

RADWIN Alpha Model

Point-to-Point Radio - Data Sheet (RW2000/ODU/Alpha/F54/UNI/EMB/500M)



RW-2954-63C5

Product Description

RW-2954-63C5 is a carrier-class radio that belongs to the RADWIN 2000 Alpha Series and supports 4.9 to 6 GHz frequency range.

The Radio complies with Universal, FCC/IC, MII, UBR, ETSI & ETSI/GER bands with a factory default of 5.4 GHz Universal.

RW-2954-63C5 delivers up to 500 Mbps throughput.

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.

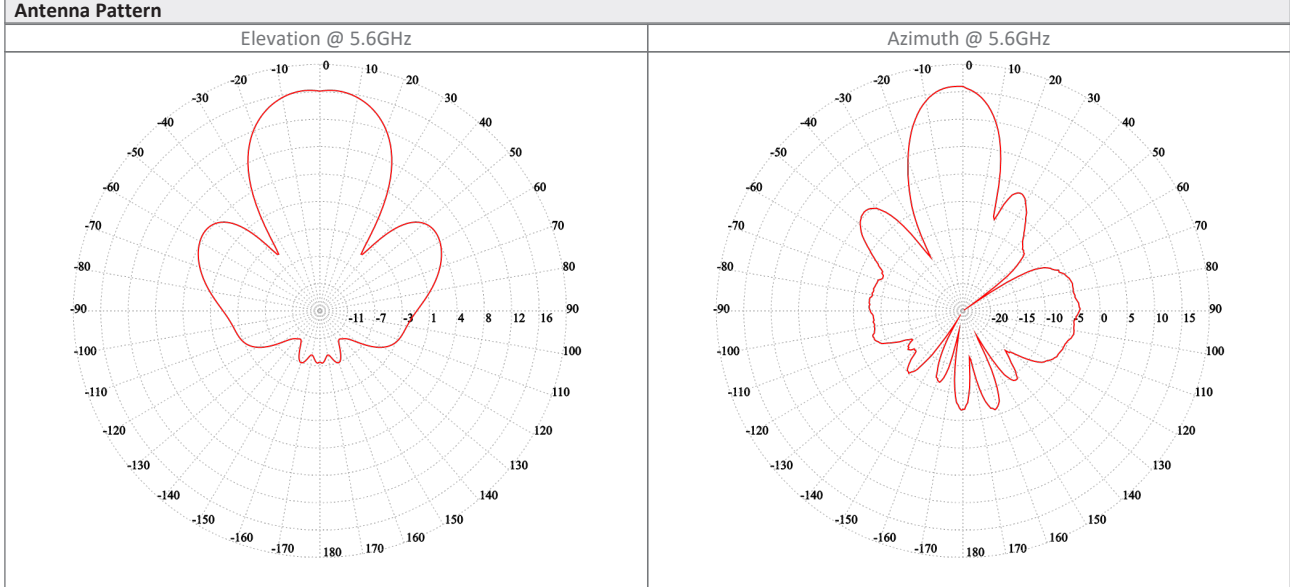
Product Highlights

- Up to 500 Mbps net aggregated throughput
- Telco-grade, extremely robust in harsh conditions
- Supports intra-site synchronization to maximize capacity
- Configurable asymmetric throughput
- Advanced OFDM & MIMO technologies for operation in nLOS/NLOS and dense radio environments
- Multiple Antenna configuration: 16dBi embedded antenna, 22dBi antenna when using the TurboGain antenna, and 3rd party external antenna

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	500 Mbps net aggregate throughput (up to 250 Mbps per direction)				
Range	Up to 120 km / 75 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	Supported (ETSI, ETSI/GER)				
Diversity	Supported				
Spectrum Viewer	Supported				
Max Tx Power	24 dBm				
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)				
Uplink / Downlink Allocation	Configurable: Symmetric or Asymmetric				
QoS	Packet classification to 4 priority queues according to 802.1P or Diffserv				
VLAN Support	802.1Q, QinQ, 4094 VLANs				
TDD Intra Site Synchronization	Supported				
TDD Inter Site Synchronization	Supported through common GPS receiver per site				
ODU Management	IPv4/IPv6 dual-stack; SNMPv1, SNMPv3; HTTP/HTTPS using web browser				
Option 82	Supported				
RADIUS Authorization	Supported				
RADIUS User authentication	Supported				
Syslog	Supported				
Supported Bands					
Band	CBW 10MHz [GHz]	CBW 20MHz [GHz]	CBW 40MHz [GHz]	CBW 80MHz [GHz]	Radio Compliance
5.4 GHz Universal (default)	5.470-5.725	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	5.730-5.845	FCC 47CFR Part 15.407; ISD RSS-247
4.9 GHz Universal	4.900-4.995	4.900-4.995	4.900-4.995	4.900-4.995	Universal
6.0 GHz Universal	5.695-6.055	5.690-6.060	5.680-6.070	5.680-6.090	Universal
5.9 GHz Universal	5.725-5.955	5.720-5.960	5.710-5.970	5.710-5.990	Universal
5.9 GHz Universal	5.725-5.850	5.725-5.850	5.725-5.850	5.725-5.850	Universal
5.1 GHz Universal	5.145-5.340	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	5.725-5.850	CMIIT RTA
5.1 GHz UBR	5.125-5.880	5.125-5.880	5.125-5.880	5.125-5.880	Universal
5.4 GHz ETSI	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
5.7 GHz ETSI/GER	5.735-5.865	5.735-5.865	5.735-5.865	5.735-5.865	EN 302 502 V2.1.1:2017; ECC Recommendation (06)04
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				
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-2954-63C5

Description: RADWIN Alpha 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.

Datasheet information can be changed by manufacturer without prior notice