

RADWIN 1000, RADWIN 2000

Product Description

ODU with Integrated Antenna



Connectorized ODU for External Antenna



The RADWIN 1000/2000 is a high-capacity carrier-grade radio device, designed to meet the requirements of current and next generation markets and applications. The RADWIN 1000/2000 radio device operates in the 4.9 GHz band and complies with the FCC and IC regulations. RADWIN 1000/2000 also features software configurable antenna port activation enabling single (RADWIN 1000) or dual (RADWIN 2000) antenna port operation. The device configured as RADWIN 2000 has the advanced air-interface based on MIMO, antenna diversity.



Operational Description

The RADWIN 1000/2000 product features:

- The RADWIN 1000/2000 is powered by 48VDC through an indoor unit (IDU-C or PoE device).
- The radio link is established within 1 minute after power applied to device.
- Software controlled limitations determine the maximum transmission power permitted according to the FCC/IC regulations.
- The radio device features up to 130 Mbps @ 20 MHz channel bandwidth (net throughput, full duplex)
- The modulation technique used by the device is OFDM (BPSK/QPSK/16QAM/64QAM)
- The antennas used for this device are 28 dBi dish, 21 dBi integral flat and 21 dBi external flat.
- The external antennas are connected to the device via an RF feeder cable (that has an insertion loss of 1dB).



Product Specifications

Configuration		
Architecture	Outdoor Unit with Integrated Antenna or Connectorized for External Antenna	
IDU to ODU Interface	Outdoor CAT-5e cable; Maximum cable length: 100 m	
Radio		
Capacity	130 Mbps @ 20 MHz channel bandwidth (net throughput, full duplex)	
Range	Up to 120 km / 75 miles	
Frequency Bands	Regulations FCC / IC	Band 4.940 –4.990 GHz
Channel Bandwidth	5, 10, 20 MHz	
Modulation	OFDM (BPSK/QPSK/16QAM/64QAM)	
Adaptive Modulation & Coding	Supported	
Automatic Channel Selection	Supported	
Max Tx Power	Max Tx Power 31dBm	Antenna 28 dBi Dish 21 dBi Integral 21 dBi External
Duplex Technology	TDD	
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6	
Encryption	AES 128	
Mechanics		
Dimensions	ODU with Integrated Antenna: 37.1(w) x 37.1(h) x 10.0(d) cm ODU Connectorized: 19.0(w) x 27.0(h) x 7.0(d) cm	
Weight	ODU with Integrated Antenna: 3.5 kg / 7 lbs ODU Connectorized: 1.8 kg / 3.6 lbs	
Power		
Power Feeding	PoE -48 VDC	
Power Consumption	<35W (IDU + ODU)	
Environmental		
Operating Temperatures	-35°C - +60°C / -31°F - 140°F	
Humidity	Up to 100% non-condensing, IP67	
Safety		
FCC/IC (cTUVus)	UL 60950-1, CAN/CSA 60950-1 C22.2	
ETSI	EN/IEC 60950-1	
EMC		
FCC	CFR47 Class B, Part15, Subpart B	
ETSI	EN 300 386 (2005), EN 301 489-4 (2002)	
CAN/CSA-CEI/IEC	CISPR 22-04 Class B	
AS/NZS	CISPR 22-2004 Class B	