RADWIN 2000 Alpha Series

Point-to-Point Radio - Data Sheet (RW2000/ODU/Alpha/F58/FCC/INT/500M)

RW-2050-6HC5

Product Description

RW-2050-6HC5 is a carrier-class radio that belongs to the RADWIN 2000 Alpha Series and supports 5.1 to 5.8 GHz frequency range.

The Radio complies with FCC/IC & FCC bands with a factory default of 5.8 GHz FCC/IC.

RW-2050-6HC5 delivers up to 500 Mbps throughput.
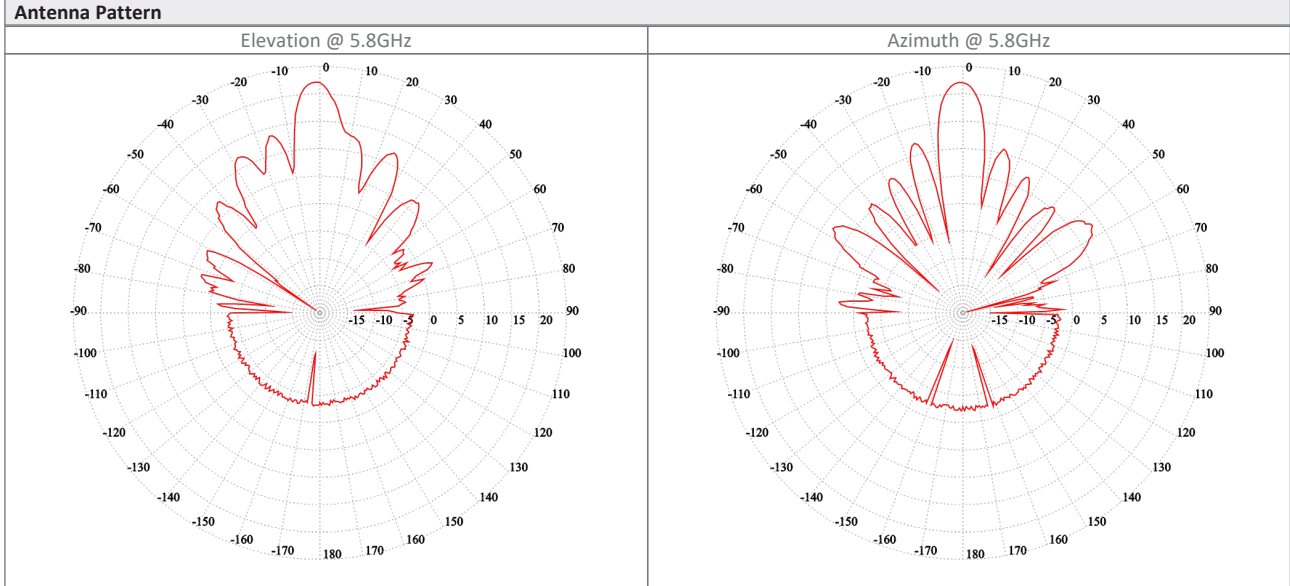
The unit includes an integrated antenna.

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
- Integrated 22dBi antenna
- IP-67
- Can operate as SU PRO

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Product Specifications:

Configuration	
Architecture	Outdoor Unit with an integrated antenna
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
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	Supported (FCC)
Diversity	Supported
Spectrum Viewer	Supported
Max Tx Power	21 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; SNMP v1, 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
5.8 GHz FCC/IC (default)	5.730-5.845	5.730-5.845	5.730-5.845	5.730-5.845	FCC 47CFR Part 15.407; ISED RSS-247
5.1 GHz FCC	5.170-5.250	5.170-5.250	5.170-5.250	5.170-5.250	FCC 47CFR Part 15.407
5.2 GHz FCC	-	5.255-5.340	5.255-5.340	5.250-5.340	FCC 47CFR Part 15.407
5.4 GHz FCC	-	5.480-5.715	5.480-5.715	5.485-5.715	FCC 47CFR Part 15.407
5.1 GHz FCC	5.170-5.845	5.170-5.845	5.170-5.845	5.170-5.845	FCC 47CFR Part 15.407

Mechanical	
ODU Dimensions	32.5(w) x 32.5(h) x 6.4(d) cm
ODU Weight	2 kg / 4.41 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, IP67 (totally protected against dust and against immersion in water up to 1m)

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	AS/NZS, CISPR 32 2015 Class B

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Integrated Antenna

Gain	22 dBi
VSWR	2.0 : 1
3 dB Azimuth Beamwidth	10 Deg. (typ)
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes Level	-12 dB(typ)
Cross Polarization	-25dB (typ)
F/B Ratio	-25 dB
Port To Port Isolation	30 dB (typ)
Lightning Protection	DC Grounded

Antenna Pattern

Elevation @ 5.8GHz	Azimuth @ 5.8GHz

Ordering Info

Part Number: RW-2050-6HC5

Description: RADWIN 2000 Alpha ODU, with an integrated antenna, supporting multi frequency bands at 5.x GHz, factory default 5.8 GHz FCC/IC.

Datasheet information can be changed by manufacturer without prior notice

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