



AL Compact

AccessLink Series

AL Compact PDH Radio Equipment has been designed in order to meet any low & medium capacity transmission requirement. The traffic is carried on PDH and Ethernet interfaces adopting the most appropriate modulation scheme (4/16 QAM). AL Compact is a “split-mount” equipment with protected or unprotected configurations available and radio capacity from 2xE1 up to 16xE1 on PDH interfaces and from 4 up to 64 Mbit/s on Ethernet interfaces.

OUTDOOR UNIT

The Outdoor Unit (ODU) is an extremely compact and light weatherproof (IP65) box, designed for easy and quick deployment

- Fully Synthesized Microwave Unit
- MMIC Technology
- Full Software Programmability of main RF Parameters
- Extended (Software) Frequency Agility
- Configuration Independent (Same ODU for both 1+0 and 1+1 Conf.)
- Capacity Independent (Same ODU for all Capacities)
- Excellent short and long term Frequency Stability
- Modulation Independent (same ODU for 4 QAM and 16 QAM)
- Built-in ATPC functionality



OUTDOOR UNIT

INDOOR UNIT

Several IDU models are available:

- 1+0 and 1+1 configurations
- Tributary options:
 - Up to 4xE1
 - Up to 8xE1
 - Up to 16xE1
 - Up to 16xE1 + 3x10/100 BaseT
- Service Channel (optional for PDH versions)
 - 1x9600 baud async. (V.28) + RS232 or
 - 1x64Kbit/s (V.11) + RS232
- Other characteristics:
 - Full digital Modem supporting 4 and 16 QAM (Software selectable)
 - Hitless switching for protected configurations
 - Embedded SNMP Agent for Management
 - IF Loop available as an option
 - EOW (optional) provided by means of an external unit (for PDH versions) or an external VOIP telephone



INDOOR UNIT

AL Compact

AccessLink Series

- ▶ ALC7 7.11 - 7.90
- ▶ ALC8* 7.70 - 8.50
- ▶ ALC10* 10.50 - 10.70
- ▶ ALC13 12.75 - 13.25
- ▶ ALC15 14.40 - 15.35
- ▶ ALC18 17.70 - 19.70
- ▶ ALC23 21.20 - 23.60
- ▶ ALC25 24.50 - 26.50
- ▶ ALC28 27.50 - 29.50
- ▶ ALC32* 31.80 - 33.40
- ▶ ALC38 37.00 - 39.50

*Under development

ACCESS LINK COMPACT SERIES

- Scalable capacity from 4 to 64 Mbit/s
- High Circuit Integration
- Excellent Radio-Electrical Performances
- Software Programmability
- Excellent Reliability
- Advanced Microwave Technology
- Reduced Power Consumptions
- Extremely Compact and Light
- Easy Installation and Maintenance
- Frequency range from 7 GHz up to 38 GHz



ALCompact

AccessLink Series

TYPICAL APPLICATIONS

- 2G/3G Cellular Network Infrastructure
- From 4 to 64 Mbit/s wire-speed Ethernet connections
- Private data Networks (WANs, LANs, etc.)
- Utility Networks (Railways, Pipelines, etc.)
- Back-up transmission medium to Optic Fiber
- Spur Links for Backbones/Rings
- Digital Terminal Connection (PABX, etc.)
- Leased Lines

CHARACTERISTICS

- Full Software Capacity and Modulation Selection
- Fast Installation & Commissioning
- Easy Configuration Upgrade
- Low Cost O&M (high Reliability and fast restoring of replaceable Units)
- Integrated G.821/G.826/G.828 Performance Monitoring, Alarm History Log, etc.
- Full Availability of O&M Tools (Loopbacks, Switch Manual Forcing, etc.)
- Integrated under SIAE NMS element manager

TECHNICAL SPECIFICATIONS^(*)

• Supported Configurations	1+0 / 1+1 HSB / 1+1 SD / 1+1 SD & FD							
• Modulation Schemes	4 QAM / 16 QAM (Software selectable)							
• Supported PDH Capacities (Mbit/s)	2xE1 / 4xE1 / 8xE1 / 16xE1							
• Supported Ethernet throughput	4 to 64 Mbit/s							
• RF Channel Spacing (MHz)	4 QAM	2xE1(4Mb)	4xE1(8Mb)	8xE1(16Mb)	16xE1(32Mb)	(64Mb)		
	16 QAM	3.5	7	14	28	-		
		-	3.5	7	14	28		
• Traffic Interfaces	75/120 Ω D-Type, 75 Ω Micro-Coaxial, RJ45 (for Ethernet Traffic)							
• Demodulation (fully Digital)	Coherent							
• Output Power at Point C' (±1 dB) Standard:		7/8 GHz	13/15 GHz	18 GHz	23 GHz	25 GHz	28 GHz	38 GHz
	4 QAM	+27	+25	+20	+20	+20	+19	+17
	16 QAM	+22	+20	+15	+15	+15	+14	+13
• Receiver Sensitivity (±1 dB) at BER 10 ⁻³ at point C (1+0 conf., RF filter losses included)								
Capacity 16xE1/32 Mbit/s	4 QAM	-87	-86.5	-86	-86	-85.5	-85	-84
	16 QAM	-83	-82.5	-82	-82	-81.5	-81	-80
Capacity 64 Mbit/s	16 QAM	-80	-79.5	-79	-79	-78.5	-78	-77
• Frequency Stability	± 5 ppm							
• ATPC	Up to 40 dB							
• Transmitter Power Attenuation	Software programmable, up to 40 dB in 1 dB steps							
• RTPC	up to 40 dB in 1 dB steps, software programmable							
• Service Channels	RS232, V.11 (64 Kbit/s controdirectional) or V.28 (9600 baud async)							
• Management Interfaces	TMN	Ethernet 10 BaseT						
	LCT	USB (peripheral)						
• IDU/ODU Interconnection (per terminal)	50 Ω Coaxial Cable SMA - type connectors							
• Mechanical Dimensions (W x H x D):								
	IDU 1+0/1+1	480 x 45 x 190 (mm)						
	ODU 1+0	256.5 x 256.5 x 114 (mm)						
	ODU 1+1	278 x 256.5 x 296 (mm)						
• Power Supply	- 48Vdc (-15%, +20%)							
• Power Consumption (per Terminal)	≤ 32 W in 1+0 configuration (f ≤ 15 GHz)							
	≤ 23 W in 1+0 configuration (f > 15 GHz)							
	≤ 57 W in 1+1 configuration (f ≤ 15 GHz)							
	≤ 40 W in 1+1 configuration (f > 15 GHz)							
• Environmental Performance								
ODU Weather Proofing Class:	IP65							
IDU Temperature Range:	from -5°C up to +50°C							
ODU temperature range:	from -35°C up to +55°C							
• Compliant with:	ETSI EN 302 217							

(*) Nominal values