Industrial Grade, LTE-Advanced Performance, Low Power

The AirLink RV50 is the industry’s lowest power and most rugged LTE gateway. Simple to install and easy to manage, this industrial-grade gateway is designed to connect critical assets and infrastructure. Ideal for energy, utilities and smart-city applications, the RV50 provides real-time remote connectivity for SCADA, distribution management systems and metering.

With the lowest power consumption available on the market, the RV50 dramatically reduces infrastructure costs when running on battery or solar power. The RV50X variant supports an extensive range of LTE bands worldwide, and its LTE-Advanced capabilities deliver up to 300 Mbps downlink speeds. For deployments in areas with limited LTE coverage, the RV50 provides fallback to 2G and 3G networks. Furthermore, the RV50 provides programmability to enable edge computing applications, using the ALEOS Application Framework (AAF).

FEATURES

- LTE performance at 2G power consumption (less than 1W in idle mode)
- State-of-the-art LTE coverage spanning 21 LTE frequency bands worldwide
- Two product variants cover the globe
- Fully automatic network operator switching; just insert the SIM
- Provides network connectivity via Ethernet, Serial and USB
- Remote configuration, software update, and monitoring with cloud-based AirLink Management Service (ALMS) or on-premises with AirLink Mobility Manager (AMM)
- Dual-SIM functionality to enable automatic failover between SIMs (CANADA/EMEA/APAC)
- Meets industrial-grade certifications including Class 1 Div 2, MIL-STD-810G, IP64 ingress protection
- Supports up to 5 VPN tunnels for secure cellular communications
- Events Engine for alert reporting to third party server platforms
- Application Framework (AAF) offers real-time onboard data processing; RV50X’s dual-core processor provides added performance for advanced edge computing applications.
- GPS for tracking equipment

AirLink® RV50 Industrial LTE Gateway
RUGGED DESIGN FOR DEMANDING ENVIRONMENTS

The RV50 is designed to withstand harsh industrial conditions, and is capable of surviving 5 V brownouts and spikes from -600 VDC to 200 VDC. Certified as Class I Div 2, it is ideal for hazardous environments. The die cast aluminum housing is sealed to meet IP64 for resistance to dust and water ingress. The RV50 is tested to meet and exceed the MIL-STD-810G specification for shock, vibration, temperature and humidity. The built-in power supply protection make it suitable for harsh electrical environments such as compressors, generators, and excavators.

ULTRA-LOW POWER CONSUMPTION

The RV50 offers best-in-class power consumption combined with LTE performance, and is optimized for battery and solar applications. It is the industry’s only LTE gateway with 2G power consumption, operating at 900 mW in idle mode. For 2G and 3G deployments migrating to LTE, the RV50 will work with existing power infrastructure, eliminating the need to invest in replacement solar panels or batteries. Standby Mode provides additional protection for batteries by dropping power consumption to 53 mW, and can be triggered by timers, low voltage detection or I/O.

SIMPLIFIED DEPLOYMENT

The RV50 automatically configures the radio based on the SIM, which provides versatility and simplicity when changing operator networks.

Ideal for global deployments, the RV50X provides worldwide LTE coverage with just two product variants; one for North America and EMEA, and one for Asia-Pacific.

BEST-IN-CLASS REMOTE MANAGEMENT

Network Management solutions for the RV50 allow over-the-air registration, configuration and software updates, and can be deployed either as a cloud-based service, or as a licensed software platform in the enterprise data center. Both options provide a centralized and remote view of an entire fleet and enable simplified management, control and monitoring of connected RV50s and critical infrastructure.

AirLink Management Service (ALMS) is a secure, centralized cloud-based service that remotely monitors and manages signal strength, network technology and location. ALMS provides dashboards with up-to-date views of an entire deployment, and custom alerts to monitor and report critical events, to increase efficiency and prevent downtime.

AirLink Mobility Manager (AMM) is a licensed, unified software platform which can
**BENEFITS**

- Provides LTE broadband connectivity to remote locations and in harsh environments
- Ultra-low power consumption, ideal for solar or battery powered installations
- Maximizes longevity of deployed equipment and protects investments with LTE
- Improves ROI by supporting multiple network operators without additional hardware costs
- Powerful remote management solutions
- Built-in, class-leading voltage transient protection provides superior reliability and continuous operation
- Proven reliability and over 2 million AirLink routers and gateways deployed
- Industry leading warranty includes support, software updates and advance replacement

be deployed in the enterprise data center, and provides a consolidated network view of an entire fleet, using a virtual dashboard to monitor, report, manage, and troubleshoot all mobile resources as required.

**INSTANT INTEGRATION**
The RV50 is designed to install directly into existing infrastructure. Offering both serial and Ethernet connectivity, it can be used to connect devices like PLCs and RTUs, and transmit a wide variety of protocols like Modbus/DNP3 with ease. RV50 can also be integrated directly into existing management systems via SNMP.

**INTELLIGENCE AT THE EDGE**
The RV50 provides an application framework which allows customers to apply intelligence at the edge of the network. The RV50X offers a dual core processor which enhances the performance of edge applications.

**SECURE INDUSTRIAL COMMUNICATIONS**
The RV50 supports secure communications to multiple back-end systems by providing up to five concurrent VPN sessions. Remote authentication management allows enterprise-grade systems to manage access to devices in the field. Port filtering and trusted IP protect the devices connected to RV50s from unwanted access. Secure signing and authentication of software images offers end-to-end protection of the software upgrade process, protecting the RV50 against unwanted malware.

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**AirLink RV50 Industrial LTE Gateway Datasheet**

**RV50**

<table>
<thead>
<tr>
<th>LTE CATEGORY</th>
<th>North America</th>
<th>International</th>
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<tr>
<td>4G LTE</td>
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<tr>
<td>Frequency Bands</td>
<td>1900(B2), AWS(B4), 850(B5), 700(B13), 700(B17), 1900(B25)</td>
<td>2100(B1), 1900(B3), 2600(B7), 900(B8), 800(B20)</td>
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<td>2100(B1), 1900(B2), AWS(B4), 850(B5), 900(B8)</td>
<td>2100(B1), 1900(B2), 1800(B3), 850(B5), 850(B5), 900(B8), 700(B13), 800(B20), 1900(B25), 850(B26), 700(B29), TDD B4 1</td>
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**APPROVALS**

- Regulary: FCC, IC, PTCRB
- Carrier: Verizon, AT&T, Sprint, T-Mobile USA, US Cellular, Rogers, Bell, Telus

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**RV50X**

<table>
<thead>
<tr>
<th>LTE CATEGORY</th>
<th>North America &amp; EMEA</th>
<th>Asia Pacific</th>
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<td>4G LTE</td>
<td>Cat 5 (Up to 300 Mbps DL)</td>
<td>Cat 6 (Up to 50 Mbps UL)</td>
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<td>Frequency Bands</td>
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<td>Telstra</td>
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</tbody>
</table>

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**RV50**

**RV50X**

- Instant Integration
- Intelligence at the Edge
- Secure Industrial Communications
Sierra Wireless is building the Internet of Things with intelligent wireless solutions that empower organizations to innovate in the connected world. We offer the industry’s most comprehensive portfolio of 2G, 3G, and 4G embedded modules and gateways, seamlessly integrated with our secure cloud and connectivity services. OEMs and enterprises worldwide trust our innovative solutions to get their connected products and services to market faster.

For more information, visit www.sierrawireless.com.

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