

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 5.3, 5.4 and 5.8 GHz bands 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 5.3, 5.4 and 5.8 GHz bands the radio device features up to 270 Mbps @ 40 MHz channel bandwidth (net throughput, full duplex)
- The modulation technique used by the device is OFDM (BPSK/QPSK/16QAM/64QAM)
- The antennas used are 28 dBi dish, 22.5 dBi integral, 23.5 dBi external flat and 6 dBi antenna assembly gain.



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	270 Mbps @ 40 MHz channel bandwidth (net throughput, full duplex)	
Range	Up to 120 km / 75 miles	
Frequency Bands	Regulations	Band
	FCC / IC	5.250 – 5.350 GHz
	FCC / IC	5.470 – 5.725 GHz
	FCC / IC	5.725 – 5.825 GHz
Channel Bandwidth	5,10,20,40 MHz	
Modulation	OFDM (BPSK/QPSK/16QAM/64QAM)	
Adaptive Modulation & Coding	Supported	
Automatic Channel Selection	Supported	
Max Tx Power (5.3/5.4GHz)	Max Tx Power	Antenna
	1.9 dBm	28 dBi Dish
	6.5 dBm	22.5 dBi Integral
	7.5 dBm	23.5 dBi External
	23.7 dBm	6 dBi External
Max Tx Power (5.8 GHz)	Max Tx Power	Antenna
	23.8 dBm	28 dBi Dish
	26.4 dBm	22.5 dBi Integral
	26.4 dBm	23.5 dBi External
	29.4 dBm	6 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	