

RADWIN

SU AIR Integrated PtMP Subscriber Unit

Data Sheet



Product Overview

SU AIR is an attractively priced 500Mbps outdoor Subscriber Unit with an integrated antenna, that operates in the 5GHz band. SU AIR is interoperable with all RADWIN 5GHz base stations.

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 is designed to provide impressive packet switching power to guarantee capacity in short packets traffic.

Highly durable, SU AIR complies with the IP 67 standard to reduce truck roll costs.

Product Highlights

- » Up to 500Mbps Subscriber unit
- » 22dBi Integrated antenna
- » 4.9-6.0 GHz
- » Up to 40 km / 25 miles
- » Best-effort service level
- » Automated installation via mobile app
- » Interoperable with all RADWIN Base stations
- » Highly durable - IP 67

Product specifications:

Configuration	
Architecture	Outdoor Unit with integrated antenna
Wireless topology	PtMP Subscriber unit
POE and ODU interfaces	Outdoor CAT-5e; Maximum cable length: 75m for 1000BaseT
Radio	
Max capacity	500 Mbps net aggregate throughput (up to 250Mbps per direction)
Range	Up to 40 km / 25 miles
Channel bandwidth	Configurable: 10, 20, 40, 80 MHz (for the default band)
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 only
Max TX power	26 dBm
Encryption	AES128
Uplink/Downlink allocation	Configurable: Symmetric or Asymmetric
Networking	
Sub convergence layer	Layer2, 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
802.1x	Supported
Option 82	Supported
DHCP filtering	Supported
IGMP snooping	Supported
PPPoE filtering	Supported
RADIUS authorization	Supported
RADIUS user authentication	Supported
Syslog	Supported

Physical Specification:

Mechanical	
Dimension	32.5(w) x 32.5(h) x 6.4(d) cm / 12.8" (w) x 12.8" (h) x 2.5" (d)
Weight	1.22Kg / 2.69lbs
Power	
Power consumption	<13W
Power feeding	Power provided over ODU-IDU cable
Environmental	
Operating temperature	-35°C to 60°C / -31°F to 140°F
Humidity	100% condensing
Enclosure protection	IP67 per EN/IEC 60529, NEMA Type 4 Enclosure

Antenna:

Integrated Antenna

Gain	22 dBi
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	ESTI EN 301 893; ETSI EN 301 502

Safety

CE/IEC	EN/IEC 62368-1, EN/IEC 60950-22
USA/Canada (cTUVus)	UL/CSA-C22.2 62368-1, UL/CSA-C22.2 60950-22

EMC

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

Supported Bands:

Band	Occupied Bandwidth Support	EIRP[dBm]	Radio Compliance
5.8 GHz FCC/ISED	5.730-5.845 GHz	36	FCC 47CFR Part 15.407, ISED RSS-247
5.4 GHz FCC/ISED	5.480-5.715 GHz	30	FCC 47CFR Part 15.407, ISED RSS-247
5.2 GHz FCC	5.250-5.340 GHz	30	FCC 47CFR Part 15.407, ISED RSS-247
5.1 GHz FCC	5.170-5.845 GHz	36	FCC 47CFR Part 15.407
4.9 GHz Universal	4.900-4.995 GHz	44	Universal
5.1 GHz Universal	5.130-5.375 GHz	44	Universal
5.4 GHz Universal	5.455-5.760 GHz	44	Universal
5.9 GHz Universal	5.725-5.850 GHz	45	Universal
6.0 GHz Universal	5.680-6.090 GHz	50	Universal
5.1 GHz Unified Universal	5.125-5.880 GHz	50	Universal
5.4 GHz ETSI	5.470-5.710 GHz	30	EN 301 893
5.8 GHz ETSI	5.735-5.865 GHz	36	EN 302 502
5.8 GHz ETSI/GER	5.735-5.865 GHz	36	EN 302 502 and ECC Recommendation (06)04

Product ordering:

Radio units			
Part Number	Name/Description	Regulation	Default
RW-5HC5-0A58	RW5000/SU-Air/5HC5/F58/FCC/INT	FCC	5.8GHz
RW-5HC5-1A54	RW5000/SU-Air/5HC5/F54/IC/INT	IC/ISED	5.4 GHz
RW-5HC5-2A54	RW5000/SU-Air/5HC5/F54/ETSI/INT	ETSI	5.4 GHz
RW-5HC5-9A50	RW5000/SU-Air/5HC5/F54/UNI/INT	Universal	5.4 GHz
RW-5HC5-NA58	RW5000/SU-Air/5HC5/F58/Nigeria/INT	Nigeria	5.8 GHz
PoE units			
Part number	Product name	Part description	
RW-9921-1039	POE/DC/GBE/24-57	DC input 24VDC -57VDC	
RW-9921-102X	POE/AC/GBE/24V	AC input 100VAC – 240VAC See POE datasheet for country specific power plug	

Package contents:

Radio unit

Mounting Kit

IP67 Cable gland

AC PoE RW-9921-102X with country specific power cable according to order