# RDL-3000 XP Ellipse

Wireless Base Station for Aviat Networks Outdoor Wireless TCP/IP Data Terminals

The RDL-3000 XP Ellipse manages all security, traffic scheduling and Quality of Service (QoS) functions for Aviat Networks' 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.
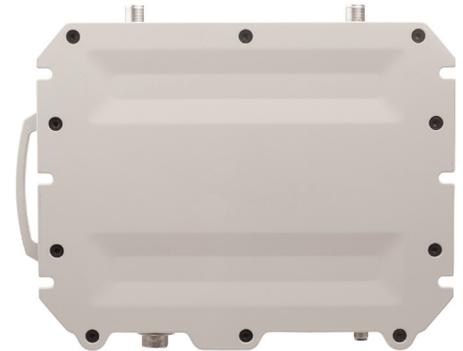
FEATURES AND BENEFITS

- Highly reliable transport hub supports all RDL-3000 XP 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 Aviat Networks RDL-3000 XP wireless remote terminals. Aviat Networks provides a complete selection of peripherals and professional services for all your deployment needs.

UNIFIED GLOBAL SOLUTIONS

Aviat Networks' 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 XP 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

Certified for hazardous locations

RDL-3000 XP ELLIPSE SPECIFICATIONS

Max Tx Power	+31 dBm[1] (Max combined tx power, MIMO mode/frequency band specific)
RF Band (MHz)	470-698[1], 2000-2300[1], 2300-2700[1], 3300-3800[1], 4940-5875[1]
Antenna Info	External MIMO sectoral or omni directional
Capability	LOS/OLOS/NLOS software-defined PMP Base Station[1] or PTP terminal[1]
Wireless QoS	Auto link distance ranging, auto channel scanning, optimal channel selection, ATPC, DFS
Transmission	OFDM (orthogonal frequency-division multiplexing), TDD/TDMA 2 x 2 MIMO A/B with STBC & MRRC, high-rejection Tx/Rx filtering
Throughput	Up to 186.6 Mbps[1] UBR
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 to 256 QAM 7/8[1]
Spectral Efficiency	9.3 bits per second per Hertz
Channel Efficiency	Up to 93%
Max Range	150 km (93 mi)
Number of Remotes	120
Security	Management Encryption: TLS v1.2, AES-256, SHA1, Device Authentication: ECDSA digital signature-based authentication or MAC-based mutual authentication, Data Encryption: AES-128/256 with ECDH secure key exchange (over-the-air, FIPS 197 compliant), NIST
Network Features	Transparent bridge, DHCP pass-through, 802.1Q VLAN (Q-in-Q), VLAN Whitelisting, Syslog, SNTP, spectrum analyzer
Layer 2	160 Mbps aggregate[1]
Latency	<10 ms
Processing (PPS)	>280,000
MAC	Per link: dynamic ARQ, dynamic adaptive modulation, dynamic and fixed frame, Fast Fusion Link Adaptation
QoS	802.1p, 802.3x, CIR & PIR settings, up to 8 services per terminal
Management Interface	Aviat Networks ClearView NMS, SNMP v2c/v3, HTTP/HTTPS (Web), Telnet/SSH (CLI), Management VLAN tagging, RADIUS User Authentication
Provisioning	MAC-Based; Template-based[1]; Automatic using Aviat Networks ClearView NMS[1]
Redundancy	1+1 Warm Standby[1] , HSR, PRP or RSTP compatible
Location & Timing	Built-in GPS[1]
Power	<17W; Standard IEEE 802.3at (PoE); CAT5 cable 100m (330 ft) max
Temperature	-40 to 75 °C (-40 to 167 °F)[3]
Connections	10/100 Ethernet (RJ-45), 2xRF N(f), GPS TNC(f)
Surge Protection	Built-in: PoE and RF ports
Enclosure	IP67 (IEC 60529)
Humidity	100% humidity, condensing

Compliance

Safety:	IEC/EN/UL 60950-1, IEC/EN/UL 62368-1
EMC:	EN 301 489-4 EN 301 489-17
5.8 GHz[1]:	RSS-247, FCC Part 15.407 ETSI EN 302 502
5.4 GHz[1]:	RSS-247, FCC Part 15.407 ETSI EN 301 893
5.2 GHz[1]:	RSS-247, FCC Part 15.407
4.9 GHz[1]:	RSS-111, FCC Part 90Y
3.65-3.70 GHz[1]:	RSS-197, FCC Part 90Z
3.5 GHz[1]:	RSS-192
3.4-3.6 GHz[1]:	EN 302 326-2
2.496-2.690 GHz[1]:	FCC Part 27
2.4 GHz[1]:	RSS-210, ETSI 300 328, FCC Part 15C2
2.3 GHz[1]:	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]:	RSS-196, FCC Part 15H, EN 301 598
HAZ: ATEX/IECEx:	Zone 2, CSA: Class 1 Div 2

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

Patent No.
US 9,468,028 B2

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. UHF systems only: 60 °C (140 °F)

DRAWINGS

60.3
(2.375)

230
(9.056)

306.8
(12.079)

Dimensions are in millimeters (inches)