

## RADWIN 2000 B-Series

### RW-2954-B350



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RW-2954-B350 is a carrier-class radio supporting the 5.x GHz and 4.9GHz bands and complying with FCC, IC (Canada), MII (China), WPC (India) and Universal regulations (factory default: 5.4 GHz Universal).

The multi-band radio is part of the RADWIN 2000 B-Series that delivers highest capacity and extended range for carriers' backhaul needs.

Packing native TDM and Ethernet over a single wireless link, the RADWIN 2000 B-Series provides 50 Mbps net aggregate throughput (up to 8E1/T1plus Ethernet) at a range of up to 120 km/75 miles.

RADWIN RW-2954-B350 includes an embedded antenna and connectors for use with external antennas, offering a single Small Form Factor radio configuration.

### Product Highlights

- 50 Mbps Ethernet net throughput and up to 8E1s/T1s
- Native TDM transport
- Single Small Form factor with embedded antenna and connectorized for external antenna
- Long range – up to 120 km/75 miles
- Adaptive asymmetric throughput – dynamic allocation between uplink and downlink
- Single radio supporting multiple bands ( 4.9 GHz and 5.x GHz)
- Advanced MIMO, OFDM and Diversity technologies
- Robust and reliable to operate in tough conditions, extreme temperatures and non line-of-sight scenarios

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## Product Specifications

Configuration	
Architecture	Small Form Factor ODU Unit with embedded antenna and Connectorized for External Antenna
IDU to ODU Interface	Outdoor CAT-5e cable; Maximum cable length: 100m @100BaseT and 70m @1000BaseT
Radio	
Capacity	50 Mbps net aggregate throughput (up to 8E1s/T1s plus Ethernet)
Range	Up to 120 km / 75 miles
Channel Bandwidth	Configurable:5, 10 or 20 MHz
Modem Operations	Single chain 2X2 Diversity 2X2 MIMO
Adaptive Modulation & Coding	Supported
Automatic Channel Selection	Supported
Diversity	Supported
Spectrum View	Supported
Max Tx Power	25 dBm
Duplex Technology	TDD
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6
Encryption	AES 128
Supported Indoor Units	IDU-C Series (RW-72XX-2000), IDU-E Series (RW-71XX-1000) RADWIN PoE device (RW-9921-001X)
QoS	Packet classification to 4 queues according to 802.1p and Diffserv, Dynamic scheduling according to air interface changes
VLAN	Supported
Ethernet Ring Protection	Supported, including Ethernet 1+1
Hub Site Synchronization (HSS)	Up to 16 collocated links (RADWIN 2000 and/or WinLink 1000)
Monitored Hot Standby (MHS)	1+1 with RADWIN 2000 link or WinLink 1000 link

Supported Bands		
Band	Occupied Frequency Range	Radio Compliance
<b>5.4 GHz Universal*</b>	<b>5.475 - 5.720 GHz*</b>	
5.4 GHz FCC	5.480 - 5.715 GHz	FCC 47CFR, Part 15, Subpart E
5.4 GHz IC	5.480 - 5.715 GHz	IC RSS-210
5.3 GHz FCC/IC	5.260 - 5.340 GHz	FCC 47CFR, Part 15, Subpart E and IC RSS-210
5.3 GHz Universal	5.140 - 5.345 GHz	
4.9 GHz Universal	4.890 - 5.010	
5.8 GHz FCC/IC	5.725 - 5.850 GHz	FCC 47CFR, Part 15, Subpart C and IC RSS-210
5.8 GHz MII China	5.730 - 5.845 GHz	MII for 5.8 GHz
5.8 GHz WPC India	5.825 - 5.875 GHz	WPC GSR-38
5.9 GHz Universal	5.730 - 5.960 GHz	

### \* Factory Default

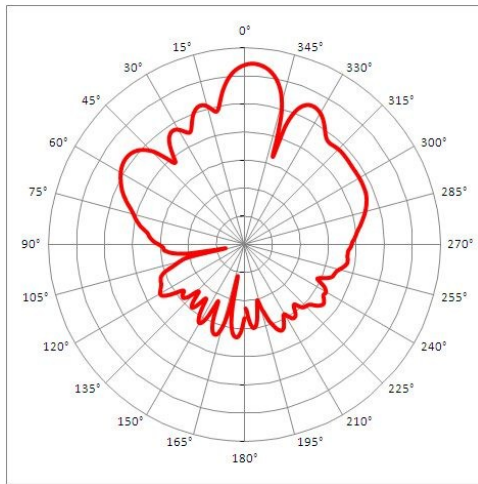
Mechanical	
Dimensions	19.5(w) x 27.0(h) x 8.0(d) cm
Weight	1.8 kg / 3.6 lbs
Power	
Power Feeding	Power provided over ODU-IDU cable
Power Consumption	<35W (IDU + ODU)
Environmental	
Operating Temperatures	-35°C - 60°C / -31°F - 140°F
Humidity	100% condensing, IP67 (totally protected against dust and 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	CFR47 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
AS/NZS	CISPR 22-2004 Class B

### Integrated Antenna

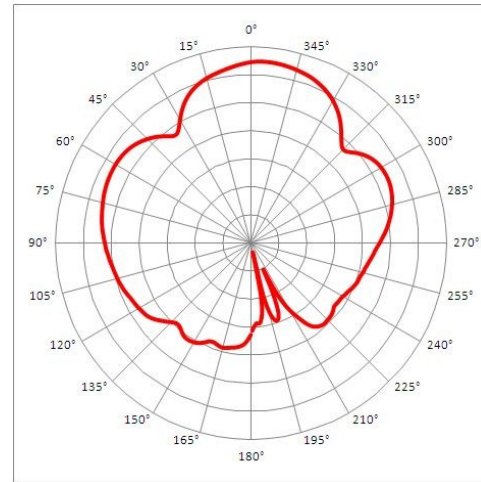
Minimum Peak Gain	13.0 ± 1.0 dBi @ 4.9-5.15 GHz 15.0 ± 1.0 dBi @ 5.15-5.47 GHz 15.5 ± 1.0 dBi @ 5.47-5.875 GHz 12.5 ± 1.0 dBi @ 5.875-6.02 GHz
VSWR	1.5 : 1 (typ) 2 : 1(max)
Azimuth 3 dB Beamwidth	35° (typ)
Elevation 3 dB Beamwidth	15° (typ)
AZ & EL Beam Squint	± 2.5° Port V & Port H
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes Level	ETSI EN 302 085 V1.1.2, TS1-TS3
Cross Polarization	ETSI EN 302 085 V1.1.2, TS1-TS3
F/B Ratio	20 dB (max)
Port To Port Isolation	40 dB (min)
Lightning Protection	DC grounded

### Antenna Pattern

Elevation @ 5.8GHz



Azimuth @ 5.8GHz



## Ordering Information

**Part Number:** RW-2954-B350

### Description:

RADWIN 2000 B- Series ODU with embedded antenna and connectorized, supporting multi frequency bands at 5.x GHz and 4.9 GHz FCC band ,factory default 5.4 GHz Universal

For external antennas, see the RADWIN Product Catalog.

**Corporate Headquarters,** T. +972.3.766.2900, E. sales@radwin.com, www.radwin.com

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