Preliminary

Data Sheet

# RADWIN 2000 Radio Series

## Carrier-Class, High-Capacity Sub-6GHz Solution for Next-Generation Networks

### Product Highlights

- 50 Mbps full-duplex net throughput
- Up to 16 E1s/T1s
- Superior OFDM and MIMO technology
- Unparalleled performance
- Extended range
- Easy to install, simple to maintain
- Competitively priced

The new RADWIN 2000 radio series delivers high capacity, extended range and carrier-class performance for today's and tomorrow's networks.

RADWIN 2000 is the solution of choice for carriers looking for affordable backhaul solutions. While demand for mobile bandwidth and migration to 3G and 4G networks will require carriers to increase significantly their backhaul capacity, they can not expect a similar growth in ARPU and are thus looking for high-capacity, cost-effective backhaul solutions. RADWIN 2000 enables carriers to accommodate capacity growth and maintain profitability through unparalleled price and excellent performance.

The high-capacity radio system provides 50 Mbps full-duplex net Ethernet throughput and a range of up to 120 km/75 miles in various sub-6GHz frequencies. In the first half of 2009, RADWIN 2000 will be available with up to 16 E1/T1 interfaces. Combining native TDM and native Ethernet over a single wireless link, RADWIN 2000 enables carriers to migrate to Ethernet at no additional costs and to protect their investment in the legacy TDM infrastructure. Built on RADWIN's proprietary air interface together with advanced built-in Diversity, MIMO and OFDM technologies, it delivers optimal performance and unmatched robustness in all environments.

RADWIN 2000 solutions are ideally suited for applications such as backhaul for cellular and WiMax networks, access and backhaul solutions for ISPs, enterprise networks, as well as for temporary applications for both carriers and private networks.

RADWIN The Wireless Choice

Preliminary

# RADWIN 2000 Specifications

| | |
|---|---|
| **Configuration** | |
| **Architecture** | ODU: Outdoor Unit with Integrated Antenna or Connectorized for External Antenna<br>IDU: Indoor Unit for combination of E1/T1 and Ethernet interfaces or PoE device for Ethernet only |
| **IDU to ODU Interface** | Outdoor CAT-5e cable; Maximum cable length: 100 m |
| **Radio** | |
| **Capacity** | 50 Mbps capacity (net throughput, full duplex) |
| **Range** | Up to 120 km / 75 miles |
| **Frequency Bands** | 4.9 – 5.9 GHz, 2.3 – 2.5 GHz |
| **Channel Bandwidth** | 20 MHz |
| **Modulation** | 2x2 MIMO-OFDM (BPSK/QPSK/16QAM/64QAM) |
| **Adaptive Modulation & Coding** | Supported |
| **Automatic Channel Selection** | Supported |
| **Max Tx Power** | 27 dBm @ 2.4 GHz; 25 dBm @ 5.8 GHz |
| **Radio Regulation** | FCC, IC (Canada), ETSI, WPC (India), China |
| **Duplex Technology** | TDD |
| **Error Correction** | FEC k = 1/2, 2/3, 3/4, 5/6 |
| **Encryption** | AES 128 |
| **TDM Interface*** | |
| **Number of E1/T1 ports** | Up to 16 |
| **Framing** | Transparent to unframed or framed |
| **Timing** | Independent clock per port, Tx and Rx |
| **Connector** | RJ-45 |
| **Standards Compliance** | ITU-T G.703, G.826 |
| **Line Code** | E1: HDB3, T1: B8SZ/AMI (configured by RADWIN Manager) |
| **Latency** | Configurable, 5 - 20 msec |
| **Impedance** | E1: 120 Ω balanced; T1: 100 Ω balanced |
| **Jitter and Wander** | Compliant with ITU-T G.823, G.824 |
| **Ethernet Interface** | |
| **Number of Ethernet ports** | 2 |
| **Type** | 10/100BaseT with Auto-Negotiation (IEEE 802.3u) |
| **Framing/Coding** | IEEE 802.3 |
| **Line Impedance** | 100 Ω |
| **VLAN Support** | Transparent |
| **Connector** | RJ-45 |
| **Maximum Frame Size** | 2048 Bytes |
| **Latency** | 3 msec (typical) |
| **Management** | |
| **Management Application** | RADWIN Manager |
| **Protocol** | SNMP and Telnet |
| **Mechanics** | |
| **Dimensions** | ODU with Integrated Antenna: 37.1(w) x 37.1(h) x 9.00(d) cm; 3.5 kg / 7 lbs<br>ODU Connectorized: 18.0(w) x 27.0(h) x 5.5(d) cm; 1.5 kg / 3.0 lbs<br>IDU: 48.3(w) x 4.5(h) x 29(d) cm; 1.5 kg / 3.3 lbs |
| **Power** | |
| **Power Feeding** | Dual feeding, -20 to -60 VDC (AC/DC converter is available) |
| **Power Consumption** | < 35 W (IDU+ODU) |
| **Environmental** | |
| **Operating Temperatures** | ODU: -35°C to +60°C / -31°F to +140°F<br>IDU: 0°C to +50°C / 32°F to +122°F |
| **Humidity** | ODU: Up to 100% non-condensing, IP67<br>IDU: 90% non-condensing |
| **Safety** | |
| **FCC/IC (cTUVus)** | UL 60950-1, CAN/CSA 60950-1 C22.2 |
| **ETSI** | EN/IEC 60950-1 |
| **EMC** | |
| **FCC** | CFR47 Class B, Part15, Subpart B |
| **ETSI** | EN 300 386 (2005), EN 301 489-1 (2001), EN 301 489-4 (2002) |
| **CAN/CSA-CEI/IEC** | CISPR 22-02 |
| **AS/NZS** | CISPR 22:2002 |

* RADWIN 2000 with TDM interfaces will be available in the first half of 2009

RADWIN The Wireless Choice


Corporate Headquarters

T. +972.3.766.2917
E. sales@radwin.com

www.radwin.com





DS 2000-03/05.08