

RADWIN HPMP HBS 5B00 Series

Sector Base Station - Data Sheet (RW5000/HBS/5B00/F35/UNI/JET/INT)



RW-5B00-9635-00

Product Description

RW-5B00-9635-00 is a sector Base Station radio unit (HBS) that provides up to 250 Mbps net aggregate throughput while delivering access connectivity for up to 64 Subscriber Units (HSU).

RW-5B00-9635-00 supports 3.5 GHz and complies with FCC/IC, IC & Universal regulations.

The radio comes with a smart beamforming integrated antenna with embedded GPS.

Product Highlights

- Base station with smart beamforming antenna
- Up to 250 Mbps net aggregated throughput
- Long range - Up to 40 km / 25 miles
- Supports up to 64 HSUs
- Guaranteed Service Level Agreement (SLA) per HSU
- Exceptional short and constant latency
- Single radio supporting multiple bands
- Advanced MIMO, OFDM and Diversity technologies
- Robust and reliable operation in harsh conditions, extreme temperatures and non-line-of-sight scenarios
- Ease of operation and maintenance

Product Specifications:

| Configuration | | | | | | |
|----------------------------------|--|----------------|-----------------|-----------------|-----------------|-----------------|
| Architecture | Outdoor Unit with a smart beamforming integrated antenna with embedded GPS | | | | | |
| 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 | | | | | |
| Subscriber Units (HSUs) support | Up to 64 HSUs | | | | | |
| Range | Up to 40 km / 25 miles | | | | | |
| Channel Bandwidth | Configurable: 5, 7, 10, 14, 20, 40 MHz (for the default band); Dynamic Channel BW selection | | | | | |
| Modulation | MIMO-OFDM (BPSK/QPSK/16QAM/64QAM) | | | | | |
| Adaptive Modulation & Coding | Supported | | | | | |
| Smart Bandwidth Management (DBA) | Supported | | | | | |
| DFS | Not Supported | | | | | |
| Diversity | Supported | | | | | |
| Max Tx Power | 23 dBm (for all modulation scheme) | | | | | |
| Duplex Technology | TDD | | | | | |
| Error Correction | FEC k = 1/2, 2/3, 3/4, 5/6 | | | | | |
| Encryption | AES 128 | | | | | |
| Support Indoor units | RADWIN PoE devices (RW-9921-101X) | | | | | |
| Uplink / Downlink Allocation | Configurable: Symmetric or Asymmetric | | | | | |
| End to End Latency | Typical: 3.5msec @ 2 HSUs; 20msec @ 64 HSUs | | | | | |
| Layer 2 | Bridging learning of 5K MAC addresses | | | | | |
| 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 and v3; HTTP using web browser | | | | | |
| Supported Bands | | | | | | |
| Band | CBW 5MHz [GHz] | CBW 7MHz [GHz] | CBW 10MHz [GHz] | CBW 14MHz [GHz] | CBW 20MHz [GHz] | CBW 40MHz [GHz] |
| 3.6 GHz FCC/IC | 3.6505-3.6995 | - | 3.650-3.700 | - | 3.650-3.700 | 3.650-3.700 |
| 3.5 GHz IC | 3.4755-3.6495 | - | 3.473-3.652 | - | 3.468-3.657 | 3.458-3.667 |
| 3.5 GHz Universal (default) | 3.2975-3.8025 | 3.2975-3.8025 | 3.295-3.805 | 3.293-3.807 | 3.290-3.810 | 3.280-3.820 |
| Band | Radio Compliance | | | | | |
| 3.6 GHz FCC/IC | FCC 47CFR Part 90 subpart Z; IC RSS-197 | | | | | |
| 3.5 GHz IC | IC RSS-192 | | | | | |
| 3.5 GHz Universal (default) | Universal | | | | | |
| Mechanical | | | | | | |
| ODU Dimensions | 35.6(w) x 22.5(h) x 9.4(d) cm | | | | | |
| ODU Weight | 3.3 kg / 7.28 lbs | | | | | |
| Power | | | | | | |
| Power Feeding | Power provided over ODU-IDU cable | | | | | |
| Power Consumption | <30W | | | | | |
| 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 300 386, EN 301 489-1, EN 301 489-4 | | | | | |
| CAN/CSA-CEI/IEC | CISPR 22-2010 Class B | | | | | |

| Integrated Antenna | |
|---------------------------|---------------------------------------|
| Gain | 16 dBi |
| VSWR | 2.0 : 1 |
| 3 dB Azimuth Beamwidth | 90 Deg. (typ) |
| Polarization | Dual Linear (Vertical and Horizontal) |
| Sidelobes Level | -10 dB(typ) |
| Cross Polarization | -25dB (typ) |
| F/B Ratio | -25 dB |
| Port To Port Isolation | 35 dB (typ) |
| Lightning Protection | DC Grounded |

Ordering Info

Part Number: RW-5B00-9635-00

Description: RADWIN HBS 5B00 ODU, with a smart beamforming integrated antenna with embedded GPS, supporting multi frequency bands at 3.x GHz, factory default 3.5 GHz Universal.