RADWIN

SU AIR

Subscriber Unit

Data Sheet

Product overview

SU AIR connectorized is a 500Mbps outdoor Subscriber Unit, that operates in the 5GHz band. SU AIR is compatible with all RADWIN base stations. SU AIR is ideal for residential customers or non-SLA applications. The unit provides four level QoS and ensures a reliable link in congested spectrum and tough path conditions by using RADWIN's field proven air interface. SU AIR channel bandwidth is dynamically selected, separately per transmission or reception direction, guaranteeing maximum link capacity. SU AIR provides impressive packet switching power to guarantee capacity in short packets traffic. Highly reliable, SU AIR complies with the IP 67 standard to reduce truck roll costs.

Product Highlights

- » Up to 500Mbps PtMP subscriber unit
- » 4.9-6.0 GHz
- » Up to 40 km / 25 miles
- » Best-effort service level
- » Automated installation via mobile app.
- » Compatible with all RADWIN Base stations
- » Highly durable - IP 67
- » Available with integrated antenna or with 2x N-type connectors for external antenna
- » Uniform Global Part Numbering, receiving the regulatory specifications from the base station

Product specifications:

Configuration	
Architecture	Outdoor Unit
Wireless Topology	PtMP Subscriber unit
Data interfaces	10/100/1000 Mbps RJ45 PoE
POE and ODU interfaces	Outdoor CAT-5e; Maximum cable length: 75m for 1000BaseT
Radio	
Max Capacity	500 Mbps net aggregate throughput (up to 250 Mbps per direction)
Range	Up to 40 km / 25 miles
Frequency Range	4900 GHz – 6090 GHz*
Channel Bandwidth	Configurable: 10, 20, 40, 80 MHz *
Dynamic Channel BW selection	20/40/80 MHz
Modulation	OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)
Error correction	FEC k = 1/2, 2/3, 3/4, 5/6
Adaptive modulation and Coding	Supported
Duplex technology	TDD
DFS	Supported *
Antenna modes	MIMO 2x2 , diversity , adaptive MIMO/diversity
Dynamic Bandwidth management	Best Effort service level
Max TX power	26 dBm *
Encryption	AES128
Uplink/Downlink allocation	Configurable: Symmetric or Asymmetric
Networking	
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
802.1x	Supported
Option 82	Supported (for PtMP mode)
DHCP filtering	Supported (for PtMP mode)
IGMP snooping	Supported (for PtMP mode)
PPPoE filtering	Supported (for PtMP mode)
RADIUS authorization	Supported (for PtMP mode)
RADIUS User authentication	Supported
Syslog	Supported

*   May be limited by regulation - please refer to technical datasheet for a specific part number

Physical Specification:

Mechanical

	Connectorized Unit	Integrated unit
Dimension	19.5 (w) x 12.5 (h) x 4.0 (d)cm / 7.7" (w) x 4.9" (h) x 1.6" (d)	32.5(w) x 32.5(h) x 6.4(d) cm / 12.8" (w) x 12.8" (h) x 2.5" (d)
Weight	0.5Kg / 1.1lbs	1.22Kg / 2.69lbs
Antenna Interface	2 x N-type	Integrated antenna

Power

Power consumption	<13W
Power feeding	Power provided over ODU-IDU cable
POE nominal voltage	24-56V

Environmental

Operating temperature	-35°C to 60°C / -31°F to 140°F
Humidity	100% condensing
Environmental protection	EN/IEC 60529, IP67, NEMA Type 4 Enclosure

Antenna (for integrated product):

Integrated Antenna

Gain	22 dBi (typical)
VSWR	2.0 : 1
3 dB Azimuth beamwidth	10° (typical)
3 dB Elevation Beamwidth	10° (typical)
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes level	-12 dB(typical)
Cross polarization	-25 dB (typical)
F/B Ratio	25 dB
Port To Port isolation	30 dB (typical)
Lightning protection	DC Grounded

Regulatory compliance:

Radio

USA	FCC 47CFR Part 15.407
Canada	ISED RSS-247
EU	ETSI EN 301 893; ETSI EN 302 502
India	WPC G.S.R_1048(E) dated 22 October 2018
China	CMIIT RTA

Safety

CE/Intl'	EN/IEC 62368-1, EN/IEC 60950-22
USA	cTUVus: UL/CSA-C22.2 62368-1, UL/CSA-C22.2 60950-22
Canada	cTUVus: CSA-C22.2 62368-1, CSA-C22.2 60950-22

EMC

EU	ETSI EN 301 489-1, EN 301 489-4, 301 489-17
USA	FCC 47CFR Part 15 Subpart B, Class B
Canada	ICES-003, CISPR 32
AS/NZS	CISPR 32 Class B

Product ordering:

500Mbps Subscriber Units		
Product Number	**Product Name**	**Regulation**
RW-5CC5-9A50	RW5000/SU-Air/5CC5/F50/WW/EXT	Based location from base station
RW-5HC5-9A50	RW5000/SU-Air/5HC5/F50/WW/EXT	Based location from base station
PoE Units		
Part Number	**Product Name**	**Product Description**
RW-9921-1039	POE/DC/GBE/24-57	DC input 24VDC -57VDC

Package contents:

Radio unit
Pole/wall mounting kit (for Integrated unit)
2x pole mount metal bands (for Connectorized unit)
IP67 Cable gland
AC PoE RW-9921-102X with country specific power cable according to order

Datasheet information can be changed by manufacturer without prior notice