ELLIPSE

Wireless Base Station for Redline Outdoor Wireless TCP/IP Data Terminals

The RDL-3000 Ellipse manages all security, traffic scheduling and Quality of Service (QoS) functions for Redline's extensive family of outdoor wireless TCP/IP remote data terminals. This highly configurable wireless base station features powerful processing capabilities to reliably transport any mix of wireless traffic between the base station and multiple remote sites.

FEATURES AND BENEFITS

- Highly reliable transport hub supports all RDL-3000 remote wireless data terminals including auto-acquire systems
- High throughput for concurrent transport of M2M telemetry and telecontrol, data, video and voice services
- Durable all-weather enclosure for reliable operation in extreme 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 Ellipse base station is fully compatible with all Redline RDL-3000 wireless remote 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 base station for PMP and PTP applications

Supports for all RDL-3000 remote terminals including auto-acquire systems

Reliable fast transport of M2M, data, HD video and voice at many remote sites

Geo-location & timing using built-in GPS

Wide selection of MIMO antennas

-40 to 75 °C operating range using dynamic and thermal dissipation (no moving parts)

High-grade cyber security features

Very low latency supports time-sensitive applications

Low power requirement suitable for solar applications

ELLIPSE SPECIFICATIONS

Capability	LOS/OLOS/NLOS PMP Base Station[1] or 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 & Coding	BPSK 1/2 to 64 QAM 5/6, 256 QAM[1]
System Capacity	3 Mbps to 186.6 Mbps[1] UBR
Max Range	100 km (66 mi)
Max Tx Power	+30 dBm[1] (Max combined tx power, MIMO mode/frequency band specific)
Antenna Info	External MIMO sectoral or omni directional
Wireless QoS	Dynamic Spectrum Access & Management[1]
MAC	Per link: dynamic ARQ, dynamic adaptive modulation, dynamic and fixed frame
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), 2xRF N(f), GPS TNC(f)
Layer 2	512 Kbps to 100 Mbps (data rate limited by remote unit's option key)[1]
Latency	<10 ms
Processing (PPS)	>150,000
Attributes	Auto. link distance ranging, 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	MAC-Based; Template-based[1]; Automatic using Redline ClearView NMS[1]
Redundancy	1+1 Warm Standby[1]
Temperature	-40 to 75 °C (-40 to 167 °F)[4]
Enclosure	IP67 (IEC 60259)
Humidity	100% humidity, condensing
Location & Timing	Built-in GPS[1]
Surge Protection	Built-in: PoE and RF ports
Power	<17W; Standard IEEE 802.3at (PoE); CAT5 cable 100m (330 ft) max.

All specifications are subject to change without notice.
1. Availability restricted by regional regulations, model type, software version and purchased product options; 2. Pending;
3. In Process; 4. UHF systems only: 60 °C (140 °F)

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

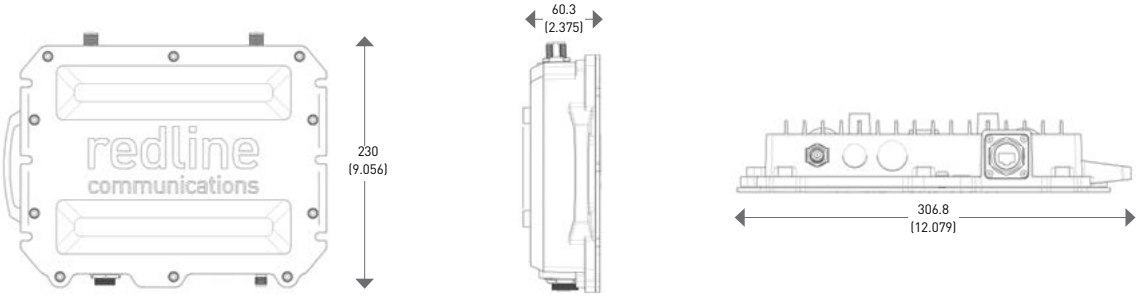
Dimensions

306.8 x 230 x 60.3 mm (12.079 x 9.06 x 2.375 in)

Weight

2.7 kg (6.0 lbs) without bracket or antenna)

DRAWINGS



Dimensions are in millimeters (inches)

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