



RADWIN 2000

High-Capacity Sub-6GHz Backhaul Solution

RADWIN 2000 is RADWIN's high-capacity Point-to-Point sub-6GHz microwave solution that addresses the backhaul needs of today's and tomorrow's networks. Built on RADWIN's unique air interface, together with the most advanced MIMO and OFDM technologies, RADWIN 2000 delivers optimal performance and unmatched robustness in all environments. Offering native TDM and Ethernet over a single link, RADWIN 2000 grants operators flexibility and a seamless migration path from TDM to IP.

Simple to install and easy to maintain, RADWIN 2000 is designed to meet operators' field requirements and results in significantly decreased cost of ownership.

Supporting multiple bands and frequencies over a single radio platform, RADWIN 2000 provides 100 Mbps net throughput and operates at ranges of up to 120 km/75 miles.

The flexible radio system is ideally suited for a variety of applications, including cellular backhaul, backhaul for WiMAX and IP networks and broadband wireless connectivity for large corporations and private networks.

Advanced Radio Technologies Inside

RADWIN 2000 deploys today's most advanced radio technologies to achieve unparalleled performance in sub-6GHz bands.

- **MIMO**

MIMO spatial multiplexing gives RADWIN 2000 the power to increase channel capacity. The high-rate information signal is split into two lower-rate streams, with each stream transmitted from a different antenna on the same frequency channel. RADWIN's MIMO technology provides a considerable increase in data throughput and link range without the need for additional bandwidth or transmit power.

- **OFDM Modulation**

OFDM is regarded as the leading modulation technique for multi-path and signal-intensive environments, enabling effective transmission of large amounts of digital data over a radio link. OFDM features low latency, and high resiliency to interference. Based on the concept of redundant transmission, OFDM works by splitting the radio signal into multiple, smaller sub-signals transmitted simultaneously at different frequencies to the receiver.

Superior Air Interface: Field-Proven Worldwide

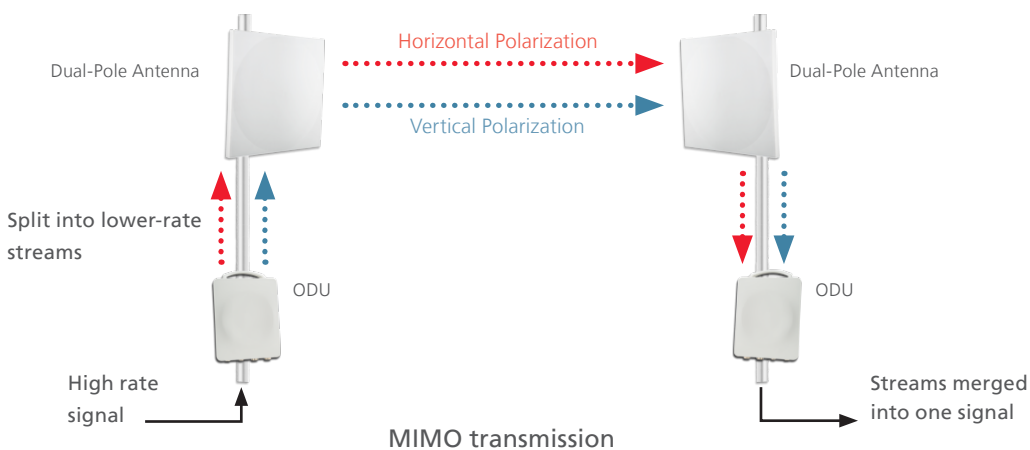
RADWIN 2000 employs interference-resistant mechanisms specially designed by RADWIN for sub-6GHz bands. These unique mechanisms are successfully deployed with RADWIN products in over 120 countries.

- **Robust Air Protocol**

RADWIN 2000 incorporates a robust air interface with a unique air protocol designed to ensure non-stop, high-quality transmission, even when challenged by interference and harsh conditions. The air interface is partially based on RADWIN's unique Automatic Repeat Request (ARQ) mechanism, which detects and resends corrupted or missing data to maintain transmission quality, while ensuring short delay and non-interrupted transmission, despite significant interference levels.



RADWIN 2000



RADWIN 2000 is the solution of choice for carriers looking for affordable backhaul solutions. With a flexible combination of native TDM and Ethernet, RADWIN 2000 prepares operators for seamless migration from TDM to IP. Delivering multiple frequency bands over a single platform, RADWIN 2000 grants utmost field flexibility. Advanced MIMO and OFDM technologies as well as its field-proven air interface make RADWIN 2000 a most reliable sub-6GHz solution built for challenging environments.



- **Automatic Channel Selection**

Automatic Channel Selection ensures that transmission is performed on the best possible channel by monitoring available channels and dynamically selecting the optimal channel in response to interference.

- **Superior Spectral Efficiency**

RADWIN 2000 offers unparalleled spectral efficiency at 20 MHz bandwidth. This enables high-capacity service delivery in a crowded spectrum environment and significant spectrum savings.

- **Automatic Adaptive Rate**

Automatic Adaptive Rate is a means of dynamically adapting the transmitted rate by changing both signal modulation and coding. Automatic Adaptive Rate optimizes data throughput according to interference levels, while still maintaining service quality.

- **Enhanced Security**

RADWIN 2000 uses an advanced ODU to ODU link locking mechanism and an AES encryption to ensure enhanced air interface security.

Native TDM and Ethernet

RADWIN 2000 transports TDM and Ethernet over the same wireless link. Each service is transmitted natively over a dedicated air protocol. Transmission of native TDM ensures clock accuracy, data completeness and low latency.

Quick & Easy Installation

RADWIN 2000 meets and exceeds service providers' technical requirements, and was developed based on a genuine understanding of their business realities. RADWIN 2000 offers superior ease of installation and maintenance, resulting in major OPEX savings.

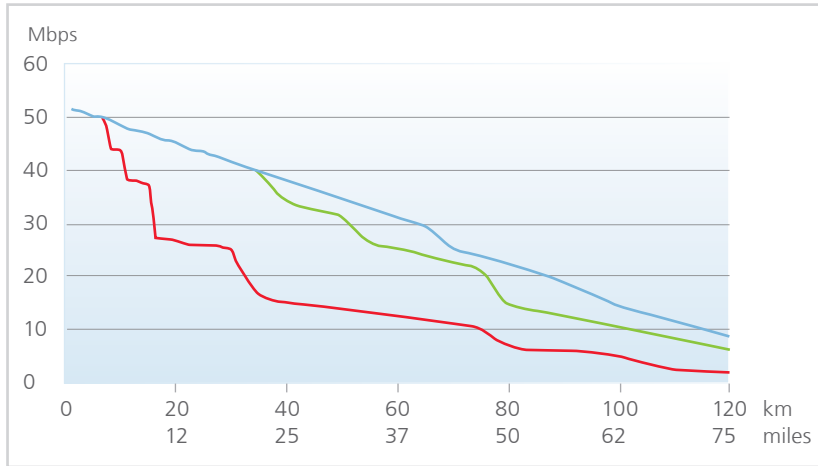
RADWIN 2000 systems are typically up and running in less than one hour. Link commissioning requires only one technician to install, align and configure both sides of a link, using only basic tools and minimum training. The compact, lightweight unit is also easy to handle and transport.

Technology Background

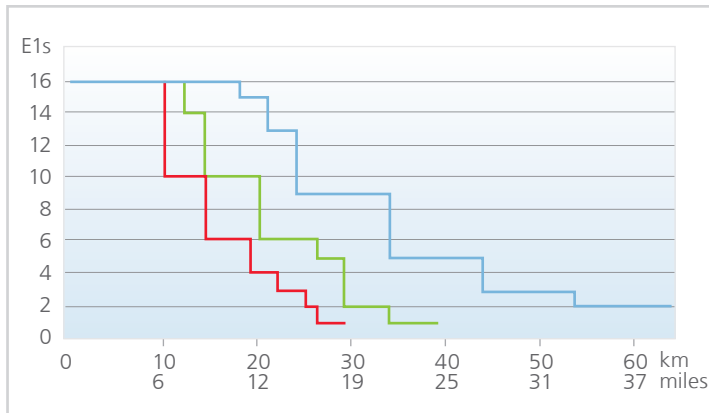
RADWIN 2000 Performance

RADWIN 2000 achieves outstanding performance at 20 MHz channel bandwidth.

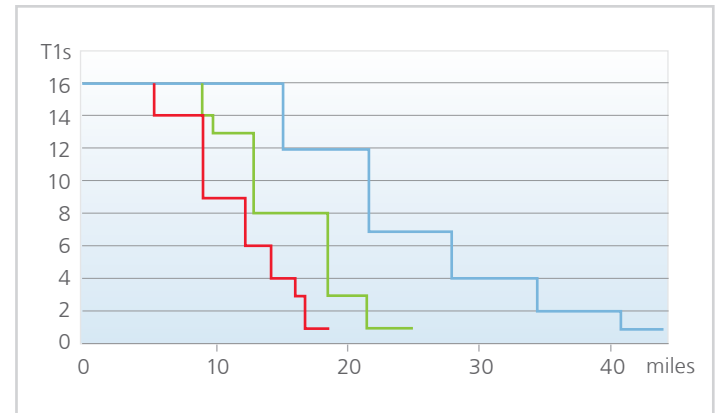
Ethernet Performance



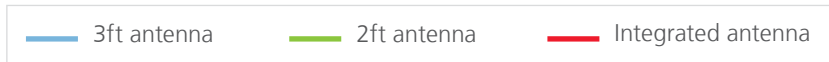
E1 Performance *



T1 Performance *



* Typical performance at 5.8GHz with 99.99% availability



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