

## RADWIN Alpha Model

Point-to-Point Radio - Data Sheet (RW2000/ODU/Alpha/F64/UNI/INT/250M/25)



RW-2964-6HB0

### Product Description

RW-2964-6HB0 is a carrier-class radio that belongs to the RADWIN Alpha Model and supports 5.1 to 6.4 GHz frequency range.

RW-2964-6HB0 delivers up to 250 Mbps throughput.

The unit includes an integrated antenna.

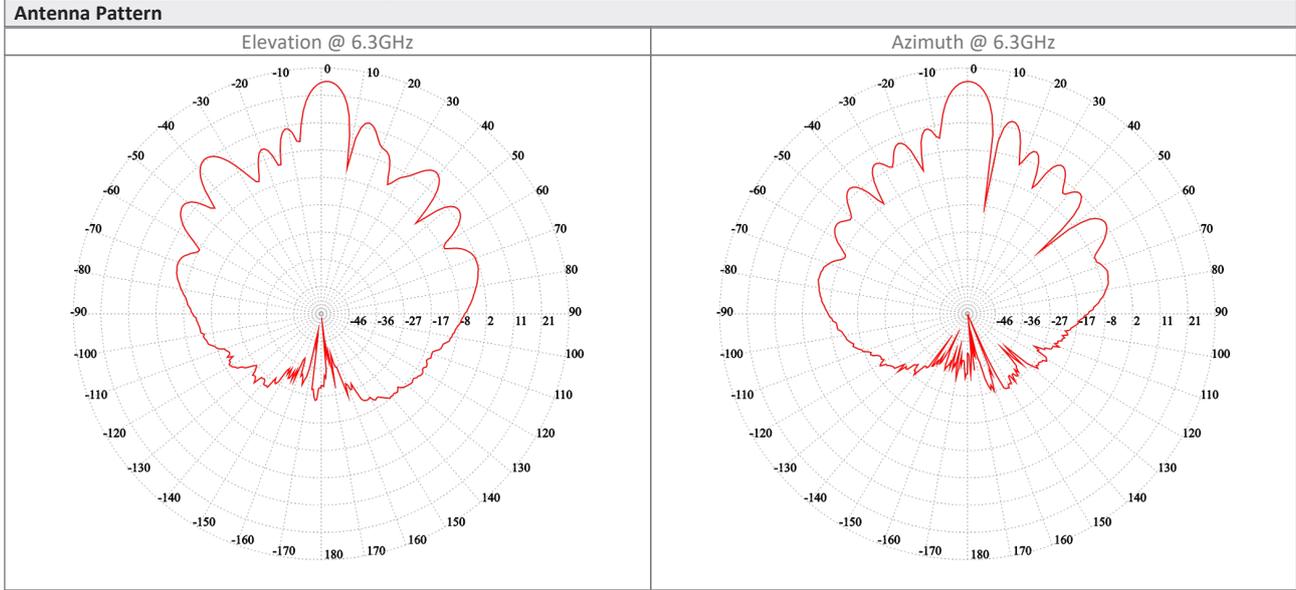
### Product Highlights

- Up to 250 Mbps net aggregated throughput
- Telco-grade, extremely robust in harsh conditions
- Supports intra-site and inter-site synchronization via optional GPS receiver
- Configurable asymmetric throughput
- Advanced OFDM & MIMO technologies for operation in nLOS and dense radio environments
- Integrated 25dBi antenna
- IP-67
- Can operate as PtMP subscriber
- Support AES 256 encryption over the air (from release 5.1.30)

## 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	250 Mbps net aggregate throughput				
Range	Up to 120 km / 75 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	Not Supported				
Diversity	Supported				
Spectrum Viewer	Supported				
Max Tx Power	24 dBm per chain				
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 via built-in GPS receiver				
TDD Inter Site Synchronization	Supported via built-in GPS receiver				
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				
Supported Bands					
Band	CBW 10MHz [GHz]	CBW 20MHz [GHz]	CBW 40MHz [GHz]	CBW 80MHz [GHz]	Radio Compliance
5.1 GHz Universal	5.100-5.950	5.100-5.950	5.100-5.950	5.100-5.950	Universal
6.4 GHz Universal (default)	5.950-6.425	5.950-6.425	5.950-6.425	5.950-6.425	Universal
Mechanical					
ODU Dimensions	37.0(w) x 37.0(h) x 11.5(d) cm				
ODU Weight	3.4 kg / 7.50 lbs				
Mounting Kit	Included				
Power					
Power Feeding	Power provided over ODU-IDU cable				
Power Consumption	<13W				
Network Device	802.3at Class 4 (30W)				
AC POE	RW-9921-400x				
DC POE	RW-9921-2069				
Package Content					
Package	Radio unit with integrated antenna, pole/wall mounting kit, IP67 gland for POE port				
Environmental					
Operating Temperatures	-40°C to 60°C / -40°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 62368-1:2014, UL 60950-22:2017, CAN/CSA-C22.2 NO. 62368-1-14, CAN/CSA-C22.2 No. 60950-22:17				
CE/IEC	Design to meet EN/IEC 62368-1, EN/IEC 60950-22				
EMC					
FCC	Design to meet 47 CFR, Part15, Subpart B, Class B				
ETSI	Design to meet EN 301 489-1, EN 301 489-4, EN 301 489-17				
Canada	Design to meet CISPR 22-10 Class B				
AS/NZS	Design to meet CISPR 32 2015 Class B				

Integrated Antenna	
Gain	25 dBi
Detailed Gain	25 +/- 1 dBi
VSWR	2.0 : 1
3 dB Azimuth Beamwidth	8 Deg. (Typ)
3 dB Elevation Beamwidth	Deg. (Typ)
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes Level	-12db
Cross Polarization	-23db
F/B Ratio	-35db
Port To Port Isolation	-30db
Lightning Protection	DC Grounded



**Ordering Info**

**Part Number:** RW-2964-6HB0

**Description:** RADWIN Alpha ODU, with an integrated antenna, supporting multi frequency bands at 5.x GHz, factory default 6.4 GHz Universal.

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

Datasheet information can be changed by manufacturer without prior notice