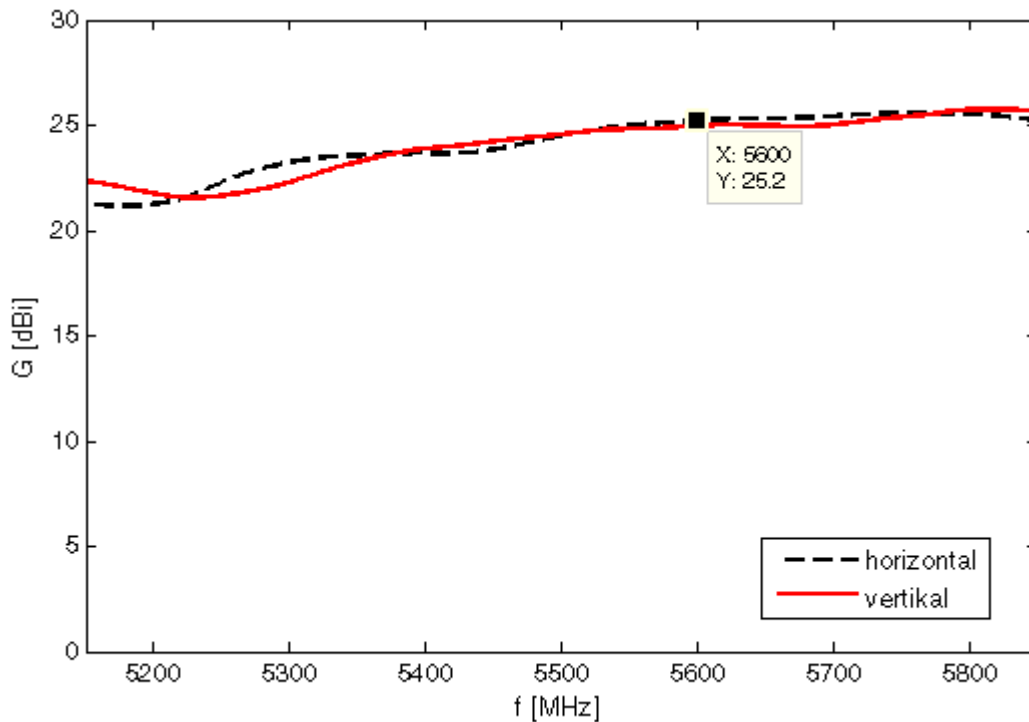
Vertical chart for 5600 Mhz. Beam angle is 9 degrees. Front-to-back ratio is 30.46 db. Suppression of side beams: 15.01 db



Horizontal diagram for 5600 Mhz. Beam angle is 10 degrees. Front-to-back ratio is 31.85 db. Suppression of side beams: 19.55 db.



## Return Loss



# Bandwidth 20 MHz, Average throughput 78,5 Mbps

admin@192.168.202.102 (MikroTik) - WinBox v6.23 on RB911G-5HPacD (mipsbe)

Safe Mode Hide Passwords

- Quick Set
- CAPsMAN
- Interfaces
- Wireless
- Bridge
- PPP
- Switch
- Mesh
- IP
- MPLS
- Routing
- System
- Queues
- Files
- Log
- Radius
- Tools
- New Terminal
- MetaROUTER
- Partition
- Make Supout.rf
- Manual
- Exit

Wireless Tables

Interfaces Nstreme Dual Access List Registration Connect List Security Profiles Channels

00 Reset Find

Radio Name	MAC Address	Interface	Uptime	AP	W...	Last Activit...	Tx/Rx Signal ...	Tx Rate	Rx Rate
4C5E0CD...	4C:5E:0C:D8:31:C9	wlan1	00:09:20	yes	no	0.000	-58/-58	86.6Mbps-20MHz/1S/SGI	86.6Mbps-20MHz/1S/SGI

AP Client <4C:5E:0C:D8:31:C9>

General 802.1x Signal Nstreme NV2 Statistics

Last Activity: 0.000 s

Tx/Rx Signal Strength: -58/-58 dBm

Tx/Rx Signal Strength Ch0: -58/-58 dBm

Tx/Rx Signal Strength Ch1:

Tx/Rx Signal Strength Ch2:

Signal To Noise: 48 dB

Tx/Rx CCQ: 95/100 %

P Throughput: 81067 kbps

Signal Strengths

Rate	Strength	Last Measured
48Mbps	-73	00:02:08.63
24Mbps	-72	00:02:08.34
36Mbps	-72	00:02:08.62
18Mbps	-67	00:02:08.27
54Mbps	-65	00:05:33.68
6Mbps	-58	00:00:00.07
9Mbps	-36	00:08:46.82
12Mbps	-36	00:08:42.10

Bandwidth Test (Running)

Test To: 192.168.202.101

Protocol:  udp  tcp

Local UDP Tx Size: 1500

Remote UDP Tx Size: 1500

Direction: receive

TCP Connection Count: 20

Local Tx Speed:  bps

Remote Tx Speed:  bps

Random Data

User:

Password:

Lost Packets: 710

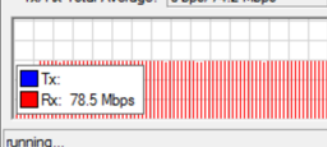
Tx/Rx Current: 0 bps/78.5 Mbps

Tx/Rx 10s Average: 0 bps/78.5 Mbps

Tx/Rx Total Average: 0 bps/74.2 Mbps

running...

Legend: Tx (blue), Rx (red)





## Bandwidth 40 MHz, Average throughput 171,4 Mbp

The screenshot displays the Mikrotik WinBox interface for a MikroTik device. The main window shows the 'Wireless Tables' configuration for the 'wlan1' interface. Below this, two windows are open: 'AP Client' and 'Bandwidth Test (Running)'. The 'AP Client' window shows signal strength and throughput details for the client MAC address 4C:5E:0C:D8:31:C9. The 'Bandwidth Test' window shows a test in progress with a local UDP Tx size of 1500 and a remote UDP Tx size of 1500. The test results show a Tx rate of 0 bps and an Rx rate of 172.1 Mbps, with a total average of 172.8 Mbps. A bar chart at the bottom of the bandwidth test window shows the Tx and Rx rates over time.

Radio Name	MAC Address	Interface	Uptime	AP	W...	Last Activ...	Tx/Rx Signal ...	Tx Rate	Rx Rate
4C5E0CD...	4C:5E:0C:D8:31:C9	wlan1	00:09:05	yes	no	0.000	-59/-59	200Mbps-40MHz/1S/SGI	200Mbps-40MHz/1S/SGI

Rate	Strength	Last Measured
24Mbps	-61	00:04:10.33
6Mbps	-59	00:00:00.08
12Mbps	-58	00:08:40.61
18Mbps	-58	00:04:10.03
9Mbps	-57	00:08:40.60
36Mbps	-56	00:04:09.23
48Mbps	-55	00:04:08.31
54Mbps	-55	00:04:07.79

Bandwidth Test (Running) Results:

- Test To: 192.168.202.101
- Protocol: udp
- Local UDP Tx Size: 1500
- Remote UDP Tx Size: 1500
- Direction: receive
- TCP Connection Count: 20
- Local Tx Speed: 0 bps
- Remote Tx Speed: 172.1 Mbps
- Random Data:
- User: [ ]
- Password: [ ]
- Lost Packets: 1532
- Tx/Rx Current: 0 bps/172.1 Mbps
- Tx/Rx 10s Average: 0 bps/171.4 Mbps
- Tx/Rx Total Average: 0 bps/162.8 Mbps



Bandwidth 80 MHz, Average throughput 281,1 Mbp

The screenshot shows the MikroTik WinBox interface. The main window displays the 'Wireless Tables' configuration for the wlan1 interface. The table below shows the configuration details:

Radio Name	MAC Address	Interface	Uptime	AP	W...	Last Activit...	Tx/Rx Signal ...	Tx Rate	Rx Rate
4C5E0CD...	4C:5E:0C:D8:31:C9	wlan1	00:07:17	yes	no	0.000	-58/-57	433.3Mbps-80MHz/1S/SGI	433.3Mbps-80MHz/1S/SGI

Two pop-up windows are visible:

- AP Client <4C:5E:0C:D8:31:C9>**: Shows signal strength (-58/-57 dBm), signal-to-noise ratio (48 dB), and P Throughput (390558 kbps). It includes a 'Signal Strengths' table with columns for Rate, Strength, and Last Measured.
- Bandwidth Test (Running)**: Shows test parameters (Test To: 192.168.202.101, Protocol: udp, Local UDP Tx Size: 1500, Remote UDP Tx Size: 1500, Direction: receive) and results (Local Tx Speed: 0 bps, Remote Tx Speed: 0 bps, Tx/Rx Current: 0 bps/314.7 Mbps, Tx/Rx 10s Average: 0 bps/281.1 Mbps, Tx/Rx Total Average: 0 bps/256.5 Mbps). A graph shows Tx (blue) and Rx (red) activity.

