RADWIN MultiSector, MS Int. Model

Sector Base Station - Data Sheet (RW5000/HBS-MS-PRO/5BG5/F54/UNI/16/INT)

RW-5BG5-9154

Product Description

RADWIN MultiSector base station is a compact 5.x GHz dual-carrier base station that can support up to 4 antennas: two integrated, and two external.

Each carrier feeds one integrated and one external antenna and boosts them with up to 750Mbps net throughput. The integrated 90˚antennas together cover 180˚.

The external antennas are connected to the base station over TNC connectors, either as a self-backhaul or as sector antennas, extending the coverage up to 360˚.

The MultiSector base station includes a built in GPS receiver and antenna for TDD synchronization. It is connected to the WAN over single PoE or SFP.

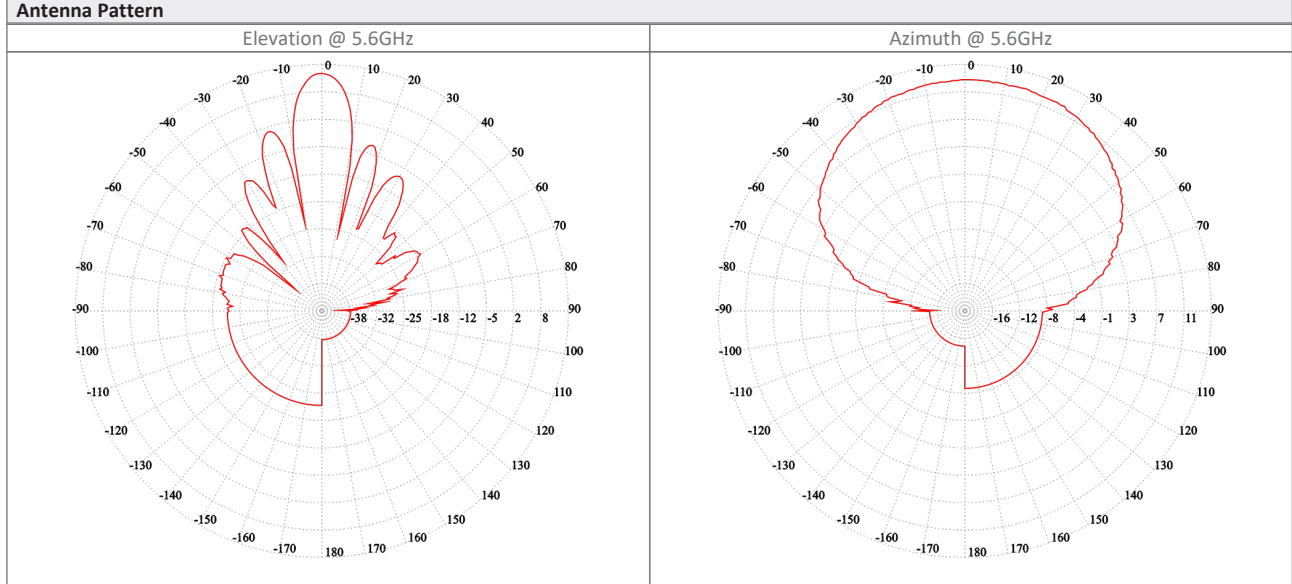RW-5BG5-9154 supports 4.9 to 6 GHz.

Product Highlights

- Dual-carrier base station
- Up to 1.5Gbps (2x750Mbps) net aggregated throughput
- Supports up to 4 antennas: - 2x integrated sector antennas - 2x external antennas (TNC connectors)
- Optional self-backhaul
- Supports up to 16 SUs
- Best-Effort or CIR service level per SU
- Short range applications
- RADWIN class-leading air interface
- Auto MIMO 2x2/Diversity per SU
- Robust and reliable operation in harsh conditions and extreme temperatures
- IP-67 compliant
- Exceptionally compact and easy installation
- Compatible with RADWIN installed base * *Supports SUs and HSUs with software version 4.9.35 and above

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Product Specifications:

Configuration	
Architecture	Outdoor unit with 2 integrated MIMO antennas and additional connectors for 2 external MIMO antennas (4 x TNC)
PoE to ODU Interface MS	Outdoor CAT-5e; Maximum cable length: 75m for 1000BaseT
Data Interfaces	1000BaseT (over PoE) or SFP (1GbE Full Duplex)

Radio	
Max Capacity	1.5 Gbps net aggregate throughput
Subscriber Units support	Up to 16 subscriber units
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	Not Supported
Diversity	Supported
Max Tx Power	23 dBm per chain
ATPC	Supported (uplink)
Duplex Technology	TDD
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6
Encryption	AES 128
Supported Indoor units	RADWIN IDU-S (7401-6006), IDU-H (7301-2006)
Supported POE units	RADWIN Indoor AC PoE devices (9921-104X, 9921-101X), Indoor DC PoE device (9921-2059), outdoor AC PoE device (9921-008X), outdoor DC PoE device (9921-0110)
Uplink / Downlink Allocation	Configurable: Symmetric or Asymmetric
End to End Latency	Typical: 3.5msec @ 2 SUs
Layer 2	Bridging learning of 8K 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 via GPS receiver
TDD Inter Site Synchronization	Supported via GPS receiver
ODU Management	IPv4/IPv6 dual-stack; SNMPv1, SNMPv3; HTTP/HTTPS using web browser

Supported Bands					
Band	CBW 10MHz [GHz]	CBW 20MHz [GHz]	CBW 40MHz [GHz]	CBW 80MHz [GHz]	Radio Compliance
5.4 GHz Universal (default)	5.470-5.725	5.465-5.730	5.455-5.740	5.455-5.760	Universal
5.8 GHz FCC/IC	5.730-5.845	5.730-5.845	5.730-5.845	5.730-5.845	FCC 47CFR Part 15.407; ISED RSS-247
5.1 GHz Universal	5.145-5.340	5.140-5.345	5.130-5.355	5.130-5.375	Universal
5.8 GHz Universal	5.725-5.850	5.725-5.850	5.725-5.850	5.725-5.850	Universal
5.9 GHz Universal	5.725-5.955	5.720-5.960	5.710-5.970	5.710-5.990	Universal
6.0 GHz Universal	5.695-6.055	5.690-6.060	5.680-6.070	5.680-6.090	Universal
4.9 GHz Universal	4.900-4.995	4.900-4.995	4.900-4.995	4.900-4.995	Universal
4.9 GHz Universal	4.895-6.005	4.890-6.010	4.880-6.020	4.860-6.040	Universal
5.1 GHz UBR	5.125-5.880	5.125-5.880	5.125-5.880	5.125-5.880	Universal

Mechanical	
ODU Dimensions	24.0(w) x 34.0(h) x 24.0(d) cm
ODU Weight	4.0 kg / 8.82 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 62368-1 2nd edition, IEC/EN/UL/CSA 60950-22:2017
CE/IEC	IEC/EN 62368-1:14+A11:17

EMC	
FCC	47 CFR, Part15, Subpart B, Class B
ETSI	EN 301 489-1, EN 301 489-4, 301 489-17
CAN/CSA-CEI/IEC	ICES-003
AS/NZS	CISPR 32:2015 Class B

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Integrated Antenna	
Gain	12 dBi
VSWR	2.0 : 1
3 dB Azimuth Beamwidth	90 Deg. (typ)
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes Level	-25 dB(typ)
Cross Polarization	-27dB (typ)
F/B Ratio	-30 dB
Port To Port Isolation	40 dB (typ)
Lightning Protection	DC Grounded
Antenna Pattern	

Elevation @ 5.6GHz	Azimuth @ 5.6GHz

Ordering Info

Part Number: RW-5BG5-9154

Description: RADWIN MS Int. ODU, with an integrated antenna, supporting multi frequency bands at 5.x GHz, factory default 5.4 GHz Universal.

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

Datasheet information can be changed by manufacturer without prior notice

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