



DATASHEET

AirLink® RV55



Performance Series Routers

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

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

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

RV55 LTE-A PRO

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

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

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

AirLink RV55 – Router Specifications

CELLULAR	
Peak D/L	<p>RV55 LTE – Up to 150 Mbps, Cat 4 (WP7610 WP7607)</p> <p>RV55 LTE-A PRO – Up to 600 Mbps, Cat 12 (EM7511 EM7565)</p> <p>RV55 LTE-M/NB-IOT – Cat M1/NB1 (WP7702), Cat-M1: 300kbps, Cat-NB1: 27kbps</p>
Peak U/L	<p>RV55 LTE – Up to 50 Mbps</p> <p>RV55 LTE-A PRO – Up to 150 Mbps</p> <p>RV55 LTE-M/NB-IOT – Cat-M1: 375kbps, Cat-NB1: 65kbps</p>
4G LTE	
Frequency Bands	
North America	<p>RV55 LTE – 1900(B2), AWS(B4), 850(B5), 700(B12), 700(B13), 700(B17), 1700(B66)</p> <p>RV55 LTE-A PRO – 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, CBRS B48, 1700(B66)</p>
EMEA	<p>RV55 LTE – 2100(B1), 1800(B3), 2600(B7), 900(B8), 800(B20), 700(B28)</p>
Global	<p>RV55 LTE-A PRO – 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, CBRS B48, 1700(B66)</p> <p>RV55 LTE-M/NB-IOT – 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)</p>
3G WCDMA/HSPA+	
Frequency Bands*	
North America	<p>RV55 LTE – 1900(B2), AWS(B4), 850(B5)</p> <p>RV55 LTE-A PRO – 2100(B1), 1900(B2), AWS(B4), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19)</p>
EMEA	<p>RV55 LTE – 2100(B1), 900(B8)</p>
Global	<p>RV55 LTE-A PRO – 2100(B1), 1900(B2), AWS(B4), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19)</p>

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

**All approvals are either granted or in progress. Call for the latest approval status.

2G EDGE/GSM/GPRS	
Frequency Bands	
EMEA	<p>RV55 LTE – 900, 1800</p>
Global	<p>RV55 LTE-A PRO – 850, 900, 1800, 1900</p>
APPROVALS	
Regulatory**	
North America	<p>RV55 LTE – FCC, IC, PTCRB</p> <p>RV55 LTE-A PRO – FCC, IC, PTCRB</p>
EMEA	<p>RV55 LTE – GCF, CE</p>
Global	<p>RV55 LTE-A PRO – FCC, IC, PTCRB, GCF, CE, RCM, IFT, Anatel</p> <p>RV55 LTE-M/NB-IOT – FCC, IC, PTCRB, GCF, CE, RCM</p>
Carrier**	
North America	<p>RV55 LTE – Verizon, AT&T, T-Mobile</p> <p>RV55 LTE-A PRO – Verizon, AT&T/FirstNet, US Cellular, T-Mobile, Telus</p>
Global	<p>RV55 LTE-A PRO – Verizon, AT&T, Telstra (Planned)</p> <p>RV55 LTE-M/NB-IOT – Verizon (Cat-M), AT&T (Cat-M)</p>
PART NUMBERS	
North America	<p>RV55 LTE – 1104335</p> <p>RV55 LTE-A PRO – 1104303, 1104302 (Wi-Fi), 1104302 (Wi-Fi)</p>
EMEA	<p>RV55 LTE – 1104337</p>
Global	<p>RV55 LTE-A PRO – 1104332, 1104331 (Wi-Fi), 1104331 (Wi-Fi)</p> <p>RV55 LTE-M/NB-IOT – 1104333</p>

AirLink RV55 – Router Specifications

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
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
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
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
ENVIRONMENTAL	
Temperature	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 @ 50°C
	Military Spec MIL-STD-810G conformance to shock, vibration, thermal shock, and humidity IP64 rated ingress protection
POWER	
Input/Operating Voltage	Input Voltage: 7 to 36 VDC 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
Power modes	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
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
INDUSTRY CERTIFICATIONS	
Safety	IECEE Certification Bodies Scheme (CB Scheme), UL 60950****
Vehicle Usage	E-Mark (UN ECE Regulation 10.04)
Environmental	RoHS, REACH, WEEE Hazardous Environments: Class 1 Div 2 – Ambient temperatures of -30°C to +60°C
Rail Usage	EN50155, ISO7637-2, SAE J1455 (Shock & Vibration)
SUPPORT AND WARRANTY	
	1 year standard warranty with up to 5 years extended warranty with current AirLink Complete subscription. Unrestricted critical firmware updates.

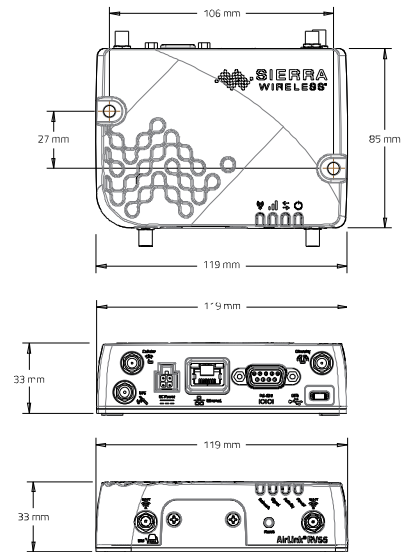
*** IPsec, GRE and OpenVPN Client are not available in the member states of the EAEU.

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

AirLink RV55 – Router Specifications

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)
APPLICATION FRAMEWORK	
	ALEOS Application Framework (AAF) LUA Scripting Language
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

ACCESSORIES	
In the box	RV55, DC Power Cable, and Quick Start Guide Other Accessories (sold separately): <ul style="list-style-type: none"> • 2000579 AC Adapter, 12VDC • 6000659 DIN Rail Bracket For Antenna options visit: sierrawireless.com/antennas
DIMENSIONS	
AirLink RV55 – Main Body	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



RV55 Services and Support



AIRLINK COMPLETE

Maximize your AirLink RV55 hardware investment and ensure your applications operate at peak efficiency by subscribing to our best-in-class service and support including:

- AirLink Management Service (ALMS) network management
- Optional Advanced Mobility Reporting (AMR)
- 24/7/365 Tier 1 technical support from wireless experts via phone or online access
- Extended hardware warranty – up to 5 years
- For more information on AirLink Complete visit our [web page](#)



PROFESSIONAL SERVICES

Our [Professional Services](#) experts are well-versed in the latest enterprise networking and security standards. Harvesting experience and lessons-learned over thousands of customer deployments, our best practices are expertly tailored to help you architect and deploy your cutting-edge AirLink solutions.



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 ANTENNAS

- Tested and certified to provide guaranteed performance with all AirLink routers and gateways
- Accelerate deployment with always-on, end-to-end connectivity
- For more information on antennas specific to the RV55 router visit our [web page](#)

About Sierra Wireless

Sierra Wireless (NASDAQ: SWIR) (TSX: SW) is a world leading IoT solutions provider that combines devices, network services, and software to unlock value in the connected economy. Companies globally are adopting 4G, 5G, and LPWA solutions to improve operational efficiency, create better customer experiences, improve their business models, and create new revenue streams. Sierra Wireless works with its customers to develop the right industry-specific solution for their IoT deployments, whether this is an integrated solution to help connect edge devices to the cloud, a software/API service to manage processes with billions of connected assets, or a platform to extract real-time data to improve business decisions. With more than 25 years of cellular IoT experience, Sierra Wireless is the global partner customers trust to deliver their next IoT solution.

For more information, visit www.sierrawireless.com.

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