



Product Highlights

- Up to 100 Mbps net aggregate throughput
- OFDM technology for nLOS performance
- Advanced MIMO and Diversity technology
- IP + Native TDM (up to 16 E1s/T1s)
- Long range - up to 120 Km/75 miles
- Enhanced QoS & networking features
- Asymmetric capacity-fixed or adaptive channel allocation
- Multiple Point-to-Point configuration
- Extremely fast and easy to install
- 5, 10, 20 MHz channel bandwidth

RADWIN 2000 3.5 GHz Portfolio

Carrier Grade Point-to-Point Solutions in 3.4 - 3.7 GHz

RADWIN 2000 3.5 GHz solutions deliver high-end performance in the 3.4-3.7 GHz spectrum bands. The point-to-point solutions provide up to 100 Mbps net aggregate throughput and a flexible combination of native TDM (up to 16 E1s/T1s) and Ethernet, enabling operators to cost-effectively support converged IP + TDM networks. The solutions operate in symmetric and in adaptive asymmetric modes, enabling operators to optimize link capacity and range.

RADWIN 2000 C-Series 3.5 GHz Solutions

High Capacity PtP for Backhaul

RADWIN 2000 C-Series 3.5 GHz solutions deliver 100 Mbps net aggregate throughput and up to 16 E1s/T1s.

RADWIN 2000 X-Series 3.5 GHz Solutions

Optimized for Broadband Access

RADWIN 2000 X-Series 3.5 GHz solutions provide up to 20 Mbps net aggregate

capacity and up to 4 T1s or 3 E1s, and are optimized for broadband access applications.

Target Markets & Applications

RADWIN's solutions enable 3.5 GHz frequency owners to utilize their spectrum and deliver high capacity while reducing costs and increasing revenue generation.

Fixed Operators & WISPs

Fixed operators and WISPs can use RADWIN 2000 3.5 GHz solutions to provide broadband access to corporate clients and meet guaranteed Service Level Agreements (SLAs). Operators can backhaul Wi-Fi hot zones and last mile networks as well as provide broadband to underserved and remote areas.

Cellular Carriers

Carriers can utilize RADWIN 2000 3.5 GHz solutions to backhaul IP and TDM traffic from base stations, thus eliminating recurring microwave license fees, reducing the cost of backhaul infrastructure and achieving overall lower total cost of ownership.

Specifications

	RADWIN 2000 C-Series	RADWIN 2000 X-Series
Configuration		
Architecture	ODU: Outdoor Unit with Integrated Antenna (21 dBi) or Connectorized Unit for External Antenna IDU: Indoor Unit or PoE device	
IDU to ODU Interface	Outdoor CAT-5e cable; Maximum cable length: 100m	
Maximum Throughput	100 Mbps net aggregate and up to 16 E1s/T1s	20 Mbps net aggregate and up to 3 E1s/4 T1s
Radio		
Radio Regulations	3.650 - 3.675 GHz FCC 47CFR, Part 90 – Restricted Mode 3.450 - 3.650 GHz IC RSS 192, issue-3 3.400-3.700 GHz EN 302 326-2 V1.2.2 3.400 - 3.700 GHz Universal	
Range	Up to 120 Km /75 miles	
Channel Bandwidth	5, 10, 20 MHz	5 MHz
Modem Operations	Single chain or 2X2 Diversity or 2X2 MIMO	
Modulation	Adaptive modulation and coding (BPSK/QPSK/16QAM/64QAM)	
Max Tx Power	25 dBm	
Channel Minimum Step	1 MHz under 3.650-3.675 FCC/IC Band – Restricted Mode 250 KHz under 3.450-3.650 IC Band and 3.400-3.700 Universal	
Duplex Technology	TDD	
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6	
Encryption	AES 128	
TDD Synchronization	Inter site and Intra site synchronization (up to 16 collocated links)	
Ethernet		
Number of Ports	2 in IDU-C and IDU-E; 1 in PoE device 10/100BaseT with Auto-Negotiation (IEEE 802.3u) Framing/Coding IEEE 802.3	
QoS	4 level queues based on ToS, 802.1P	
VLAN	802.1Q, 802.1P and QinQ Tagging (supported in IDU-C and IDU-E RW-71XX)	
Link Symmetry	Adaptive or Fixed Asymmetric	
Maximum Information Rate	Configurable in steps of 1Kbps	
Latency	Latency 3 msec (typical)	
Service Protection	Built in support: 1+1 and Ring topology	
TDM		
Number of Ports	Up to 16E1s/ T1s	Up to 3 E1s/4 T1s
Timing	Independent timing per port, Tx and Rx	
Latency	Configurable: 5-20 msec (default: 8 msec)	
Service Protection	Monitored Hot Standby (MHS) 1+1 in IDU-C	
Mechanical		
Dimensions and Weight	ODU with Integrated Antenna: 37.1cm(w) x 37.1cm(h) x 11cm(d); 3.5 kg / 7 lbs ODU Connectorized: 19.5cm(w) x 27.0cm(h) x 8.0cm(d); 1.8 kg / 3.6 lbs	
Power		
Power Consumption	<35W (IDU + ODU), <25W (ODU+PoE device)	
Environmental		
Operating Temperatures	ODU: -35°C - 60°C / -31°F to 140°F IDU: 0°C to 50°C / 32°F to 122°F	
Humidity	ODU: 100% condensing, IP67 (totally protected against dust and against immersion up to 1m) IDU-C: 90% non-condensing	
Safety		
FCC/IC (CTVUs)	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	



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