

POWERFUL. VERSATILE. RELIABLE.



SU-0

## Datasheet RedMAX™ Subscriber Unit - Outdoor

Redline's RedMAX™ Subscriber Unit - Outdoor (SU-0) delivers reliable, cost-effective, high-bandwidth wireless connectivity for fixed access applications. As a leader in WiMAX Forum Certified™ products, the Redline RedMAX™ SU-0 ensures seamless interoperability with emerging IEEE 802.16-2004 compatible point-to-multipoint (PMP) equipment.

Operating in several radio frequency bands, Redline's third-generation, orthogonal frequency-division multiplexing (OFDM), non-line-of-sight (NLOS) technology overcomes obstacles such as trees and buildings. Its rugged design and sophisticated communications techniques, including advanced Forward Error Correction (FEC), deliver wireline equivalent high availability.

The very low latency of Redline's RedMAX™ SU-0 ensures reliable delivery of delay-sensitive services such as video, packet and circuit voice and other prioritized services. A full range of Quality of Service (QoS) controls lets you deliver toll quality voice and other services while meeting the Service Level Agreements (SLAs) demanded by customers.

Available with a fully integrated flat-panel antenna, or an optional stand-alone antenna, the RedMAX™ SU-0 includes an audible antenna alignment indicator and utilizes Power over Ethernet (PoE) technology for quick and easy installation. The ruggedized and IP67 certified design ensures uninterrupted operation in the toughest environments.

Whether you are providing bandwidth comparable to or greater than xDSL or cable, video surveillance, Smart Grid or Smart Field applications or deploying SCADA or AMI systems, RedMAX's™ WiMAX-based compatibility, high performance and ease of installation make the RedMAX™ SU-0 the best choice for delivering broadband wireless services to business and residential access markets cost effectively.

### AT A GLANCE

WiMAX Forum Certified

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

## REDCARE SUPPORT

Redline's products are backed by RedCARE, one of the best support programs in the industry, providing responsive customer and solution support everywhere that Redline's products are available. RedCARE ensures consistent, broadband wireless connectivity for our customers.

## ABOUT REDLINE COMMUNICATIONS

Redline Communications ([www.rdlcom.com](http://www.rdlcom.com)) is a leading provider of specialized broadband wireless systems used to cost-effectively deploy distributed applications and services. Redline systems are used by local and state governments to quickly and easily deploy or extend their public safety networks; by oil and gas companies to connect their digital oil fields; by service providers and enterprises to bring dedicated Internet access to business users; and by the military to rapidly deploy secure networks. For more than 10 years, Redline has been delivering powerful, versatile and reliable wireless solutions through certified partners in the Americas, the Middle East, and Africa.

## TECHNICAL SPECIFICATIONS

<b>System Capability</b>	LOS, Optical LOS, and non-LOS Cell-based Point-to-Multipoint
<b>RF Band</b>	3.3–3.5 GHz, 3.4–3.6 GHz, 3.6–3.8 GHz, 3.65–3.7 GHz FCC/IC
<b>Channel Size</b>	3.5 MHz, 7 MHz
<b>Spectral Efficiency</b>	Up to 5 bps/Hz (over-the-air)
<b>Data Rates</b>	18 Mbps (7 MHz channel size); 9 Mbps (3.5 MHz channel size) Ethernet rates
<b>Latency</b>	6–18 msec (depends on channel size, OFDM frame duration)
<b>Maximum Tx Power</b>	Up to +20 dBm (region specific)
<b>Rx Sensitivity</b>	Better than -98 dBm @ BPSK 1/2 (based on BER of 1x10e-6)
<b>PoE Cable</b>	Maximum length up to 91 m (300 ft) using Redline recommended shielded outdoor CAT 5 cable
<b>Network Attributes</b>	Transparent bridge 802.1p, 802.1Q VLAN port tagging 802.1Q, TOS/DSCP and L2/L3 address, traffic classification DHCP client
<b>Modulation/ Coding Rates</b>	Auto select: BPSK, QPSK, 16 QAM, 64 QAM
<b>Coding Rates</b>	1/2, 3/4 and 2/3
<b>Over the Air Encryption</b>	DES, 3DES
<b>MAC</b>	Cell-based PMP deployment 802.16-2004 certified PMP 802.16-2004 packet convergence sub-layer mode TDMA access
<b>Range</b>	Up to 72 km (45 mi)
<b>Duplex Technique</b>	TDD (time-division duplex) HD-FDD (half duplex frequency-division duplex)
<b>Wireless Transmission (PHY)</b>	256 FFT OFDM (orthogonal frequency- division multiplexing)
<b>Management</b>	SNMP, FTP, CLI, TFTP, RedMAX EMS
<b>Power Requirements</b>	PoE-Standard IEEE 802.3af
<b>Compliance</b>	<b>EMC:</b> EN 301 489-1, EN 301 489-4, EN 55022/CISPR 22 RF: EN 301 021, EN 301 753, Industry Canada: RSS-192, FCC: Parts 90 & 15 (for USA 3.65 GHz operation) Safety: IEC 60950-1, EN 60950-1, UL 60950-1
<b>Operating Temperature</b>	-40 °C to 65 °C (-40 °F to 150 °F)
<b>Antenna</b>	<b>Standard:</b> Integrated 14 dBi flat panel <b>Optional:</b> Selection of non integrated high gain antennas
<b>Dimensions</b>	205 mm x 205 mm x 68 mm (8.1 in x 8.1 in x 2.7 in)
<b>Weight</b>	2 kg (4.5 lbs) not including mounting bracket

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