

RADWIN HPMP 5BG5 Series

Sector Base Station - Data Sheet



RW-5BG5-9649

Product Description

RW-5BG5-9649 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-5BG5-9649 supports 4.9 to 5.9 GHz and complies with Universal, MII, FCC/IC & FCC 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 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	750 Mbps net aggregate throughput				
Subscriber Units (HSUs) support	Up to 64 HSUs				
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 (DBA)	Supported				
DFS	Supported (FCC/IC)				
Diversity	Supported				
Max Tx Power	25 dBm				
Duplex Technology	TDD				
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6				
Encryption	AES 128; FIPS 197				
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 10MHz [GHz]	CBW 20MHz [GHz]	CBW 40MHz [GHz]	CBW 80MHz [GHz]	Radio Compliance
5.1 GHz Universal	5.145-5.340	5.140-5.345	5.130-5.355	5.130-5.375	Universal
5.8 GHz MII	-	5.730-5.845	5.720-5.855	5.700-5.875	CMIIT RTA
5.730-5.845 GHz Universal	5.725-5.850	5.725-5.850	5.725-5.850	5.725-5.850	FCC 47CFR Part 15.247; IC RSS-210
5.4 GHz FCC/IC	5.480-5.715	5.480-5.715	5.480-5.715	5.485-5.715	FCC 47CFR Part 15.407; IC RSS-210
5.2 GHz FCC/IC	5.255-5.345	5.255-5.345	5.255-5.345	5.250-5.350	FCC 47CFR Part 15.407; IC RSS-210
5.8 GHz FCC/IC	5.730-5.845	5.730-5.845	5.730-5.845	5.730-5.845	FCC 47CFR Part 15.247; IC RSS-210
5.4 GHz Universal	5.470-5.725	5.465-5.730	5.455-5.740	5.455-5.760	Universal
5.160-5.245 GHz FCC	5.160-5.245	5.160-5.245	5.155-5.250	5.155-5.250	FCC 47CFR Part 15.407
4.9 GHz FCC/IC	4.940-4.990	4.940-4.990	-	-	FCC 47CFR Part 90 Subpart Y; IC RSS-111
4.9 GHz Universal (default)	4.900-4.995	4.900-4.995	4.900-4.995	4.900-4.995	Universal
5.9 GHz Universal	5.725-5.955	5.720-5.960	5.710-5.970	5.710-5.990	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 up to 1m)				
Safety					
FCC/IC (cTUVus)	UL 60950-1, UL 60950-22, CAN/CSA C22.2 60950-1, CAN/CSA C22.2 60950-22				
ETSI	EN/IEC 60950-1, EN/IEC 60950-22				
EMC					
FCC	47 CFR Class B, Part15, Subpart B				
ETSI	EN 300 386, EN 301 489-1, EN 301 489-4				
CAN/CSA-CEI/IEC	CISPR 22-04 Class B				

Integrated Antenna	
Gain	17 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

Ordering Info

Part Number: RW-5BG5-9649

Description: RADWIN 5BG5 ODU, with a smart beamforming integrated antenna with embedded GPS, supporting multi frequency bands at 5.x GHz, factory default 4.9 GHz Universal.