RADWIN MultiSector, MS Int. Model

Sector Base Station - Data Sheet (RW5000/HBS-MS-PRO/5PG5/F54/ETSI/128/INT)

RW-5PG5-2154

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.
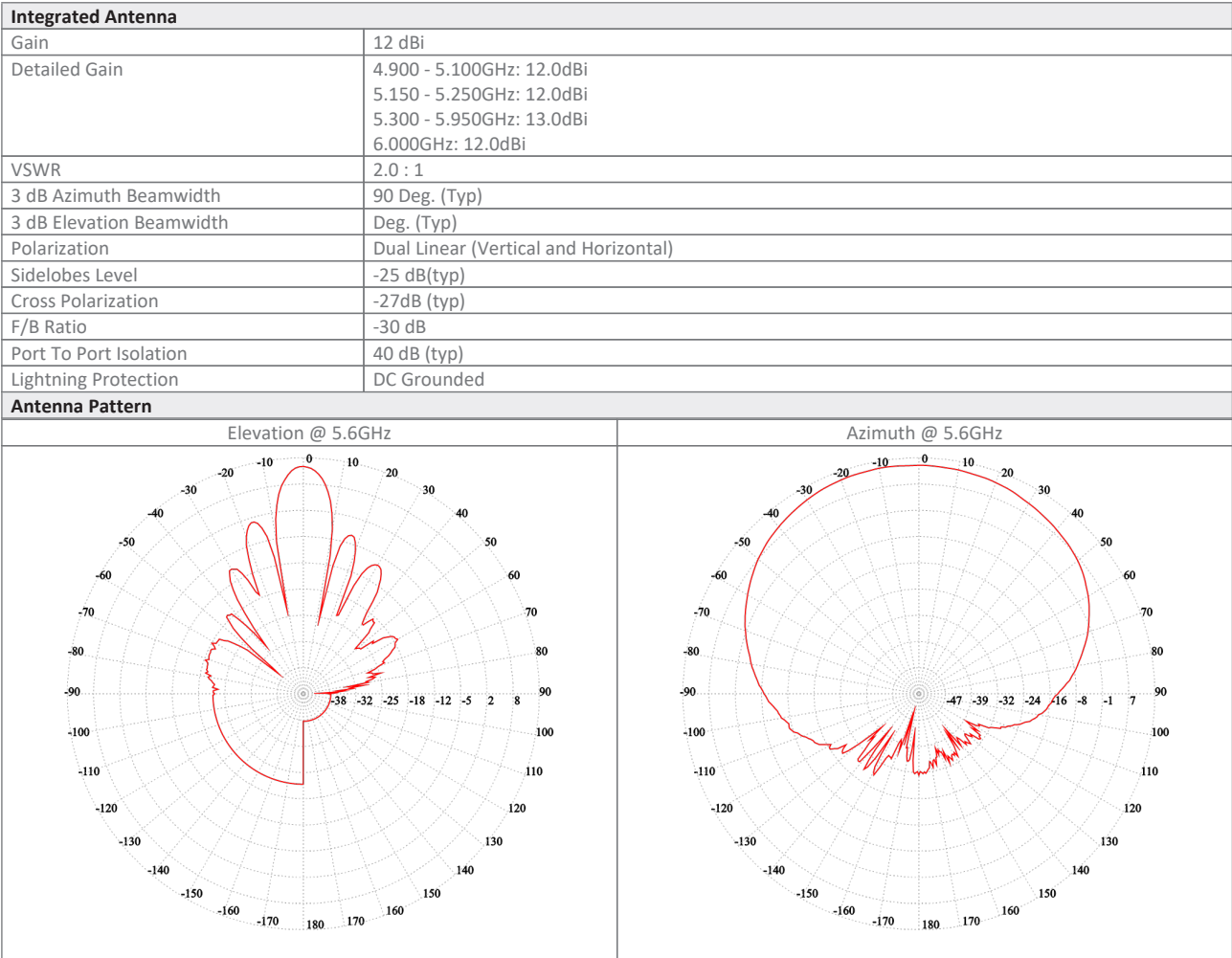
RW-5PG5-2154 supports 5.4 to 5.8 GHz.

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 128 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	10/100/1000 Mbps RJ45 PoE or 1Gbps SFP

Radio	
Max Capacity	1.5 Gbps net aggregate throughput
Subscriber Units support	Up to 128 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	Supported (ETSI)
Diversity	Supported
Max Tx Power	23 dBm per chain; max EIRP 30 dBm (for the default band)
ATPC	Supported (uplink)
Duplex Technology	TDD
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6
Encryption	AES 128
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 built-in GPS receiver
TDD Inter Site Synchronization	Supported via built-in GPS receiver
ODU Management	IPv4/IPv6 dual-stack; SNMPv1, SNMPv3; HTTP/HTTPS using web browser
IGMP snooping	Supported

Supported Bands					
Band	CBW 10MHz [GHz]	CBW 20MHz [GHz]	CBW 40MHz [GHz]	CBW 80MHz [GHz]	Radio Compliance
5.4 GHz ETSI (default)	5.475-5.705	5.470-5.710	5.490-5.690	5.490-5.650	ETSI EN 301 893
5.8 GHz ETSI	5.735-5.865	5.735-5.865	-	-	ETSI EN 302 502

Mechanical	
ODU Dimensions	24.0(w) x 34.0(h) x 24.0(d) cm
ODU Weight	4.0 kg / 8.82 lbs
Mounting Kit	Included

Power	
Power Feeding	Power provided over ODU-IDU cable
Power Consumption	<30W
Network Device	
AC POE	RW-9921-400x
DC POE	RW-9921-2069
Package	Radio unit with integrated antenna and RF connectors, pole/wall mounting kit, IP67 glands for POE and SFP ports

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)
MTBF	TBD hours (Telcordia SR332 @25°C)
Wind Resistance operational	180Km/h

Safety	
US/CAN (cTUVus)	UL 62368-1:2014, UL 60950-22:2017, CAN/CSA-C22.2 NO. 62368-1-14, CAN/CSA-C22.2 No. 60950-22:17
EU/Intl	IEC 62368-1:2014, EN 62368-1:2014/A11:2017, IEC 60950-22:2016, EN 60950-22:2017

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

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Integrated Antenna	
Gain	12 dBi
Detailed Gain	4.900 - 5.100GHz: 12.0dBi
	5.150 - 5.250GHz: 12.0dBi
	5.300 - 5.950GHz: 13.0dBi
	6.000GHz: 12.0dBi
VSWR	2.0 : 1
3 dB Azimuth Beamwidth	90 Deg. (Typ)
3 dB Elevation Beamwidth	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-5PG5-2154
Description: RADWIN MS Int. ODU, with an integrated antenna, supporting multi frequency bands at 5.x GHz, factory default 5.4 GHz ETSI.

* 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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