



AL Wireless

364 Mbps
full duplex



ZENITH R

Ethernet radio solution

Main features

- Frequency bands 6, 7, 8, 11, 13, 15, 18, 23, 26, 28, 32 and 38 GHz
- Channel bandwidth 7 to 56 MHz
- Modulation scheme QPSK to 256 QAM
- Transmission capacity up to 364 Mbps full duplex (up to 728 Mbps full duplex for 2+0)
- Gigabit Ethernet interface, 1× electric, 1× NMS
- Low latency < 0.16 ms for 364 Mbps
- 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

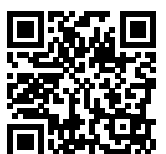
- MTU up to 9720 Bytes
- QoS support
- Full support of VLAN and QinQ

Management system

- Proprietary GUI management system
- In-band/out-of-band management
- SNMPv1, SNMPv2, SNMPv3
- TELNET, SSH, TFTP

Typical applications

- **Mobile RAN networks:**
Backhaul for access sites with 3/4G base-stations
- **Internet service providers:**
Backbones and last miles
- **Rural and urban xDSL networks:**
High capacity connections to micro exchanges
- **Fixed line access networks:**
Broadband connections for enterprise customers
- **Electric Smart Grid networks:**
Sub-station interconnect
- **Public safety and security networks:**
Tetra radio backhaul and border sites access
- **Oil and gas networks:**
High capacity connections to field and pipeline infrastructure



ZENITH R Ethernet radio solution

General	6 GHz	7 GHz	8 GHz	11 GHz	13 GHz	15 GHz	18 GHz	23 GHz	26 GHz	32 GHz	38 GHz
Operating frequency range (GHz)	5.925–7.12	7.093–7.897	7.905–8.497	10.7–11.745	12.751–13.248	14.4–15.358	17.685–19.71	21.2–23.618	24.549–26.453	31.815–33.383	37.044–39.452
TX/RX spacing (MHz)	240–340	154–245	119–311	490/500/530	266	315–728	1008/1010	1008/1232	1008	812	1260
Channel spacing (MHz)	5–56										
Capacity full duplex (Mbps)	10–364										
Latency (ms)	< 0.16 for 364 Mbps										
Modulation	QPSK/16/32/64/128/256 QAM										
Frequency stability	< 10 ppm										
Forward error correction	Reed-Solomon										
System configurations	1+0, 1+1 SD/FD or 2+0										
Radio											
TX power max. (dBm)	30	30	30	28	26	26	26	25	25	23	23
ATPC	Yes										
ACM	Hitless ACM										
Interface											
	1 x 1000Base-T										
Management											
	In-band/out-of-band management, Ethernet interface/RS-232, Proprietary GUI management system, SNMPv1, SNMPv2, SNMPv3										
Ethernet											
	Flow Control, QoS (802.1p), VLAN (802.1Q), QinQ, MTU 9720 B										
Antennas											
0.35 m mid band gain (dBi)	–	–	–	29	30	31	33	35	36	38.5	40
0.65 m mid band gain (dBi)	29.5	30.5	31.5	34.5	35.5	36.5	38.5	40.5	42	44	45
0.9 m mid band gain (dBi)	33	34	35	38	39	40	42	43.5	44.5	–	–
1.2 m mid band gain (dBi)	35	36	37	40	41	42	44	45.5	47	–	–
Class	RPE Class 2 or Class 3										
Polarization	V/H	V/H	V/H	V/H	V/H	V/H	V/H	V/H	V/H	V/H	V/H
Large diameter antennas	Other producers, possible waveguide connection										
Power supply and cabling											
Range (V)	–48 DC (–36 to –60)										
Power consumption (W)	< 58	< 58	< 58	< 58	< 50	< 50	< 50	< 56	< 56	< 56	< 56
ODU connection	S-STP/S-FTP Cat. 7 cable up to 100 m length										
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)	ø 29.5 x 14.1 / 14.7 x 16.3 x 4.4										
Weight (kg)	5.6 / 0.5										

* SRD 20 dBm EIRP

For more technical information please see www.al-wireless.com.



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