RADWIN 5000 PtMP

Ride the RADWIN 5000 PtMP Wireless Highway

RADWIN 5000 is a Point-to-Multipoint (PtMP) solution with a unique air interface that ensures robust performance in harsh spectrum conditions.

This cost-effective solution delivers up to 250 Mbps and is greatly suitable for last mile enterprise and residential connectivity in rural and low-density areas when budget is limited.
RADWIN 5000 Highlights

» OFDM, MIMO 2x2 / Diversity enables real nLOS deployment
» Multi-Band Capabilities - All in a Single Unit
» Fixed and Nomadic capabilities
» Full Span of Asymmetric Traffic
» Coexists with RADWIN’s PtP and PtMP solutions

RADWIN 5000 Base Stations

» Up to 250 Mbps per base station sector
» Guaranteed SLA/Best-Effort
» Long range – 40 Km / 25 miles
» Low and constant latency
» IP67 certified

RADWIN 5000 Subscriber Units

» High-capacity SUs – up to 250 Mbps
» Pay-as-you-grow capacity
» Various antenna configurations
» Small form factor for low visual impact
» Innovative operational simplicity
RADWIN 5000 Applications

CARRIERS & ISPS
RADWIN 5000 PtMP is an excellent revenue generator for carriers and ISPs that are looking to deploy last mile enterprise connectivity and deliver high-capacity broadband access to end users.
Carriers can leverage RADWIN 5000 PtMP capabilities and nLOS outstanding performance to backhaul wireless and landline access systems such as Wi-Fi hot spots.

GOVERNMENT & ENTERPRISE NETWORKS
RADWIN 5000 PtMP offers exclusive wireless broadband infrastructure for government and enterprise networks to dramatically reduce their total cost of ownership when implementing the following applications:
» Connectivity of high resolution video surveillance
» Wide range inter-office connectivity
» Mission critical broadband applications
RADWIN 5000 Base Stations

RADWIN 5000 Base Station is a high capacity OFDM / MIMO 2x2 outdoor Base Station unit that can cover a single sector in MIMO mode, using dual polarized antenna, or dual sectors when working with two single-polarized antennas. It enables TDD synchronization of all collocated sectors within a site and between base stations located in different sites. This synchronization prevents mutual interference between closely situated radio units and saves tower space and spectrum.

RADWIN 5000 Base Stations portfolio supports fixed and nomadic applications, providing varying levels of capacity: 50, 100 and 250 Mbps.

Two versions of RADWIN 5000 Base Stations are available:

» RADWIN 5000 BS-AIR (5.X GHz) supporting Best effort service

» RADWIN 5000 BS-PRO (5.x GHz /3.x GHz) also enables to offer SLA for bandwidth-demanding applications based on Committed Information Rate (CIR)
RADWIN 5000 Subscriber Units

RADWIN’s powerful Subscriber Units (SUs) deliver fiber-like connectivity with high Packet-Per-Second (PPS) processing power to maintain highest capacity even in small packet applications.

Designed for low visual impact, RADWIN’s ruggedized SUs assure long lasting operation even in the harshest conditions. Innovative operational simplicity concepts and cutting-edge technology streamline operations and maintenance procedures.

**High-capacity subscriber units (4.9 - 5.9 GHz)**

- Pay-as-you-grow 25 up to 250Mbps
- Multiple antenna configurations
- High durability – IP 66/IP67 enclosure
- Compatible with all RADWIN base stations
- Available Models:
  - SU-AIR: Designed for residential subscribers
  - SU-PRO: Offers SLA for enterprise and bandwidth-demanding applications, based on CIR

**High-capacity subscriber units (3.3 - 3.8 GHz / 3.65 GHz)**

- Pay-as-you-grow 25 up to 100Mbps
- Available as connectorized unit or with integrated antenna
- High durability – IP 67 enclosure
- Available Models:
  - HSU-R: Designed for residential subscribers
  - HSU: Offers SLA for enterprise and bandwidth-demanding applications, based on CIR

**Innovative operational simplicity**

**Smartphone installation application**

RADWIN SU series includes a smartphone app designed to speed up and simplify installation.

**WINTouch APP**

Enables automated installation, alignment & commissioning

Simple, fast and precise installation

**Multiple antenna configurations**

RADWIN SU series includes an embedded antenna and is compatible with RADWIN’s new and innovative slide-on antenna to achieve greater range. An option for third-party external antennas is also available.

**TurboGain™ antenna**

Slide-on antenna

Doubles the service range
### Maximum Net Aggregate Capacity

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Base Station</th>
<th>High-Capacity Subscriber Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.9 - 5.9 GHz</td>
<td>250 Mbps</td>
<td>SU AIP – Up 100Mbps, SU PRO – Up to 250Mbps</td>
</tr>
<tr>
<td>3.3 - 3.8 GHz, 3.65 GHz</td>
<td></td>
<td>10, 25, 50 Mbps, upgradable to 100Mbps</td>
</tr>
</tbody>
</table>

### Antenna Configurations

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>11dBi, 13dBi, Connectorized</th>
<th>16dBi, 22dBi, Connectorized</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.9 - 5.9 GHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.3 - 3.8 GHz, 3.65 GHz</td>
<td>Connectorized</td>
<td>13dBi, 20dBi, Connectorized</td>
</tr>
</tbody>
</table>

### Radio

- **Number of SUs / HBS**: Up to 32 SUs simultaneously
- **Range**: Up to 40 km / 25 miles
- **Frequency Bands**: Multiband radio supporting 4.9 - 5.9 GHz or 3.3-3.8 / 3.65 GHz /2.3-2.5 GHz
- **Channel Bandwidth**: 5.x GHz: Configurable: 10, 20, 40 MHz, 3.x GHz: 5, 7, 10, 14, 20, 40MHz
- **Radio Access scheme**: OFDM, Auto MIMO 2x2 or Diversity per SU
- **Adaptive Modulation & Coding**: BPSK/QPSK/QAM16/QAM64
- **SLA management**: CIR, MIR, Best-Effort
- **End to End Latency**: Typical: 3.5msec
- **Duplex Technology**: TDD, Configurable Uplink / Downlink ratio
- **Max Tx Power**: HBS: 25dBm @ 5.x GHz, 25dBm@ 3.x GHz (in all modulation schemes) HSU: 25dBm, SU (embedded) 24dBm, SU (integrated) 26dBm
- **DFS (FCC & ETSI)**: Supported
- **Spectrum Viewer**: Supported at HBS & SU / HSU
- **TDD Synchronization**: Inter & Intra site synchronization, using GSU
- **Encryption**: AES 128

### Interfaces

- **Ethernet Interface**: HBS: Single port for Data & management, 10/100/1000BaseT, SU: 10/100/1000BaseT

### Networking

- **Sub convergence layer**: Layer 2
- **QoS**: Packet classification to 4 queues according to 802.1p and Diffserv, Strict Priority, TTL
- **VLAN**: 802.1Q, QinQ, 4094 VLANs

### Management

- **Management Application**: HBS: RADWIN Manager & Web based management, SU: Smartphone App.
- **Protocol**: SNMPv1, SNMPv3, Telnet, HTTP, IPv4 & IPv6, RADIUS for AAA Server
- **NMS Application**: RADWIN NMS (WINManage) or integration with 3rd party NMS system via standard MIBs

### Power

- **Power Feeding**: Provided over PoE interface
- **Power Consumption**: HBS < 25W, SU (embedded) & HSU < 12W, SU (integrated) < 9W

### Environmental

- **Operating Temperatures**: -35°C to 60°C / -31°F to 140°F
- **Humidity**: 100% condensing | HBS, HSU & SU (Integrated): IP67 | SU (embedded): IP66
- **Radio Regulations**: FCC, IC, ETSI, WPC, MII
- **Safety**: FCC/IC (cTUVus), ETSI
- **EMC**: FCC, ETSI, CAN/CSA, AS/NZS