MikroTik
NEWSLETTER, ISSUE #68 - NOVEMBER 2015

mANT sector antennas

The new sector **mANT15s** and 19s antennas are the perfect companion for the BaseBox, NetBox, NetMetal or any other outdoor wireless device.

The mANT is a dual-polarization 5GHz antenna with two RP-SMA connectors, it comes in two sizes, the 15dBi model and the 19dBi model. Both antennas have 120 degree beamwidth.

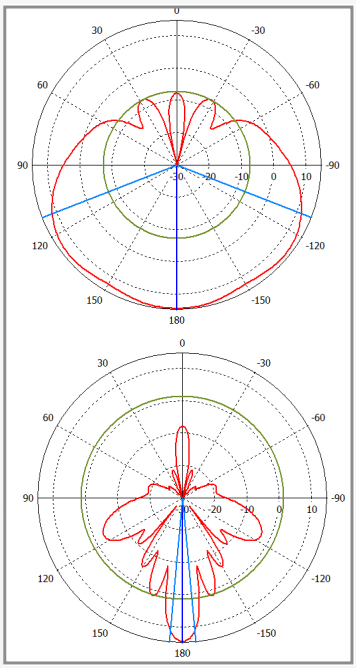
Bronzolate™ shielding shown

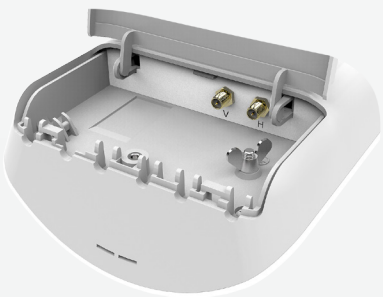
$49

The **mANT15s** is compatible with the SXT type mount, so you can use it with our durable and adjustable QuickMount systems. It comes with quickMOUNT PRO included.

The mANT antenna is protected from interference with a special Bronzolate™ coating that covers the inside of the back.

The antenna has excellent Port to Port isolation of 40dB and a Front-to-Back ratio of 30dB.





view on web

quickMOUNT PRO

K-41 screw kit

Metal ring

mANT19s

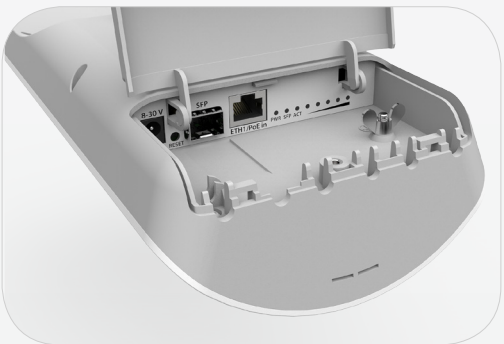
$99

Industry leading 19dBi gain for a 120° sector antenna!

The bigger mANT 19s model has it's own metallic mounting system, the angle can be adjusted. The mANT19s also includes absorbing shielding coating on the inside of the case, to protect it from outside interference.

Coming soon is the integrated mANTbox version with a RouterBOARD device built right into the same mANT 15s or 19s.

view on web



A separate product with an integrated RouterBOARD is coming soon: the mANTbox

CCR1072 introduction

$3050

Our new flagship router, the CCR1072, is powered by a Tilera 72 core CPU, each core is clocked at 1GHz, and to fully utilise this power, the CCR1072 is equipped with eight independently connected 10G SFP+ ports.

Thanks to the unique 72 core processor and ports that are directly connected to the CPU, CCR1072 is capable of over 120 million packets per second throughput.

Full set of features

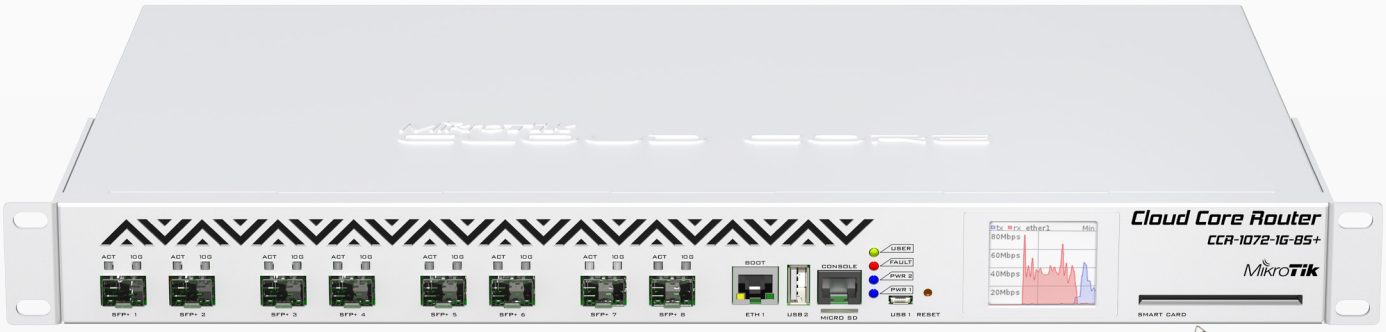
- 8x SFP+ ports
- 16GB ECC RAM
- Ports directly connected to CPU
- microSD and 2x M.2

Highest performance

- over 120 million pps packet throughput
- up to 80 Gbps throughput

New generation CPU

- 72 core CPU
- 1 GHz clock per core
- State of the art TILE GX architecture



The unit comes equipped with two removable (hot plug) power supplies for redundancy, smart card slot, eight SFP+ ports and **16GB** of built in ECC RAM.

The CCR1072 also has two built-in M.2 slots, microSD and 2x USB for adding storage, to use for proxy cache, user manager and other features. The M.2 slots accept 800mm Key-M x4 PCIe 2.0 modules.

View product online

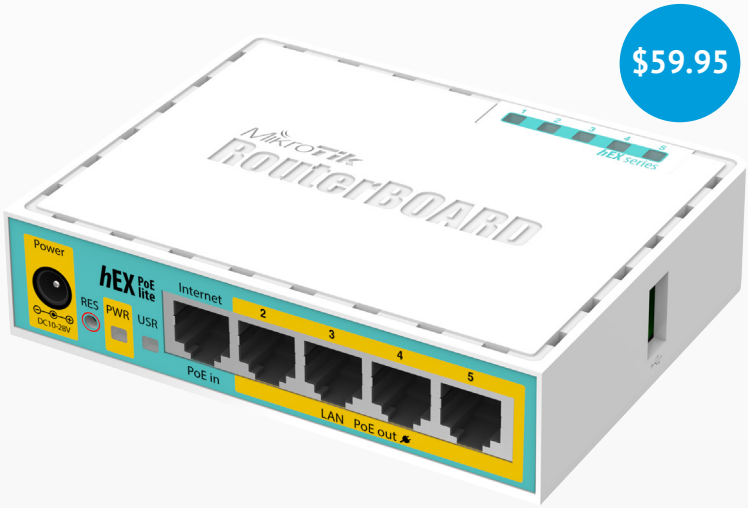
CCR1072-1G-8S+		Tile 72 Core (1200Mhz, DDR1600) Max possible throughput					
Mode	Configuration	1518 byte		512 byte		64 byte	
		kpps	Mbps	kpps	Mbps	kpps	Mbps
Bridging	none (fast path)	6,502.0	78,960.3	18,790.0	76,963.8	119,047.6	60,952.4
Bridging	25 bridge filter rules	6,502.0	78,960.3	9,099.2	37,270.3	10,432.3	5,341.3
Routing	none (fast path)	6,502.0	78,960.3	18,790.0	76,963.8	94,668.4	48,470.2
Routing	25 simple queues	6,502.0	78,960.3	13,500.0	55,296.0	13,683.5	7,006.0
Routing	25 ip filter rules	5,247.6	63,726.9	6,125.5	25,090.0	6,104.0	3,125.2

hEX PoE lite (RB750UP r2)

hEX PoE lite is a small five port ethernet router in a plastic case, it has a USB 2.0 port and PoE output. The hEX PoE lite replaces our popular RB750UP router.

Ports 2-5 can power other PoE capable devices with the same voltage as applied to the unit. Less power adapters and cables to worry about! Max current is 1A per port, Ethernet ports are shielded.

It is affordable, small and easy to use. With it's compact design and clean looks, it will fit perfectly into any SOHO environment.



24V 2.5A
Power adapter

IEC cord

View product online

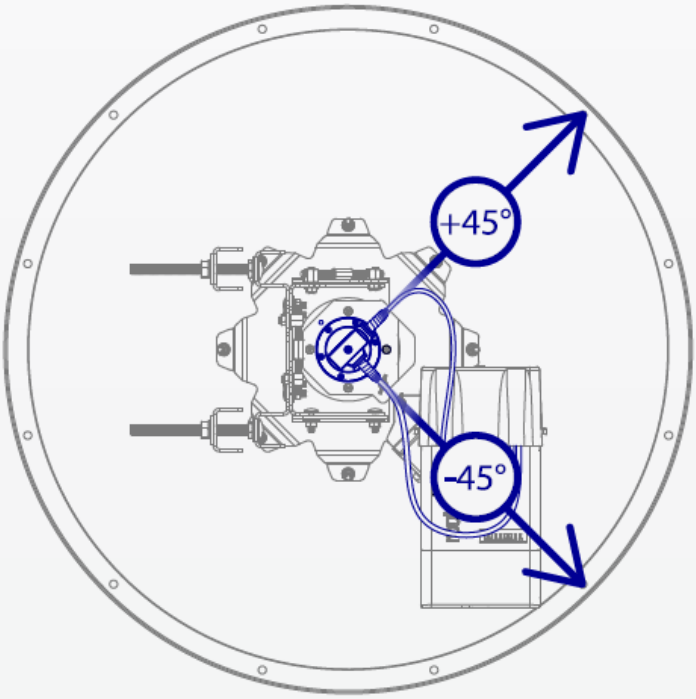
mANT30 45° feed style

Your existing mANT 30 dish antenna can be adjusted to a slanted polarization at 45 degrees, both the regular model and the PA model support this. We have made new instructions onhow to do this. The instruction file can be downloaded on our webpage http://routerboard.com

Slant can positively affect Point-to-Point links:

1. reduce RF interference in signal congested areas
2. reduce the impact on local microwave devices
3. unify the channel output if link deployed over a body of water

The best news is that if you own a mANT30, you can already do this!



+45°/-45° polarization*

View product online

LNS support

Due to popular demand from our users, we have implemented PPPoE discovery packets over L2TP in LNS mode, based on the RFC3817.

You can already test this new functionality in RouterOS v6.33 that is available on our download page. Please discuss LNS or other needed features on our forum: http://forum.mikrotik.com

DNS name support

To ease the setup of tunnels in RouterOS, it is now possible to set up tunnels using a domain name. Before establishing the tunnel router will attempt to resolve the domain name and if successful establish the tunnel to the address resolved.

PoE-out manager

We have introduced a new feature for PoE-out: **power-cycle-ping**, which pings a host and power-cycles poe-out port, if host does not respond.

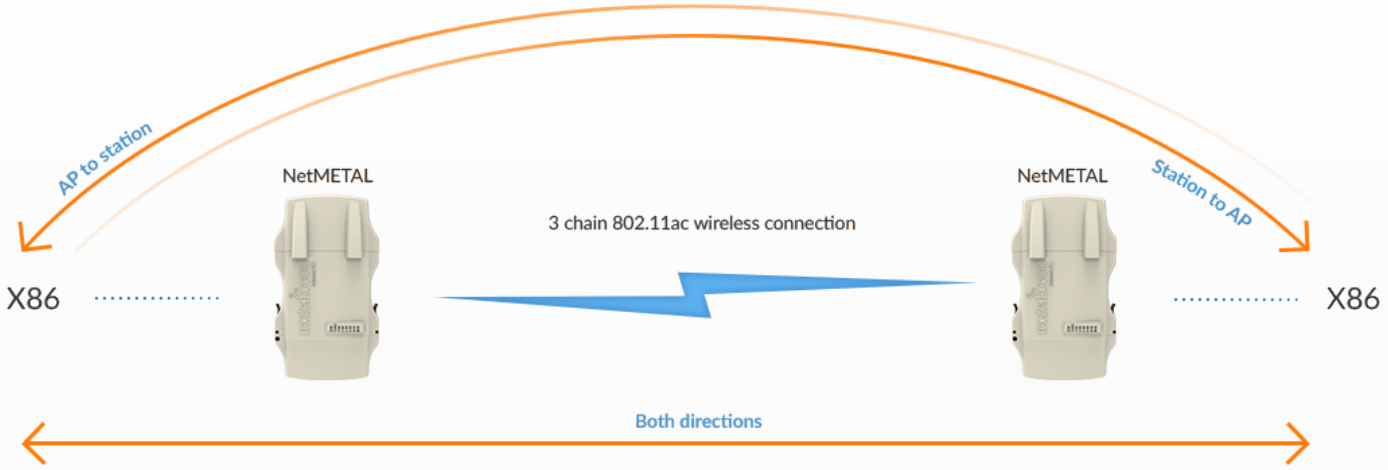
Use this feature to reboot a device that has been attached to your PoE out capable router, if it stops responding to pings.

`/interface ethernet poe set ether2 power-cycle-ping-enabled=[yes|no]`	Enables ping watchdog, power-cycle when fails
`power-cycle-ping-address=[IPv4|IPv6|MAC]`	Address to ping (icmp for IPv4 and IPv6, arp for IPv4, RouterOS mac-ping for MAC)
`power-cycle-ping-timeout=<timeout>`	If ping fails for <timeout> duration, then 5s power-cycle is done
`power-cycle-interval=[none|<timeout>]`	If power is on for <timeout> duration, then 5s power-cycle is done

Status monitoring

`/interface ethernet poe monitor ether2 power-cycle-host-alive: [yes|no]`	Shows ping status. Is not shown, if ping is disabled or not done yet
`power-cycle-after: <time>`	Shows time, how much is left till next power-cycle (because of ping timeout or power-cycle-interval)

Single stream TCP 802.11 performance stats



921UAGS-5SHPacT				V6.30.4			
Mode	Test	AP to station		Station to AP		Both directions	
		kpps	Mbps	kpps	Mbps	kpps	Mbps
Bridging	Single TCP	14 300	173,7	18 523	224,9	23 542	285,9
Bridging	Single UDP	37 542	455,9	58 012	704,5	39 215	476,2
Routing	Single TCP	14 800	179,7	18 670	226,7	21 854	265,4
Routing	Single UDP	51 800	629,1	52 550	638,2	53 024	643,9

921UAGS-5SHPacT				v6.33rc			
Mode	Test	AP to station		Station to AP		Both directions	
		kpps	Mbps	kpps	Mbps	kpps	Mbps
Bridging	Single TCP	34 625	**420,5**	38 656	**469,4**	34 578	**419,9**
Bridging	Single UDP	38 321	**465,4**	58 200	**706,8**	51 842	**629,6**
Routing	Single TCP	38 650	**469,4**	43 960	**533,9**	46 214	**561,2**
Routing	Single UDP	55 130	**669,5**	52 340	**635,6**	52 542	**638,1**

We have made great progress in optimizing how RouterOS handles wireless TCP connections,

Starting from RouterOS v6.33, wireless transfers over single stream TCP connections will have **nearly double** the speed compared to v6.32 and older versions.

The change only affects 802.11 protocols on 802.11ac chips in RouterBOARD devices. Optimization for other chips is coming soon.

Recent and upcoming MUMs

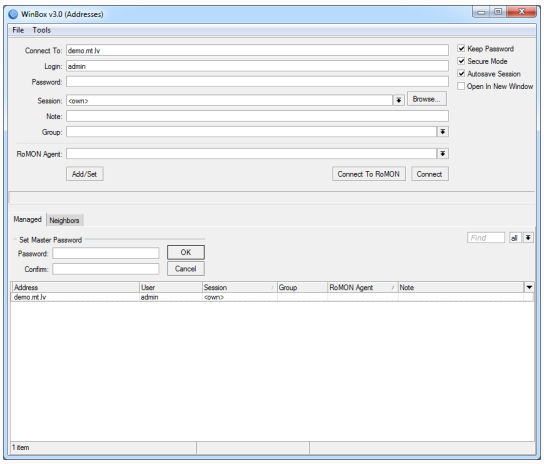
We have already uploaded the video recordings from our latest MUM events to our Youtube channel. Watch the presenatations from Russia, Spain and Canada to learn how others are using MikroTik solutions around the world. Also the photo galleries are available in our photo portal

UPCOMING MUM EVENTS

- Buenos Aires, Argentina, November 09 - 10
- Kiev, Ukraine, December 08
- Chisinau, Moldova, December 11
- Havana, Cuba, January 15
- San Jose, Costa Rica, January 19
- Ljubljana, Slovenia, February 25 - 26
- Dallas/Fort Worth, USA, April 28 - 29

RouterOS v6.33 released

The new RouterOS v6.33 has been released, with the most detailed Changelog we have ever made. With this we have also replaced 6.30.4 with 6.32.3 as the “bugfix only” version in our new release system. You can still use v6.30.4 as it has no known issues, but 6.32.3 has been tested long enough that we are certain it is stable enough to promote it to “bugfix” status. Next updates for this version will only include minor fixes.



http://www.mikrotik.com/download

Some of v6.33 highlights:

- Single stream TCP improvements
- Fasttrack support for eoip,gre,ipip tunnels
- Implemented PPPoE over L2TP in LNS mode, RFC3817

See full changelog on our download page!

Together with RouterOS v6.33 we have also released the full WinBox 3. New features include separation of all files from RouterOS (WinBox is now portable), grouping of saved routers, RoMON support for multi hop router discovery, proper saving of layout, moving of layout preferences and much more.

GPON

The GPON module allows any RouterBOARD device to be used for Fiber to Home installations without any special modems or software. A plug and play solution means you simply plug it into your device, and no special configuration is needed. It is supported by all our SFP products, with any RouterOS version - all configuration will be done on the ISP side.

The GPON ONU integrates GPON OMCI Stack and is fully compliant with ITU-T G.984 standards. The ONU is in a standardized MSA SFP form-factor and is designed to simply plug into a standard SFP port in your router.

The product provides a pluggable GPON ONU interface for networking equipment with an uplink SFP receptacle enabling these devices to be deployed in GPON networks for FTTx, business services, and wireless backhaul applications.

- Single 3.3V power supply
- Small form factor pluggable, simplex SC connector
- 1310nm burst-mode transmitter with DFB laser
- 1490nm continuous-mode receiver with APD-TIA
- 1244Mb/s downstream and 2488Mb/s upstream
- Compliant with ITU-T G984.2 Class B+ or C+
- 2-wire interface for integrated digital diagnostic monitoring (SFF-8472)

view on web