

## **RADWIN 2000 Alpha Series**

Point-to-Point Radio - Data Sheet (RW2000/ODU/Alpha/F58/FCC/INT/250M)



**RW-2050-6HB0**

### **Product Description**

RW-2050-6HB0 is a carrier-class radio that belongs to the RADWIN 2000 Alpha Series and supports 5.1 to 5.8 GHz frequency range.

The Radio complies with FCC/IC & FCC bands with a factory default of 5.8 GHz FCC/IC.

RW-2050-6HB0 delivers up to 250 Mbps throughput.

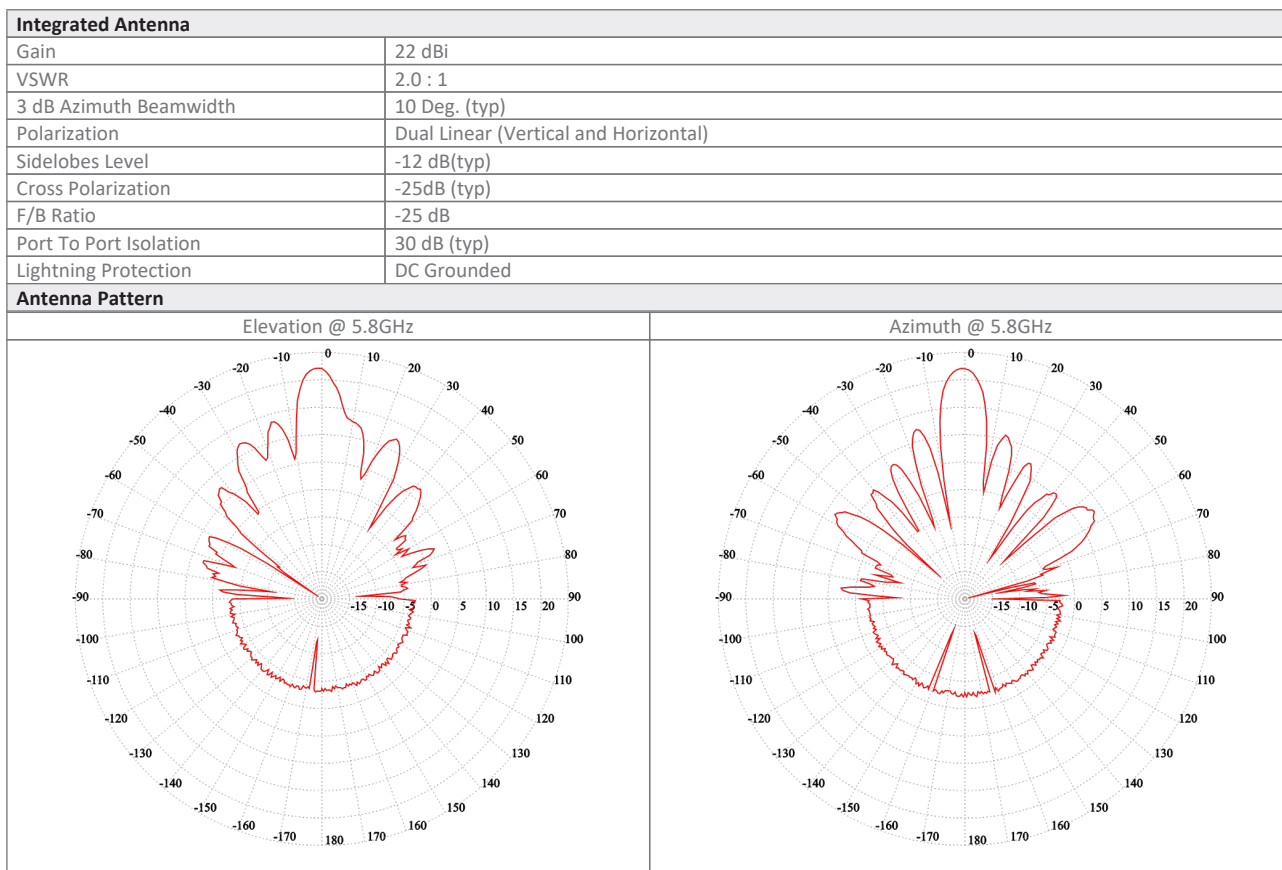
The unit includes an integrated antenna.

### **Product Highlights**

- Up to 250 Mbps net aggregated throughput
- Telco-grade, extremely robust in harsh conditions
- Supports intra-site 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

## 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 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 (FCC)                                                                                      |                 |                 |                 |                                      |
| Diversity                      | Supported                                                                                            |                 |                 |                 |                                      |
| Spectrum Viewer                | Supported                                                                                            |                 |                 |                 |                                      |
| Max Tx Power                   | 21 dBm                                                                                               |                 |                 |                 |                                      |
| Duplex Technology              | TDD                                                                                                  |                 |                 |                 |                                      |
| Error Correction               | FEC k = 1/2, 2/3, 3/4, 5/6                                                                           |                 |                 |                 |                                      |
| Encryption                     | AES 128                                                                                              |                 |                 |                 |                                      |
| Support Indoor units           | RADWIN PoE devices (9921-102X)                                                                       |                 |                 |                 |                                      |
| 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; SNMP v1, 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                     |
| 5.8 GHz FCC/IC (default)       | 5.730-5.845                                                                                          | 5.730-5.845     | 5.730-5.845     | 5.730-5.845     | FCC 47CFR Part 15.407; ISSED RSS-247 |
| 5.1 GHz FCC                    | 5.170-5.250                                                                                          | 5.170-5.250     | 5.170-5.250     | 5.170-5.250     | FCC 47CFR Part 15.407                |
| 5.2 GHz FCC                    | -                                                                                                    | 5.255-5.340     | 5.255-5.340     | 5.250-5.340     | FCC 47CFR Part 15.407                |
| 5.4 GHz FCC                    | -                                                                                                    | 5.480-5.715     | 5.480-5.715     | 5.485-5.715     | FCC 47CFR Part 15.407                |
| 5.1 GHz FCC                    | 5.170-5.845                                                                                          | 5.170-5.845     | 5.170-5.845     | 5.170-5.845     | FCC 47CFR Part 15.407                |
| 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                                                                                                 |                 |                 |                 |                                      |
| 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)       |                 |                 |                 |                                      |
| 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                                                                        |                 |                 |                 |                                      |



#### Ordering Info

**Part Number:** RW-2050-6HB0

**Description:** RADWIN 2000 Alpha ODU, with an integrated antenna, supporting multi frequency bands at 5.x GHz, factory default 5.8 GHz FCC/IC.

Datasheet information can be changed by manufacturer without prior notice