

RADWIN 2000 D-Plus Series

Point-to-Point Radio - Data Sheet



RW-2050-D100

Product Description

RW-2050-D100 is a carrier-class radio that belongs to the RADWIN 2000 D-Plus Series and supports 5.1 to 6 GHz frequency range.

The Radio complies with Universal, FCC/IC, WPC & MII regulations with a factory default of 5.8 GHz FCC/IC.

RW-2050-D100 delivers up to 750 Mbps throughput.

The radio comes with an integrated antenna.

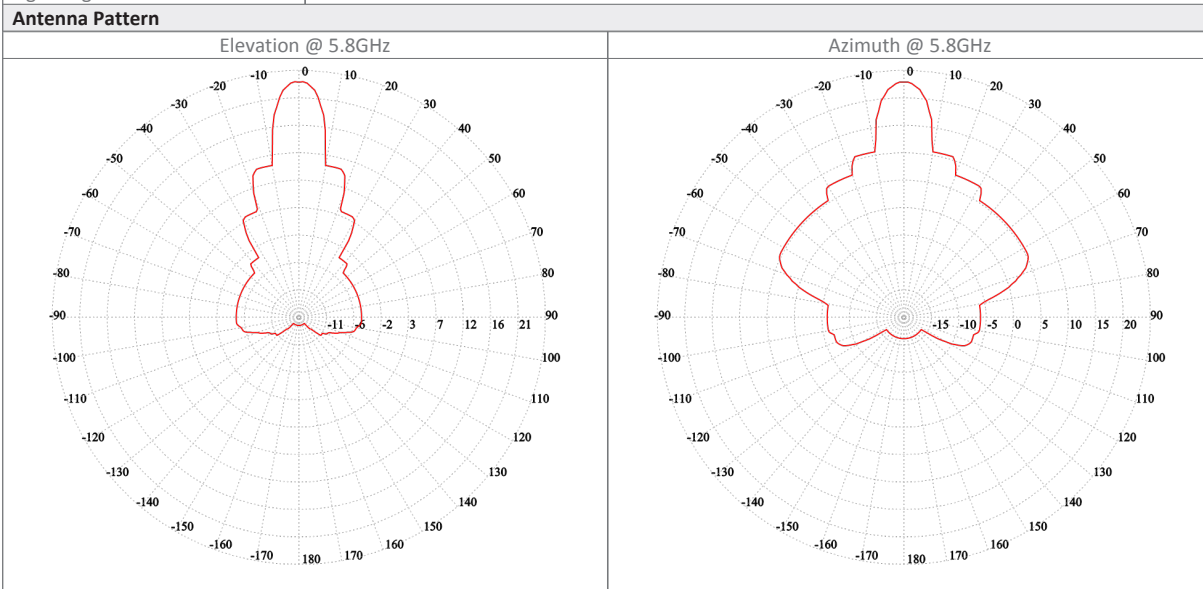
Product Highlights

- 750 Mbps Ethernet net throughput
- Long range – Up to 40 km / 25 miles
- Telco-grade, extremely robust in harsh conditions
- Supports intra-site and inter-site synchronization to maximize capacity
- Configurable asymmetric throughput
- Advanced OFDM & MIMO technologies for operation in nLOS/NLOS and dense radio environments

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	750 Mbps net aggregate throughput					
Range	Up to 40 km / 25 miles					
Channel Bandwidth	Configurable: 10, 20, 40, 80 MHz (for the default band)					
Modulation	2x2 MIMO-OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)					
Adaptive Modulation, Coding & Channel BW	Supported					
Automatic Channel Selection	Supported upon power up					
DFS	Not Supported (for the default band)					
Diversity	Supported					
Spectrum Viewer	Supported					
Max Tx Power	25 dBm					
Duplex Technology	TDD					
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6					
Encryption	AES 128; FIPS 197					
Support Indoor units	RADWIN PoE devices (RW-9921-101X)					
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					
Supported Bands						
Band	Channel BW 5MHz [GHz]	Channel BW 10MHz [GHz]	Channel BW 20MHz [GHz]	Channel BW 40MHz [GHz]	Channel BW 80MHz [GHz]	Radio Compliance
5.1 GHz Universal	-	5.145-5.340	5.140-5.345	5.130-5.355	5.130-5.375	Universal
5.4 GHz Universal	-	5.470-5.725	5.465-5.730	5.455-5.740	5.455-5.760	Universal
5.8 GHz FCC/IC (default)	-	5.725-5.850	5.725-5.850	5.725-5.850	5.725-5.850	FCC 47CFR Part 15.247; IC RSS-210
5.8 GHz WPC	-	5.825-5.875	5.825-5.875	5.815-5.885	-	WPC (India) G.S.R 38(E) dated 19 January, 2007 Notification
5.9 GHz Universal	-	5.725-5.955	5.720-5.960	5.710-5.970	5.710-5.990	Universal
6.0 GHz Universal	-	5.695-6.055	5.690-6.060	5.680-6.070	5.680-6.090	Universal
5.8 GHz MII	-	5.735-5.840	5.730-5.845	5.720-5.855	5.700-5.875	CMIIT RTA
5.1 GHz FCC/IC	-	5.160-5.245	5.160-5.245	5.155-5.250	5.155-5.250	FCC 47CFR Part 15.407; IC RSS-210
Mechanical						
ODU Dimensions	30(w) x 30(h) x 10(d) cm					
ODU Weight	2.9 kg / 6.39 lbs					
Power						
Power Feeding	Power provided over ODU-IDU cable					
Power Consumption	<20W					
Environmental						
Operating Temperatures	-35°C to 60°C / -31°F to 140°F					
Humidity	100% condensing, IP67 (totally protected against dust and against immersion up to 1m)					
Safety						
FCC/IC (cTUVus)	UL 60950-1, UL 60950-22, CAN/CSA C22.2 60950-1, CAN/CSA C22.2 60950-22					
ETSI	EN/IEC 60950-1, EN/IEC 60950-22					
EMC						
FCC	47 CFR Class B, Part15, Subpart B					
ETSI	EN 300 386, EN 301 489-1, EN 301 489-4					
CAN/CSA-CEI/IEC	CISPR 22-04 Class B					

Integrated Antenna	
Gain	23 dBi
VSWR	1.5 :1 (typ)
3 dB Beamwidth	10 Deg. (typ)
AZ & EL Beam Squint	0
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes Level	ESTI EN 302 326-3 V1.1.2 DN3
Cross Polarization	ESTI EN 302 326-3 V1.1.2 DN3
F/B Ratio	-30 dB
Port To Port Isolation	30 dB (max)
Lightning Protection	DC Grounded



Ordering Info

Part Number: RW-2050-D100

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