

## RADWIN Subscriber Units, SU PRO Model

Subscriber Unit - Data Sheet (RW5000/SU-Pro/5650/F54/UNI/EMB)



RW-5650-9P54

### Product Description

RW-5650-9P54 is SU PRO, Connectorized subscriber unit that delivers up to 50 Mbps net aggregate throughput and supports SLA (CIR) or Best-Effort service level.

SU PRO supports 4.9 to 6 GHz and complies with Universal, FCC/IC, MII & UBR regulations.

The unit includes an embedded antenna and connectors (2 x SMA) for the high gain slide-on TurboGain antenna. The connectors can be used for 3rd party external antenna.

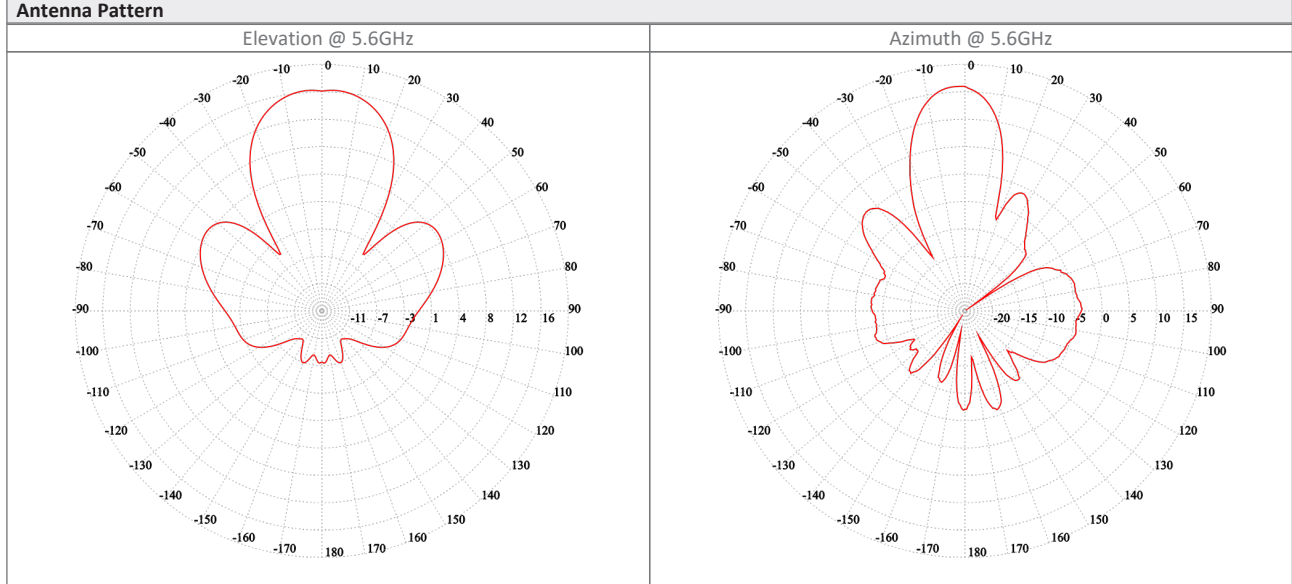
### Product Highlights

- Up to 50 Mbps net aggregated throughput, upgradable to 250Mbps
- Long range - Up to 40 km / 25 miles
- Guaranteed Service Level Agreement based on CIR or Best Effort Service level
- Multiple Antenna configuration: 16dBi embedded antenna, 22dBi antenna when using the TurboGain antenna, and 3rd party external antenna
- 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-66
- Simplified installation using a Smartphone app.

## Product Specifications:

Configuration				
Architecture	Outdoor Unit with an embedded antenna and connectors for external antenna (2 x SMA)			
PoE to ODU Interface	Outdoor CAT-5e; Maximum cable length: 100m for 10/100BaseT and 75m for 1000BaseT			
Radio				
Max Capacity	50 Mbps net aggregate throughput; Upgradable to 250 Mbps with license key			
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	MIMO-OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)			
Adaptive Modulation & Coding	Supported			
Automatic Channel Selection	Supported upon power up			
DFS	Not Supported			
Diversity	Supported			
Max Tx Power	24 dBm per chain			
Duplex Technology	TDD			
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6			
Encryption	AES 128			
Support Indoor units	RADWIN PoE devices (9921-102X, included in the package)			
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			
802.1x	Supported			
Option 82	Supported			
Non PPPoE filtering	Supported			
DHCP Filter	Supported			
IGMP snooping	Supported			
Nomadic subscribers	Supported			
RADIUS Authorization	Supported			
RADIUS User authentication	Supported			
Syslog	Supported			
Supported Bands				
Band	CBW 20MHz [GHz]	CBW 40MHz [GHz]	CBW 80MHz [GHz]	Radio Compliance
5.4 GHz Universal (default)	5.465-5.730	5.455-5.740	5.455-5.760	Universal
5.8 GHz FCC/IC	5.730-5.845	5.730-5.845	5.730-5.845	FCC 47CFR Part 15.407; ISED RSS-247
4.9 GHz Universal	4.900-4.995	4.900-4.995	4.900-4.995	Universal
6.0 GHz Universal	5.690-6.060	5.680-6.070	5.680-6.090	Universal
5.9 GHz Universal	5.720-5.960	5.710-5.970	5.710-5.990	Universal
5.8 GHz Universal	5.725-5.850	5.725-5.850	5.725-5.850	Universal
5.1 GHz Universal	5.140-5.345	5.130-5.355	5.130-5.375	Universal
5.8 GHz MII	5.725-5.850	5.725-5.850	5.725-5.850	CMIIT RTA
5.1 GHz UBR	5.125-5.880	5.125-5.880	5.125-5.880	Universal
Mechanical				
ODU Dimensions	18.2(w) x 18.2(h) x 6.0(d) cm			
ODU Weight	0.5 kg / 1.10 lbs			
Power				
Power Feeding	Power provided over ODU-IDU cable. Note: DC POE RW-9921-2059 is required in case of external antenna and floating ground DC feed			
Power Consumption	<13W			
Environmental				
Operating Temperatures	-35°C to 60°C / -31°F to 140°F			
Humidity	100% condensing, IP66			
Safety				
US/CAN (cTUVus)	UL 60950-1, UL 60950-22, CAN/CSA C22.2 60950-1, CAN/CSA C22.2 60950-22			
CE/IEC	EN/IEC 60950-1, EN/IEC 60950-22			
EMC				
FCC	47 CFR, Part15, Subpart B, Class B			
ETSI	EN 301 489-1, EN 301 489-4, EN 301 489-17			
CAN/CSA-CEI/IEC	CISPR 22-2010 Class B			

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



**Ordering Info**

Part Number: RW-5650-9P54

Description: RADWIN SU PRO ODU, with an embedded antenna and connectorized for external antenna (2 x SMA), supporting multi frequency bands at 5.x GHz, factory default 5.4 GHz Universal.

\* May be limited by regulation in the specific band being used

Datasheet information can be changed by manufacturer without prior notice