

**Modus – PPL520****Compact Integrated Antenna Unit**

- **Wi-Fi PtP bridge**
- **proprietary PtP N-streme**
- **5 GHz band/DFS,TPC**
- **up to 42 dBm EIRP**
- **rate 6-54 Mbps**
- **integrated antenna gain 20 dBi**
- **Ethernet 10/100 Mbps**
- **Power over Ethernet
802.3af or pasive 20-56VDC**
- **Eth and PoE surge protection**
- **Mikrotik RouterOS**
- **IEC IP67**
- **CE conformity**

The compact unit with integrated high performance 20dBi antenna is the ideal solution for professional outdoor wireless applications. Modus-PPL520 can provide PtP link from distance of 100-meters up to kilometers.

20dBi (MTI) antenna and high power, high sensitivity 5 GHz radio allows long distance links and signal stability. For a shorter distance the antenna due narrow beamwidth provides higher resistance against neighbour interference.

The best quality material of enclosure and mounting components provides high durability and stability in any harsh environment.

Embedded Mikrotik RB411AH with 680 MHz CPU and RouterOS provides a horse power for any application. High PtP link throughput, traffic filtering, QoS for time sensitive data as VoIP are nated for this

system. It can be used for a high capacity multiuser subscriber link service differentiation as well.

The unit can be installed up to 100m from the end device (PC, switch), using Power over Ethernet (PoE). Full compatibility with 802.3af standard allows the direct connection to Eth switch with PoE or midspan. Any pasive PoE 20-56VDC is acceptable as well. There is possible to use PoE chaining with any Modus-RIA/ALX units. This offers a flexibility for the unit implementation.

ESD/EMP surge protection and DC antenna grounding provides high resistance against lightning and another surge accidents.

A lightweight , heavy duty mounting kit (anodized aluminium and stainless steel) allows horizontal, vertical or 45°polarization and a wide angle tilt.

Technical specifications

Radio performance

Frequency bands	5,150 – 5,350 GHz (8 channels - indoor) a 5,470 – 5,725 GHz (11 channels indoor / outdoor) CEPT WAS/RLAN 5,725 – 5,875 ISM (5 channels) Selectable channel width 5/10/20/40 MHz
Radio standard	802.11 ah (DFS and TPC)
Modulation	OFDM / BPSK, QPSK, 16QAM, 64QAM
Data rates	6,9,12,18,24,36,48,54 Mbps
Transmitt power	Max. 42 dBm EIRP
Receiver sensitivity	-94 dBm/6 Mbps, -74 dBm/54 Mbps
Antenna	20dBi,5.15-5.85GHz ,linear polarization (V,H,45°),3dB beamwidth 17°, cross polarization -21dB max., F/B ratio -30dB max, ETSI EN 32085 v1.1.2

Wireless protocol

Wi-Fi	Wi-Fi 802.11a AP, bridge/WDS/client
N-streme protocol	PtP mode Proprietary protocol for throughput optimization – polling, adaptive radio link, packet aggregation

Networking

Ethernet	10/100 Base – TX (RJ45)
Transparent bridge	MAC address/protocol ID/multicast/broadcast filters, Spanning tree, VLAN bridging
IP router	NAT, static routing, RIP v1/v2, OSPF v2, BGP v4 PPTP, PPPoE, L2TP, EoIP DHCP client/server
Data Rate Mgmt	CIR, MIR, QoS

Security

802.11abgh HW	64/128 WEP, WPA – PSK/TKIP, WPA – PSK/AES-CCM
SW	ACL, RADIUS autentization, firewall, IP Sec

Configuration / Management

Config	GUI for Windows (WinBox), monitoring, wireless link test, reset, reboot over Ethernet or wireless interface http (WebBox),Telnet, MACTelnet, SSH, serial port (service)
Firmware upgrade	FTP,HTTP

Electrical parameters

Power consumption	max. 10 W
Power	Indoor PoE injector 100 - 250 VAC, 47-63 Hz / 48 VDC, 20 W Outdoor PoE 802.3af or pasive PoE 20-56 VDC
Surge protection	Ethernet, PoE, DC grounded antenna

Fysical parameters

Dimensions	240x240x80 mm (w x h x d), without mounting hardware
Weight	1,65 kg
Operating temperature	-30 to + 60°C
Storage temperature	-40 to + 75°C
Protection	IEC IP67

Mounting hardware

Options	Mast bracket (up to 60mm diameter)
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Standards

Radio	ETSI EN 300 328, ETSI EN 301 893
EMC	ETSI EN 301 489 – 17, EN 61000-4-5
Safety	EN 60950
Conformity	CE,RoHS

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