



## AN-30e Broadband Wireless System



### AN-30e features:

- Low TDM round-trip delay (RTD)
- Simultaneous transport of mixed IP and TDM traffic
- Redundant AC/DC Power Supplies
- Up to eight T1/E1 full and fractional (nx64) TDM ports
- High availability operation
- Low cost implementation and easy installation
- Full loop-back capability
- Redundant Clock References
- DFS and ATPC

The AN-30e is a multi-service backhaul and specialized access solution for mobility networks and enterprise network operators. Operating in the 5.4 GHz and 5.8 GHz unlicensed bands, the AN-30e transports up to eight full T1/E1 circuits and supports links exceeding 80 km (50 mi) in clear line of sight (LOS) conditions.

Redline's AN-30e broadband wireless IP/TDM solution provides a cost-effective alternative to landline T1/E1 leased circuits. Carriers and mobility operators can employ this reliable backhaul solution to quickly expand their networks without the cost overhead of leased E1/T1 circuits - often with complete equipment payback achieved within 6-12 months.

Capable of supporting a mixture of time division multiplexed (TDM) and IP traffic applications, Redline's AN-30e wireless broadband system bridges your migration path to VoIP, while providing a cost-saving carrier grade solution for existing voice line services. For enterprise customers, a single AN-30e radio link can eliminate both recurring PSTN T1/E1 and data leased line circuit costs, while increasing access capacity and boosting performance of data applications. Municipalities, schools and hospitals can add new multi-service access where costs for traditional wired services would be significantly prohibitive.

The AN-30e is fully supported by RedAccess, Redline's full-featured carrier-class Network Management System (NMS). Use RedAccess to manage Redline's BFW products and achieve maximum performance from your wireless system.

Robust operation, high capacity, low cost installations make the AN-30e your best choice for wireless TDM backhaul 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 costs 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.



## AN-30e System Specifications

System Capability:	LOS, and optical-LOS (OFDM)
RF Band:	5.470-5.850 GHz TDD
Channel Size:	20 MHz (5 MHz steps)
Data Rate:	Up to 44 Mbps average Ethernet rate
Max TX Power:	20 dBm (region specific)
Rx Sensitivity:	-86 dBm @ 6 Mbps (BER of 1x10e-9)
IF Cable:	Up to 228 m (750 ft) using high-grade cable
Network Attributes:	Transparent bridge, automatic link distance ranging, 802.3x flow control, encryption
Modulation:	BPSK to 64 QAM
Dynamic Channel Control:	DFS, ATPC
MAC:	PTP, concatenation, ARQ
Range:	Beyond 80 km (50 mi) LOS @ 48 dBm EIRP
Network Connections:	10/100 Ethernet (RJ-45)
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:	EN 60950, EN 301 893, EN 301 390, EN 301 489-1 & 17, FCC part 15

### TDM

Clocking:	Internal, network, adaptive
Diagnostics:	Local, remote and traffic loopback testing, detects LOS, OOF, detects/generates AIS, LOS, RAI
Round-Trip-Delay:	Under 10 ms
Ports:	1 to 8 TDM ports

### E1 Interface

Connector:	RJ-48c
Data Rate:	2.048 Mbps
Framing:	Unframed, CRC4, FAS/MFAS
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:	Balanced RJ-48c
Data Rate:	1.544 Mbps
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

## 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 15,000 installations in 75 countries across six continents through a global distribution network of 80+ partners.

