



AL Wireless

1150 Mbps
full duplex



AL80xx
Wireless Ethernet solution

Main features

- Frequency bands 71–76 and 81–86 GHz
- Output power up to 3/20 dBm
- Modulation scheme DBPSK/QPSK
- Transmission capacity up to 1150 Mbps full duplex (up to 2.3 Gbps full duplex for 2+0)
- Gigabit Ethernet interface, 2× electric, 1× optical
- Low latency < 12 μs
- Forward error correction
- 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 10240 Bytes
- QoS support (VLAN p-bit, DSCP, port priority)
- Full support of VLAN and QinQ (802.1Q, 802.1ad)
- Two independent Ethernet lines through radio link
- Ethernet port shutdown when the radio link is bad

Management system

- Proprietary network management system
- In-band/out-of-band management
- Independent diagnostic channel
- SNMP protocol
- Built-in graphs and statistics

Typical applications

- WiMAX/LTE/4G backhaul
- LAN/MAN/WAN
- IPTV and CCTV distribution
- B2B connections
- Multimedia applications
- Low latency applications
- Replacement of an optical cable

www.al-wireless.com



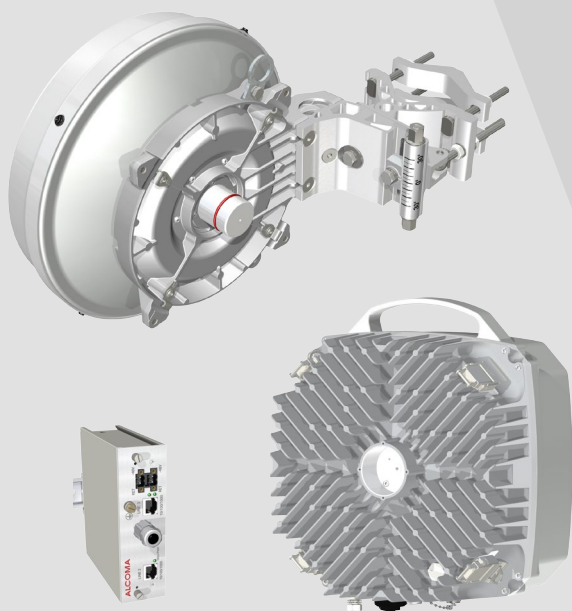
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AL80xx Wireless Ethernet solution

General	AL80HP	AL80	AL80GE
Operating frequency range (GHz)	71-76/81-86		
TX/RX spacing (MHz)	10000		
Channel spacing (MHz)	1000/500/250	1000/500/250	1250
Capacity full duplex (Mbps)	1150/575/287.5	1150/575/287.5	1150
Latency (µs)	< 0.15	< 0.15	< 0.12
Modulation	QPSK	QPSK	DBPSK
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)	-64/-67/-70	-64/-67/-70	-63
TX power max. (dBm)	20	3	20
ATPC	Yes	-	Yes
ACM	Yes	Yes	-
Interfaces			
	1-2 x 1000Base-T, 1x 1000Base-SX/LX/BX10		
Management			
	In-band/out-of-band management, Ethernet interface/RS-232, Advanced management system ASD/SNMP v1		
Ethernet			
	Flow Control, QoS (802.1p), VLAN (802.1Q), QinQ (802.1ad), MTU 10240 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 (36 up to 72), floating ground		
Power consumption (W)	37	25	40
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 x Height x Depth (cm)	25.5 x 30.9 x 17.5 / 14.7 x 16.3 x 4.4		
Weight (kg)	From 5.7 to 6.4 / 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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