RAS-EXTEND

Full Motion Auto-Acquire Wireless TCP/IP Data Terminal

The RDL-3000 RAS-Extend series provides secure reliable wireless transport directly to land vehicles, marine vessels, and floating platforms in motion. Easily operated by non-technical personnel with no special training, the RAS-Extend automatically obtains and holds a reliable high-speed connection to the fixed Redline wireless network.

FEATURES AND BENEFITS

- The highly reliable touchless operation and self-aiming antenna with continuous signal and GPS tracking, requires no specialized (telecom) personnel for normal operation
- High throughput for concurrent transport of M2M telemetry and telecontrol, data, video and voice services
- Durable all-weather enclosure for reliable operation in a wide range of temperatures and environmental conditions
- Over-the-air monitoring, configuration and software keyed features enable upgrades without physical access
- Software-defined architecture enhances reliability and service lifetime

PRODUCT COMPLEMENTS

The RAS-Extend is fully compatible with all Redline RDL-3000 family base stations and wireless terminals. Redline provides a complete selection of peripherals and professional services for all your deployment needs.

UNIFIED GLOBAL SOLUTIONS

Redline's patented UWT™ technology provides a truly unified wireless networking solution—across the spectrum, across your company and across the globe—enabling secure, reliable, high-speed connectivity to people and smart devices everywhere.

SYSTEM AT A GLANCE

Outdoor software-defined 186.6 Mbps wireless terminal for PMP and PTP applications

Extends high speed TCP/IP transport to moving land vehicles, marine vessels and floating platforms

Reliable fast transport of M2M, data, HD video and voice traffic

Auto-acquire with full-time tracking and automatic antenna alignment with built-in GPS

Wide selection of MIMO antennas

-15 to 55 °C operating range using dynamic and thermal dissipation (no moving parts)

High-grade cyber security features

Very low latency supports time-sensitive applications

Over-the-air monitoring, configuration, upgrades and software keyed speeds and features

POWERFUL. VERSATILE. RELIABLE.

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RAS-EXTEND SPECIFICATIONS

Capability	LOS/OLOS/NLOS PMP Terminal, PTP Terminal[1]
Wireless transmission	OFDM (orthogonal frequency-division, multiplexing), TDD/TDMA, 2 x 2 MIMO A/B with STBC & MRRC
RF Band (MHz)	470-698[1], 2000-2300[1], 2300-2700[1], 3300-3800[1], 4940-5875[1]
Channel Size (MHZ)	0.875/1.25/1.75/2.5/3.5/5/6/7/10/12/14/20 software selectable[1]
Modulation	BPSK 1/2 to 64 QAM 5/6, 256 QAM[1]
System Capacity	3 Mbps to 186.6 Mbps[1] UBR
Max Tx Power	M/L: +30 dBm[1] (Max combined tx power, MIMO mode/frequency band specific)
Antenna Info	LV: Integrated MIMO; M/L: External MIMO
Wireless QoS	Dynamic Spectrum Access & Management[1]
MAC	Dynamic ARQ
Security	AES 128/256 (OTA, FIPS 197 compliant); HTTPS (SSL), SSH (CLI), SNMP v3; MAC-based, Mutual Authentication; ECDSA Certificates Authentication[1]; FIPS-140-2[1]
Connection	10/100 Ethernet (RJ-45); M/L: 2x RF N-Type(f)
Layer 2	512 Kbps to 100 Mbps[1]
Latency	<10 ms
Processing (PPS)	>150,000
Attributes	Transparent bridge, DHCP pass-through, 802.1Q VLAN
Network QoS	CIR, PIR support, multiple services per terminal, 802.3x, 802.1p
Management	Redline ClearView NMS, SNMP v2, HTTP (Web), Telnet (CLI), RADIUS (User Authentication)
Provisioning	Automatic templates using ClearView NMS[1]
Redundancy	1+1 Hot Standby[1] (PRP or RSTP compatible)
Temperature	-15 to 55 °C (-5 to 131 °F)
Enclosure	IP67 (IEC 60259)
Humidity	100% humidity, condensing
Surge Protection	Built-in: PoE port
Location & Timing	LV: Built-in GPS; M/LV: External GPS
Mount	Marine: Pole or prepared flat surface Land: Pole or truck bracket
Mil-Spec Shock & Vibration	MIL-STD-810F METH.516.5, MIL-PRF-49256A

All specifications are subject to change without notice.
1. Availability restricted by regional regulations, model type, software version and purchased product options key; 2. Pending; 3. In process

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

5.2 GHz[1]: IC RSS-210, FCC Part 15

4.9 GHz[1]: IC RSS-111, FCC Part 90

3.65-3.70 GHz[1]: IC RSS-197, FCC Part 90Z

3.5 GHz[1]: IC RSS-192

3.3-3.8 GHz[1]: ETSI EN 302 326-2

2.6 GHz[1]: EN 302-544

2.4 GHz[1]: IC RSS-210, ETSI 300-328, FCC Part 15C[2]

2.3 GHz[1]: IC RSS-195

2.1 GHz[1] (2.025-2.110 GHz[1], 2.200-2.290 GHz[1]) ITU-R F.1098

600 MHz[1]: IC RSS-196, FCC Part 15H

Security: FIPS 140-2[3], FIPS 197 compliant

RoHS Compliant

Physical Attributes

Dimensions

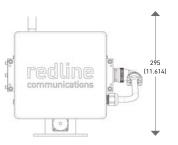Land: 301.7 x 295 x 260.8 mm
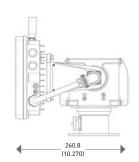(11.879 x 11.614 x 10.270 in)
Marine: 295 x 255 x 250 mm
(11.75 x 10.5 x 10 in) (antenna positioner only)

Weight

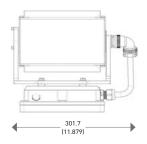Land: 8.4 kg (18.6 lbs)
Marine: 16.3 kg (36.0 lbs)
(antenna positioner only)

DRAWINGS

295 (11.614)
260.8 (10.270)
301.7 (11.879)

Dimensions are in millimeters (inches). Land option shown.

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