



AL Wireless

2.6 Gbps
full duplex



ZENITH C

Ultra-high capacity solution

Main features

- Frequency band 71–76 / 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)
- 1Gbps and 10Gbps SFP Ethernet interface
- 1Gbps RJ45 Ethernet interface
- 4PPoE support
- Low latency
- Hitless adaptive coding and modulation (ACM)
- Automatic transmit power control (ATPC)
- System configuration 1+0, 1+1 or 2+0
- User-replaceable overvoltage ODU protection
- Compact All Outdoor design

Ethernet features

- MTU up to 9600 Bytes
- MEF 2.0
- SyncE and IEEE 1588v2
- 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



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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
	298	1324	567	2577
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
	-73	-56	-71	-52
TX power max. (dBm)	20	12	20	12
ATPC	Yes			
ACM	Hitless ACM			
Interfaces				
	Dual Ethernet port 1000Base-T or 1G/10GBase-X			
Management				
	In-band GUI, SNMPv1, SNMPv2			
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)	42			
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.

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