RADWIN Alpha Model

Point-to-Point Radio - Data Sheet (RW2000/ODU/Alpha/F54/ETSI/INT/50M)

RW-2250-6H50

Product Description

RW-2250-6H50 is a carrier-class radio that belongs to the RADWIN 2000 Alpha Series and supports 5.4 to 5.8 GHz frequency range.

The Radio complies with ETSI regulation with a factory default of 5.4 GHz ETSI.

RW-2250-6H50 delivers up to 50 Mbps throughput and up to 250Mbps upgradeable by license key.

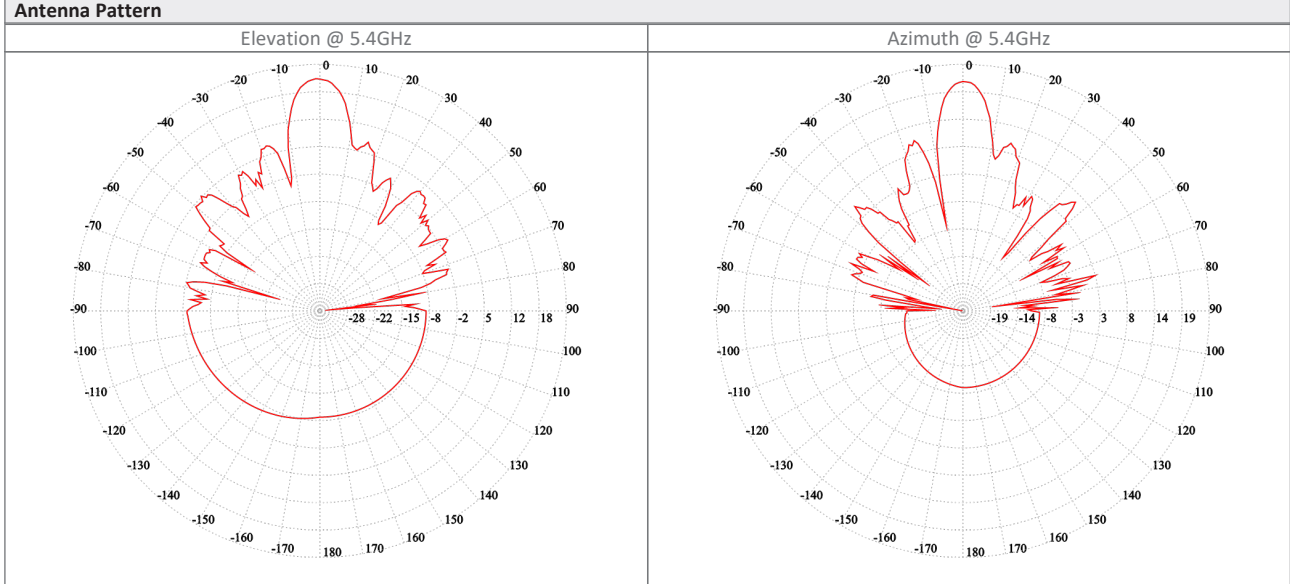The unit includes an integrated antenna.

Product Highlights

- Up to 50 Mbps net aggregated throughput (upgradeable to 250Mbps by license key)
- Telco-grade, extremely robust in harsh conditions
- Supports intra-site synchronization to maximize capacity
- Configurable asymmetric throughput
- Advanced OFDM & MIMO technologies for operation in nLOS/NLOS and dense radio environments
- Integrated 22dBi antenna
- IP-67
- Can operate as SU PRO
- Support AES 256 encryption over the air (from release 5.1.30)

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Product Specifications:

Configuration	
Architecture	Outdoor Unit with an integrated antenna
PoE to ODU Interface	Outdoor CAT-5e; Maximum cable length: 100m for 10/100BaseT and 75m for 1000BaseT

Radio	
Max Capacity	50 Mbps net aggregate throughput. Upgradable to 250 Mbps with license key
Range	Up to 40 km / 25 miles *
Channel Bandwidth	Configurable: 10, 20, 40, 80 MHz (for the default band); Dynamic Channel BW selection (20/40/80 MHz)
Modulation	MIMO-OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)
Adaptive Modulation & Coding	Supported
Automatic Channel Selection	Supported upon power up
DFS	Supported (ETSI)
Diversity	Supported
Spectrum Viewer	Supported
Max Tx Power	26 dBm per chain; max EIRP 30 dBm (for the default band)
Duplex Technology	TDD
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6
Encryption	AES 256
Uplink / Downlink Allocation	Configurable: Symmetric or Asymmetric
QoS	Packet classification to 4 priority queues according to 802.1P or Diffserv
VLAN Support	802.1Q, QinQ, 4094 VLANs
TDD Intra Site Synchronization	Supported
TDD Inter Site Synchronization	Supported through common GPS receiver per site
ODU Management	IPv4/IPv6 dual-stack; SNMPv1, SNMPv3; HTTP/HTTPS using web browser
Option 82	Supported
RADIUS Authorization	Supported
RADIUS User authentication	Supported
Syslog	Supported
Dying gasp	**Supported (PoE voltage must be >= 55v)

Supported Bands					
Band	CBW 10MHz [GHz]	CBW 20MHz [GHz]	CBW 40MHz [GHz]	CBW 80MHz [GHz]	Radio Compliance
5.4 GHz ETSI (default)	5.475-5.705	5.470-5.710	5.490-5.690	5.490-5.650	ETSI EN 301 893
5.8 GHz ETSI	-	5.735-5.865	-	-	ETSI EN 302 502

Mechanical	
ODU Dimensions	32.5(w) x 32.5(h) x 6.4(d) cm
ODU Weight	2 kg / 4.41 lbs

Power	
Power Feeding	Power provided over ODU-IDU cable
Power Consumption	<13W
Network Device	
AC POE	RW-9921-400x
DC POE	RW-9921-2059

Environmental	
Operating Temperatures	-35°C to 60°C / -31°F to 140°F
Humidity	100% condensing, IP67 (totally protected against dust and against immersion in water up to 1m)
MTBF	4,075,000 hours (Telcordia SR332 @25°C)
Wind Resistance operational	180Km/h

Safety	
US/CAN (cTUVus)	UL 60950-1, UL 60950-22, CAN/CSA C22.2 60950-1, CAN/CSA C22.2 60950-22
CE/IEC	EN/IEC 60950-1, EN/IEC 60950-22

EMC	
FCC	47 CFR, Part15, Subpart B, Class B
ETSI	EN 301 489-1, EN 301 489-4, EN 301 489-17
CAN/CSA-CEI/IEC	AS/NZS, CISPR 32 2015 Class B

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Integrated Antenna

Gain	21 dBi
VSWR	2.0 : 1
3 dB Azimuth Beamwidth	10 Deg. (typ)
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes Level	-12 dB(typ)
Cross Polarization	-25dB (typ)
F/B Ratio	-25 dB
Port To Port Isolation	30 dB (typ)
Lightning Protection	DC Grounded

Antenna Pattern

Elevation @ 5.4GHz	Azimuth @ 5.4GHz

Ordering Info

Part Number: RW-2250-6H50

Description: RADWIN Alpha ODU, with an integrated antenna, supporting multi frequency bands at 5.x GHz, factory default 5.4 GHz ETSI.

* May be limited by regulation in the specific band being used

Datasheet information can be changed by manufacturer without prior notice