RADWIN 1000 RW-1020-0150,
RADWIN 2000 RW-2020-0150

Product Description

ODU with Integrated Antenna

Connectorized ODU for External Antenna

The RADWIN 1000 RW-1020-0150 / RADWIN 2000 RW-2020-0150 is a high-capacity carrier-grade radio device, designed to meet the requirements of current and next generation markets and applications. The RADWIN 1000 RW-1020-0150 / RADWIN 2000 RW-2020-0150 radio device operates in the 2.4 GHz band and complies with the FCC and IC regulations. RADWIN 1000 RW-1020-0150 / RADWIN 2000 RW-2020-0150 also features software configurable antenna port activation enabling single (RADWIN 1000 RW-1020-0150) or dual (RADWIN 2000 RW-2020-0150) 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:

- 5, 10, 20MHz channel bandwidths
- Max Tx power 25.47dBm @ 20MHz

- The RADWIN 1000 RW-1020-0150 / RADWIN 2000 RW-2020-0150 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 20 dBi external flat panel and 17.5 dBi integrated.

- The maximum power setting for all antennas is 25.47 dBm

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** 2.4 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** — **Channel Bandwidth** 25.33 dBm — 5 MHz 25.39 dBm — 10 MHz 25.47 dBm — 20 MHz
Antennas (dual pole)	**Gain** — **Type** 17.5 dBi — Integral Flat 20 dBi — External Flat
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