



AirLink® RV55

Compact, Rugged, Low power, LTE-A Pro or LTE-M/NB-IoT Router for Industrial IoT, SCADA and Field Service Fleets

Performance Series Routers



Benefits

- Increase safety for first responders and utility workers
- Get up and running faster through simplified device connections
- Obtain access to previously inaccessible equipment
- Gain real-time remote connectivity for SCADA, distribution and metering
- Operate in remote and hazardous locations through battery and solar power

RV55 Product Description

The AirLink® RV55 delivers LTE and Wi-Fi connectivity for vehicles and remote fixed assets operating in harsh environments. With ultra-low power consumption, the RV55 is ideal for solar/battery powered installations.

RV55 LTE-A PRO

High speed data and video connectivity. Dual Wi-Fi option. FirstNet Ready for public safety applications.

RV55 LTE

Rugged LTE router perfect for fixed and mobile utility applications, oil and gas, and precision agriculture.

RV55 LTE-M/NB-IOT

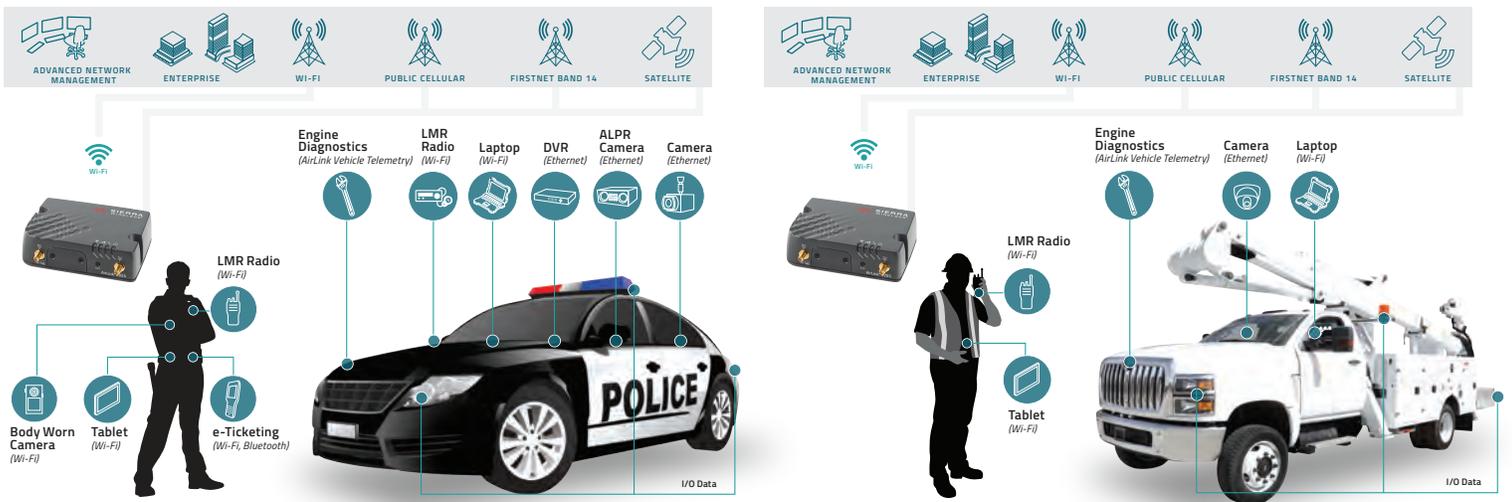
Certified to Cat-M1 and NB-IoT (LPWA) and perfect for IoT infrastructure. Designed for solar and battery use.

Ideal Applications

Ruggedized connectivity for fixed and mobile assets in:

- Utilities
- Oil & Gas
- Public Safety
- SCADA and Metering
- Agriculture
- Environmental monitoring
- Critical Infrastructure

RV55 APPLICATION EXAMPLES



POLICE

BUCKET TRUCK

AIRLINK RV55 – PERFORMANCE SERIES ROUTER

Top Features	Device Variant	Specifications
LTE Supported	RV55 LTE-A Pro	Cat 12. LTE-A Pro (600/150 Mbps), HSPA+, CBRS, FirstNet
	RV55 LTE	Cat 4. LTE (150/50 Mbps) HSPA+, EDGE
	RV55 LPWA	Cat-M1/NB-IoT
Navigation	RV55 LTE-A Pro and RV 55 LTE only	GNSS
Wi-Fi (Dual Radio)	RV55 LTE-A Pro option only	Dual Band 2.4/5GHz 802.11ac Wave 2*, 1x1 MIMO, 433 Mbps, 10 Clients, 1 SSID per Radio
Interfaces	All	10/100/1000 Ethernet, RS-232, USB 2.0. Configurable I/O pin.
Security	All	All Sierra Wireless security features including secure boot and secure firmware update. IPsec, GRE, and OpenVPN client with up to 5 concurrent tunnels.
Construction	All	Aluminum die cast housing rated to IP-64 and Mil-STD 810G. Class1 Div 2 for hazardous use.
Industry Certifications	All	FirstNet Ready™ Safety: IECCE Certification and SAE J1455 (Shock & Vibration) Vehicle Usage: E-Mark and SAE J1455 (Shock & Vibration) Class1 Div 2 for hazardous environments
Dimensions	All	119 mm x 85 mm x 33 mm 4.69 in x 3.35 in x 1.34 in
Warranty	All	3 years (with options for up to 5 years)
Region and Carriers	RV55 LTE-A Pro	North America - Verizon, AT&T/FirstNet, US Cellular, Sprint, TELUS
	RV55 LTE	North America - Verizon, AT&T
	RV55 LPWA	Global

RV55 Services and Support

AirLink Complete: AirLink Complete is a subscription service that combines best-in-class device management software through AirLink Management Service (ALMS), industry-leading technical support and an extended warranty option. It delivers a cost-effective way to ensure your mission-critical infrastructure operates at peak efficiency. AirLink Complete is included free for 1 year with the purchase of a new RV55.

Device Management: AirLink Management Service (ALMS) is a secure cloud-based device management solution that supports over-the-air registration, configuration and software updates. ALMS Advanced Reporting and Analytics (ALMS ARA) adds advanced historical reporting and deeper insights to data.

Professional Services: Full product life-cycle services including solution consulting and solution implementation services delivered by Sierra Wireless Network Engineers and Program Managers.

About Sierra Wireless

Sierra Wireless (NASDAQ: SWIR) (TSX: SW) is the leading IoT solutions provider that combines devices, network and software to unlock value in the connected economy. Companies globally are adopting IoT to improve operational efficiency, create better customer experiences, improve their business models and create new revenue streams. Whether it's a solution to help a business securely connect edge devices to the cloud, or a software/API solution to help manage processes associated with billions of connected assets, or a platform to extract real-time data to make the best business decisions, Sierra Wireless will work with you to create the right industry-specific solution for your next IoT endeavor. Sierra Wireless has more than 1,300 employees globally and operates R&D centers in North America, Europe and Asia.

Connect with Sierra Wireless on the IoT Blog at www.sierrawireless.com/iot-blog, on Twitter at @SierraWireless, on LinkedIn at www.linkedin.com/company/sierra-wireless and on YouTube at www.youtube.com/SierraWireless

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TECHNICAL SPECIFICATIONS

AirLink® RV55

Performance Series Routers



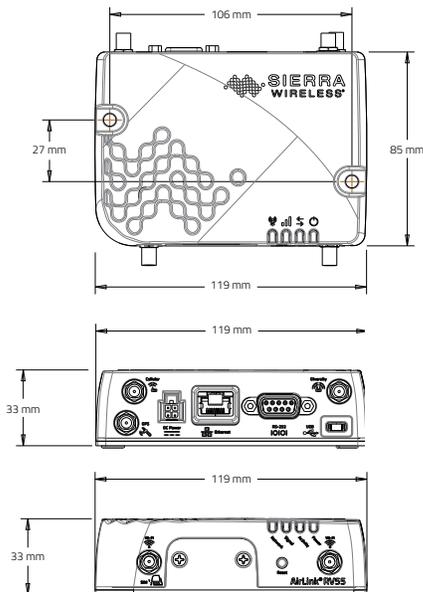
	North America	EMEA	North America	Global	Global
	LTE		LTE-A Pro		LTE-M/ NB-IoT
LTE CATEGORY	Cat 4 (WP7610 WP7607)		Cat 12 (EM7511 EM7565)		Cat M1/NB1 (WP7702)
Peak D/L	Up to 150 Mbps		Up to 600 Mbps		Cat-M1: 300kbps Cat-NB1: 27kbps
Peak U/L	Up to 50 Mbps		Up to 150 Mbps		Cat-M1: 375kbps Cat-NB1: 65kbps
4G LTE Frequency Bands	1900(B2), AWS(B4), 850(B5), 700(B12), 700(B13), 700(B17), 1700(B66)	2100(B1), 1800(B3), 2600(B7), 900(B8), 800(B20), 700(B28)	2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 2600(B7), 900(B8), 1800(B9), 700(B12), 700(B13), 700(B14), 850(B18), 850(B19), 800(B20), 850(B26), 700(B29), 2300(B30), 1500(B32), TDD B41, TDD B42, TDD B43, TDD B46, CBR5 B48, 1700(B66)	2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 2600(B7), 900(B8), 1800(B9), 700(B12), 700(B13), 850(B18), 850(B19), 800(B20), 850(B26), 700(B28), 700(B29), 2300(B30), 1500(B32), TDD B41, TDD B42, TDD B43, TDD B46, CBR5 B48, 1700(B66)	2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 900(B8), 700(B12), 700(B13), 700(B17), 850(B18), 850(B19), 800(B20), 850(B26), 700(B28)
3G HSPA/HSPA+ Frequency Bands*	1900(B2), AWS(B4), 850(B5)	2100(B1), 900(B8)	2100(B1), 1900(B2), AWS(B4), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19)	2100(B1), 1900(B2), AWS(B4), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19)	
2G EDGE/GSM/GPRS Frequency Bands		900, 1800			850, 900, 1800, 1900
APPROVALS Regulatory	FCC, IC, PTCRB	GCF, CE	FCC, IC, PTCRB	FCC, IC, PTCRB, GCF, CE, RCM, IFT, Anatel	FCC, IC, PTCRB, GCF, CE, RCM
Carrier	Verizon, AT&T		Verizon, AT&T/FirstNet, US Cellular, Sprint, Telus	Verizon, AT&T, Telstra(Planned)	Verizon(Cat-M), AT&T(Cat-M)
PART NUMBER Regulatory	1104335	1104337	1104303, 1104302 (Wi-Fi) 1104302 (Wi-Fi)	1104332, 1104331 (Wi-Fi) 1104331 (Wi-Fi)	1104333

*For carrier-specific band support please refer to the hardware user guide.

	Specification	Specification
HOST INTERFACES	10/100/1000 Ethernet (RJ45) RS-232 serial port (DB-9) USB 2.0 Micro-B Connector 3 SMA antenna (cellular, diversity, GNSS) 2 RP-SMA antenna (1x1 Wi-Fi, Optional) LTE-M/NB-IoT: 1 SMA (cellular) only, no GNSS or Wi-Fi Active GPS antenna support	SATELLITE NAVIGATION (GNSS) LTE-A Pro Variant: 30 Channel GPS and GLONASS Receiver (Tracking Sensitivity: -160dBm) LTE Variant: 48 Channel Dedicated GNSS Receiver (Tracking Sensitivity: -162 dBm) Accuracy: <2 m (50%), <5 m (90%), <0.2 m/s Acquisition Time: 1s Hot Start Reports: NMEA 0183 V3.0, TAIP, RAP, XORA Multiple Redundant Servers Reliable Store and Forward
WI-FI (Optional)	Dual Band 2.4/5GHz Wi-Fi Dual Radio, 802.11 b/g/n/ac (Wave2 Client Mode) Support for 10 clients, WPA2 Enterprise per radio Output power 16dBm Configurable as Dual Band Access Point (AP) or AP+Client Mode Single SSID Support per radio Captive Portal	SECURITY Remote Authentication (LDAP, RADIUS, TACACS+, DMZ) Inbound and Outbound Port filtering Inbound and Outbound Trusted IP MAC Address Filtering PCI compatible Secure Firmware Update

TECHNICAL SPECIFICATIONS

	Specification
INPUT/OUTPUT	Configurable I/O pin on power connector <ul style="list-style-type: none"> Digital Input ON Voltage: 2.7 to 36 VDC Configurable Pull-up for dry contact input Digital Open Collector Output > sinking 500 mA Analog Input: 0.5-36 VDC
LAN (ETHERNET/USB)	DHCP Server Host Interface Watchdog IP Passthrough PPPoE VLAN
SERIAL	TCP/UDP PAD Mode Modbus (ASCII, RTU, Variable) PPP DNP3 Interoperability Dual Serial option (with an accessory)
NETWORK AND ROUTING	Network Address Translation (NAT) Reliable Static Route Port Forwarding Dynamic DNS Policy Routing Verizon PNTM NEMO/DMNR IPV6 Gateway VRRP
VPN	IPsec, GRE, and OpenVPN Client Up to 5 concurrent tunnels Split Tunnel Dead Peer Detection (DPD) FIPS 140-2 compatible
APPLICATION FRAMEWORK	ALEOS Application Framework (AAF) Lua Scripting Language
POWER	Input Voltage: 7 to 36 VDC LTE Idle Power: 900mW (75 mA @ 12VDC) Standby Mode Power: 53 mW (4.4 mA @ 12 VDC) triggered on low voltage, I/O or periodic timer Low voltage disconnect to prevent battery drain Built-in protection against voltage transients including 5 VDC engine cranking and +200 VDC load dump Ignition Sense with time delay shutdown Configurable features and ports to optimize power consumption
DIMENSIONS	119 mm x 33 mm x 85 mm (102 mm including wi-fi connectors) 4.69 in x 1.34 in x 3.35 in (3.70 in including connectors) Weight: 320 g



	Specification
NETWORK MANAGEMENT	Secure mobile network & asset management application available in the cloud or licensed platform in the enterprise data center Fleet wide firmware upgrade delivery Router configuration and template management Router staging over the air and local Ethernet connection Over-the-air software and radio module firmware updates Device Configuration Templates Configurable monitoring and alerting Remote provisioning and airtime activation (where applicable)
ROUTER MANAGEMENT	ALMS Local web user interface AT Command Line Interface (Telnet/SSH/Serial) SMS Commands SNMP
EVENTS ENGINE	Custom event triggers and reports Configurable interface, no programming Event Types: Digital Input, Network Parameters, Data Usage, Timer, Power, Device Temperature and Voltage Report Types: RAP, SMS, Email, SNMP Trap, TCP (Binary, XML, CSV) Event Actions: Drive Relay Output
ENVIRONMENTAL	Operating Temperature: -40°C to +70°C / -40°F to +158°F Operating Temperature (Wi-Fi variant): -30°C to +70°C / -22°F to +158°F Storage Temperature: -40°C to +85°C / -40°F to +185°F Humidity: 95% RH @ 60°C Military Spec MIL-STD-810G conformance to shock, vibration, thermal shock, and humidity IP64 rated ingress protection
INDUSTRY CERTIFICATIONS	Safety: IECCE Certification Bodies Scheme (CB Scheme), UL 60950** Vehicle Usage: E-Mark (UN ECE Regulation 10.04), Rail Usage: EN50155 ISO7637-2, SAE J1455 (Shock & Vibration) Hazardous Environments: Class 1 Div 2– Ambient temperatures of -30°C to +60°C Environmental: RoHS, REACH, WEEE
SUPPORT AND WARRANTY	Includes 1st Year AirLink Complete: <ul style="list-style-type: none"> AirLink Management Service (ALMS) Direct 24/7 Technical Support 3-year standard warranty; optional 2-year warranty extension 1-day Accelerated Hardware Replacement available through participating resellers
ACCESSORIES	In the Box: DC Power Cable, and Quick Start Guide Other Accessories (sold separately): 2000579 AC Adapter, 12VDC 6000659 DIN Rail Bracket For Antenna options visit: sierrawireless.com/antennas

** Ambient temperatures of -30C to +60C

Related AirLink Products

AIRLINK DEVICE MANAGEMENT SOLUTIONS

AirLink Management Service (ALMS)



- Secure, Cloud-based network and asset management
- Remotely deploy, configure, monitor and manage AirLink devices
- Carrier-grade, high availability, secure, global infrastructure

AIRLINK VPN APPLIANCE

AirLink Connection Manager



- VPN appliance built from the ground up for AirLink routers & gateways
- Simplify deployment and management of your VPN solution, extending the enterprise to the network edge for fixed and mobile endpoints
- Carrier agnostic – ACM doesn't require fixed and/or public IP
- Compatible with FIPS 140-2, and always-on VPN capability

AIRLINK ANTENNA SOLUTIONS

AirLink Antennas



- Tested and certified to provide guaranteed performance with all AirLink routers and gateways
- Accelerate deployment with always-on, end-to-end connectivity

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For more information, visit www.sierrawireless.com.