RADWIN JET, JET PRO Model

Sector Base Station - Data Sheet (RW5000/HBS-Pro/5BG5/F58/FCC/JET/INT)



RW-5BG5-0650

Product Description

RW-5BG5-0650 is a sector Base Station radio unit (HBS) that provides up to 750 Mbps net aggregate throughput while delivering access connectivity for up to 64 Subscriber Units (HSU).

RW-5BG5-0650 supports 4.9 to 5.8 GHz and complies with FCC & FCC/IC regulations. The radio comes with a smart beamforming integrated antenna with embedded GPS.

Product Highlights

- Base station with smart beamforming antenna
- Up to 750 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 nonline-of-sight scenarios
- Ease of operation and maintenance



Product Specifications:

| Configuration | | | | | | |
|--|--|--|--|--|--|--|
| Architecture | Outdoor Unit w | ith a smart heam | forming integrate | ed antenna with e | mhedded GPS | |
| PoE to ODU Interface | | Outdoor Unit with a smart beamforming integrated antenna with embedded GPS Outdoor CAT-5e; Maximum cable length: 100m for 10/100BaseT and 75m for 1000BaseT | | | | |
| Radio | Outdoor CAT 5 | c, waxiiiaiii cabi | e length. 100m lo | 10/10000301 011 | u 75111 101 1000ba3e1 | |
| Max Capacity | 750 Mbps net aggregate throughput | | | | | |
| Subscriber Units support | Up to 64 subscriber units | | | | | |
| Range | Up to 40 km / 25 miles * | | | | | |
| Channel Bandwidth | Configurable: 10, 20, 40, 80 MHz (for the default band) | | | | | |
| Modulation | MIMO-OFDM (BPSK/QPSK/16QAM/64QAM/256QAM) | | | | | |
| Adaptive Modulation & Coding | Supported | | | | | |
| Smart Bandwidth Management | Supported | | | | | |
| (DBA) | | | | | | |
| DFS | Supported (FCC, FCC/IC) | | | | | |
| Diversity | Supported | | | | | |
| Max Tx Power | 25 dBm per chain; max EIRP 36 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 (RW-9921-101X) | | | | |
| Uplink / Downlink Allocation | Configurable: Symmetric or Asymmetric | | | | | |
| End to End Latency | Typical: 3.5msec @ 2 SUs; 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, | 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 | | | | | |
| 802.1x | Supported | | | | | |
| Option 82 | Supported | | | | | |
| IGMP snooping | Supported | | | | | |
| Nomadic subscribers | 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 | |
| 5.4 GHz FCC | - | 5.480-5.715 | 5.480-5.715 | 5.485-5.715 | FCC 47CFR Part 15.407 | |
| 5.2 GHz FCC/IC | - | 5.255-5.340 | 5.255-5.340 | 5.250-5.340 | FCC 47CFR Part 15.407 | |
| 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; ISED 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 | |
| | 0.17.0 0.1200 | | 3.170 3.230 | 3.170-3.230 | | |
| 4.9 GHz FCC/IC | 4.940-4.990 | 4.940-4.990 | - | - | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 | |
| 4.9 GHz FCC/IC 5.1 GHz FCC | | | | - 5.170-5.845 | FCC 47CFR Part 90 Subpart Y; ISED RSS- | |
| | 4.940-4.990 | 4.940-4.990 | - | - | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 | |
| 5.1 GHz FCC | 4.940-4.990 | 4.940-4.990 5.170-5.845 | - | - | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 | |
| 5.1 GHz FCC Mechanical | 4.940-4.990 5.170-5.845 | 4.940-4.990 5.170-5.845 h) x 9.4(d) cm | - | - | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 | |
| 5.1 GHz FCC Mechanical ODU Dimensions | 4.940-4.990 5.170-5.845 35.6(w) x 22.5(l | 4.940-4.990 5.170-5.845 h) x 9.4(d) cm | - | - | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 | |
| 5.1 GHz FCC Mechanical ODU Dimensions ODU Weight | 4.940-4.990 5.170-5.845 35.6(w) x 22.5(i 3.3 kg / 7.28 lbs | 4.940-4.990 5.170-5.845 h) x 9.4(d) cm | 5.170-5.845 | - | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 | |
| 5.1 GHz FCC Mechanical ODU Dimensions ODU Weight Power | 4.940-4.990 5.170-5.845 35.6(w) x 22.5(i 3.3 kg / 7.28 lbs | 4.940-4.990 5.170-5.845 h) × 9.4(d) cm | 5.170-5.845 | - | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 | |
| 5.1 GHz FCC Mechanical ODU Dimensions ODU Weight Power Power Feeding | 4.940-4.990 5.170-5.845 35.6(w) x 22.5(i 3.3 kg / 7.28 lb: | 4.940-4.990 5.170-5.845 h) x 9.4(d) cm s | 5.170-5.845 | - | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 | |
| 5.1 GHz FCC Mechanical ODU Dimensions ODU Weight Power Power Feeding Power Consumption Environmental Operating Temperatures | 4.940-4.990 5.170-5.845 35.6(w) x 22.5(l 3.3 kg / 7.28 lbs Power provided <30W | 4.940-4.990 5.170-5.845 h) x 9.4(d) cm s d over ODU-IDU c | - 5.170-5.845 able | 5.170-5.845 | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 FCC 47CFR Part 15.407 | |
| 5.1 GHz FCC Mechanical ODU Dimensions ODU Weight Power Power Feeding Power Consumption Environmental Operating Temperatures Humidity | 4.940-4.990 5.170-5.845 35.6(w) x 22.5(l 3.3 kg / 7.28 lbs Power provided <30W | 4.940-4.990 5.170-5.845 h) x 9.4(d) cm s d over ODU-IDU c | - 5.170-5.845 able | 5.170-5.845 | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 | |
| 5.1 GHz FCC Mechanical ODU Dimensions ODU Weight Power Power Feeding Power Consumption Environmental Operating Temperatures Humidity Safety | 4.940-4.990 5.170-5.845 35.6(w) x 22.5(i) 3.3 kg / 7.28 lbs Power provided <30W -35°C to 60°C / 100% condensi | 4.940-4.990 5.170-5.845 h) x 9.4(d) cm s d over ODU-IDU c -31°F to 140°F ng, IP67 (totally p | - 5.170-5.845 able | - 5.170-5.845 dust and against i | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 FCC 47CFR Part 15.407 | |
| 5.1 GHz FCC Mechanical ODU Dimensions ODU Weight Power Power Feeding Power Consumption Environmental Operating Temperatures Humidity Safety US/CAN (cTUVus) | 4.940-4.990 5.170-5.845 35.6(w) x 22.5(i) 3.3 kg / 7.28 lb: Power provided <30W -35°C to 60°C / 100% condensi | 4.940-4.990 5.170-5.845 h) x 9.4(d) cm s d over ODU-IDU c -31°F to 140°F ng, IP67 (totally p | - 5.170-5.845 able protected against | 5.170-5.845 | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 FCC 47CFR Part 15.407 | |
| 5.1 GHz FCC Mechanical ODU Dimensions ODU Weight Power Power Feeding Power Consumption Environmental Operating Temperatures Humidity Safety US/CAN (cTUVus) CE/IEC | 4.940-4.990 5.170-5.845 35.6(w) x 22.5(i) 3.3 kg / 7.28 lb: Power provided <30W -35°C to 60°C / 100% condensi | 4.940-4.990 5.170-5.845 h) x 9.4(d) cm s d over ODU-IDU c -31°F to 140°F ng, IP67 (totally p | - 5.170-5.845 able protected against | - 5.170-5.845 dust and against i | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 FCC 47CFR Part 15.407 | |
| 5.1 GHz FCC Mechanical ODU Dimensions ODU Weight Power Power Feeding Power Consumption Environmental Operating Temperatures Humidity Safety US/CAN (cTUVus) CE/IEC EMC | 4.940-4.990 5.170-5.845 35.6(w) x 22.5(i 3.3 kg / 7.28 lb: Power provided <30W -35°C to 60°C / 100% condensi UL 60950-1, UL EN/IEC 60950-1 | 4.940-4.990 5.170-5.845 h) x 9.4(d) cm s d over ODU-IDU c -31°F to 140°F ng, IP67 (totally p | - 5.170-5.845 able protected against | - 5.170-5.845 dust and against i | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 FCC 47CFR Part 15.407 | |
| 5.1 GHz FCC Mechanical ODU Dimensions ODU Weight Power Power Feeding Power Consumption Environmental Operating Temperatures Humidity Safety US/CAN (cTUVus) CE/IEC EMC FCC | 4.940-4.990 5.170-5.845 35.6(w) x 22.5(i 3.3 kg / 7.28 lbs Power provided <30W -35°C to 60°C / 100% condensi UL 60950-1, UL EN/IEC 60950-1 47 CFR, Part15, | 4.940-4.990 5.170-5.845 h) x 9.4(d) cm s d over ODU-IDU c -31°F to 140°F ng, IP67 (totally p 60950-22, CAN/0 L, EN/IEC 60950-2 Subpart B, Class | - 5.170-5.845 able protected against CSA C22.2 60950-22 B | - 5.170-5.845 dust and against i | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 FCC 47CFR Part 15.407 | |
| 5.1 GHz FCC Mechanical ODU Dimensions ODU Weight Power Power Feeding Power Consumption Environmental Operating Temperatures Humidity Safety US/CAN (cTUVus) CE/IEC EMC | 4.940-4.990 5.170-5.845 35.6(w) x 22.5(i 3.3 kg / 7.28 lbs Power provided <30W -35°C to 60°C / 100% condensi UL 60950-1, UL EN/IEC 60950-1 47 CFR, Part15, | 4.940-4.990 5.170-5.845 h) x 9.4(d) cm s d over ODU-IDU c -31°F to 140°F ng, IP67 (totally p 60950-22, CAN/0 L, EN/IEC 60950-2 Subpart B, Class 301 489-1, EN 30 | - 5.170-5.845 able protected against CSA C22.2 60950-22 B | - 5.170-5.845 dust and against i | FCC 47CFR Part 90 Subpart Y; ISED RSS- 111 FCC 47CFR Part 15.407 | |



| Integrated Antenna | | | | |
|---|--|--|--|--|
| Gain | 20 dBi | | | |
| VSWR | 2.0:1 | | | |
| 3 dB Azimuth Beamwidth | 90 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 | | | |
| Antenna Pattern | | | | |
| Elevation @ 5.8GHz | | Azimuth @ 5.8GHz | | |
| -50 -60 -70 -80 -90 -110 -120 -130 -140 -150 -160 -170 -180 -170 -180 -170 | 30 40 50 60 70 80 6 2 3 7 12 16 21 90 100 110 120 130 140 | -30 -40 -40 -50 -60 -70 -70 -80 -80 -80 -90 -110 -110 -120 -130 -140 -150 -160 -170 -180 -170 -180 -170 -160 -170 -180 -170 -160 -170 -180 -170 -160 -170 -180 -170 -160 -170 -180 -170 -180 -170 -180 -180 -180 -180 -180 -180 -180 -18 | | |

Ordering Info

Part Number: RW-5BG5-0650

Description: RADWIN JET PRO ODU, with a smart beamforming integrated antenna with embedded GPS, 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



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