

RADWIN Alpha Model

Point-to-Point Radio - Data Sheet (RW2000/ODU/Alpha/F54/ETSI/EMB/250M)



RW-2250-63B0

Product Description

RW-2250-63B0 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-2250-63B0 delivers up to 250 Mbps throughput.

The unit includes an embedded antenna and connectors (2 x SMA) for the high gain slide-on TurboGain antenna. The connectors can be used for 3rd party external antenna.

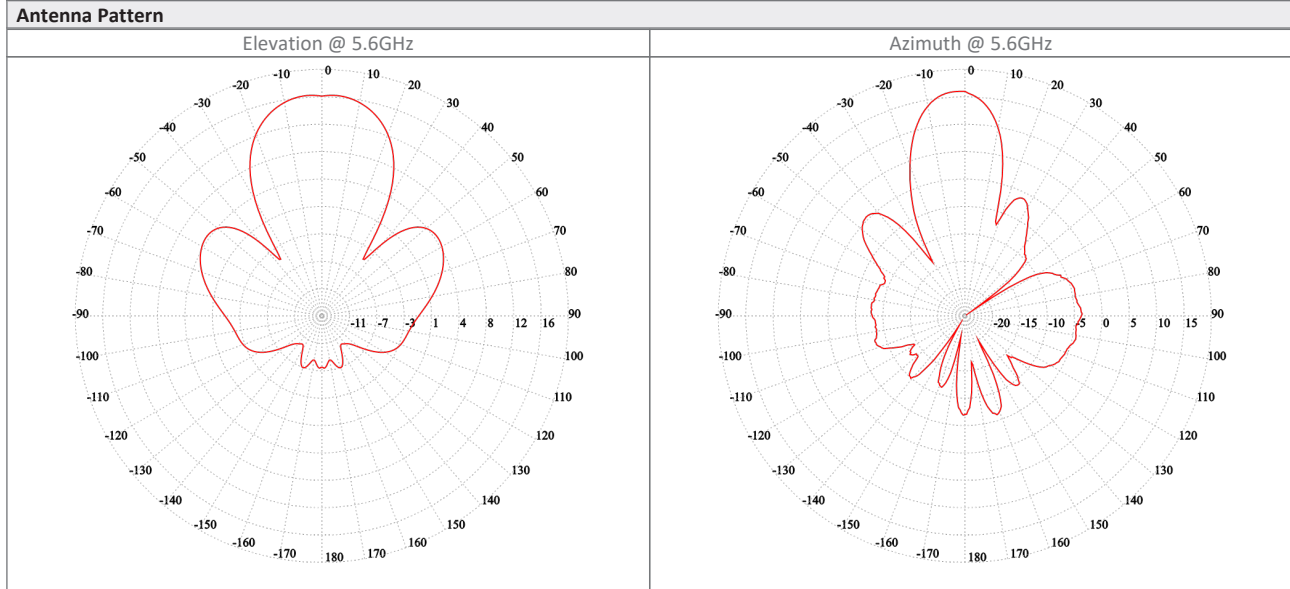
Product Highlights

- Up to 250 Mbps net aggregated throughput
- 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
- Multiple Antenna configuration: 16dBi embedded antenna, 22dBi antenna when using the TurboGain antenna, and has 2 external connectors for attaching external antenna
- IP-67
- Support AES 256 encryption over the air (from release 5.1.30)

Product Specifications:

| Configuration | | | | |
|--------------------------------|---|-----------------|-----------------|------------------|
| Architecture | Outdoor Unit with an embedded antenna and connectors for external antenna (2 x SMA) | | | |
| 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 | Supported (ETSI) | | | |
| Diversity | Supported | | | |
| Spectrum Viewer | Supported | | | |
| Max Tx Power | 24 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 128 | | | |
| Support Indoor units | RADWIN PoE devices (9921-400X) | | | |
| 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 | | | |
| Supported Bands | | | | |
| Band | CBW 20MHz [GHz] | CBW 40MHz [GHz] | CBW 80MHz [GHz] | Radio Compliance |
| 5.4 GHz ETSI (default) | 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 | 18.2(w) x 18.2(h) x 6.0(d) cm | | | |
| ODU Weight | 0.5 kg / 1.10 lbs | | | |
| Power | | | | |
| Power Feeding | Power provided over ODU-IDU cable. Note: DC POE RW-9921-2059 is required in case of external antenna and floating ground DC feed | | | |
| Power Consumption | <13W | | | |
| Environmental | | | | |
| Operating Temperatures | -35°C to 60°C / -31°F to 140°F | | | |
| Humidity | 100% condensing, IP66 | | | |
| 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 | CISPR 22-2010 Class B | | | |

| Integrated Antenna | |
|------------------------|---------------------------------------|
| Gain | 16 dBi |
| VSWR | 1.7:1 |
| 3 dB Azimuth Beamwidth | 17 Deg. (typ) |
| Polarization | Dual Linear (Vertical and Horizontal) |
| Sidelobes Level | -12 dB(typ) |
| Cross Polarization | -30dB (typ) |
| F/B Ratio | -25 dB |
| Port To Port Isolation | 35 dB (typ) |
| Lightning Protection | DC Grounded |



Ordering Info

Part Number: RW-2250-63B0

Description: RADWIN Alpha ODU, with an embedded antenna and connectorized for external antenna (2 x SMA), 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



Corporate Headquarters, T. +972.3.766.2900, E. sales@radwin.com, www.radwin.com
HaBarzel St 27, Tel Aviv-Yafo, Israel

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