RDL-3000 SU

RDL-3000 Series Solutions
More flexible than fiber

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

Datasheet
High-Speed Industrial Wireless Terminal

AT A GLANCE

Ruggedized software-defined industrial wireless terminal

2.5 / 3.5 / 4.9 - 5.8 GHz bands

600 MHz UHF band (Whitespaces)

-40 ˚C to +60 ˚C operation using dynamic and radiant thermal dissipation (no moving parts)

Selection of external antennas

PTP links up to 100 km (66 mi)

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 the RDL-3000 SU Virtual Fiber™ solution to deliver reliable high speed wireless connectivity in challenging environments, isolated locations, and distances up to 100 km.

The RDL-3000 SU wireless terminal is ideal for industrial applications requiring broadband speeds and high reliability. Available in a wide range of frequency bands, the durable enclosure and wide selection of antennas enables long range deployments in the most challenging environmental conditions.

Deploy the RDL-3000 SU quickly and easily wherever you need wireless services for SCADA telemetry, automated process control, backhaul to Wi-Fi AP, instrumentation data, video surveillance, VoIP 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

❑ Industrial wireless terminal for applications needing extra distance or operation in extended frequency bands (e.g., UHF)

❑ IP67 rated all-weather enclosure provides reliable operation in a wide range of temperature and environmental conditions

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

❑ Purchase only initial performance levels and features and upgrade later over-the-air without replacing hardware

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

PRODUCT COMPLEMENTS

The RDL-3000 SU is fully compatible with the RDL-3000 SC and eLTE-GT sector controllers and operates in sectors with eLTE-MT, AN-80i and RAS 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.

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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
- ❏ RapidLINK
- ❏ VideoLINK

COMPLIANCE

ISO 9001:2008

RoHS Compliant

RDL-3000 SU SPECIFICATIONS

System Capability	LOS/OLOS/NLOS, PMP Terminal / PTP
Wireless transmission	OFDM (orthogonal frequency-division, multiplexing), 2 x 2 A/B MIMO, TDD
RF Band	470-698 MHz[1], 2300-2700 MHz[1], 3300-3800 MHz[1], 4940-5875 MHz[1]
Channel size	3.5/5/7/10/14/20 MHz[1] (software selectable)
Data Rate	Up to 120 Mbps UBR / 100 Mbps Ethernet
Latency	<10 ms
Processing Speed	>150,000 PPS
Max Range	100 km (66 mi)
Max Tx power	+26 dBm[1] (MIMO, frequency band specific)
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, HTTP (Web), SNMP v2 / v3, Telnet, HTTPS (SSL), SSH
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 301 489-1, EN 301 489-17, 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, 3.65 GHz[1]: IC RSS-197, 3.5 GHz[1]: ICC RSS-192, 3.3-3.8 GHz[1]: ETSI EN 302 326-2, 2.4 GHz[1]: IC RSS-210[2], ETSI 300-328[2], 2.3 GHz[1]: IC RSS-195, 600 MHz[1]: IC RSS-196, FCC Part 15H[2], Security: FIPS 140-2[3]
Enclosure	IP67 (IEC 60259)
Dimensions	290.7 mm x 230 mm x 60.3 mm (11.45 in x 9.06 in x 2.375 in)
Weight	2.7 Kg (6 lbs) without bracket or antenna

[1] Availability restricted by regional regulations or product options; [2] Pending; [3] In-process

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