

RedMAX Subscriber Unit (SU-O)



Features:

- High performance, weather-resistant design
- Simple, quick and economical installation
- Extremely low latency
- Superior NLOS PMP capability
- Advanced OFDM technology for high reliability
- Dynamic QoS settings
- Intel® PRO/Wireless 5116

The RedMAX™ Subscriber Unit-Outdoor (SU-O) is Redline's high performance, WiMAX Forum Certified® outdoor broadband wireless product designed to WiMAX Forum standards. Certification ensures that the RedMAX SU-O seamlessly interoperates with emerging IEEE 802.16-2004 compatible point-to-multipoint (PMP) equipment.

The RedMAX SU-O is easy and economical to deploy, allowing service providers to quickly provision new service offerings with bandwidth comparable to or greater than xDSL and cable. This outdoor unit, available with fully integrated flat panel antenna, or optional stand alone antenna, includes an audible antenna alignment indicator for quick and simple installation. The indoor Power-over-Ethernet (PoE) adapter provides power for the outdoor unit and the user's Ethernet network access port.

Operating in several RF bands, Redline's built-in 3rd generation, Orthogonal Frequency Division Multiplexing (OFDM) Non-Line-of-Sight (NLOS) technology helps overcome typical urban obstacles such as trees and buildings while maintaining high reliability. Rugged design standards and sophisticated techniques, including advanced forward error correction (FEC), combine to deliver wireline-equivalent high availability.

The very low latency of Redline's RedMAX SU-O ensures reliable delivery of delay-sensitive services such as video, Voice-over-IP (VoIP), and prioritized data traffic. The RedMAX SU-O supports VoIP interfaces to deliver toll-quality voice and data traffic with service level agreements and guaranteed Quality of Service (QoS).

WiMAX-based compatibility, high performance, and ease of installation combine to make the RedMAX SU-O the best choice for cost-effectively deploying wireless broadband to business and residential access markets.

RedMAX Subscriber Unit (SU-O) System Specifications

| | |
|------------------------------|---|
| System Capability: | LOS, Optical LOS, non-LOS Cell-based Point-to-Multipoint |
| RF Band ¹ : | 3.3-3.5*; 3.4-3.6; and 3.6-3.8 GHz |
| Channel Size: | 3.5 MHz, 7 MHz |
| Spectral Efficiency: | Up to 5 bps/Hz (over the air) Up to 3 bps/Hz (net to Ethernet) |
| Over The Air Rate: | Up to 35 Mbps (@7 MHz, rates depend on channel size) |
| Ethernet Data Rate: | Up to 23 Mbps (@7 MHz) |
| Maximum Tx Power: | Up to +20 dBm (region specific) |
| Rx Sensitivity: | Better than -98 dBm @ BPSK 1/2 (based on BER of 1x10e-6) |
| Cable: | Maximum length up to 250 ft (76 m) using Redline recommended shielded outdoor cable |
| Network Attributes: | Transparent bridge 802.1p, 802.1Q VLAN port tagging 802.1Q, TOS/DSCP and L2/L3 address, traffic classification DHCP client |
| Modulation/Coding Rates: | Auto select: BPSK, QPSK, 16 QAM, 64 QAM |
| Coding Rates: | 1/2, 3/4 and 2/3 |
| Over the Air Encryption: | DES and AES* |
| MAC: | Cell-based PMP deployment 802.16-2004 compliant PMP 802.16-2004 packet convergence sub-layer mode TDMA access |
| Duplex Technique: | TDD (time division duplex) HD-FDD (Half Duplex Frequency Division Duplex) |
| Wireless Transmission (PHY): | 256 FFT Orthogonal Frequency Division Multiplexing (OFDM) |
| System Configuration: | SNMP, FTP, CLI |
| Network Management: | SNMP, standard and proprietary MIBs Full management by Redline Management Suite (RMS) |
| Power Requirements: | PoE-Standard IEEE 802.3af |
| Available Power Blocks: | Auto-sensing 110/220/240 VAC 50/60 Hz |
| Compliance: | EMC: EN 301 489-1, EN 301 489-4, EN 55022/CISPR 22 RF: EN 301 021, EN 301 753, Industry Canada: RSS-192 Safety: IEC 60950-1, EN 60950-1, UL 60950-1 |
| Operating Temperature: | -40 C to 65 C |
| Antenna: | Standard: Integrated 14 dBi flat panel Optional: Selection of non integrated high gain antennas |
| Dimensions/Weight: | 8" W x 8" L x 2.5" H (20 cm x 20 cm x 6.35 cm) / 4.5 lbs (2 Kg) not including mounting bracket |

Interface Options* Ethernet Option

Standard: 10/100 Ethernet (RJ-45)
Optional: 4 port mini switch

Voice Interface Options

VoIP: SIP
POTS: 1 to 2 FXO/FXS

*Contact sales for availability in your region

¹ WiMAX Forum certification only applicable to 3.4 - 3.6 GHz

About Redline Communications

Redline Communications is the leading provider of fixed and mobile standards-based wireless broadband solutions. Redline's RedMAX™ WiMAX Forum Certified™ system, RedMAX 4C Mobile WiMAX™ products, and its award-winning broadband wireless infrastructure family of products – RedCONNEX™ and RedACCESS™ – 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 75,000 installations in 80 countries, and a global network of over 140 partners, Redline's experience and expertise helps service providers, enterprises and government organizations roll out wireless broadband networks to support advanced communications.