

MUM ประเทศไทย

September, 2016/2559

More than 130 MUMs all Around the World



MikroTik

- Established 1996
- RouterOS created in 1997
- RouterBOARD created in 2002
- First MUM event in Prague 2006
- Biggest MUM in 2015, Indonesia - 2500+ people
- More than 180 employees

MikroTik

Latvia



Iceland
Finland
Sweden
Russia
Estonia
Lithuania
Ireland
United Kingdom
Den-mark
Belarus
Nether-lands
Poland
Belgium
Germany
Ukraine
Luxembourg
Czech Republic
Slovakia
Mol-dova
France
Switzer-land
Liecht.
Austria
Hungary
Romania
Slove-nia
Croatia
Georgia
Bosnia and Herzego-vina
Serbia
Monaco
San Marino
Andorra
Bulgaria
Monte-negro
Portugal
Italy
Spain
Vatican City
Mace-donia
Al-ba-nia
Turkey
Greece
Syria

MikroTik at the MUM

- Janis Jankovskis (sales)
- Uldis Cernevskis (support)
- Sergejs Boginskis (support, training)



Schedule

mt.lv/agenda

12:00	Lunch
17:45	Lottery
18:00	Free drinks and socializing
	Exhibitors and coffee in the hall

MUM Live

www.youtube.com/mikrotik

After the MUM

Presentation slides - mum.mikrotik.com

Previous MUM Thailand slides
http://mum.mikrotik.com/2015/TH/agenda

Videos - youtube.com/mikrotik

Licenses will be emailed.

Special Thanks

Speedplus Technologysupply

What we do

- MikroTik provides routing and wireless equipment for all possible uses: wireless, ethernet routing, switches
- Our RouterOS software supports most common and also many custom made features

RouterOS

- MikroTik RouterOS is the operating system of RouterBOARD hardware
- Stand-alone operating system based on the Linux kernel
- Routing, firewall, bandwidth management, wireless access point, wireless link, hotspot gateway, VPN server and more

Why us

- Millions of RouterOS powered devices currently routing the world
- 20 years of experience developing networking software and hardware
- Over 40’000 RouterOS trained and certified network engineers

NEW PRODUCTS

now

LHG 5

Light Head Grid

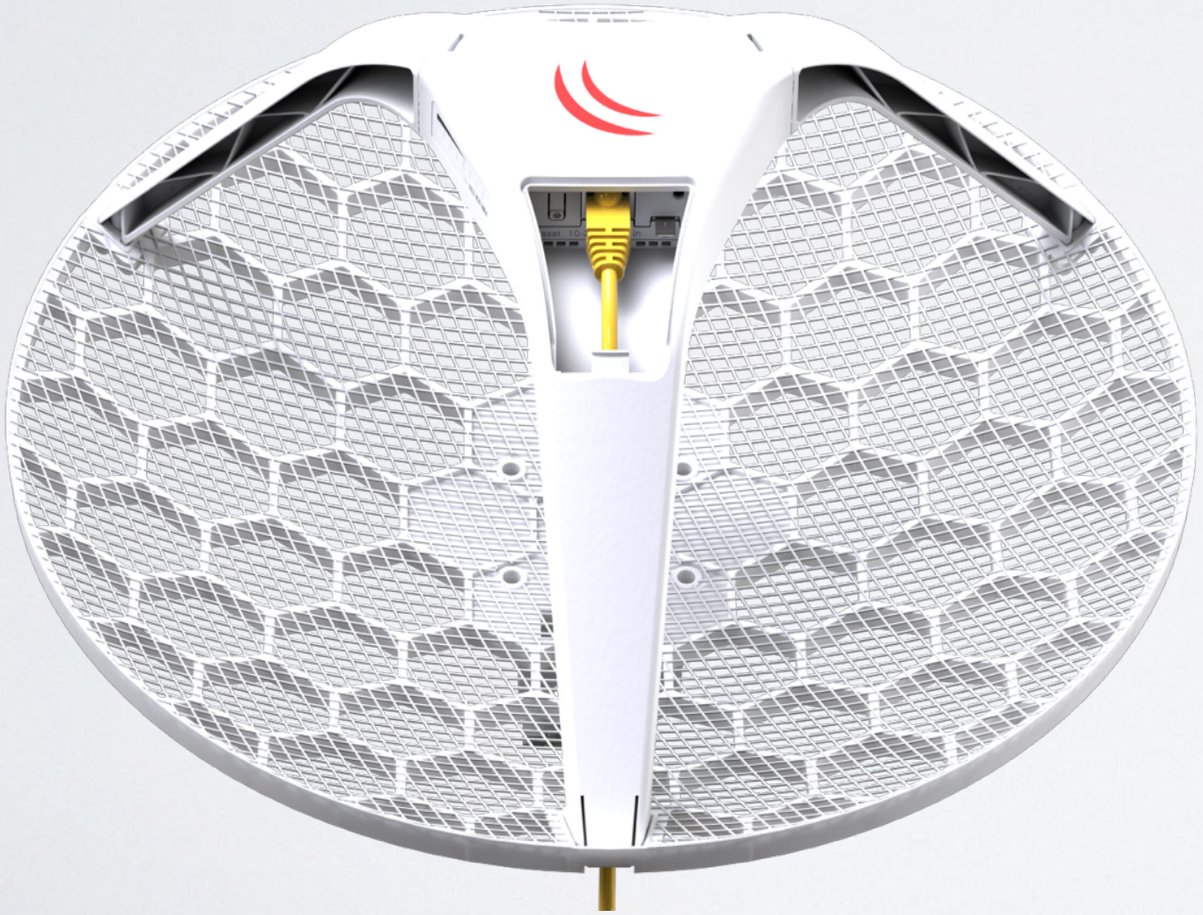
- 24.5 dBi antenna
- Antenna is built into wireless unit
- 802.11a/n dual chain
- Very affordable



now

LHG 5

Light Head Grid





now

quickMOUNT pro LHG

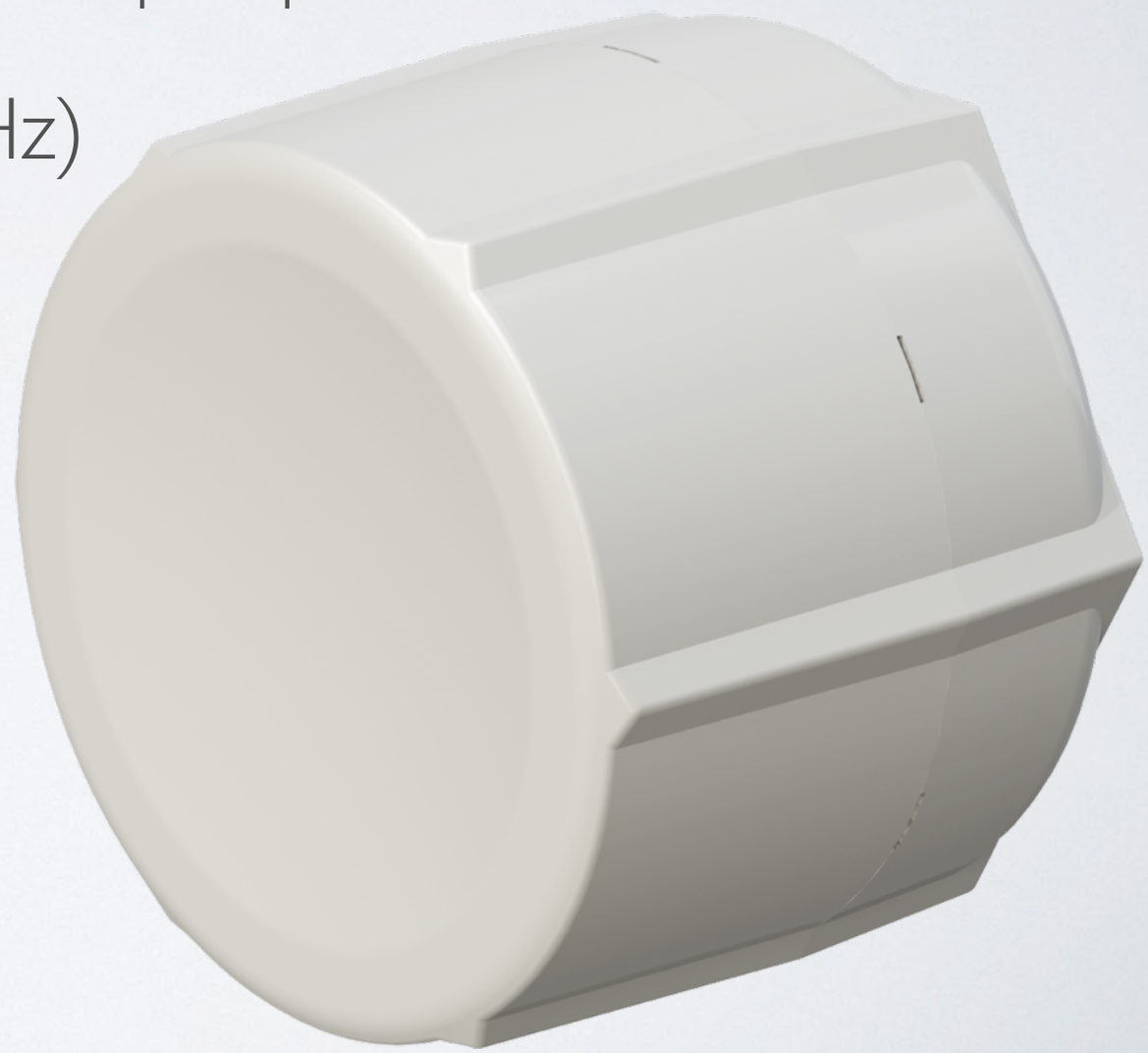
- Wall or pole mount adapter
- ±70° horizontal adjustment
- ±30° vertical adjustment
- Special plastic composite material - anvilNITE (TM)



now

SXT LTE

- LTE 3 category modem
- 100Mbps download and 50 Mbps upload
- LTE FDD bands 3 (1800MHz)
- miniSIM slot



2017

wAP LTE kit

- 2GHz wireless
- LTE antennas
- LTE modem within minipci-e
- weatherproof case
- indoor, outdoor, mobile operation
- more information at Uldis presentation



now

mANTBox 15s

- 15 dBi 120 degree antenna
- RB921 inside
- 720MHz CPU power
- 802.11 ac/a/n wireless with 31dBm output power



mANTBox 19s

now

- 19 dBi 120 degree antenna
- RB921 inside
- 720MHz CPU power
- 802.11 ac/a/n wireless with 31dBm output power



now

Groove 52 ac



- ac update for the popular Groove model

now

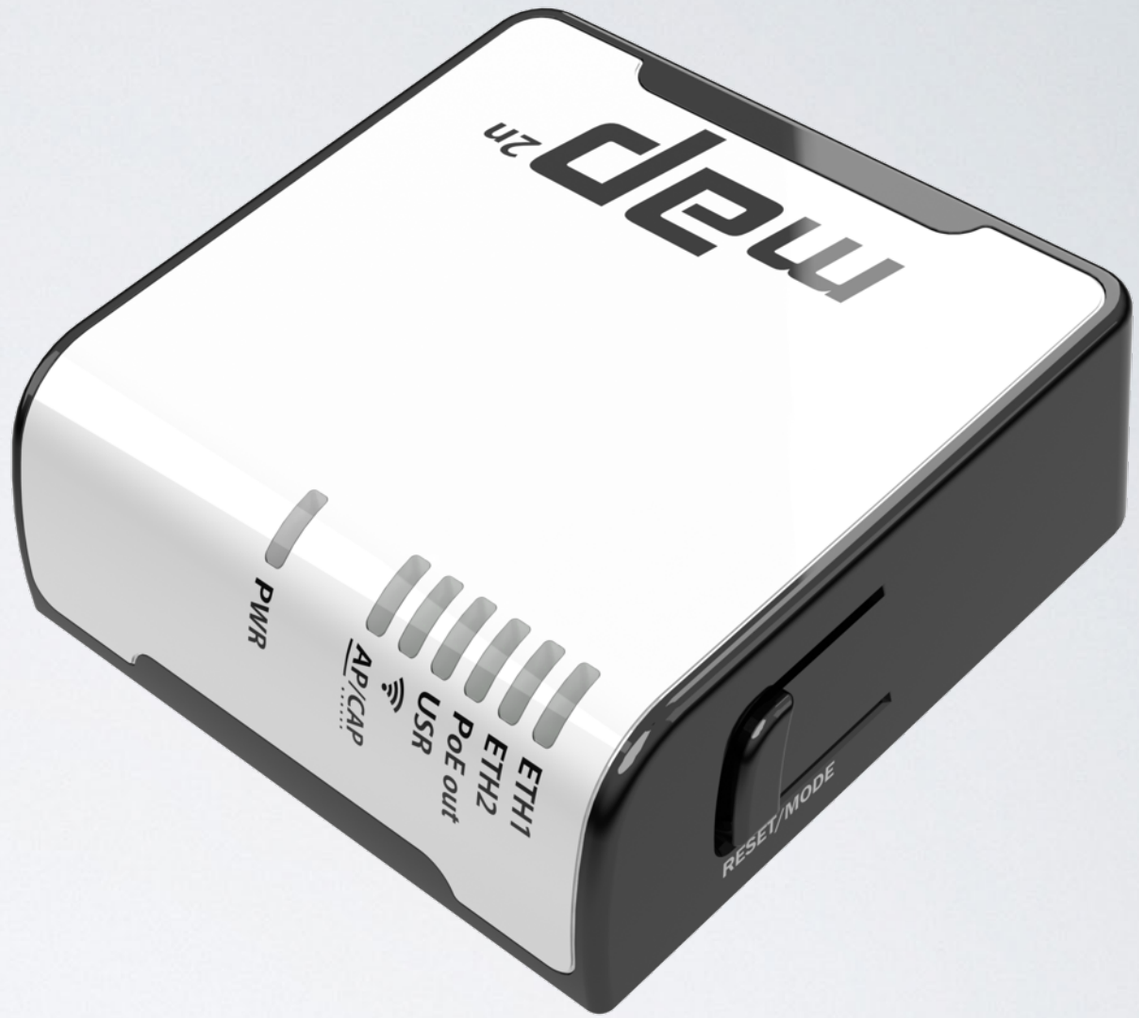
Metal 52 ac



- Waterproof, rugged with a super high output power
- 802.11 b/g/n and 802.11 a/n/ac, 1xGigabit Ethernet

now

mAP

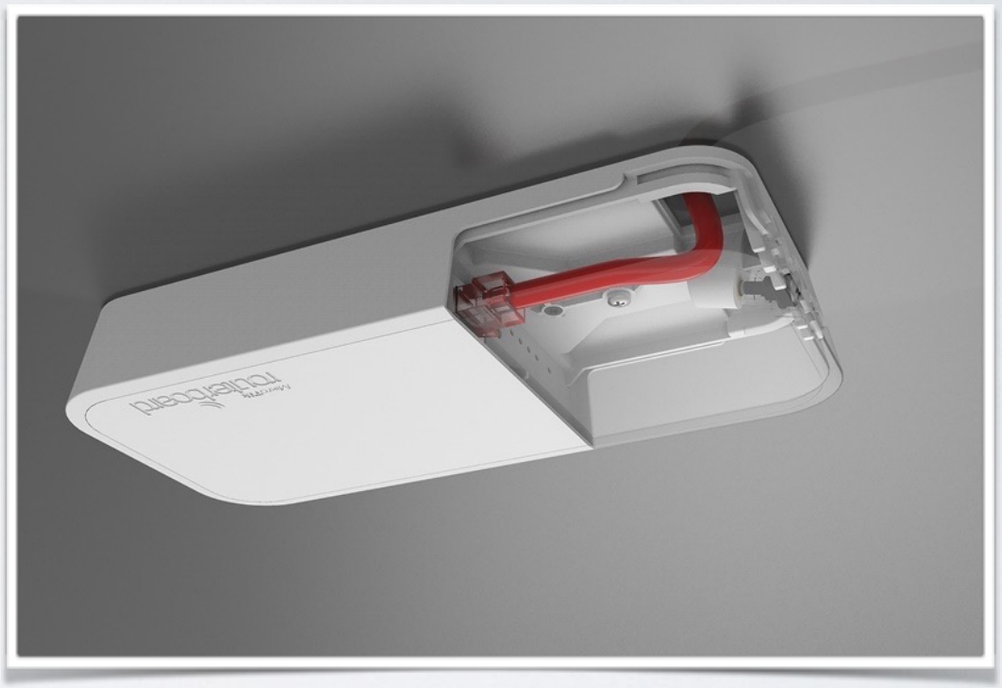


- update for small AP, dual chain 2.4GHz wireless
- 802.3 af/at support, PoE out!

now

wAP ac

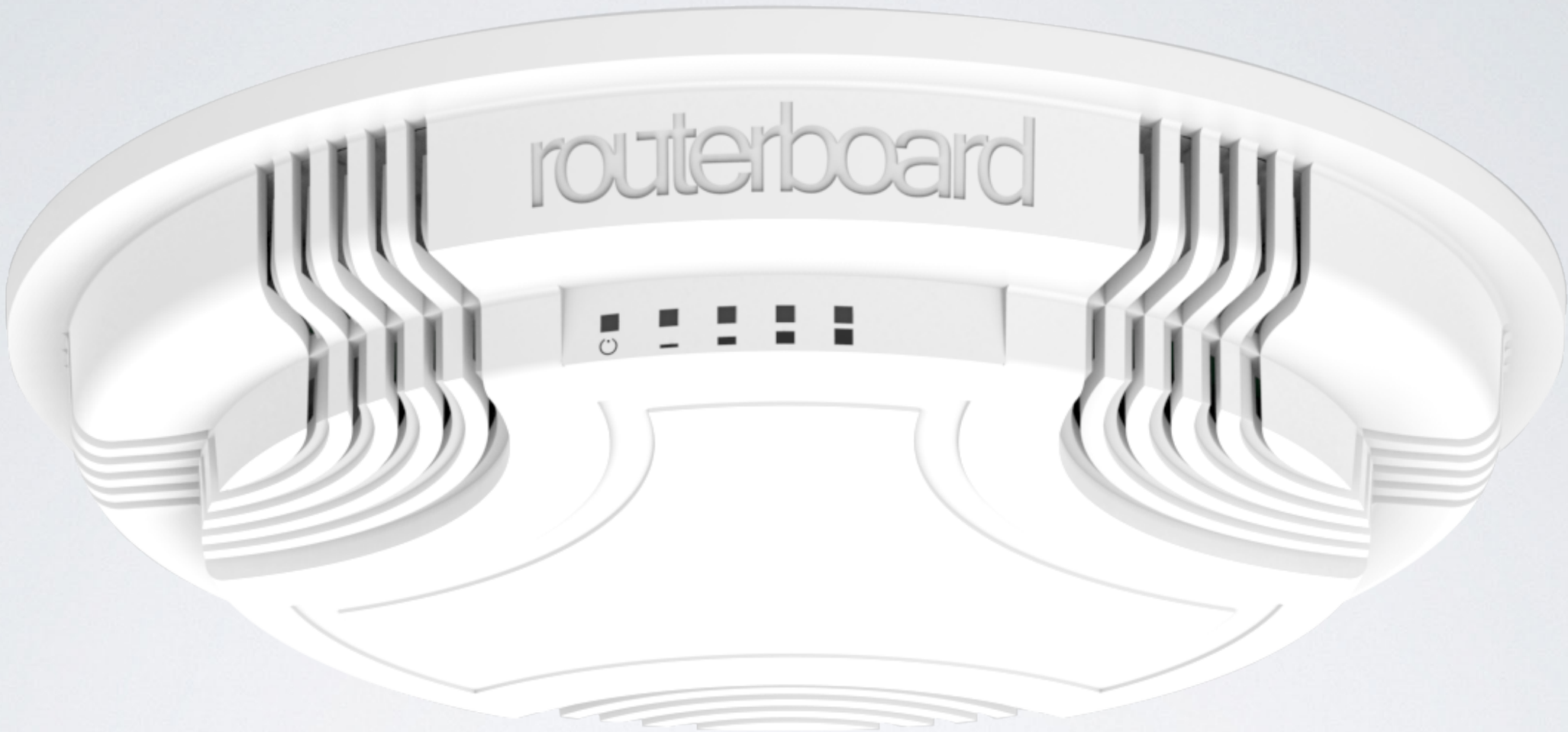




- Wall or ceiling mountable
- Use for hotel, office, etc.
- Gigabit and 802.11ac
- Dual band (simultaneous 2.4GHz and 5GHz)

now

cAP



- ceiling AP, dual chain 2.4GHz wireless
- 802.3 af/at support

now

hAP ac lite

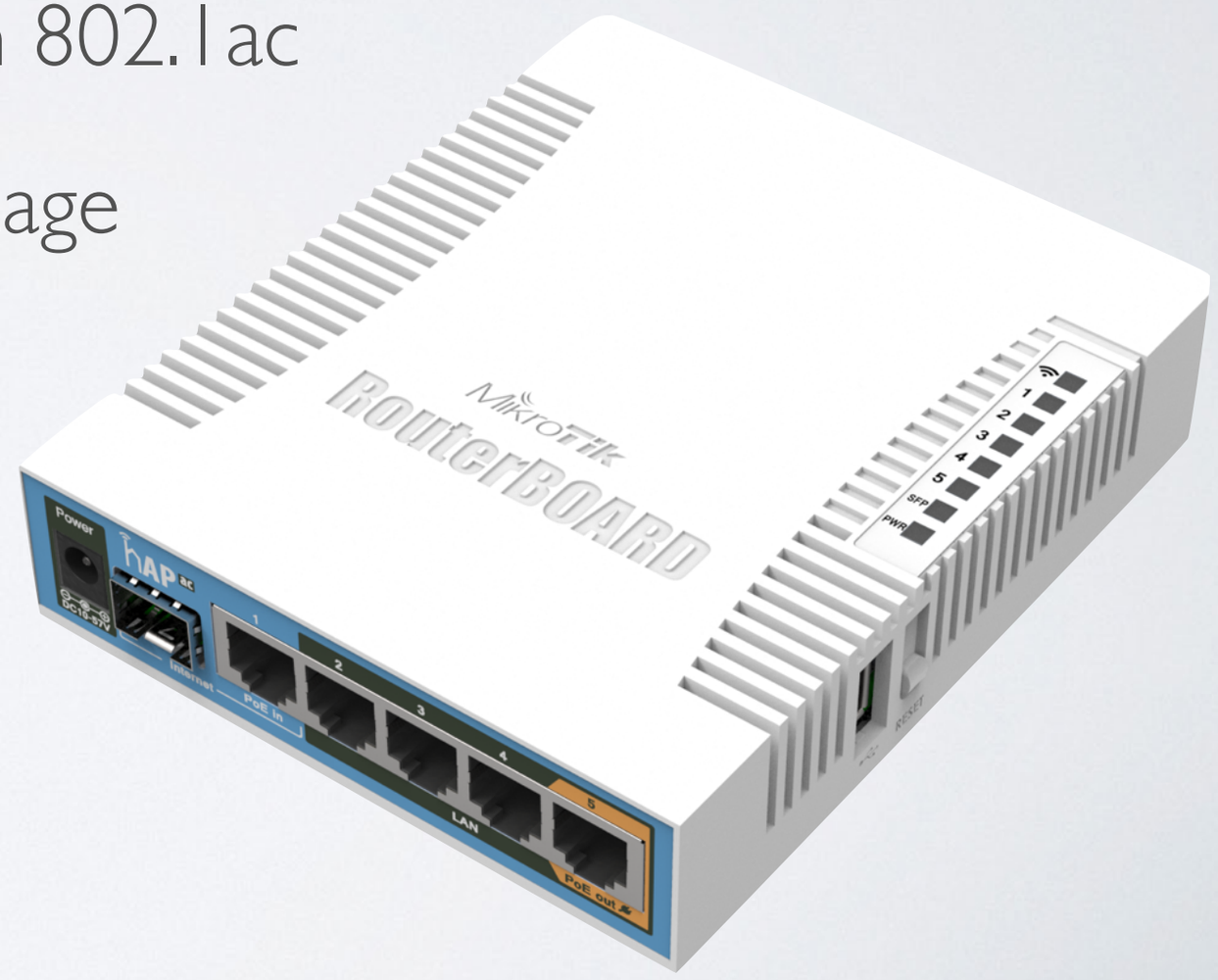
- Dual concurrent home AP
- 2.4GHz high power 2 chain 802.11n
- 5GHz high power 1 chain 802.1ac
- 100Mbps port
- 650MHz CPU
- PoE-out on port 5



now

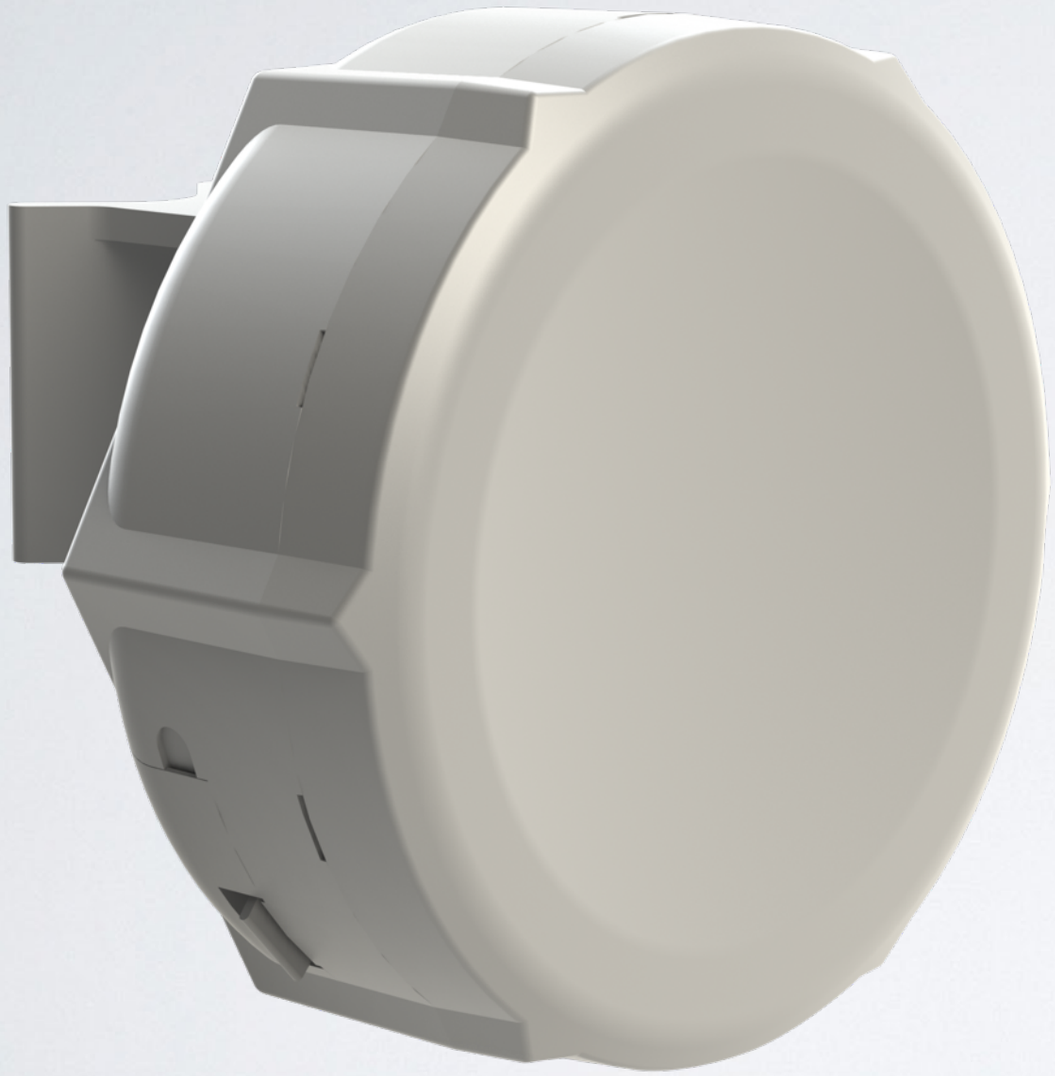
hAP ac

- Gigabit dual concurrent home AP
- 2.4GHz high power 3 chain 802.11n
- 5GHz high power 3 chain 802.1ac
- 5x1Gbps ports & 1 SFP cage
- 720MHz CPU
- PoE-out on port 5



now

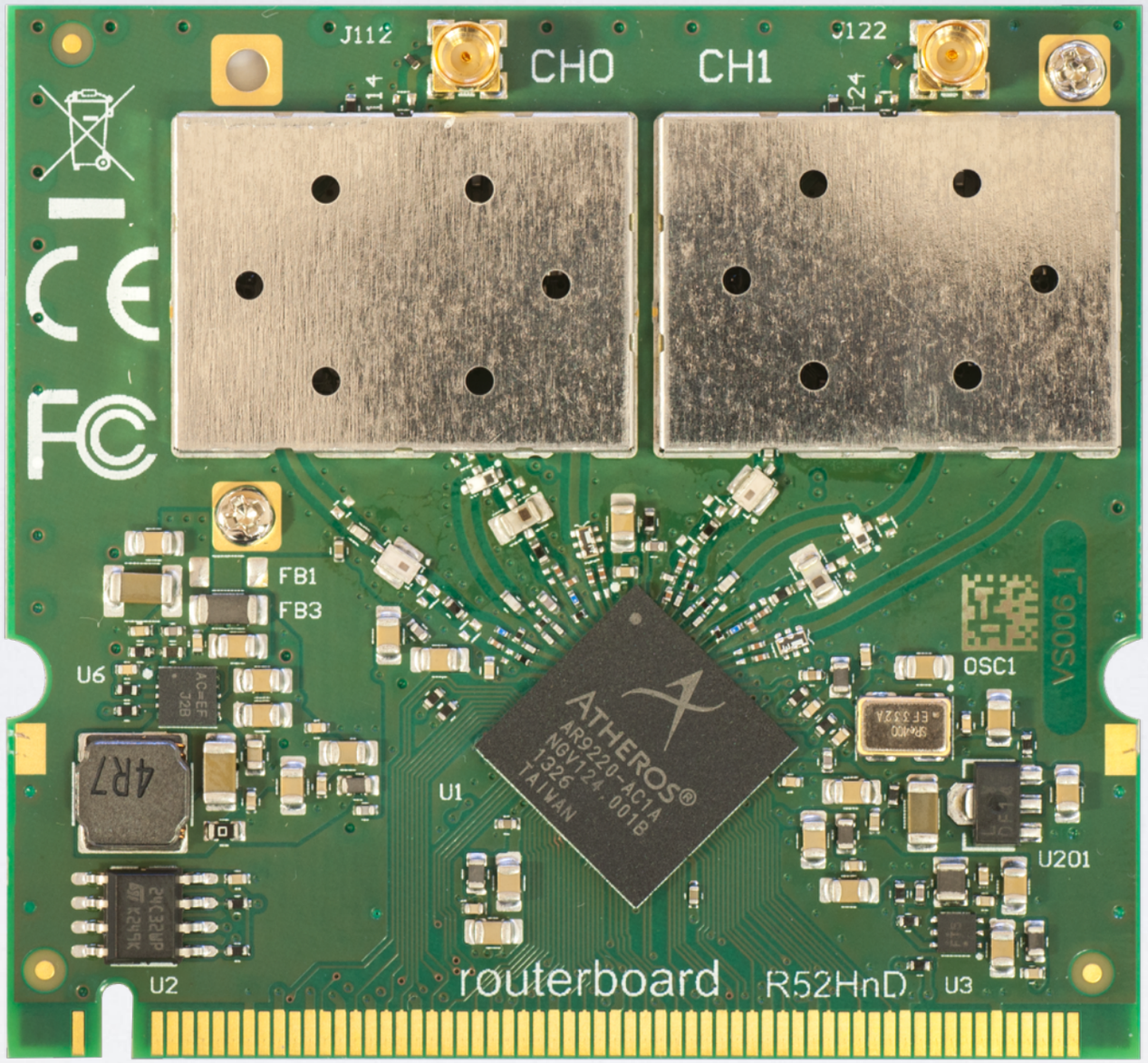
SXT 6GHz



- 5940-6500 MHz range
- 802.11 a/n
- Antenna gain 16dBi
- Antena beam width 28

now

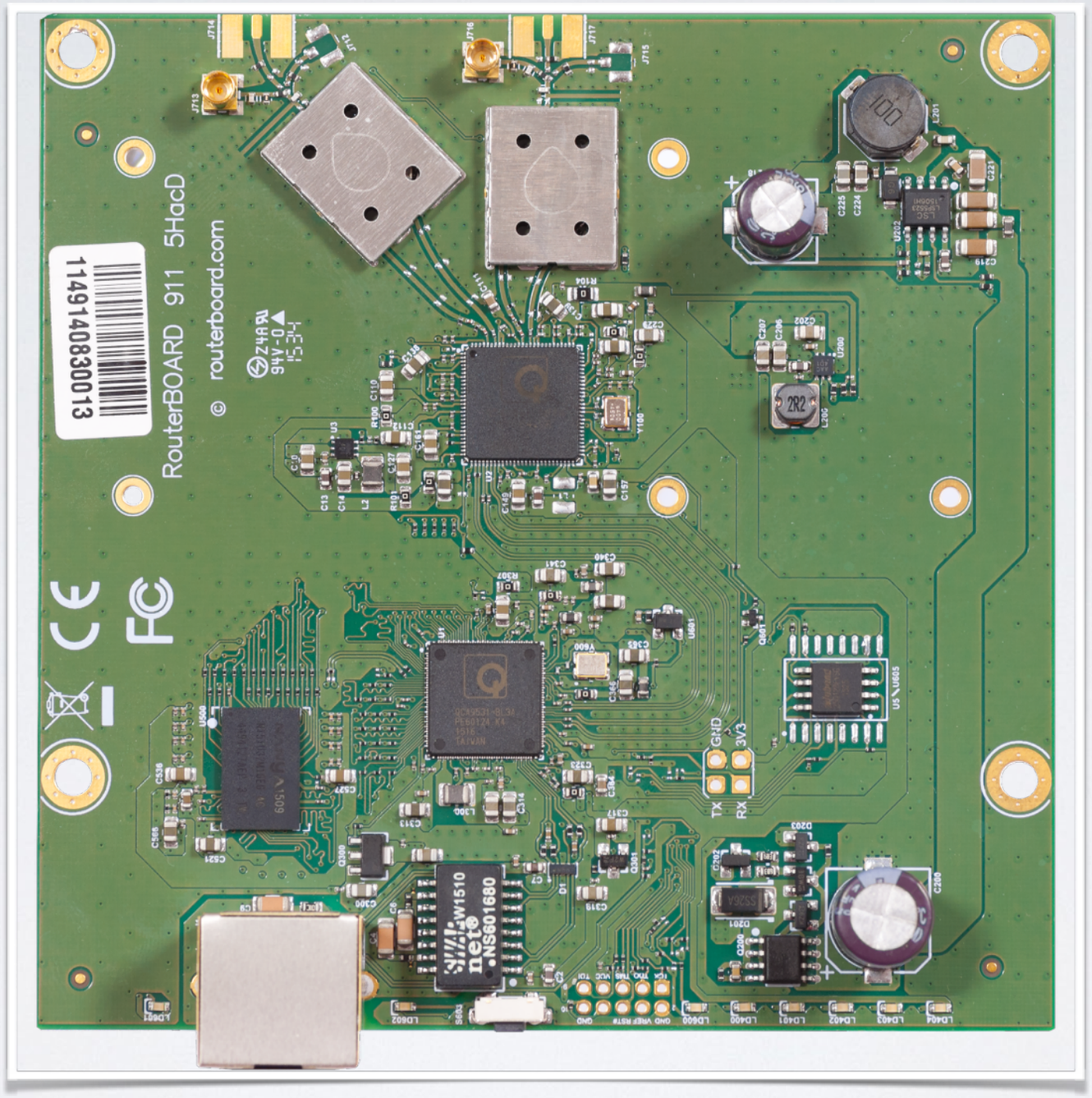
R52HnD



tx-power 26 dbm, R52H replacement

now

911 Lite 5ac

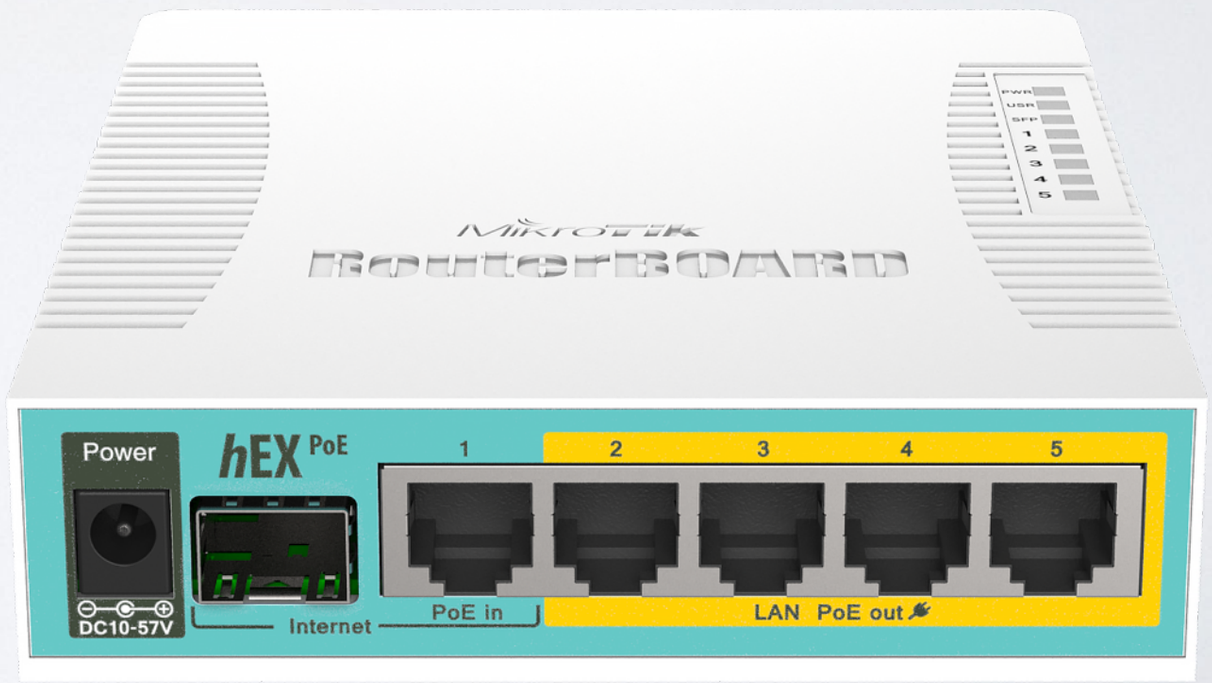


ac update for extremely affordable board

Q3

hEX PoE

- Small Ethernet device
- Five Gbps ports
- Power over Ethernet out on ports 2-5



Q3

OmniTIK 5 ac

- 802.11ac, 2 chains
- 5x1Gbit Ethernet ports
- 7.5 dBi
- PoE in





Q3

OmniTIK 5 PoE ac

- 802.11ac, 2 chains
- 5x1Gbit Ethernet ports
- 7.5 dBi
- PoE in
- PoE out (ports 2-5)



All Products

- Include free software upgrades for life
- Run the same RouterOS software*
- For more info see **routerboard.com**

*Except RB260GS (SwOS)

ROUTEROS FEATURES

CHR

Cloud Hosted Router

- RouterOS version tailored for running in virtual environments
- Runs on VMware Workstation and ESXi, VirtualBox, HyperV, KVM, XenServer, etc.
- Cloud services - Amazon, Azure and others

CHR

AWS Marketplace

1. Choose AMI | 2. Choose Instance Type | 3. Configure Instance | 4. Add Storage | 5. Tag Instance | 6. Configure Security

Step 1: Choose an Amazon Machine Image (AMI)

An AMI is a template that contains the software configuration (operating system, application server, and applications) requ
community, or the AWS Marketplace; or you can select one of your own AMIs.

Quick Start

My AMIs

AWS Marketplace

Community AMIs

Categories

All Categories

Software Infrastructure (1)

Mikrotik

MikroTik

Free tier eligible

Cloud Hosted Router

★★★★★ (0) | 6.34.1 | Sold by MikroTik

Bring Your Own License + AWS usage fees

Linux/Unix, Other 6.34.1 | 64-bit Amazon Machine Image (AMI) | Updated: 4/7/16

Use the CHR for protecting your cloud servers using RouterOS firewall
for running your own VPN service or ...

More info

CHR

Use cases

- Firewall for your cloud services
- VPN server in the cloud
- The Dude monitoring server
- Simulate networks for learning or training
- And much more

CHR

Licensing

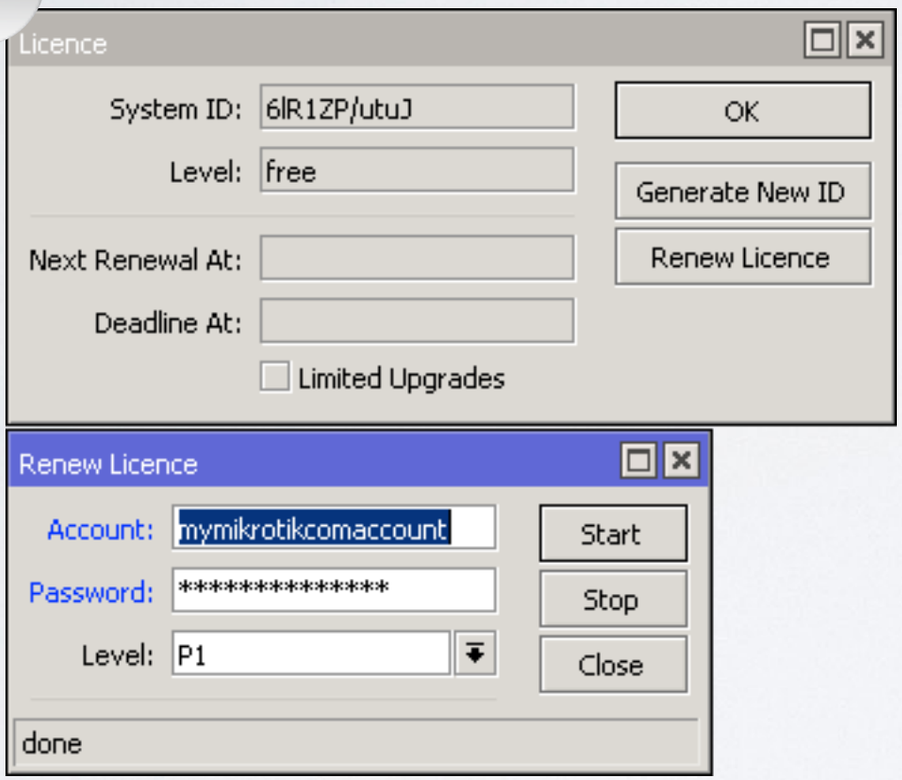
License	Speed limit	Price
Free	1Mbit	FREE
P1	1Gbit	$45
P10	10Gbit	$95
P-Unlimited	Unlimited	$250

- 60 day trial available
- Purchased license can be transferred

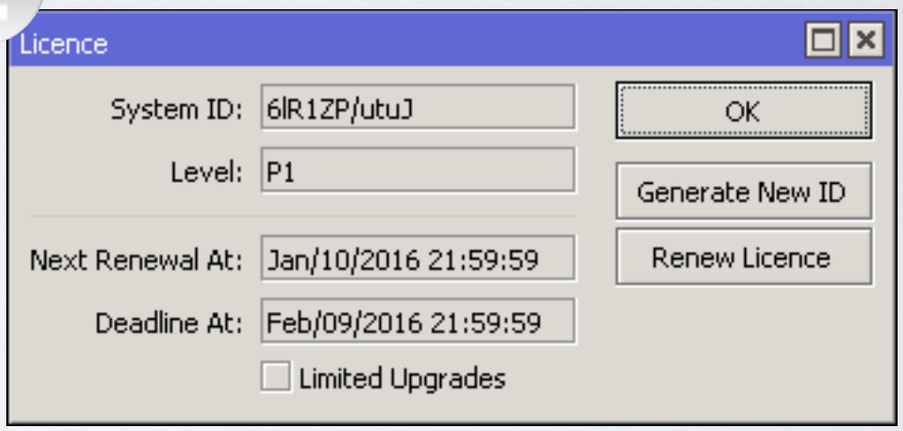
CHR

Licensing

1



2

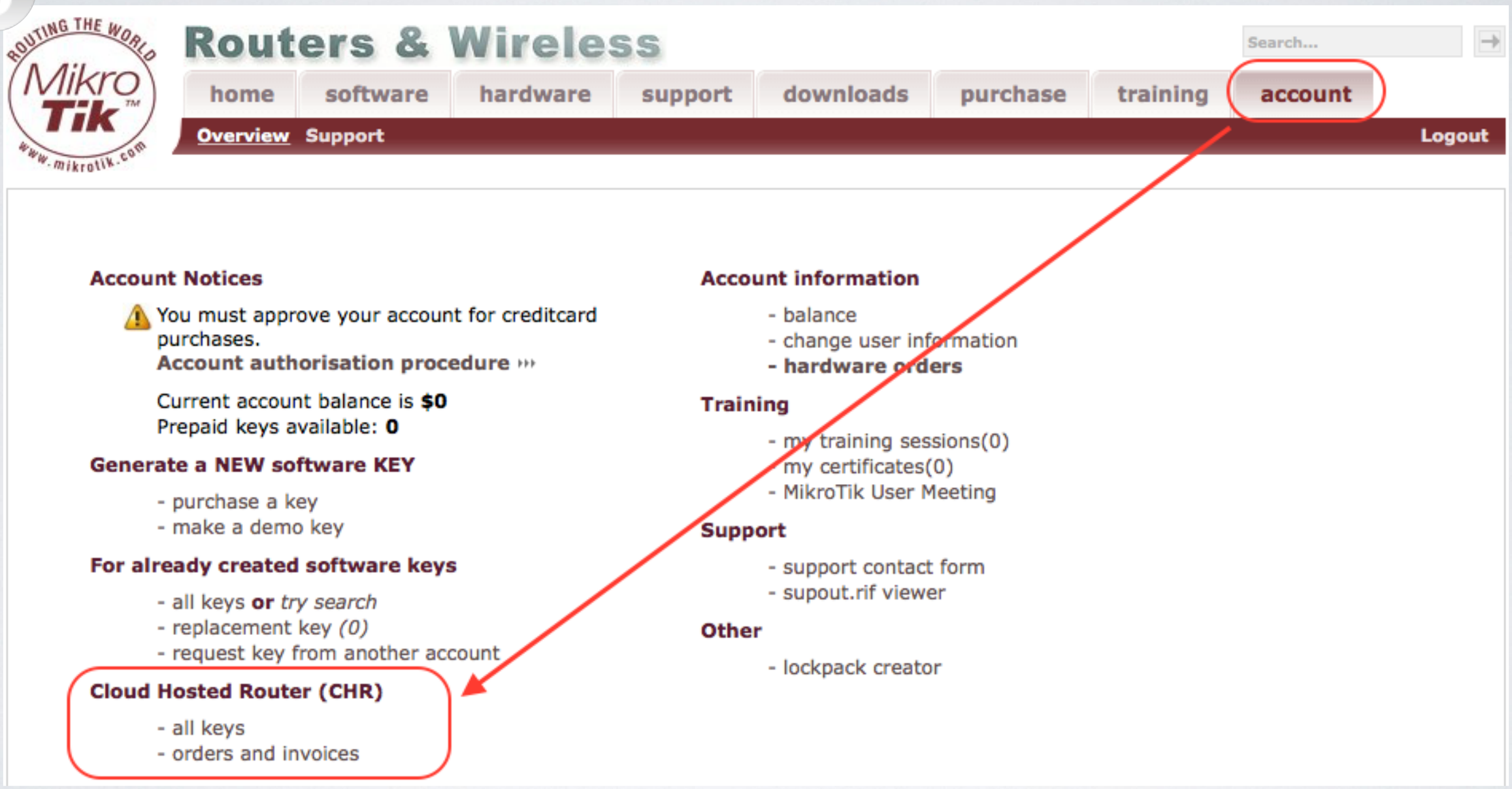


WinBox → System → License

CHR

Licensing

3



www.mikrotik.com

CHR

Licensing

4

[Back To Main Menu]

User Keys

Show 10 entries

Search:

System ID	Key	Issued	Expires	Level	Transfer	Action	Note
6lR1ZP/utuJ	-----BEGIN MIKROTIK SOFTWARE KEY---------- ainRyNu6h1VkqfcR4afrXcyP3i8B4EByaEIq6dBikaNodTDUhTuKBgqpNxddOGCebjU6n1WwL7YsDaf/eZcMfA==------ END MIKROTIK SOFTWARE KEY----------	2015-12-09	2016-02-09	P1-Perpetual (Trial version)		Upgrade	

Previous 1 Next

www.mikrotik.com

CHR

Licensing

5

Upgrade system license

System ID **Level**

6lR1ZP/utuJ

- ✓ **Select level**
- **P1-Perpetual ($ 45.00)**
- **P10-Perpetual ($ 95.00)**
- **P-Unlimited ($ 250.00)**

System 6lR1ZP/ut
Perpetual Trial version

You have following prepaid balance keys available to purchase a CHR license:

P1-Perpetual - 4 keys

Back

6

Payment

You have selected: **P1-Perpetual**
System ID **6lR1ZP/utuJ**
Total price: **$ 54.45**

Pay using deposit (left: $ 73.51)

Pay using CC

Pay using PayPal

Pay using Balance key (4)

Note: *Price includes VAT 21% because you have specified EU country as your residence.To avoid this you have to enter your VAT registration number in your account settings.*

Back

www.mikrotik.com

CHR

Cloud Hosted Router

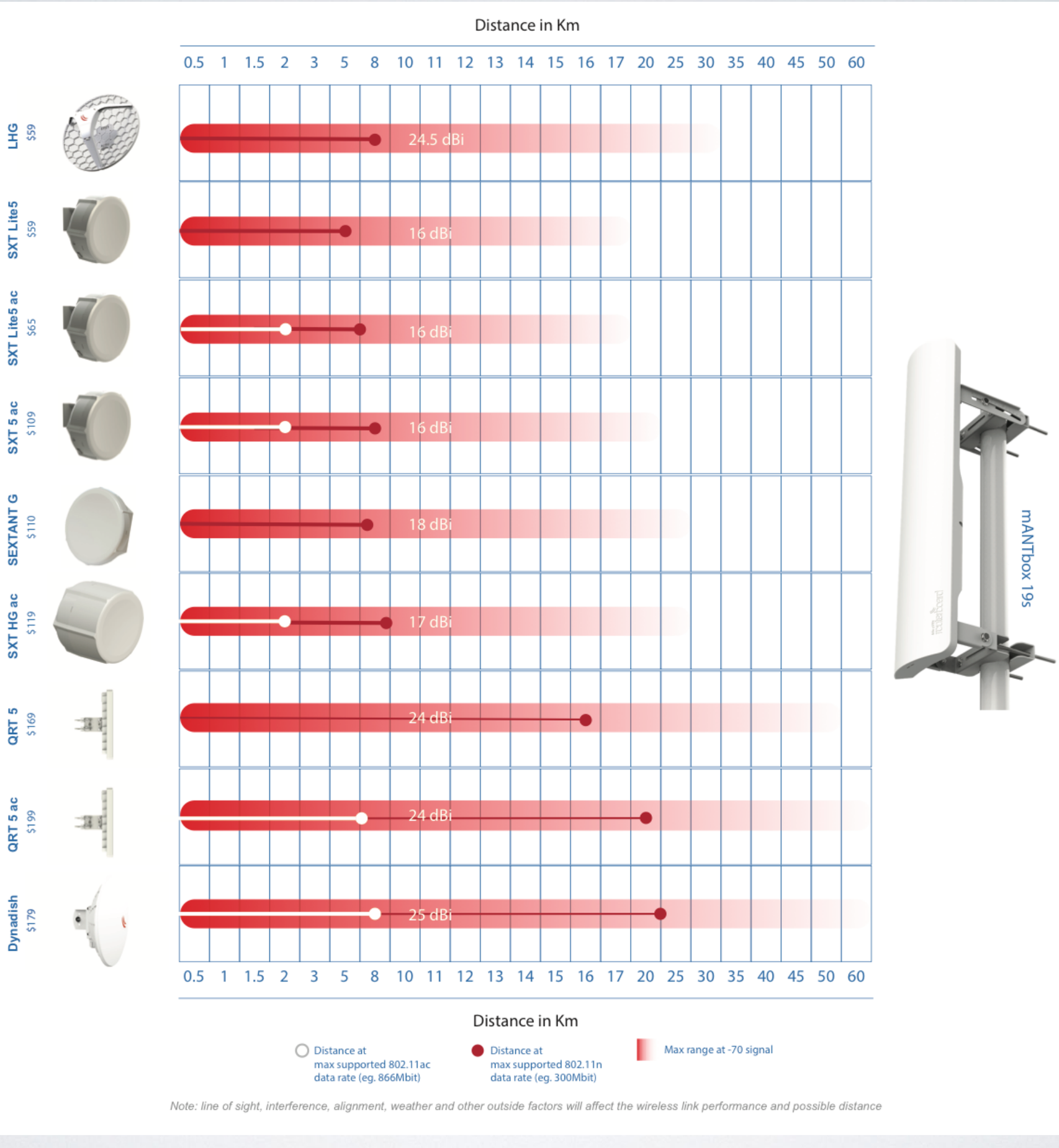
- For more info, see the CHR page on our wiki: http://wiki.mikrotik.com/wiki/Manual:CHR
- Available on the download page: http://mikrotik.com/download#chr

RouterOS v6.36 changelog

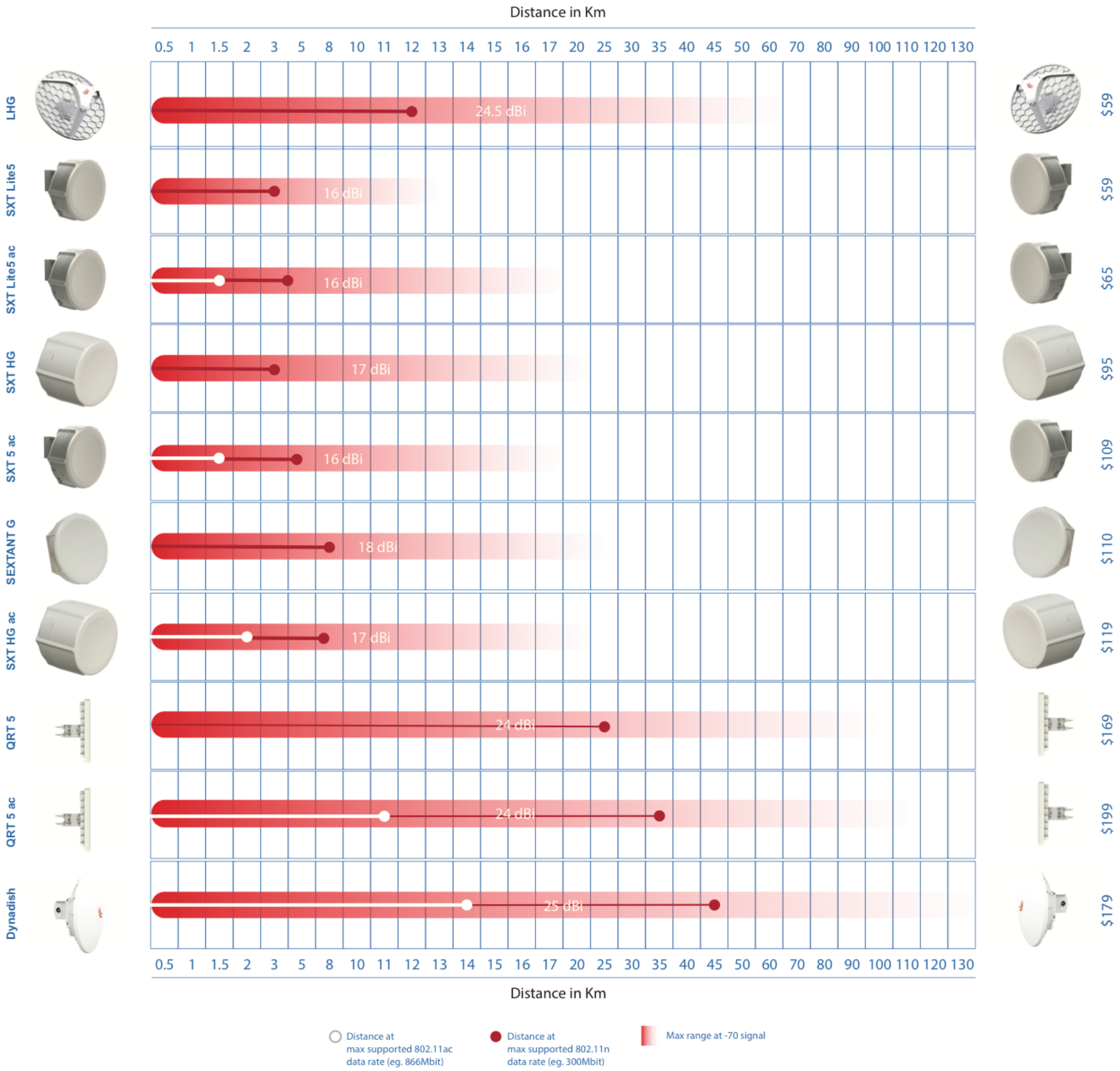
146 line

Wireless in v6.37

- New wireless package ‘wireless’
- Read changelog before upgrade!
- DFS mode changed, all devices will be with dfs=radar-detect
- Improved driver and more come to Uldis presentation



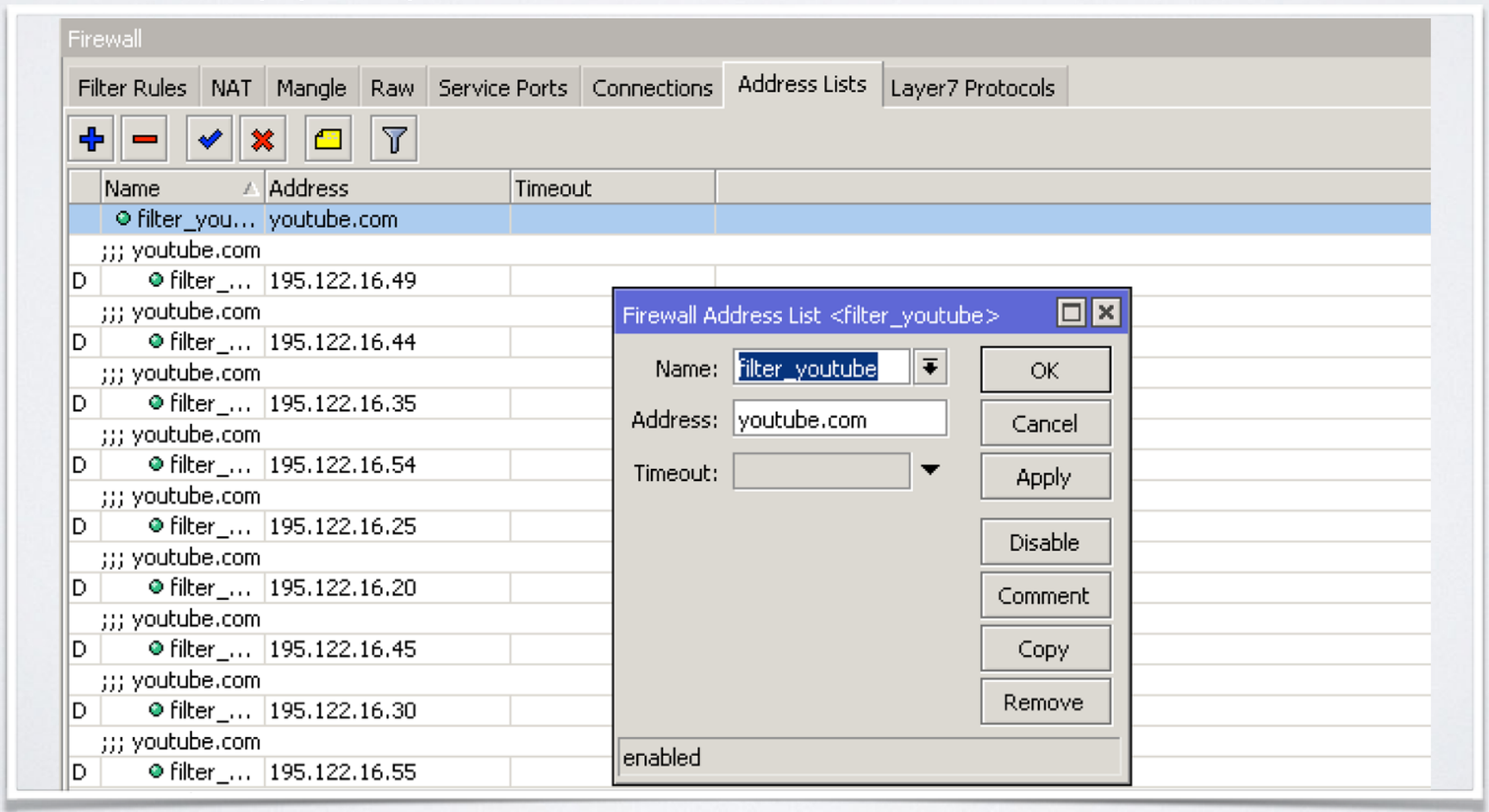
Note: line of sight, interference, alignment, weather and other outside factors will affect the wireless link performance and possible distance



Note: line of sight, interference, alignment, weather and other outside factors will affect the wireless link performance and possible distance

DNS at address-list

- add DNS name to address-list, router will find addresses automatically
- set appropriate rules at firewall



The Dude v6.x

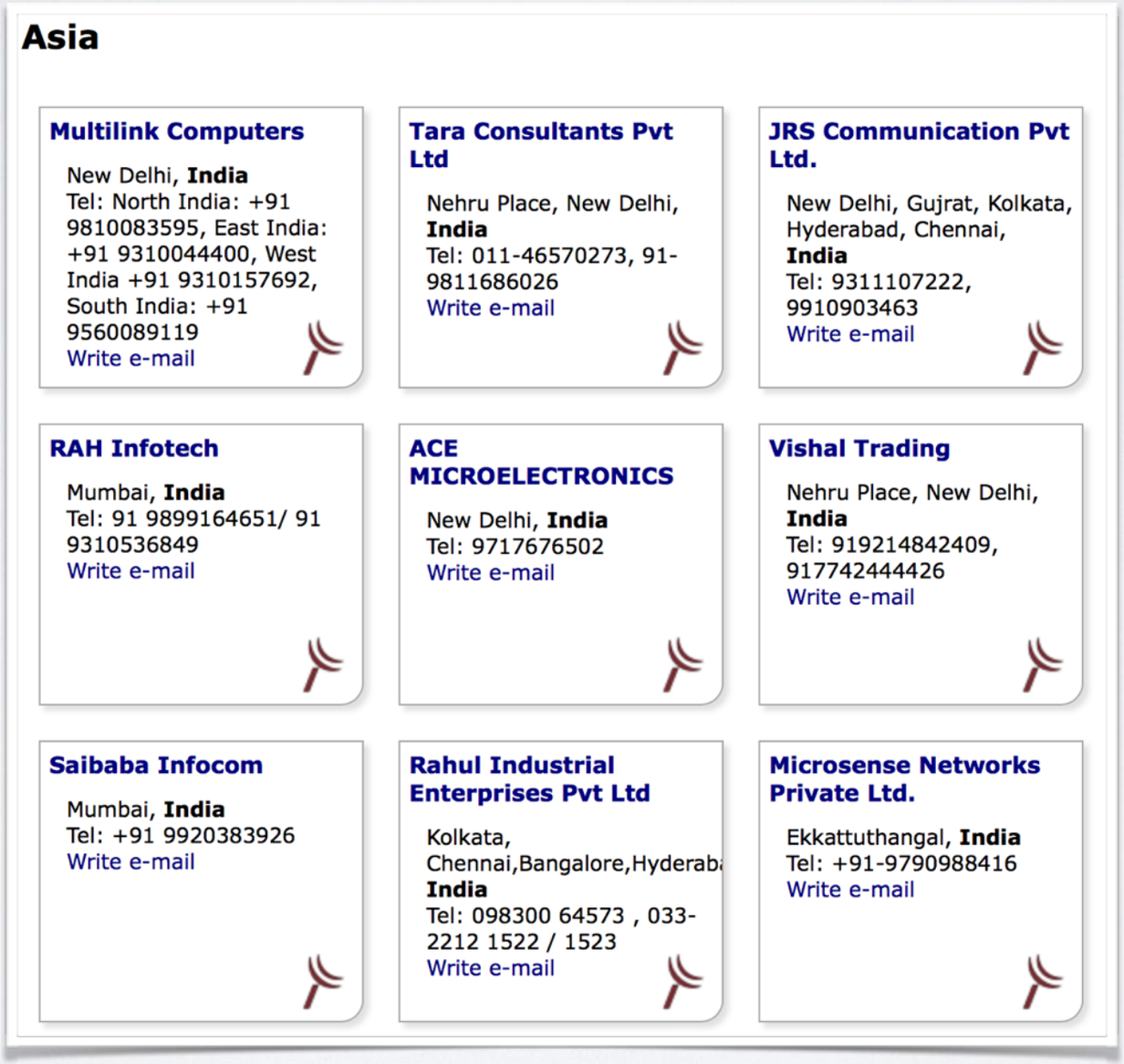
- Dude is back
- v6. server support at CCR/x86 and RB3011
- fixes and new features development
- more information at 13:45 workshop

Need Help?

- Ask a local **distributor**
- Read the manual **wiki.mikrotik.com**
- Email **support@mikrotik.com**
- Hire a **consultant**
- Attend a training class or join an Academy class in a University

Need Help?

Official MikroTik distributors in India:



Asia

Multilink Computers
New Delhi, **India**
Tel: North India: +91 9810083595, East India: +91 9310044400, West India +91 9310157692, South India: +91 9560089119
Write e-mail

Tara Consultants Pvt Ltd
Nehru Place, New Delhi, **India**
Tel: 011-46570273, 91-9811686026
Write e-mail

JRS Communication Pvt Ltd.
New Delhi, Gujrat, Kolkata, Hyderabad, Chennai, **India**
Tel: 9311107222, 9910903463
Write e-mail

RAH Infotech
Mumbai, **India**
Tel: 91 9899164651/ 91 9310536849
Write e-mail

ACE MICROELECTRONICS
New Delhi, **India**
Tel: 9717676502
Write e-mail

Vishal Trading
Nehru Place, New Delhi, **India**
Tel: 919214842409, 917742444426
Write e-mail

Saibaba Infocom
Mumbai, **India**
Tel: +91 9920383926
Write e-mail

Rahul Industrial Enterprises Pvt Ltd
Kolkata, Chennai,Bangalore,Hyderab
India
Tel: 098300 64573 , 033-2212 1522 / 1523
Write e-mail

Microsense Networks Private Ltd.
Ekkattuthangal, **India**
Tel: +91-9790988416
Write e-mail

http://www.mikrotik.com/buy/asia/india

Need Help?

Official MikroTik consultants in India:

Muralikrishna Kema
MTCINE, MTCNA, MTCRE, MTCTCE, MTCWE
Hyderabad , Bangalore , Tamil Nadu, **India**
ISP / Carrier networks design, Hotspot,QoS,OSPF, BGP,MPLS,Traffic Engineering. Wireless PtP and PtMP,Campus Wifi,Network Security Other advanced configurations Configure & Manage NMS, Gpon /Epon/ Switching L2 & L3 Mikrotik/Huawei Infrastructure ISP-VOIP Implementation, Billing, DID ,Trunking ,LCR, PBX, Load balance, large Scale Deployments. IPTV Implementation, Live Streaming, Video on Demand, Scalability for Any Size Audience
Tel: 09346732544
Write e-mail
Web: www.ctrltik.com

Manoj Kumar MUM
MTCNA, MTCRE, MTCTCE, MTCWE
Faridabad, **India**
Wireless Networks: desing, implementation, analysis & troubleshooting of WLAN, PtP and PtMP. High-Speed Wireless Links. Tunnel and VPN (IPSec, PPtP, L2TP) Bridging & Routing (Dymamic and Static). Firewall (Filtering Policies) . Hotspot, PPPoE, Queueing, Bandwidth Management, Firewall, Security. Hotspot, WISP administration experience, Load balancing, Advanced Wireless Security, > > Bridging, STP RSTP, WDS, Mesh, Network Monitoring, Caching and WebProxy,Remote Assistance and on-site Support.
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Write e-mail

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Write e-mail
Web: www.webtecz.com

http://www.mikrotik.com/consultants/asia/india

Enjoy the MUM!

MikroTik