RADWIN Subscriber Units, SU AIR Model

Subscriber Unit - Data Sheet (RW5000/SU-Air/5HC5/F50/WW/INT)

RW-5HC5-9A50

Product Description

RW-5HC5-9A50 is SU AIR Model, subscriber unit that delivers up to 500 Mbps net aggregate throughput and supports Best-Effort service level.

SU AIR supports 4.9 to 6 GHz.

The radio is compatible with all 5GHz PtMP Base stations and PtP units.

The unit includes an integrated 22dBi antenna.

Product Highlights

- Up to 500 Mbps net aggregated throughput
- Long range - Up to 40 km / 25 miles
- Best Effort Service level
- 22dBi antenna gain
- Short and constant latency
- Advanced MIMO, OFDM and Antenna Diversity
- Robust and reliable operation in harsh environmental conditions including obstructed line-of-sight scenarios
- IP-67
- Simplified installation using a Smartphone app.
- Uniform Global Part Numbering, receiving the regulatory specifications from the base station

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Product Specifications:

Configuration						
Architecture	Outdoor Unit with an integrated antenna					
PoE to ODU Interface	Outdoor CAT-5e; Maximum cable length: 100m for 10/100BaseT and 75m for 1000BaseT					
Radio						
Max Capacity	500 Mbps net aggregate throughput (up to 250 Mbps per direction)					
Channel Bandwidth	Configurable: 10, 20, 40, 80 MHz (for the default band)					
Modulation	MIMO-OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)					
Adaptive Modulation & Coding	Supported					
DFS	Supported (FCC/IC, FCC, ETSI, ETSI/GER, Nigeria, IC, IC, IL, Kazakhstan)					
Diversity	Supported					
Max Tx Power	26 dBm per chain					
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					
Layer 2	HUB Mode					
QoS	Packet classification to 4 priority queues according to 802.1P or Diffserv					
VLAN Support	802.1Q, QinQ, 4094 VLANs					
ODU Management	IPv4/IPv6 dual-stack; SNMPv1, SNMPv3; HTTP/HTTPS using web browser					
Supported Bands						
Band	**CBW 5MHz [GHz]**	**CBW 10MHz [GHz]**	**CBW 20MHz [GHz]**	**CBW 40MHz [GHz]**	**CBW 80MHz [GHz]**	**Radio Compliance**
4.9 GHz FCC/IC	-	4.940-4.990	4.940-4.990	4.940-4.990	-	FCC 47CFR Part 90 Subpart Y; ISED RSS-111
4.9 GHz IC	-	4.940-4.990	4.940-4.990	4.940-4.990	-	ISED RSS-111
4.9 GHz Universal	-	4.895-6.005	4.890-6.010	4.880-6.020	4.860-6.040	Universal
4.9 GHz Universal	-	4.900-4.995	4.900-4.995	4.900-4.995	4.900-4.995	Universal
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
5.1 GHz FCC	-	5.170-5.845	5.170-5.845	5.170-5.845	5.170-5.845	FCC 47CFR Part 15.407
5.1 GHz IC	-	5.170-5.250	5.170-5.250	5.170-5.250	5.170-5.250	SMSE-013-17
5.1 GHz UBR	-	5.125-5.880	5.125-5.880	5.125-5.880	5.125-5.880	Universal
5.1 GHz Universal	-	5.145-5.340	5.140-5.345	5.130-5.355	5.130-5.375	Universal
5.1 GHz WPC	-	5.150-5.875	5.150-5.875	5.150-5.875	5.150-5.875	WPC (India) G.S.R_1048(E) dated 22 October 2018
5.1 GHz WPC/UBR	-	5.150-5.875	5.150-5.875	5.150-5.875	5.150-5.875	Universal
5.2 GHz FCC/IC	-	-	5.255-5.340	5.255-5.340	5.250-5.340	FCC 47CFR Part 15.407
5.2 GHz IC	-	-	5.255-5.340	5.255-5.340	5.250-5.340	ISED RSS-247
5.4 GHz Australia	-	-	5.470-5.710	5.490-5.690	5.490-5.650	ETSI EN 301 893
5.4 GHz ETSI	-	5.475-5.705	5.470-5.710	5.490-5.690	5.490-5.650	ETSI EN 301 893
5.4 GHz FCC	-	-	5.480-5.715	5.480-5.715	5.485-5.715	FCC 47CFR Part 15.407
5.4 GHz IC	-	-	5.480-5.715	5.480-5.715	5.485-5.600	ISED RSS-247
5.4 GHz Kazakhstan	-	-	5.470-5.650	5.470-5.650	5.470-5.650	ETSI EN 301 893
5.4 GHz Universal (default)	-	5.470-5.725	5.465-5.730	5.455-5.740	5.455-5.760	Universal
5.7 GHz ETSI/GER	-	-	5.735-5.865	5.735-5.865	5.735-5.865	ETSI EN 302 502; ECC Recommendation (06)04
5.7 GHz 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
5.7 GHz IL	-	-	5.735-5.865	5.735-5.865	5.735-5.865	ETSI EN 302 502 with adaptation per Israeli Wireless Telegraph Regulations
5.7 GHz Nigeria	-	5.735-5.865	5.735-5.865	5.710-5.890	5.690-5.910	ETSI EN 302 502
5.8 GHz Australia	-	-	5.735-5.865	5.725-5.875	5.725-5.875	ETSI EN 302 502; ECC Recommendation (06)04
5.8 GHz ETSI	-	-	5.735-5.865	-	-	ETSI EN 302 502
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
5.8 GHz Kazakhstan	-	-	5.725-5.875	5.725-5.875	5.725-5.875	ETSI EN 302 502
5.8 GHz MII	-	5.725-5.850	5.725-5.850	5.725-5.850	5.725-5.850	CMIIT RTA
5.8 GHz Universal	-	5.725-5.850	5.725-5.850	5.725-5.850	5.725-5.850	Universal
5.8 GHz WPC	5.8275-5.8725	5.825-5.875	5.825-5.875	5.825-5.875	-	WPC (India) G.S.R 38(E) dated 19 January. 2007 Notification
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
Mechanical						
ODU Dimensions	32.5(w) x 32.5(h) x 6.7(d) cm					
ODU Weight	1.22 kg / 2.69 lbs					
Mounting Kit	Included					

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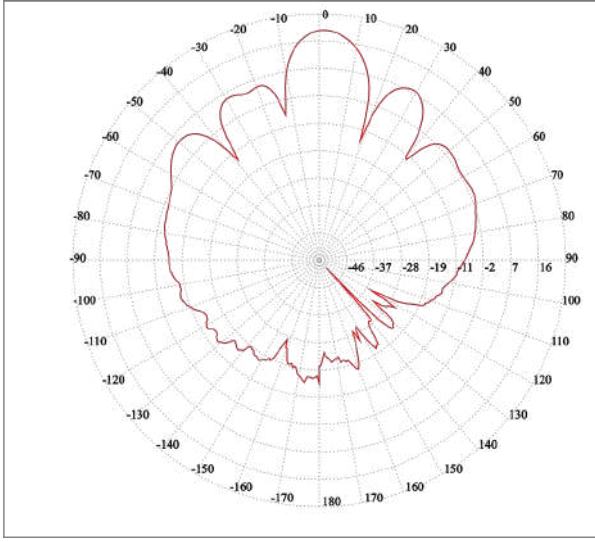
Power	
Power Feeding	Power provided over ODU-IDU cable
Power Consumption	<13W
Network Device	
AC POE	RW-9921-102x (included)
DC POE	RW-9921-2069
Package Content	
Package	Radio unit with integrated antenna, pole/wall mounting kit, IP67 gland for POE port, 24V POE unit and AC Power cable
Environmental	
Operating Temperatures	-35°C to 60°C / -31°F to 140°F
MTBF	4,075,000 hours (Telcordia SR332 @25°C)
Wind Resistance operational	180Km/h
Safety	
EU/Intl	EN/IEC 62368-1, EN/IEC 60950-22
Canada	CAN/CSA-C22.2 No. 62368-1-14, CAN/CSA-C22.2 No. 60950-22
USA	UL 62368-1:2014, UL 60950-22
EMC	
FCC	FCC 47 CFR, Part15, Subpart B, Class B
ETSI	EN 301 489-1, EN 301 489-4, EN 301 489-17
Canada	ICES-003 issue 7, CISPR 32, Class B
AS/NZS	CISPR 32, Class B

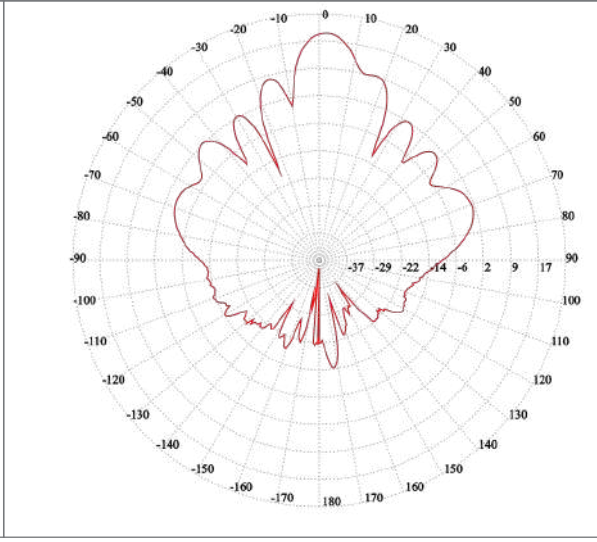
Integrated Antenna	
Gain	21 dBi
Detailed Gain	4.900: 19.0dBi 4.950 - 5.050GHz: 18.0dBi 5.100 - 5.500GHz: 20.0dBi 5.550 - 5.800GHz: 22.0dBi 5.850 - 5.950GHz: 21.0dBi 6.000: 20.0dBi
VSWR	2.0 : 1
3 dB Azimuth Beamwidth	10 Deg. (Typ)
3 dB Elevation Beamwidth	Deg. (Typ)
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes Level	-12 dB(typ)
Cross Polarization	-25dB (typ)
F/B Ratio	-25 dB
Port To Port Isolation	30 dB (typ)
Lightning Protection	DC Grounded

Antenna Pattern

Elevation @ 5.2GHz



Azimuth @ 5.2GHz



Ordering Info

Part Number: RW-5HC5-9A50

Description: RADWIN SU AIR ODU, with an integrated antenna, supporting multi frequency bands at 5.x GHz.

* 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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