# ALCOMA AL.. F MP Wireless Ethernet Solution The Easiest The Fastest The Most Complex 4-24-GHz 900 Mbps 966 for MTU 64 B

### **Features**

- ▲ Frequency bands 4-24 GHz
- ▲ License exempt 5, 17 and 24 GHz \*)
- ▲ Transmission capacity up to 900 Mbps, 1.8 Gbps for 2+0 configuration
- ▲ Fast / Gigabit Ethernet Optical / Electric interface
- ▲ Jumbo packets up to 10,240 Bytes
- ▲ Modulation type QPSK to 1024 QAM
- ▲ Hitless adaptive coding & modulation
- ▲ Forward error correction (FEC)
- ▲ Automatic TX power control (ATPC)
- ▲ All-Outdoor design with antennas 0.35, 0.65, 0.9 and 1.2 m
- ▲ Full overvoltage protection of ODU unit
  - \*) SRD equipment

# Management

- Proprietary network management system ASD
- ▲ SNMP protocol
- ▲ WEB interface
- ▲ SOL database
- ▲ Command line interface
- ▲ Independent diagnostic channel
- ▲ Software configurable
- ▲ System configuration 1+0, 1+1 or 2+0

# **Applications**

- ▲ Local / Metropolitan / Wide area networks
- ▲ IPTV distribution
- ▲ Last miles

## **Ethernet**

- ▲ QoS support (VLAN p-bit/DSCP/port priority)
- ▲ Full support of VLAN and QinQ (802.1q, 802.1ad)
- ▲ Two independent data lines through radio link
- ▲ Ethernet port shutdown when the radio link is bad

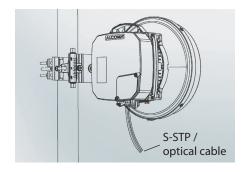
### **Protected Terminal Box**

- ▲ Full overvoltage protection
- ▲ Two DC inputs for two independent power sources (backup)
- ▲ Can be mounted to DIN rail TS 35
- ▲ Can be installed in rack
- ▲ Three boxes can be joined together and installed as standard 1U 19" rack unit













# New UNI® Antenna

General	4/5 GHz	6 GHz	7 GHz	8 GHz	10 GHz	11 GHz	13 GHz	17 GHz	24 GHz
	License Free							se Free	
Operating Frequency Range (GHz)	3.4-6.2	5.85-7.125	7.11-7.9	7.725-8.5	10.0-10.68	10.7-11.7	12.75-13.25	17.1–17.3	24.0-24.25*)
TX / RX Spacing (MHz)	100-320	150-340	154-245	119-311	91/168/350	490/500/530	266	_	-
Channel Spacing (MHz)				3.5-112				3.5-80	3.5-112
Capacity (Mbps)				5-900				5-660	5-900
Capacity for MTU 64 B (Mbps)				5-966				5-764	5-966
Modulation	QPSK/8/16/32/64/128/256/512/1024 QAM								
Frequency Stability	< 10 ppm								
Forward Error Correction	Trellis Coded Modulation with Concatenated Reed-Solomon error correction								
System Configurations	1+0, 1+1 or 2+0								
Radio									
TX Power max. (dBm)	23/18	23	23	23	9	24	24	SRD 20 EIRP	(12 dBm max.)
Automatic Transmit Power Control	ATPC								
Adaptive coding & modulation	ACM / Hitless ACM								
Interfaces									
	2× 100Base-TX / 2× 1000Base-T, connector RJ-45, VLAN packets up to 10,240 bytes								
	Auto Negotiation or manual setting 1000/100/10 Full / Half Duplex, Flow Control, Auto MDIX, Master / Slave, QoS								
			Option: fib	er optic 1000E	Base-SX / 1000	Base-LX or 100	0Base-BX10		
Management									
	Diagnostic channel with Ethernet / RS-232 interface								
	Proprietary Network Management System ASD, SNMP protocol ver. 1								
Antonnas									

Antennas 0.35 m Mid Band Gain (dBi) 28.5 28.5 30.1 32.5 35.5 0.65 m Mid Band Gain (dBi) 28 30 30 33.9 33.9 35.5 37.9 40.8 0.9 m Mid Band Gain (dBi) 32 33.1 34.4 35 37 38 39 41 43 1.2 m Mid Band Gain (dBi) 34 36 36 38 40 41 42 44 45 Class RPE Class 2 or Class 3 dual polarized Polarization vertical or horizontal Power supply =48 V (V) +36 to +72 up to 25 Power consumption (W) up to 35 **ODU-Terminal Box** S-STP Cat.7 cable up to 100 m length **Operating Temperature** -33 to +55 ODU (°C) Protected Terminal Box (°C) -5 to +55 **ODU Dimensions and Weight** Width  $\times$  Height  $\times$  Depth (cm)  $25.5 \times 30.1 \times 13.3$ Weight (kg) 5.1

\*) SRD equipment | ver. 141003

For more technical information please see www.alcoma.com.









ALCOMA a. s. is a leading designer and producer of microwave radio relay links from the Czech Republic. The company was founded in 1993. All production is manufactured in its own factory in Prague.