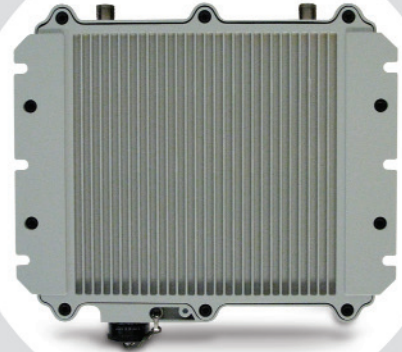


RDL-3000

Advanced Broadband Wireless Infrastructure Solution



The RDL-3000 carrier class, broadband radio provides high capacity, long range point-to-point and point-multipoint communications links. Chosen for its ability to deliver a seamless wireless experience in complex applications such as high quality video surveillance, VoIP, data acquisition, the RDL-3000 is used throughout the world by service providers, governments, the oil and gas industry, utilities, and military organizations.

Operating in the licensed 4.9 GHz public safety band or the 5.3 GHz – 5.8 GHz license exempt band, the RDL-3000 is configured via firmware options and throughput keys so you can purchase the features and throughput performance you need today and upgrade later without having to replace any hardware. This common radio hardware approach reduces your spares requirement while providing a high level of future proofing via new firmware loads for updates and new features.

Powered by Redline's innovative fourth generation Orthogonal Frequency Division Multiplexing (OFDM) technology, the RDL-3000 radio is an IEEE 802.16 standards based design with powerful hardware accelerators and MIMO technology that achieves the highest throughput, lowest latency and the greatest line-of-sight (LOS) and non-line-of-sight (NLOS) range in the industry even in the most challenging urban and industrial environments.

In the PTP configuration, the RDL-3000 has excellent range – over 80kms and delivers over 100 Mbps Ethernet data rate – more than double the nearest competitor, making it the ideal choice for high capacity backhaul applications. In the PMP configuration, the RDL-3000 delivers over 100 Mbps Ethernet data rate, the highest in its class and it supports a full range of Quality of Service (QoS) controls to enable premium access services for voice, data and video services. Its industry leading capacity also supports the maximum number of video cameras with the highest video quality. With either configuration, you're assured of the ultra low latency – as low as 1 msec – up to 40 times lower versus the competition. The RDL-3000 sector controller synchronization enables co-located and adjacent base station deployments for maximum area coverage and data throughput with minimum spectrum utilization.

With AES-128 encryption standard or optionally AES-256 encryption, and X.509 certificate based authentication, the RDL-3000 delivers unparalleled security.

Available with a wide variety of antennas, the RDL-3000 includes an audible antenna alignment indicator and a built-in spectrum analyzer function for quick and simple installation. The product is manageable through the use of a standard Web browser or through Redline's SNMP based element management system.

Designed to meet stringent carrier-class requirements, HALT accelerated life tested and with an IP67 (submersible) rated outdoor enclosure, the RDL-3000 all outdoor platform is the most robust and reliable platform in its class making it the perfect choice for mission critical deployments.

The RDL-3000's best-in-class performance reduces the cost of providing wireless broadband access and backhaul solutions where high capacity, high throughput, security and reliability are paramount.

Features:

- Common hardware platform for 4.9 to 5.8 GHz operation
- Industry leading 120 Mbps UBR with over 100 Mbps Ethernet throughput using 2 x 2 MIMO
- Exceptional long-range capabilities
- Highest capacity system in the industry
- Lowest end-to-end latency in its class
- Flexible software controlled speed and channel size selection
- Per-link dynamic TDD, ARQ & adaptive modulation/coding
- All outdoor configuration with IEEE 802.3at PoE
- Synchronization option for collocated units (internal or GPS)

Industry-Leading Broadband Wireless Solutions

Redline solutions deliver an unmatched combination of range, capacity, security, and reliability, even under the most challenging environmental conditions. Redline's best-in-class data rates and spectral efficiencies conserve valuable spectrum and reduce the cost of providing high-performance access. Redline solutions combine built-in security encryption with robust, extreme distance / high-bandwidth performance to deliver products that provide the reliability network operators and carriers need to grow their systems into the future.

RDL-3000 System Specifications

System Capability:	LOS, optical-LOS, and non-LOS	MAC:	Concatenation, TDMA, Fragmentation, Dynamic ARQ (per-link), Dynamic adaptive modulation (per-link), Dynamic and fixed TDD (per link)
Wireless Transmission:	OFDM (Orthogonal Frequency Division Multiplexing)	Over the Air Encryption:	AES-128 and AES-256 options
RF Band:	4.940 - 5.850 GHz ¹ , TDD (Time Division Duplexing) 2 x 2 MIMO	Network Connection:	10/100 Ethernet (RJ-45)
Channel Size:	5, 10, 20, MHz ¹ (software selectable)	System Configuration:	HTTP / HTTPS, Telnet, SSH SNMPv2 / v3
Data Rate:	Up to 120 Mbps (uncoded burst rate) Up to 100 Mbps (Ethernet rate)	Element Management:	Redline Management System support
Max Tx Power:	+25 dBm (region specific)	Operating Temp:	-40 to 60 degrees Celsius
Rx Sensitivity:	-89 dBm @ 3 Mbps	Power Consumption:	Standard IEEE 802.3at
PoE Cable:	Up to 91m (300 ft)	Compliance: ²	IEC, EN, and UL/CSA 60950 EN 301 489-1, EN 301 489-17 5.8 GHz Industry Canada RSS 210, FCC part 15, ETSI EN 302 502; 5.4 GHz Industry Canada RSS 210, FCC part 15, ETSI: EN 301 893 4.9 GHz Industry Canada RSS 111, FCC Part 90
Network Attributes:	Transparent bridge, automatic link distance ranging, DHCP pass-through, 802.1Q VLAN, CIR, PIR support	Dimensions:	11.45" (290.7mm) X 10.57" (268.4mm) X 2.50" (63.5mm)
Modulation:	BPSK to 64 QAM, Bidirectional dynamic adaptive (per link)	Weight:	5.5 lbs / 2.5 Kg
Humidity:	100% humidity, condensing		

1. Availability restricted by regional regulations. 2. Pending

RedCARE Support

Redline's complete family of BWI products is backed by the best support programs in the industry. Redline's exceptional network of highly trained Certified Partners provides responsive customer and solution support everywhere Redline's products are available – all fully backed by Redline's RedCARE program.

The RedCARE program is backed by Redline's decade of experience in deploying OFDM solutions for both WiMAX and BWI network deployments. The program is delivered through a dedicated team of certified professionals. RedCARE ensures consistent, broadband wireless connectivity for our customers.

About Redline Communications

Redline Communications is the leading provider of advanced broadband wireless solutions. Redline's award-winning broadband wireless products enable network operators to cost-effectively support high bandwidth communications, including voice, video, and data communications. Redline is committed to maintaining its wireless industry leadership with the continued development of advanced wireless broadband products. Redline's experience and expertise helps service providers, utilities, oil and gas, government, military organizations and more roll out wireless broadband networks to support their specific communications requirements.