



PTP Microwave Links



PTP FSO and SDH solutions available too!



Customer Support - available 24-hours-a-day, 7-days-a-week.



UNI 50 IP/PDH Point-to-Point Microwave Link

- ETSI and FCC Specifications in 7 to 38 GHz
- E1/E3, DS1/DS3 and LAN plug-ins

The best value in the Point-to-Point microwave radio line-up, UNI 50 is a low-to-medium capacity solution designed to carry a flexible mixture of PDH voice, data, video and Ethernet traffic up to 48 Mbps with modulation schemes of CP4FSK.

The front panel LCD display, with built-in touch-keys, allows for control of local and remote terminals from one location, making the UNI 50 one of the easiest radio solutions to install and maintain. Available are a wide range of plug-in interfaces for PDH and Ethernet traffic as well as a variety of link protection schemes for Hot Standby (HSB) and Space Diversity (SD). Bandwidth and frequency channel allocation are also software-controlled providing further user flexibility.

Common applications include: ISP backbone, wireless bridge (LAN-to-LAN interconnection) for private networks, PCS/PCN and cellular cell cite interconnection, and Wireless Local Loop.

System Features

All specifications subject to change without notice

Reliable Operation:

- Complete IDU digital system design
- Scalable digital modem eliminates calibrations
- Reed Solomon FEC (correction of up to 20 bytes out of 255 bytes frame)
- 100% equipment redundancy option for PDH
- Continuous phase modulation

Easy to Use:

- Rapid, simple installation with plug and play software
- Intuitive, proactive SNMP network management
- Software-configurable parameters via SNMP or front panel LCD
- Easy ODU pole mount installation
- ODU can be replaced without affecting antenna alignment

Flexible Interfaces:

- One IDU for all frequencies and interface applications
- Front-loading plug-in with auto detection
- Software controlled capacity providing Spectrum on Demand
- Fast Eth10/100 supports wireless bridge applications with throughput control for each 10/100 port (especially suitable for VoIP services)
- Optional impedance of 75, 100 or 120 Ohms
- Reduces logistics, spare parts, and product stocking

Competitive Advantages:

- High system gain across all configurations
- Exceptionally high link performance and reliability in extreme conditions
- Small, lightweight, aesthetic ODU/antenna
- Intuitive network management system
- Full range of configurations and frequency bands
- Scalable data rates
- Common architecture
- Remote software upgrading
- Simple and economically efficient maintenance

AIRLINX Communications, Inc.
 Box 253
 Greenville, NH 03048
 E-mail: sales@airlinx.com
 Tel: (888) 224-6814
 Fax: (603) 878-0530

Specifications

All specifications subject to change without notice

¹Contact a factory representative for a detailed list of supported frequency plans and t/r spacing

System

Frequency ¹	7GHz	8GHz	13GHz	15GHz	18GHz	23GHz	26GHz	38GHz
Standards	ETSI	ETSI	ETSI	ETSI	ETSI/FCC	ETSI/FCC	ETSI	ETSI/FCC
Operating frequency	7.1-8.2	8.2-8.5	12.7-13.3	14.4-15.4	17.7-19.7	21.2-23.6	24.2-26.4	37.0-40.0
Frequency stability	+/-5 ppm							
ODU Tx Power [dBm]	+22	+22	+25	+25	+20	+20	+20	+17
High Power Option	+26	+26						
Rx Sensitivity @10⁻⁶ BER [dBm] 16 E1 / 16 DS1	-76.0	-75.0	-75.0	-75.0	-74 / -74	-76 / -76	-74.5	-72 / -71
Standards Compliance	ETSI: EN 301 216V1.2.1, EN 301 128, EN 301 751, EN 300 751, EN 300 198, EN 300 431, EN 301 390, EN 300 197; FCC: Part 101							

IP/PDH Plug-in Configurations



Technical Parameters	Four 10/100 Base-T+4E1 (4DS1) PIN-52044 (PIN-42044)	16E1/ 16DS1 (+ E3/ DS3) PIN-27160/PIN-17160 PIN-28161/PIN-18161 for E3/DS3+EOW option	E3 + 16E1 / DS3+16DS1 PIN-12161 / PIN-22161	4E1+EOW PIN-25040
Digital Interface	IEEE 802.3, 802.3u standard Compliance: E1 (DS1) per ITU-T Rec.G.703	DS1 (E1) & DS3 (E3) per ITU-T Rec.G.703	ITU-T Rec.G.703	E1 per ITU-T Rec.G.703
Digital Input/Output Connector	10/100Base-T-shielded RJ-45, 100Ω; E1 (DS1)-shielded RJ48, 120Ω (100Ω)	E1 (DS1) on SCSI-100, 75 Ω / 120Ω (100Ω) un / balanced; E3 (DS3) – Coax BNC, 75Ω unbalanced	E1/DS1 shielded RJ-48, 100Ω (120Ω) balanced, E3/DS3-Coax BNC, 75Ω unbalanced	E1-Coax BNC, 75Ω unbalanced
Digital Line Code	E1-HDB3 DS1-AMI / B8ZS	E1-HDB3, E3-HDB3, DS1-AMI/B8ZS, DS3-B3ZS	E1-HDB3, E3-HDB3, DS1-AMI/B8ZS, DS3-B3ZS	E1-HDB3
Digital Capacity	4x10/100Base-T ports+4E1 (4DS1)	Up to 16E1 (16DS1) or E3+1E1 (DS3+4DS)	Up to 16E1/16DS1 or E3+1E1/DS3+4DS1	Up to 4E1
Configurable Capacities	4x10/100Base-T+0, 1, 2, 4E1 4x10/100Base-T+0, 4DS1	4/8/16E1, E3, E3+1E1 4/8/16DS1, DS3, DS3+4DS1	4/8/16E1, E3, E3+1E1, 4/8/16DS1, DS3, DS3+2DS1, DS3+4DS1	4E1
Channel Spacing FCC 23 / 38GHz	12.5MHz, 25MHz, 50MHz	7.5MHz, 12.5MHz, 25MHz, 50MHz	7.5MHz, 12.5MHz, 25MHz, 50MHz	
Channel Spacing FCC 18GHz	10MHz, 20MHz, 40MHz	7.5MHz, 10MHz, 20MHz, 40MHz	7.5MHz, 10MHz, 20MHz, 40MHz	
Channel Spacing ETSI 7 / 8 / 13 / 15 / 23 / 26 / 38GHz	14MHz, 28MHz, 56MHz	7MHz, 14MHz, 28MHz	7MHz, 14MHz, 28MHz	7MHz
Channel Spacing ETSI 18GHz	13.75MHz, 27.5MHz, 55MHz	7MHz, 13.75MHz, 27.5MHz	7MHz, 13.75MHz, 27.5MHz	7MHz

Additional LAN Specs

	ETSI PIN-52044			FCC PIN-42044		
Channel Bandwidth	14 MHz	28 MHz	56 MHz	12.5 MHz	25 MHz	50 MHz
Eth Only	18 Mbps	36 Mbps	48 Mbps	12 Mbps	24 Mbps	48 Mbps
Eth + 1xE1	16 Mbps	34 Mbps	46 Mbps	N/A	N/A	N/A
Eth + 2xE1	14 Mbps	32 Mbps	44 Mbps	N/A	N/A	N/A
Eth + 4xE1 (4xDS1)	10 Mbps	28 Mbps	40 Mbps	6 Mbps	18 Mbps	42 Mbps

Mechanical / Environmental

Dimensions

IDU: 44.5 cm W x 30.5 cm D x 4.4 cm H (1RU),

ODU: 23.5 cm Diameter x 16 cm H

Weight

IDU: 4.6 Kg; ODU: 4.9 Kg

Operating Temperature

IDU: -5° to +45°C; ODU: -33° to +55°C

Altitude

Up to 4500 meters

Humidity

IDU: 95% non-condensing; ODU: 100% all-weather

Power Input

22 to 60 V DC polarity insensitive

Power Consumption

IDU: 20 W; ODU: 23 W or 32 W

Cooling

Natural convection (no fans used)

ODU-IDU Interface

Coaxial N-type connector

Antenna Interface

Wave guide output with direct antenna mount

Standards Compliance

CE mark EN60950, EN 300 386-2, EN 300 385 (ETSI); NRTL ANS/UL 1950, FCC Part 15 (FCC)

Configuration

Radio Configurations

1+0, 1+1 (with no additional switching unit)

Protection Schemes

Hot-standby and Hitless (errorless) space diversity

Management

Protocol

SNMPv1

Local Access

Ethernet 10Base-T, RJ-45

Remote Access

Integrated routing across link and interconnecting LANs

Craft Interface

VT-100, via local craft RS-232/DB-9 port or via remote Telnet client

External Alarms

4 inputs and 3 form-C relay outputs, DB-25 connector