



Point to Point Radio Family

2.4, 3.3, 4.9, 5.xGHz

PDH / Ethernet Convergent System

Fractional Model

1xE1 or 2xE1

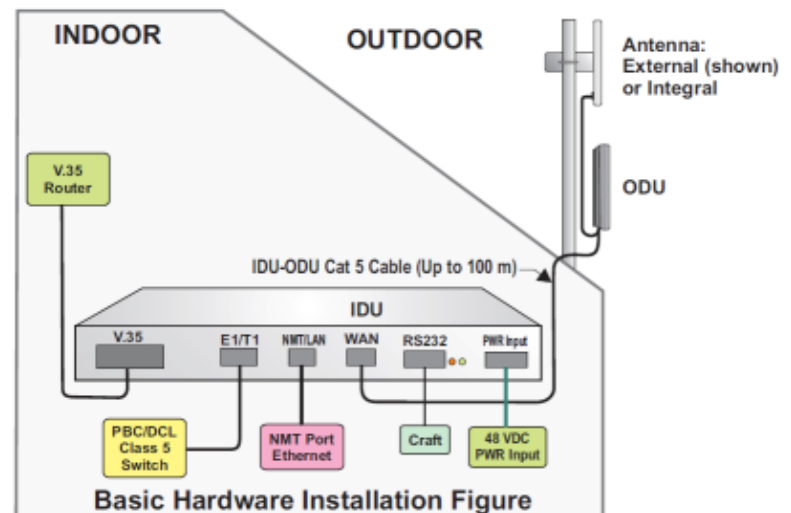


Reliability, Performance, Connectivity, Service

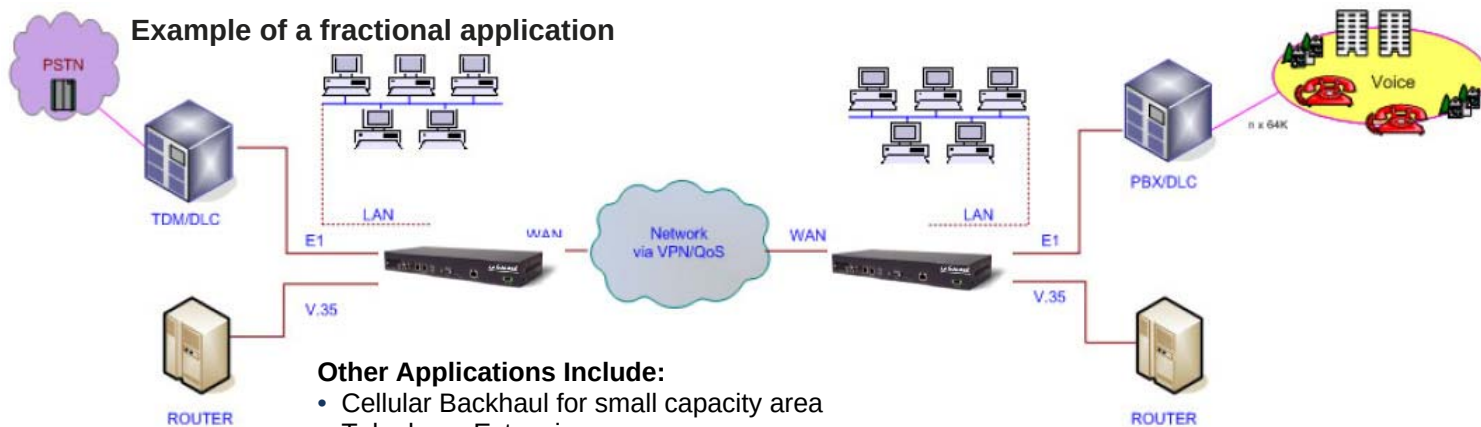
Features and Benefits:

- High quality Voice / Data / Video transmission.
- Cost-effective alternative to traditional E1 devices.
- Serial data transmission - V.35 (n times 64Kbps; n=1~32).
- High reliability of radio link provides excellent BER.
- Various frequencies with OFDM technology.
- Employs Time Division Duplex (TDD) transmission - no need to plan and to allocate separate channels for the uplink and downlink data streams.
- End to end transmission of multiple user services over packet switched networks.
- Transparent Ethernet forwarding.
- Supports SNMP for remote monitor and management
- Windows-based utility provides user friendly interface to configure the IDU/ODU.
- Rapid installation and easy configuration for deploying the link.
- Enhanced Security and access control.
- Power over Ethernet to ODU.
- Offers advanced IP-68 rated weather-proof housing for ODU.

- This model is a compact, cost effective and very easy for deployment of E1 (Full /Fractional) last mile device, which converge E1, V.35 and IP protocol. It is ideal for wireless links because it delivers LAN and high quality voice to remote locations over high reliability OFDM radio.
- With a single or dual E1 can provide 30 or 24 voice channels, two types of connectors (120@/75@) that can be manually selected by dip switch. The E1 type (Full/Fractional/BNC/RJ45) is selectable via software. One Ethernet port for IP packets transfer can be independently set for each Ethernet port: up to 6.4 Mbps. Total capacity in each direction is 9 Mbps (V.35 or E1s and Ethernet).
- This model includes an internal mechanism for identifying and assigning priority to E1 packets over those containing other LAN traffic. This ensures that voice packets are not delayed over data and a high voice service quality is maintained.
- This series system offers more than just an attractive price, but provides excellent performances; easy installation and alignment, along with smart management capabilities that make setup and configuration a snap.

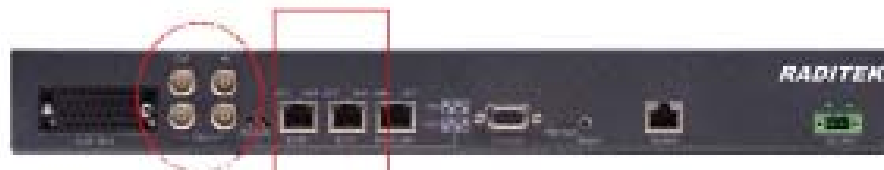
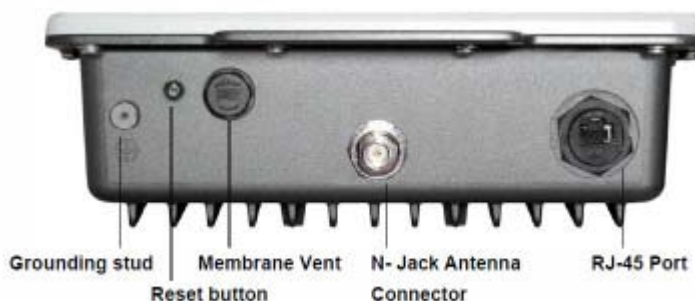


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Other Applications Include:

- Cellular Backhaul for small capacity area
- Telephony Extension
- Interconnecting Multiple Legacy Services over Packet Networks
- Extension to MMDS and 3G last mile networks
- Internet and voice service extension for remote districts
- Compressed Digital Voice and data over Wireless Network



The InDoor Unit (IDU) - Both the Single E1 and the Dual E1 versions

2E1 ports

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SPECIFICATIONS

CONFIGURATION				
Architecture	IDU: Indoor Unit: Multiplex 1/2xEI+V.35+Ethernet, Includes 48VDC PoE			
	ODU: Outdoor Unit: TDD Ethernet Radio			
IDU to ODU Interface	Outdoor CAT-5 cable: Maximum cable length: 90+m w/48VDC			
RADIO				
Frequency Bands (GHz)	2.3 4.9 5.x	2.300 — 2.4835 / 3.300—3.400 4.940 — 4.990 5.150 — 5.850		Customizable to meet local regulatory requirements
Data Rate	Software Configurable			
E1/T1 and V.35 Capacity	1 or 2 x E1(up to 23 slots) + V.35 (Nx64Kbps up to 2.048 Mbps)			
Ethernet Throughput	Up to 18 Mbps / + 6 Mbps Ethernet at full EI load (capacity is shared with EI load)			
RF Channel Bandwidth (MHz)	5 / 10 / 20 adjustable via software			
Duplex Technique	TDD			
Modulation	OFDM-BPSK, QPSK, 16QAM, 64QAM			
Transmit Power	2.3 / 2.4 & 5.X GHz: 23dBm, 3.3 GHz: 28dBm, 4.9 GHz: 21 dBm			
Rx Sensitivity at 10E-6 BER	54Mbps -60dBm	36Mbps -65dBm	18Mbps -72dBm	6Mbps -77dBm
Received Dynamic Range	> 60dB			
ETHERNET INTERFACE				
Interface Type	10 / 100BaseT with Auto-negotiation (IEEE 802.3)			
Number of Ethernet Ports	1 (LAN Traffic Bandwidth Control), Up to 6 Mbps Throughput			
Framing / Coding	IEEE 802.3 / IEEE 802.3u			
Bridging	Self-learning up to 2047 MAC addresses IEEE 802.1q			
Traffic Handling	MAC layer bridging, self-learning			
Line Impedance	100 ohm			
VLAN Support	Transparent			
Connector	RJ-45			
E1 & V.35 INTERFACE				
Framing	Unframed (transparent)			
Number of EI (T1) and V.35	1xEI Software Switch able, Front Switch for Bal/Unbal Selection. 1xV.35 port (2xE1 avail)			
Standard Compliance	G.703, G.826			
Timing	Independent Tx and Rx timing			
Line Code	EI: HDB3 @ 2.048 Mbps			
Impedance	E1-120 ohm. Balanced or 75 ohm Unbalanced			
Connector	RJ-45 for EI Bal & Ethernet, BNC for EI Unbal. F34 Winchester for V.35 (DCE)			
Jitter & Wander	According to G.823, G.824			
NETWORK MANAGEMENT				
Local Management	CLI RS232, SNMP			
Remote Management	SNMP			
SNMP Agent	MIB 11, Private MIB			
SECURITY				
Data Encryption / Authorization	WEP 40/128/152 bit / MAC Address Access Filter			

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SPECIFICATIONS

POWER and MOUNTING			
Power Input*	+48VDC: Power Consumption 20W/2.4G, 17W/4.9/5.8G		
Mounting	Pole or Wall for ODU, 19 inch (423mm) Rack (1 Mtg Sp) or Desktop		
MECHANICS			
4.9 & 5.X GHz ODU Dimensions (include 23 dBi integral antenna)	335 (L) x 335 (W) x 81 (H) ; mm; (13.1(L) x 13.2(W) x 3.2(H) inches) Weight: 2.9 Kg; (6.4 lb)		
2.4 & 3.3 GHz ODU Dimensions (includes 18 dBi integral antenna)	330 (L) x 295 (W) x 91 (H) ; mm; (13.0(L) x 111.6(W) x 3.6(H) inches) Weight: 2.9 Kg; (6.4 lb)		
ODU Dimensions for External Antenna)	259 (L) x 250 (W) x 75 (H); mm; (10.2(L) x 9.8(W) x 3.0(H) inches) Weight: 1.8kg; (4.0 [b)		
IDU Dimensions	425 (L) x 256 (W) x 44.5 (H); mm; (16.8(L) x 10.1(W) x 1.75(H) inches) Weight: 2.9 Kg; (6.4 lb)		
INTEGRAL ANTENNA	KSLV35 49-	KSLV35 5X-	KSLV35 2/3X-
Gain	23 dBi	23 dBi	18 dBi
Beam Width	10° (Opt 8° external)	10° (Opt 8° external)	10° (Opt 8° external)
Polarization	Linear or Vertical		
ENVIRONMENTAL			
Outdoor Unit Enclosure	IP-68 rated weather-proof enclosure		
ODU Operating Temperature Range	-30°C to +60°C; (-4°F-140°F)		
IDU Operating Temperature Range	-5.0°C to +55°C; (23°F-131°F)		
Storage Temperature Range	-30°C to +70'C, (-22°F-158°F)		
Humidity	Up to 90% non-condensing for IDU and 100% condensing for ODU		
ORDERING INFORMATION**			
RADLINK-P2P-2.3-2251-EXT	2.3GHz, 1/2xE1/T1, 1xEthernet with V.35 IDU; ODU [23 dBm] with external* antenna option		
RADLINK-P2P-2.3-2151-I18	2.3GHz, 1/2xE1/T1, 1xEthernet with V.35 IDU; ODU [23 dBm] with integrated 18 dBi antenna		
RADLINK-P2P-2.4-2221-EXT	2.4GHz ISM band, 1/2xE1/T1, 1xEthernet with V.35 IDU; ODU [23 dBm] w/external* antenna option		
RADLINK-P2P-2.4-2121-I18	2.4GHz ISM band, 1/2xE1/T1, 1xEthernet with V.35 IDU; ODU [23 dBm] w/integrated 18 dBi antenna		
RADLINK-P2P-3.3-2281-EXT	3.3GHz, 1/2xE1/T1, 1xEthernet with V.35 IDU; ODU [27 dBm] with external* antenna option		
RADLINK-P2P-4.9-2271-EXT	4.9GHz PSB***, 1/2xE1/T1, 1xEthernet with V.35 IDU; ODU [21 dBm] w/external* antenna option		
RADLINK-P2P-4.9-2171-I23	4.9GHz PSB***, 1/2xE1/T1, 1xEthernet with V.35 IDU; ODU [21dBm] w/23dBi integrated antenna		
RADLINK-P2P-5.0-2211-EXT	5GHz ISM band, 1/2xE1, 1xEthernet with V.35 IDU; ODU [23 dBm] with external* antenna option		
RADLINK-P2P-5.0-2111-I23	5GHz ISM band, 1/2xE1, 1xEthernet with V.35 IDU; ODU [23 dBm] with integrated 23 dBi antenna		