



RADWIN 1000, RADWIN 2000 Specifications

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 5.8 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 is powered by 48VDC or 24VDC (20 – 60VDC range) 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 operational frequencies of the device are 5.730 – 5.845 GHz in 5, 10 MHz channel bandwidth, 5.735 – 5.840 GHz in 20 MHz channel bandwidth and 5.745 – 5.830 GHz in 40 MHz channel bandwidth.
- The radio device features up to 270 Mbps in 40 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, 24 dBi integral flat and 23 dBi external flat.
- The maximum power setting for all antennas is 29.95 dBm.



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 FCC / IC		Band 5.8 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	Max Tx Power 29.95 dBm	Channel Bandwidth 5, 10, 20, 40 MHz	Band 5.8 GHz
Antennas (dual pole)	Gain 28 dBi 24 dBi 23 dBi	Type Dish Integral Flat External Flat	Band 5.8 GHz 5.8 GHz 5.8 GHz
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		