

## RADWIN 2000 X-Series



### RW-2030-5110

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RW-2030-5110 is a carrier-class radio that supports 3.3 to 3.8 GHz License bands and fully complies with FCC, IC and Universal regulations. This radio is part of the RADWIN 2000 X-Series that delivers high capacity and extended range for Corporate Access needs.

Packing native TDM and Ethernet over a single wireless link, the RADWIN 2000 X-Series provides 20 Mbps aggregate Ethernet net throughput and up to 3 E1s /4 T1s at a range of up to 120 km/75 miles.

RADWIN RW-2030-5110 comes with an integrated antenna

#### Product Highlights

- 20 Mbps aggregate Ethernet net throughput and up to 3E1s/4T1s
- Native TDM transport
- Long range – up to 120 km/75 miles
- Adaptive asymmetric throughput – dynamic allocation between uplink and downlink
- Single radio supporting multiple bands (3.3 to 3.8 GHz)
- Advanced MIMO, OFDM and Diversity technologies
- Robust and reliable to operate in tough conditions, extreme temperatures and non line-of-sight scenarios

## Product Specifications

Configuration	
Architecture	Outdoor Unit with Integrated Antenna
IDU to ODU Interface	Outdoor CAT-5e cable; Maximum cable length: 100 m
Radio	
Capacity	20Mbps aggregate Ethernet net throughput and up to 3E1s /4T1s
Range	Up to 120 km / 75 miles
Channel Bandwidth	5, 10, 20MHz
Modem Operations	Single chain
	2X2 Diversity 2X2 MIMO
Modulation	2x2 MIMO-OFDM (BPSK/QPSK/16QAM/64QAM)
Adaptive Modulation & Coding	Supported
Automatic Channel Selection	Supported
Diversity	Supported
Spectrum View	Supported
Asymmetric TDD	Supported
Max Tx Power	3.6GHz FCC/IC Up to 42dbm EIRP
	3.5GHz IC 23 dBm
	3.x GHz Universal 25 dBm
TPC Range	17 dBm (8-25dbm )
	Minimum TX power step of 1db
Channel minimum step	1 MHz under 3.650-3.675 FCC/IC Band – Restricted Mode
	250 KHz under 3.475-3.650 IC Band and 3.300-3.800 Universal
Duplex Technology	TDD
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6
Encryption	AES 128
QoS	Packet classification to 4 queues according to 802.1p and Diffserv, Dynamic scheduling according to air interface changes
VLAN	Supported
Supported Indoor Units	IDU-C Series (RW-72XX-2000) and IDU-E Series (RW-71XX-2000)
Hub Site Synchronization (HSS)	Up to 16 collocated links
Monitored Hot Standby (MHS)	1+1 with RADWIN 2000 link or WinLink 1000 link

Supported Bands		
Band	Occupied Frequency Range	Radio Compliance
3.x GHz Universal*	3.300 - 3.800 GHz	
3.6 GHz FCC	3.650 - 3.675 GHz	FCC 47CFR, Part 90 – Restricted Mode
3.5 GHz IC	3.475 - 3.650 GHz	IC RSS 192, issue-3

\* Factory Default

Mechanical	
Dimensions	19.5(w) x 27.0(h) x 8.0(d) cm
Weight	1.8 kg / 3.6 lbs
Power	
Power Feeding	Power provided over ODU-IDU cable
Power Consumption	<35W (IDU + ODU)
Environmental	
Operating Temperatures	-35°C - 60°C / -31°F – 140°F
Humidity	100% condensing, IP67 (totally protected against dust and against immersion up to 1m)
Safety	
FCC/IC (cTUVus)	UL 60950-1, UL 60950-22, CAN/CSA C22.2 60950-1, CAN/CSA C22.2 60950-22
ETSI	EN/IEC 60950-1, EN/IEC 60950-22
EMC	
FCC	CFR47 Class B, Part15, Subpart B
ETSI	EN 300 386, EN 301 489-1, EN 301 489-4
CAN/CSA-CEI/IEC	CISPR 22-04 Class B
AS/NZS	CISPR 22-2004 Class B

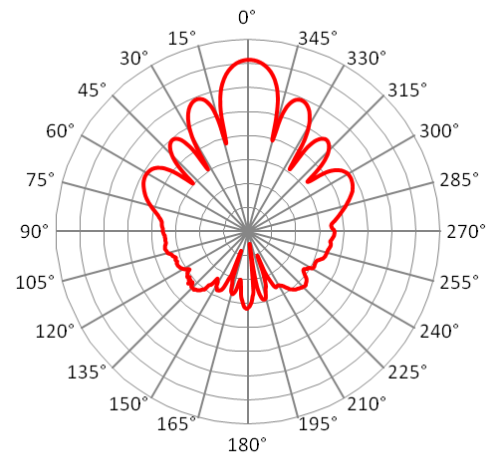
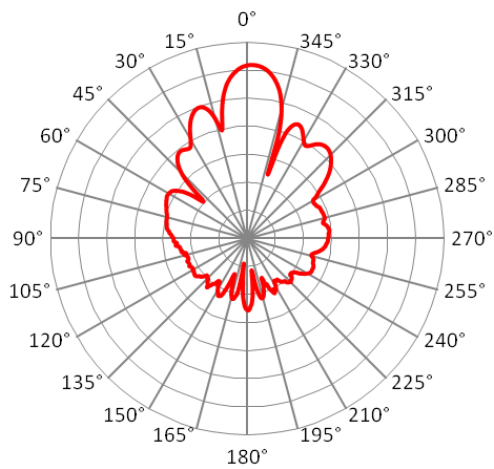
**Integrated Antenna**

Frequency Range	3.30 – 3.80 GHz	
Gain	port V port H	21.0 dBi ± 1.0dB 20.0 dBi ± 0.5dB
VSWR	port V port H	1.5 :1 (typ) 1.5:1 (max) 1.5 :1 (typ) 1.5:1 (max)
3 dB Beam width	12° (typ)	
AZ & EL Beam Squint	± 2.5° Port V & Port H	
Polarization	Dual Linear (Vertical and Horizontal)	
Sidelobes Level	ETSI EN 302 085 V1.1.2, TS1-TS3	
Cross Polarization	ETSI EN 302 085 V1.1.2, TS1-TS3 25dB(max)	
F/B Ratio	20 dB (max)	
Port To Port Isolation	35 dB (min)	
Lightning Protection	DC grounded	

**Antenna Pattern**

Elevation @ 3.5GHz

Azimuth @ 3.5GHz

**Ordering Information****Part Number:** RW-2030-5110**Description:**

RADWIN 2000 X-Series ODU with integrated antenna, supporting 3.3 to 3.8GHz

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