

RADITEK

TELECOM

Point to Point Radio

Point to Point Radio Family RADTR-P2P-HC-6-38-E1-T1-a9

Digital Microwave Radio for High-Capacity, Long Haul Transmission

These and other key features, give network planners, selectivity and flexibility, when building their high capacity transport and access networks.

Features:

A low-cost, point to point, FDD/PDH digital microwave radio system for:

- STM-1, Ethernet and E1 / T1 payload.
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- Supports capacities to 300 Mbps, including:
 - Ethernet, any part of which can be allocated up to 32xE1/T1.
- Available in discreet licensed frequency bands from 6 to 38 GHz.
- Available in Non-Protected (1+0) and protected (1+1) mode in HSB, MHSB, frequency diversity (FD), and space diversity (SD) configuration. Configurable for Repeater Operation
- Mounts directly on many standard antennas using standard UBR flange series waveguide.
- Meets carrier-class standards for performance reliability and quality



RADTR-P2P-HC-6-38-E1-T1-a9

Specifications may be subject to change

10/08/09

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| RADIO (ODU) | | | | | | | | | |
|---|---|--|--|---------------|---------------------------|---------------|-----------------------------|-------------------|---------------|
| Frequency | | 6 GHz | 7/8 GHz 1 | 11 GHz | 13 GHz | 15 GHz | 18 GHz | 23 GHz | 38 GHz |
| Band (GHz) | | 5.9-6.4/ 5.4-7.1 | 7.72-8.5 7.1-7.9 | 10.7-11.7 | 12.7-12.3 | 14.5-15.4 | 17.7-19.7 | 22.0-23.6 | 37.0-40.0 |
| T-R Space (MHz) | | 154/161/ 196/245 | 119/126/151/ 266/311.32/ 614/154/161/ 196/245 | 490/530 | 266 | 420/490 728 | 1010/1092.5 | 1008/1200 1232 | 700, 1260 |
| T-T Space (MHz) | ETSI | 7, 14, 28, 56 | 7, 14, 28, 56 | 7, 14, 28, 56 | 7, 14, 28, 56 | 7, 14, 28, 56 | 7, 14, 28, 56 | 7, 14, 28, 56 | 7, 14, 28, 56 |
| | FCC | 30, 40, 50 | 30, 40, 50 | 30, 40, 50 | 30, 40, 50 | 30, 40, 50 | 30, 40, 50 | 30, 40, 50 | 30, 40, 50 |
| TX Power dBm QPSK Std/High Pwr. | | 30 HP | 27/30 | 26/28 | 26 | 26 | 25.5 | 24/25 | 22/23 |
| Std/High Pwr. dBm (dBm)16/32QAM | | 28 HP | 22.5/28 | 21.5/26 | 21.5/23 | 21.5/23 | 21.5/23 | 20.5/22 | 17.5/20 |
| Std/High Pwr. dBm 64/128QAM | | 24 HP | 16.5/24 | 15.5/21 | 15.5/18 | 15.5/18 | 15.5/18 | 14.5/17 | 11.5/16 |
| Receiver Threshold 10-6 BER (dBm) | QPSK | -84 | -84 | -84 | -84 | -84 | -84 | -84 | -84 |
| | 16/32 QAM | -72 | -72 | -72 | -72 | -72 | -72 | -72 | -72 |
| | 64/128 QAM | -69/-65 | -69/-65 | -69/-65 | -69/-65 | -69/-65 | -69/-65 | -69/-65 | -69/-65 |
| Modulation | QCPSK, 16QAM, 32QAM, 64QAM, 128QAM - User Selectable | | | | | | | | |
| Freq Stability | +/- 5ppm Frequency Tolerance +/- 10 ppm | | | | | | | | |
| Max Input Pwr | +0 dBm | | | | | | | | |
| IDU to ODU Cable | LMR-400 or Equivalent (50 Ohm RG8 Type) | | | | | | | | |
| IDU to ODU Separation | 300 Meter (1000 ft) Single LMR-400 Coaxial Cable | | | | | | | | |
| STD Compliance | ITU, ETSI, FCC | | | | | | | | |
| Multiplexer (IDU) | | | | | | | | | |
| Capacity | 4/8xE1/T1 | | 4-32 x E1/T1 | | 4-48xE1/T1 | | STM-1 | | |
| Ethernet Data Rate | 20 Mbps | | 50 Mbps | | 100Mbps | | 155 Mbps | | |
| Number of Ethernet Ports | 2 | | 2 | | 2 | | 2 | | |
| Impedance | E1 = 75 Ohm std 120 Ohm optional | | | | T1 (DS1) 100 Ohm Balanced | | Ethernet = 100 Ohm Balanced | | |
| Line Code | E1 = HDB3 | | | | T1 (DS1) = AMI or B8ZS | | Ethernet = 10 / 100 Base T | | |
| Network Management | WEB, SNMP or Telnet | | | | | | | | |
| Status Indicator | LED | Power, Local, Remote-East, Remote West, multiple Alarms & Status | | | | | | | |
| Alarms | 2 Form C electrical interfaces, 2 TTL alarm outputs, 4 TTL alarm inputs | | | | | | | | |
| Power Supply | | | | | | | | | |
| Input Voltage | 40 – 60VDC, any polarity | | | | | | | | |
| Power Consumption | <30 Watts IDU (1+1), <40W ODU (1+0) | | | | | | | | |

| Physical | | | | | | | | |
|---------------------|-----|--------------------|--|--|-----|---------------------------|--|--|
| Dimensions (inches) | ODU | 10.5 (D) x 3.5 (H) | | | IDU | 17.5(W) x9.4(D) x 1.75(H) | | |
| Weight (lbs.) | ODU | 10.7 | | | IDU | 7.5 (1+1) | | |

RADTR-JS-6-38G-(mod)-a9 Specifications may be subject to change

10/08/09

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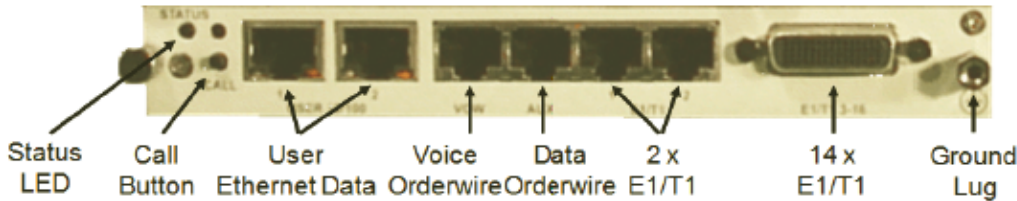
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| Environmental | | | | |
|---|-------------------------------------|-----------------|-----|--------------------|
| Operating Temperature | ODU | -33C to +55C | IDU | -5 C to +55 C |
| Storage Temperature | ODU | ETS 300-019-2-1 | IDU | -40 C to +70 C |
| Humidity | ODU | 100% condensing | IDU | 95% non-condensing |
| Warranty | | | | |
| Standard | One (1) year from factory ship date | | | |
| All specifications subject to change without notice | | | | |

Standard I/O Module



- **User Payload Data: Ethernet**
 - 100Base-TX RJ-45 modular local port connectors
 - Port 1: Fast Ethernet interface
 - Port 2: Used for consecutive point networks
- **Voice Orderwire**
 - RJ-45 modular port connector
 - Provides a PTP connection via a PTT handset and buzzer.
- **Call button**
 - Initiates a Voice Orderwire ring
 - Only SDIDU's™ link partner receives ring
- **Data Orderwire**
 - RJ-45 modular port connector
 - RS-422 up to 64 kbps
 - RS-232 up to 19.2kbps
- **T1/E1 Channels**
 - 2 T1/E1 (RJ-48C) interface connections
 - Single Molex 60-pin connector containing 14 T1/E1 connections
 - T1: 100 Ω Balanced
 - E1: 120 Ω Balanced
 - 223 x E1/T1 Crosspoint Switch
- **Ground Lug**
 - Ground connection for SDIDU™
 - One of two possible ground locations

| Bandwidth/Modulation | 30 MHz | 40 MHz | 50 MHz | 56 MHz |
|----------------------|----------|----------|----------|----------|
| QPSK | 30 Mbps | 45 Mbps | 55 Mbps | 60 Mbps |
| 16-QAM | 80 Mbps | 100 Mbps | 130 Mbps | 160 Mbps |
| 32-QAM | 100 Mbps | 130 Mbps | 160 Mbps | 200 Mbps |
| 64-QAM | 125 Mbps | 160 Mbps | 200 Mbps | 250 Mbps |
| 128-QAM | 150 Mbps | 200 Mbps | 250 Mbps | 300 Mbps |

