AL Wireless

2.6 Gbps
full duplex

ZENITH C
Ultra-high capacity solution

Main features

→ Frequency bands 71–76 and 81–86 GHz
→ Output power up to 20 dBm
→ Modulation scheme QPSK to 256 QAM
→ Transmission capacity up to 2.6 Gbps
  full duplex (up to 5 Gbps full duplex for 2+0)
→ 2.5 Gigabit Ethernet interface, 2× SFP slot
→ Gigabit Ethernet interface, 2× electric
→ SyncE and IEEE 1588v2
→ Low latency
→ Hitless adaptive coding and modulation (ACM)
→ Automatic transmit power control (ATPC)
→ System configuration 1+0, 1+1 or 2+0
→ Full overvoltage protection
→ All Outdoor design

Ethernet features

→ MTU up to 9600 Bytes
→ MEF 2.0
→ VLAN management
→ G.8032 support
→ RMON statistic
→ Packet Fragmentation to minimize jitter
→ Carrier Ethernet protocol stack

Management system

→ Proprietary GUI management system
→ In-band management
→ SNMP protocol

Typical applications

→ Mobile RAN networks:
  4G/LTE/WiMAX macro-cell
  backhaul for access and aggregation
  CPRI front haul 2.5 Gbps

→ Internet service providers:
  Backbones
→ Fixed line access networks:
  Last Mile fiber extension

ZENITH C Ultra-high capacity solution

General			
Operating frequency range (GHz)	71–76/81–86		
TX/RX spacing (MHz)	10000		
Channel spacing (MHz)	250/500		
Modulation	QPSK/16/32/64/128/256 QAM		
Capacity full duplex (Mbps)	250 MHz/QPSK	250 MHz/256 QAM	500 MHz/QPSK	500 MHz/256 QAM
	325	1300	633	2600
Frequency stability	< 10 ppm		
Forward error correction	Reed-Solomon FEC		
System configurations	1+0, 1+1 SD/FD or 2+0		

Radio			
RX sensitivity BER = 10^{-6} (dBm)	250 MHz/QPSK	250 MHz/256 QAM	500 MHz/QPSK	500 MHz/256 QAM
	−71	−51	−68.5	−49
TX power max. (dBm)	20	12	20	12
ATPC	Yes		
ACM	Hitless ACM		

Interfaces
2× 1000Base-T, 2× SFP slot 2500Base-X

Management
In-band GUI, SNMPv1, SNMPv2, SNMPv3

Ethernet
MEF 2.0, VLAN, QinQ, G.8032, MTU 9600 B

Antennas	
0.35 m mid band gain (dBi)	45.5
0.65 m mid band gain (dBi)	51
Class	RPE Class 2 or Class 3
Polarization	V/H

Power supply and cabling	
Range (V)	48 DC
Power consumption (W)	36
ODU connection	S-STP/S-FTP Cat. 7 cable up to 100 m length/optical fiber

Operating temperature	
ODU (°C)	−35 up to +55
Protected terminal box (°C)	−25 up to +55

ODU / Terminal box dimensions and weight	
Width × Height × Depth (cm)	22 × 28 × 16.5 / 14.7 × 16.3 × 4.4
Weight (kg)	5.9 / 0.5

For more technical information please see www.al-wireless.com.
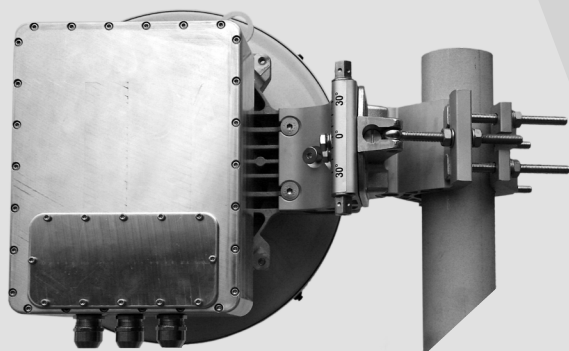
In order to achieve excellence providing services in point-to-point radio relay links integrated with other technologies, bring better support and more complex solutions to various countries, AL Wireless a.s. was started in 2015 by splitting off the foreign trade and customer support department from ALCOMA a.s., the worldwide known producer of microwave technology from the Czech Republic.

AL Wireless a.s.
Sokolská 1605/66, Nové Město
120 00 Praha 2
Czech Republic

phone: +420 228 226 500
e-mail: info@al-wireless.com
web: www.al-wireless.com