



## Application Note - AN-80i WiMAX Backhaul Solution



WiMAX is a fast-becoming the leading "last mile" solution for bringing high-speed Internet access into homes and businesses in both emerging and developed markets.

The AN-80i, the latest addition to Redline's RedCONNEX™ family of advanced broadband wireless infrastructure products, delivers the high performance, reliable and flexible communications solutions that operator and enterprise companies need to cost-effectively manage their WiMAX network and maximize operational efficiency.

WiMAX gives operators the tools they need to profitably deliver the advanced services and applications their customers demand. With the ability to deliver enough bandwidth to simultaneously support hundreds of businesses (with T1/E1-type connectivity) and homes (with DSL-type connectivity) that require time-sensitive VoIP services, including high-speed, data, voice and video services WiMAX network need a robust, reliable and low-latency backhaul solution capable of supporting this traffic.

Optimizing their networks requires leveraging the superior characteristics of the AN-80i to offload WiMAX backhaul network traffic and free up valuable bandwidth to focus on the secure, reliable delivery of the prioritized data traffic.

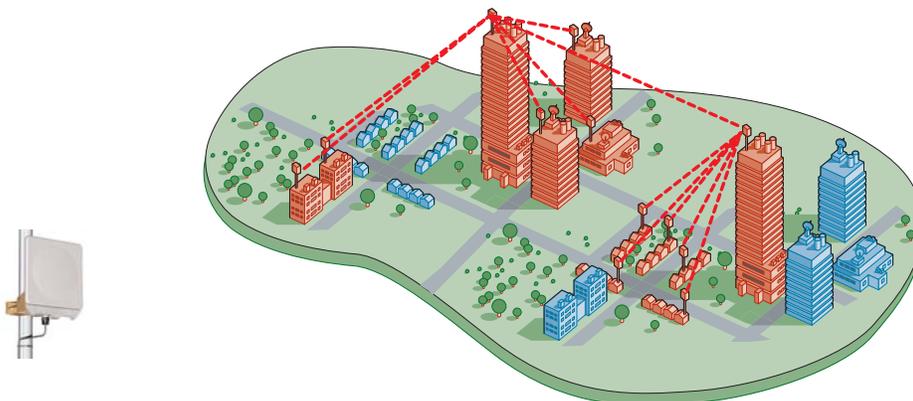
### Redline's AN-80i Advantage

Redline's AN-80i addresses the growing market need for robust, high-capacity systems to support real time video, voice, and data services and the backhauling of high performance WiMAX broadband access and other networks, including those built using Redline's RedMAX™ family of WiMAX products.

WiMAX networks must combine high capacity, 100% reliable point-to-point bridging and back-hauling at the right cost, and many times.

By choosing a backhaul solution that operates in licensed-exempt bands, operators can save their valuable licensed spectrum for the delivery of high-revenue access services.

Operators leveraging the advanced capabilities of Redline's AN-80i to backhaul WiMAX will also realize dramatic spectrum efficiency improvements and increased data throughput. Boasting proprietary ARQ, adaptive modulation and Dynamic TDD features, the AN-80i is the ideal backhaul solution for the delivery of real-time, sensitive video and data transmission.



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Available via:

### Key Features

- Industry leading BER of 10<sup>-9</sup>, exceeding carrier-class reliability specifications
- Adaptive modulation/coding with 8 levels from BPSK to 64QAM
- Proprietary ARQ algorithm with advanced FEC for 99.999% link availability
- Extremely low latency (1-2 ms)
- High spectral efficiency dynamic adaptive TDD and ARQ
- High throughput PTP, PMP solution
- Universal support for 5.4GHz and 5.8 GHz bands
- Software selectable channels at 2.5 MHz increments with 10, 20 and 40 MHz channel size
- Mode/speed fully software upgradeable
- Built on proven, reliable OFDM technology
- Flexible, all outdoor design
- Backward compatibility mode for existing AN-50e networks

### Strategic Benefits

- Provides unmatched reliability, security and flexibility
- Optimizes network efficiency for priority data throughput
- Delivers unrivaled capacity and range
- Performance leader with 90 Mbps Ethernet data rate
- Delivers robust performance in low-profile and non line-of-site conditions
- Ease of installation, relocation and redeployment
- Reduces the cost of providing high speed data links between remote-locations
- Ensures enhanced over-the-air data transfer using highly-secure 64-bit encryption schemes
- Diverse antenna configurations for any environment

### The Wireless Broadband Technology Advantage

To meet growing customer and network demands, operators need a cost-effective backhaul solution capable of relaying high bandwidth traffic from a growing number of sites with carrier-grade reliability.

Using leased lines from carriers is a heavy recurring expense for mobile operators, and with the limited copper or fiber infrastructure in many areas, may not even be available. On the other hand, laying cable or fiber to backhaul base station traffic to the network backbone carries a heavy price tag and often requires working around difficult obstructions, such as roads or underground sewer systems. This is why the business case for deploying wireless broadband equipment for backhauling is so compelling.

### About Redline Communications

Redline Communications is the leading provider of standards-based wireless broadband solutions. Redline's RedMAX™ WiMAX Forum Certified™ systems and award-winning RedCONNEX™ family of broadband wireless infrastructure products enable service providers and other network operators to cost-effectively deliver high-bandwidth services including voice, video and data communications.

Redline is committed to maintaining its wireless industry leadership with the continued development of WiMAX and other advanced wireless broadband products. With more than 35,000 installations in 75 countries, and a global network of over 100 partners, Redline's experience and expertise helps service providers, enterprises and government organizations roll out the services and applications that drive their business forward.

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