



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

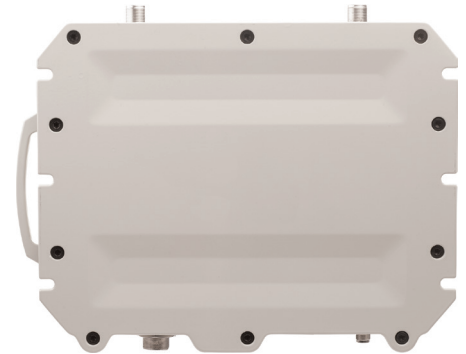
- Highly reliable transport hub supports all RDL-3000 XP remote wireless data terminals including auto-acquire systems
- High throughput for concurrent transport of M2M telemetry and telecontrol, data, video and voice services
- Durable all-weather enclosure for reliable operation in extreme temperatures 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 & MRRP, 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, SNMP, 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 ProVision Plus, 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 ProVision Plus ¹ |
| Redundancy | 1+1 Warm Standby ¹ , HSR, PRP or RSTP compatible |
| Location & Timing | Built-in GPS ¹ |
| Out-of-band Filter (option) | Insertion loss <0.5 dB with >30dB below 3200 MHz and above 7500 MHz for protection from C-band and X-band marine radar as well as X-band satcom |
| 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, optional GigEthernet for 4940-5875 MHz model (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 |



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

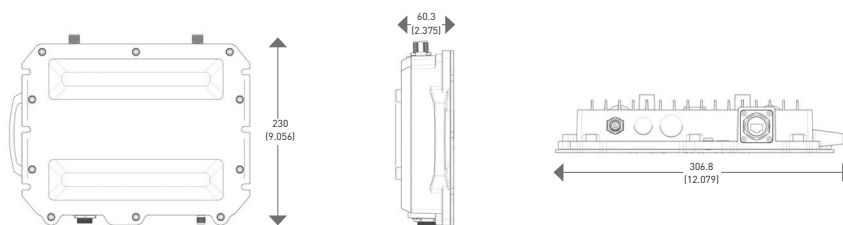
Patent No.

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



Dimensions are in millimeters (inches)