



## RW-2960-0110

RADWIN RW-2960-0110 is a carrier-class radio supporting the 6.0 GHz band. The radio is part of the RADWIN 2000 PDH Series which delivers 16 E1s/T1s and 10 Mbps Ethernet throughput at ranges of up to 120 km/75 miles.

The RADWIN 2000 PDH Series is designed to address carriers' cellular backhaul requirements, providing high-end performance, capacity and range never before seen in its price category.

RADWIN RW-2960-0110 comes with an integrated antenna.

### Product Highlights

- Up to 16 x E1s/T1s plus 10 Mbps Ethernet throughput
- Native TDM transport
- Long range – up to 120 km/75 miles
- Superior spectral efficiency
- Advanced MIMO, OFDM and Diversity technologies
- Robust and reliable to operate in tough conditions, extreme temperatures and non line-of-sight scenarios
- Ease of operation and maintenance

### Product Specifications

Configuration	
<b>Architecture</b>	Outdoor Unit with Integrated Antenna
<b>IDU to ODU Interface</b>	Outdoor CAT-5e cable; Maximum cable length: 100 m
Radio	
<b>Capacity</b>	Up to 16 E1s/T1s and 10 Mbps full-duplex Ethernet net throughput
<b>Range</b>	Up to 120 km / 75 miles
<b>Channel Bandwidth</b>	20 MHz
<b>Modulation</b>	2x2 MIMO-OFDM (BPSK/QPSK/16QAM/64QAM)
<b>Adaptive Modulation &amp; Coding</b>	Supported
<b>Automatic Channel Selection</b>	Supported
<b>Diversity</b>	Supported
<b>Spectrum View</b>	Supported
<b>Max Tx Power</b>	20 dBm
<b>Duplex Technology</b>	TDD
<b>Error Correction</b>	FEC k = 1/2, 2/3, 3/4, 5/6
<b>Encryption</b>	AES 128
<b>Supported Indoor Units</b>	IDU-C Series (RW-72XX-2000)
<b>Hub Site Synchronization (HSS)</b>	Up to 16 collocated links (RADWIN 2000 and/or WinLink 1000)
<b>Monitored Hot Standby (MHS)</b>	1+1 with RADWIN 2000 link or WinLink 1000 link

Supported Bands		
Band	Occupied Frequency Range	Radio Compliance
6.0 GHz Universal	5.795 - 6.050	

<b>Mechanical</b>	
<b>Dimensions</b>	37.1(w) x 37.1(h) x 11.0(d) cm
<b>Weight</b>	3.5 kg / 7 lbs
<b>Power</b>	
<b>Power Feeding</b>	Power provided over ODU-IDU cable
<b>Power Consumption</b>	<35W (IDU + ODU)
<b>Environmental</b>	
<b>Operating Temperatures</b>	-35°C - 60°C / -31°F - 140°F
<b>Humidity</b>	100% condensing, IP67 (totally protected against dust and against immersion up to 1m)
<b>Safety</b>	
<b>FCC/IC (cTUVus)</b>	UL 60950-1, UL 60950-22, CAN/CSA C22.2 60950-1, CAN/CSA C22.2 60950-22
<b>ETSI</b>	EN/IEC 60950-1, EN/IEC 60950-22
<b>EMC</b>	
<b>FCC</b>	CFR47 Class B, Part15, Subpart B
<b>ETSI</b>	EN 300 386, EN 301 489-1, EN 301 489-4
<b>CAN/CSA-CEI/IEC</b>	CISPR 22-04 Class B
<b>AS/NZS</b>	CISPR 22-2004 Class B
<b>Integrated Antenna</b>	
<b>Minimum Peak Gain</b>	1.7:1 (max) 1.5:1 (typ) 2:1 (max) @ 5.875-6.05
<b>VSWR</b>	1.5: 1 (typ) 1.7 : 1 (max) @ 5.875 – 6.05 GHz
<b>3 dB Beamwidth</b>	9° (typ)
<b>AZ &amp; EL Beam Squint</b>	Dual Linear (Vertical and Horizontal)
<b>Polarization</b>	ETSI EN 302 085 V1.1.2, TS1-TS3
<b>Sidelobes Level</b>	ETSI EN 302 085 V1.1.2, TS1-TS3
<b>Cross Polarization</b>	-35 dB (min)
<b>F/B Ratio</b>	40 dB (min)
<b>Port To Port Isolation</b>	50 (ohm)
<b>Lightning Protection</b>	6W (max)

## Ordering Info

**Part Number:** RW-2960-0110**Description:** RADWIN 2000 PDH Series ODU with integrated antenna, supporting 6.0 GHz band

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