RADWIN SU-AIR 50 Series

Subscriber Unit - Data Sheet (RW5000/SU-Air/5650/F54/ETSI/EMB)



RW-5650-2A54

Product Description

RW-5650-2A54 is a best effort (AIR) Subscriber Unit (SU). This SU provides high capacity access of up to 50 Mbps net aggregate throughput.

RW-5650-2A54 supports 5.4 to 5.8 GHz and complies with ETSI regulations.

The radio comes with an embedded antenna and is connectorized (2 x SMA) for usage with the RADWIN TurboGain antenna. 3rd party antennas will be supported based on a future software upgrade.

Product Highlights

- Up to 50 Mbps net aggregated throughput
- Long range Up to 40 km / 25 miles
- Best Effort Service support
- Multiple Antenna configuration
- - 16dBi embedded antenna
- 22dBi antenna whenusing the RADWIN TurboGain external antenna
- 3rd party external antenna (based on a future software upgrade)
- Short and constant latency
- Advanced MIMO, OFDM and Diversity technologies
- Robust and reliable operation in harsh conditions, extreme temperatures and obstructed line-of-sight scenarios
- IP-66 rating
- Unique simplified installation through Smartphone app.



Product Specifications:

Configuration							
Architecture	Outdoor Unit w	ith an embedded	l antenna and cor	nectorized for ex	ternal antenna (2 x SMA)		
PoE to ODU Interface	Outdoor CAT-5	e; Maximum cabl	e length: 100m fo	r 10/100BaseT an	d 75m for 1000BaseT		
Radio							
Max Capacity	50 Mbps net ag	50 Mbps net aggregate throughput; Upgradable to 100 Mbps with license key					
Channel Bandwidth	Configurable: 10, 20, 40, 80 MHz (for the default band); Dynamic Channel BW selection (20/40/80 MHz)						
Modulation	MIMO-OFDM (BPSK/QPSK/16QA	M/64QAM/256Q	AM)			
Adaptive Modulation & Coding	Supported						
DFS	Supported (ETSI)						
Diversity	Supported						
Max Tx Power	24 dBm; max E	24 dBm; max EIRP 30 dBm (for the default band)					
Duplex Technology	TDD	TDD					
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6						
Encryption	AES 128; FIPS 197						
Support Indoor units	RADWIN PoE de	RADWIN PoE device (included in the package); pinout: (+) pins 4/5, (-) pins 7/8					
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 dual-stack; SNMP v1; HTTP using web browser						
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	EN 301 893		
5.8 GHz ETSI	5.735-5.865	5.735-5.865	-	-	EN 302 502		
Mechanical			1				
ODU Dimensions	18.2(w) x 18.2(h) x 6.0(d) cm						
ODU Weight	0.5 kg / 1.10 lbs						
Power	7						
Power Feeding	Power provided over ODU-IDU cable						
Power Consumption	<12W						
Environmental							
Operating Temperatures	-35°C to 60°C / -31°F to 140°F						
Humidity	100% condensing, IP66						
Safety		_					
	UL 60950-1, UL 60950-22, CAN/CSA C22.2 60950-1, CAN/CSA C22.2 60950-22						
US/CAN (cTUVus)	UL 60950-1, UL	00930-22, CAN/	JA CZZ.Z 00950-	1, 0, 114, 00, 1 022.2			
		L, EN/IEC 60950-2		1, 0, 114, 00, 1 022.2			
				1, 0, 114, 00, 1 022.2			
CE/IEC EMC	EN/IEC 60950-1		2	1, 6/11/1/25/1/22/2			
CE/IEC	EN/IEC 60950-1 47 CFR, Part15,	L, EN/IEC 60950-2	2 B	i, chiny controller			



Integrated Antenna					
Gain	16 dBi				
VSWR	1.7:1				
3 dB Azimuth Beamwidth	17 Deg. (typ)				
Polarization	Dual Linear (Vertical and Horizontal)				
Sidelobes Level	-12 dB(typ)				
Cross Polarization	-30dB (typ)				
F/B Ratio	-25 dB				
Port To Port Isolation	35 dB (typ)				
Lightning Protection	DC Grounded				
Antenna Pattern					
Elevation @ 5.	6GHz	Azimuth @ 5.6GHz			
-50 -60 -70 -80 -90 -110 -110 -120 -130 -160 -170 180	30 40 50 60 70 80 -15 -10 \$ 0 5 10 15 90 100 110 120 130 140	-30 -10 0 10 20 30 40 40 .50 .50 .50 .50 .50 .50 .50 .50 .50 .5			

Ordering Info

Part Number: RW-5650-2A54

Description: RADWIN SU-AIR 50 ODU, with an embedded antenna and connectorized for external antenna (2 x N-type), supporting multi frequency bands at 5.x GHz, factory default 5.4 GHz ETSI.

