Industrial Broadband Wireless Solution for
Voice / Video / Data / M2M Communications

Datasheet
RAS Nomadic Platform

RAS ELITE

RDL-3000 Series Solutions
More flexible than fiber

AT A GLANCE

Ruggedized software-defined industrial wireless terminal

Zero-touch 360° self-aiming system has you online in minutes

Deploy up to 29 km (18 mi) from a Redline base station

4.9 - 5.4 / 5.4 - 5.8 GHz bands

Integrated GPS for geo-location

Integrated smart directional antenna

Scalable using software keyed speeds and applications

Up to 120 Mbps over-the-air

High-grade data & platform security

All outdoor low power configuration suitable for solar power applications

Powerful packet processing capacity delivers very low end-to-end latency

Superior reliability with the best MTBF in the wireless industry

Remote management and KPI monitoring solution using Redline ClearView NMS

Use Redline's RAS Elite Virtual Fiber™ solution to extend reliable high-speed IP connectivity to movable and roving assets anywhere in a Redline private wide area wireless network.

Purpose built for the tough industrial marketplace, the RAS platform mounts quickly and easily on movable equipment and vehicles. With zero-touch setup, you simply power-on the RAS to locate and automatically aim the solid-state antenna towards the nearest Redline sector controller. The RAS quickly establishes security and Quality of Service (QoS) settings to bring the connection online at Ethernet speeds up to 100 Mbps. Use the RAS for voice calls, video, backhaul to Wi-Fi, APs, M2M data and more.

Join the growing list of energy corporations, local and state governments, and military organizations globally using Redline's Universal Wireless Transport (UWT) to reliably connect people and machines everywhere. Redline Virtual Fiber™ solutions — where nothing else works.

FEATURES AND BENEFITS

❏ Turnkey operation allows non-technical personnel to easily transport, setup and operate a RAS

❏ Self-aligning antenna system needs no aiming — eliminating recurring operations costs

❏ Rugged housing and high-grade industrial components sustain extreme temperature, shock and vibration to provide years of reliable nomadic operation in unprotected outdoor work spaces

❏ Complete over-the-air monitoring, configuration, and software upgrades without physical access to the system

❏ Fully software-defined design provides enhanced flexibility and extends system life far beyond fixed hardware solutions

PRODUCT COMPLEMENTS

The RAS Nomadic Platform is fully compatible with the RDL-3000 SC and eLTE-GT sector controllers and operates in sectors with eLTE-MT, AN-80i and RDL-3000 SU wireless terminals. The RDL-3000 Industrial Series is supplemented by a full line of hardened industrial peripherals including antennas, cables, mounting hardware, and power sources.

POWERFUL. VERSATILE. RELIABLE.

redline®
communications

REDLINE VIRTUAL FIBER

Redline Virtual Fiber™ is your smart alternative to deliver IP connectivity whenever fiber-like performance is required and you need to deploy rapidly, where fiber is not available, or fiber is impractical. With simple setup and connection, scalable performance options, superior physical security and reliability, Redline Virtual Fiber™ provides flexibility not available with fiber.

REDLINE PROFESSIONAL SERVICES

Redline Professional Services cover the entire spectrum of complex tasks to design, build, optimize, and manage private wireless broadband networks. From product training and cell planning to complete turnkey solutions, let Redline and their global partners help you realize and manage a world class wireless network.

Redline is widely recognized as having one of best customer support programs in the wireless industry for delivering responsive customer and solution support everywhere Redline's products are deployed.

SOFTWARE OPTIONS

- ❏ MetroLINK
- ❏ SecureLINK
- ❏ VideoLINK

COMPLIANCE

ISO 9001:2008   RoHS Compliant

ABOUT REDLINE COMMUNICATIONS

Redline Communications (www.rdlcom.com) is the innovator of Virtual Fiber™, a rugged wireless broadband solution used to cost-effectively deploy and extend secure networks, enable machine-to-machine (M2M) applications, connect digital oilfields and smart grids, facilitate and enhance public safety networks, and bring Internet access wherever and whenever it's needed – regardless of terrain or remote location. For more than a decade Redline has delivered powerful, versatile and reliable wireless systems to governments, militaries, oil and gas companies and telecom service providers through its global network of certified partners.

RAS ELITE SPECIFICATIONS

System Capability	LOS/OLOS/NLOS PMP Terminal
Wireless transmission	OFDM (orthogonal frequency-division, multiplexing), 2 x 2 A/B MIMO, TDD
RF Band	4940 - 5400 MHz[1], 5400-5875 MHz[1]
Channel size	5/10/20 MHz[1] (software selectable)
Data Rate	Up to 120 Mbps UBR / 100 Mbps Ethernet
Latency	<10 ms
Processing Speed	>150,000 PPS
Max Range	25 km (16 mi)
Max EIRP	37 dBm[1] (2x 34 dBm)
PoE Cable	Up to 91 m (300 ft)
Network Attributes	Transparent bridge, DHCP pass-through, 802.1Q VLAN
Modulation	BPSK to 64 QAM, TDMA
MAC	Dynamic ARQ (per-link)
QoS	802.1 p/Q, CIR, PIR support, Multiple service flows per subscriber, Dynamic Spectrum Access & Management[1], 802.3x
OTA Encryption	AES-128[1] and AES-256[1] (software keyed)
Net Connection	10/100 Ethernet (RJ-45)
Authentication	X.509 Certificates (software keyed)
Management	ClearView NMS, HTTP (Web), SNMP v2 / v3, Telnet, HTTPS (SSL), SSH
GPS	Built-in (software keyed)
Operating Temp	-40 °C to +60 °C (-40 °F to +140 °F)
Humidity	100% humidity, condensing
Power Consumption	Standard IEEE 802.3at
Compliance	Safety: IEC, EN, and UL/CSA 60950, EMC: EN 301 489-17, EN 301 489-1 v.1.8.1, Part 1, EN 301 489 -4 v.1.4.1, Part 4 5.8 GHz[1]: IC RSS-210, FCC Part 15, ETSI EN 302 502, 5.4 GHz[1]: IC RSS-210, FCC Part 15, ETSI EN 301 893, 4.9 GHz[1]: IC RSS-111, FCC Part 90, Security: FIPS 140-2[2], Vibration: MIL-STD-810F, Method 514.5, Drop Test: MIL-STD-810G, Method 516.6, Ice: Defense Standard-035 part 3 Issue 4
Enclosure	IP67 (IEC 60259)
Dimensions	477 x 205 x 205 mm (18.75 x 8 x 8 in), without bracket
Weight	3 kg (6.6 lb) without bracket
Wind Speed	120 Km/h (75 mph)
Mount	Pole, Truck Rack or Magnetic

[1] Availability restricted by regional regulations or product options; [2] In-process

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