AN-100 Broadband Wireless System - Backhaul

AN-100 features:

- Industry leading spectral efficiency ensures high data rates

- Low latency for delay sensitive traffic

- Long range minimize number of hops

- Versatile QoS for multi-services

- Optional eight port TDM E1/T1 full and fractional (nx64)

Redline's award-winning AN-100, the world's first 802.16 compliant product, provides a scalable carrier-class broadband wireless solution for backhaul and-high-capacity access applications. Core OFDM optical line-of-sight and non line-of-sight technology overcomes typical urban obstacles such as trees and buildings. The long range capacity allows wireless connectivity to remote locations with a minimum number of repeater stations.

The low latency AN-100 system provides reliable delivery of delay sensitive services including circuit switched voice traffic, voice-over-IP (VoIP), optimized transport for video, and prioritized data traffic - all converged over a single robust wireless link. The time division multiplexed (TDM) option can replace expensive leased full and fractional E1/T1 circuits while supporting legacy TDM traffic and increasing network capacity.

The AN-100's high availability (99.999%) is complemented by dynamic adaptive modulation and coding, and by automatic repeat requests (ARQ).

Shared classes of service with 802.16-2004 make the AN-100 an excellent solution for providing high-capacity multi-services backhaul to WiMAX base stations.

Redline's AN-100 family of products provide a complete range of 802.16 broadband wireless backhaul and access solutions. High-throughput, scalability, and Redline's industry-wide reputation for quality make the AN-100 an excellent choice for extending your wireless networking services.

Industry Leading Broadband Wireless Solutions

Redline products deliver an unmatched combination of range, capacity, security, and reliability, even in very challenging environments. Best-in-class data rates and spectral efficiencies conserve valuable spectrum and reduce the cost of providing high-performance access. Redline's technology advantage includes several patents necessary for building the OFDM-based wireless broadband systems that deliver our characteristically robust, extreme-distance/high-bandwidth performance. With built-in security encryption, and many other advantages, Redline products provide the reliability you need to grow your systems into the future.

WiMAX FORUM | Leading the WiMAX Revolution

2004 SuperQuest Award
Backbone/Edge
Networking Equipment

AN-100 System Specifications

System Capability:	LOS, optical-LOS, non-LOS (256 FFT OFDM)
RF Band:	3.400-3.800 GHz[1], TDD, HD-FDD
Channel Size:	3.5, 7 and 14 MHz (250 KHz steps)
Data Rate:	Up to 43 Mbps average Ethernet rate (14 MHz channel)
Max Tx Power:	SC 23 dBm, SS 16 dBm (region specific)
Rx Sensitivity:	-90 dBm @ QPSK 1/2 (BER of 1x10e-6)
IF Cable:	Up to 300 m (984 feet) using high-grade cable
Network Attributes:	PTP transparent bridge, 802.1Q VLAN, 802.1p traffic prioritization, DHCP relay agent, client pass-through, DES encryption
MAC:	802.16a compliant: cell-based PMP and packet convergence sub-layer mode, PTP, TDMA access, ARQ, dynamic adaptive modulation (QPSK to 64 QAM)
Range:	Beyond 45 km (28 mi) LOS, Beyond 3 km (2 mi) non LOS
Network Connections:	10/100 Ethernet (RJ-45) data and management ports
System Configuration:	HTTP (Web) interface, SNMP, CLI, console (RS-232)
Network Management:	SNMP: Standard/proprietary MIBs
Power:	110-240 VAC 50/60 Hz, 18-72 VDC, dual
Compliance:	FCC part 15 subpart B, EN 301 021, EN 301 489, UL 950, IEC 60950

TDM

Clocking:	Internal, network, adaptive
Diagnostics:	Local, remote and traffic loopback testing, detects LOS, OOF, detects/generates AIS, RAI
Ports:	1 to 8 TDM ports

E1 Interface

Connector:	RJ-48c, optional BNC adapter
Data Rate:	2.048 Mbps
Framing:	Unframed, PCM 31
Jitter:	ITU-T G.823
Standards:	ETS TBR 12/13, ITU-T Rec. G.703, G.704, G.706, G.732, G.821, G.826

T1 Interface

Connector:	RJ-48c
Data Rate:	1.544 Mbps
Framing:	Unframed, D4 (SF), ESF
Jitter:	AT&T TR-62411, ITU-T G.824
Standards:	ANSI T1.403, ITU-T Rec. G.703, G.704, G.733, G.821, G.826

[1]Contact sales for availability.

Superior Support

When you choose Redline, you receive the easiest solution to install and manage, and the best customer support in the industry. We meet our global commitments by selling through our fully qualified partners - professionals who meet our rigorous requirements for world-class service and support. All Redline partners are fully committed to customer satisfaction and are supported by our series of structured service programs and stringent quality and efficiency requirements.

Ease of Installation and Management

Redline products are easier and less expensive to install, maintain, and manage. The split architecture places the transceiver beside the antenna - eliminating cable losses, and enabling the use of low cost cables and small, easy to align antennas. Redline products can maintain a reliable link in challenging environments, allowing antennas to be placed in convenient locations such as building rooftops and small towers. This minimizes installation costs and reduces location rentals.

About Redline Communications

Redline Communications is a technology leader in the design and manufacture of standards-based broadband wireless access solutions. Using industry leading OFDM technologies, Redline's award-winning products provide unmatched high-capacity non line-of-sight capabilities with proven performance, reliability and security. Ideal for a variety of access, backhaul and private network applications, Redline products are meeting the needs of carriers, service providers and enterprises worldwide. Redline has over 10,000 installations in 75 countries across six continents through a global distribution network of 80+ partners.