



# RADWIN 2000 E

Best-in-class, 2.5Gbps Point-to-Point

**802.11ax solution for unbeatable backhaul & access performance**

RADWIN 2000 E is a best-in-class, ultra-capacity, Point-to-Point (PtP) solution that delivers up to 2.5Gbps over the 5GHz unlicensed band. This solution is second-to-none when addressing high capacity backhaul requirements, business access needs, and a variety of mission critical connectivity applications in private networks.

RADWIN 2000 E leverages upon the cutting edge 802.11ax technology, building upon the techniques of the market proven RADWIN 2000 PtP family to push performance to a new level. With an ability to squeeze more bits per frequency channel and uniquely support channels of up to 160MHz, RADWIN 2000 E offers greater capacity and range than any other 5GHz PtP solution. When selecting RADWIN 2000 E, there are two options to choose from: A superior 24dBi unit with an integrated antenna or a connectorized unit.



## RADWIN 2000 E unique values include:



### Unmatched capacity:

The industry's highest capacity, supporting up to 2.5Gbps @160MHz and 1.2Gbps @ 80MHz.



### Robust radio interference mitigation:

The low sidelobe levels of RADWIN 2000 E integrated antenna, combined with the dynamic channel bandwidth selection capabilities, ensure best interference mitigation for maximum throughput in congested spectrum.



### Radio collocation capabilities:

With a built-in GPS, RADWIN 2000 E enables radio collocation, saving upon hub tower space when deployed in a hub site.



### High packet switching capabilities:

Facilitating uncommonly powerful packet switching performance of 700k PPS.



### Enhanced security:

Leveraging upon the industry-leading encryption scheme of AES 256, RADWIN 2000 E ensures top level security for mission critical applications.



### High durability:

IP 67 compliant, RADWIN 2000 E is a highly durable unit that withstands the toughest environmental conditions.

## Product highlights:

- » 4.9-6.0 GHz
- » Up to 2.5Gbps @ 160MHz, 1.2Gbps @ 80MHz
- » Up to 120 km / 75 miles
- » 4096 QAM enabling 15.6 bps/Hz
- » Dynamic Channel bandwidth: 20-40-80-160MHz
- » 8 queues for QoS
- » Built in GPS for radio collocation1
- » More than 700K PPS
- » AES 256 encryption
- » 2.5GbE PoE, 1Gbps full duplex SFP Interface
- » High durability via IP 67 compliancy
- » Integrated antenna & connectorized unit
- » Regulation: FCC, IC, MII, UNI, ETSI<sup>1</sup>

## Applications:

- » PtMP base-stations backhaul
- » 4G mobile backhaul
- » Backup or gap filler for fiber networks
- » Business customer access
- » Private network connectivity (e.g., Campuses, smart cities, municipalities, critical infrastructure etc.)



# Product Specifications:

<b>Configuration</b>	
Architecture	Outdoor unit, with an integrated antenna or 2 x N-Type connectors
Data interfaces	100/1000/2500Mbps RJ45 PoE, 1000Mbps SFP
<b>Radio</b>	
Max capacity	2.5Gbps (Universal), 1.2Gbps (FCC) net aggregate throughput
Range	Up to 120 km / 75 miles
Frequency range	4.900 GHz – 6.060 GHz <sup>2</sup>
Channel bandwidth	Configurable: 20, 40, 80, 160 MHz <sup>2</sup>
Dynamic channel BW selection	20/40/80/160 MHz
Modulation	OFDM (from BPSK up to 4096QAM)
Duplex technology	TDD
Antenna modes	MIMO 2x2, adaptive spatial multiplexing/diversity
Max TX power	26 dBm <sup>2</sup> per chain
Encryption	AES256
TDD intra/inter site sync	built-in GPS/GNSS <sup>1</sup>
Uplink/downlink ratio	Configurable: 50%/50%, 25%/75%, 75%/25%
Packets per second	700Kpps
DFS	Supported <sup>1</sup>
RFD (Radio Frame Duration)	2.5msec
<b>Networking</b>	
QoS	Packet classification to 8 priority queues according to 802.1P or DiffServ
VLAN support	802.1q, QinQ1, VLAN tagging <sup>1</sup>
ODU management	IPv4/IPv6 <sup>1</sup> dual stack; SNMPv1 <sup>1</sup> , SNMPv3 <sup>1</sup> ; HTTP/HTTPS; SSH <sup>1</sup>
Layer 2 bridge	Supported
<b>Integrated Antenna</b>	
Gain	24 dBi (typical)
Sidelobes level	-22 dB (typical)
<b>Mechanical</b>	
Dimension connectorized	258 x 125 x 107 mm / 10.1 x 4.9 x 4.2 Inch
Dimension integrated	373 x 370 x 98 mm / 14.7 x 14.6 x 3.9 Inch
Weight	Connectorized: 1.2 Kg / 2.7 lbs      Integrated: 2.6 Kg / 5.7 lbs
<b>Power</b>	
Power consumption	Up to 30W
PoE	CAT5e PoE cable, 42.5–57.0 V. standard 802.3at
<b>Environmental</b>	
Operating temperature	-40°C to 60°C / -40°F to 140°F
Humidity	100% condensing
Enclosure protection	IP 67 per EN/IEC 60529, NEMA Type 4/4X Enclosure

<sup>1</sup> In roadmap – Future availability via firmware upgrade

<sup>2</sup> Subject to regulation



## Ordering information

Part number	Product name	Part description
RW-2U50-E2MM	RW2000/ODU/E/F50/WW/EXT	Connectorized radio unit 4.9-6GHz, for all regulations
RW-2U50-E1MM	RW2000/ODU/E/F50/WW/INT	Integrated radio unit 4.9-6GHz, for all regulations

RADWIN is a global provider of broadband wireless solutions that deliver fast broadband with unparalleled reliability. RADWIN solutions have been deployed in more than 180 countries and have a proven track record of delivering connectivity for mission-critical applications in industries such as transportation, mining, ports, and public safety, as well as backhaul, access and private network connectivity. With over 25 years of experience, RADWIN is the go-to-choice for dependable broadband solutions.

# **RADWIN**

**RADWIN Ltd Corporate Headquarters**

+972.3.766.2900 | [sales@radwin.com](mailto:sales@radwin.com)