FIRSTNET.
Built with AT&T
READY

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	**RV55 LTE –** Up to 150 Mbps, Cat 4 (WP7610 | WP7607)
	RV55 LTE-A PRO – Up to 600 Mbps, Cat 12 (EM7511 | EM7565)
	RV55 LTE-M/NB-IOT – Cat M1/NB1 (WP7702), Cat-M1: 300kbps, Cat-NB1: 27kbps
Peak U/L	**RV55 LTE –** Up to 50 Mbps
	RV55 LTE-A PRO – Up to 150 Mbps
	RV55 LTE-M/NB-IOT – Cat-M1: 375kbps, Cat-NB1: 65kbps

4G LTE	
Frequency Bands	
North America	**RV55 LTE –** 1900(B2), AWS(B4), 850(B5), 700(B12), 700(B13), 700(B17), 1700(B66)
	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)
EMEA	**RV55 LTE –** 2100(B1), 1800(B3), 2600(B7), 900(B8), 800(B20), 700(B28)
Global	**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)
	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)

3G WCDMA/HSPA+	
Frequency Bands*	
North America	**RV55 LTE –** 1900(B2), AWS(B4), 850(B5)
	RV55 LTE-A PRO – 2100(B1), 1900(B2), AWS(B4), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19)
EMEA	**RV55 LTE –** 2100(B1), 900(B8)
Global	**RV55 LTE-A PRO –** 2100(B1), 1900(B2), AWS(B4), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19)

2G EDGE/GSM/GPRS	
Frequency Bands	
EMEA	**RV55 LTE –** 900, 1800
Global	**RV55 LTE-A PRO –** 850, 900, 1800, 1900

APPROVALS	
Regulatory**	
North America	**RV55 LTE –** FCC, IC, PTCRB
	RV55 LTE-A PRO – FCC, IC, PTCRB
EMEA	**RV55 LTE –** GCF, CE
Global	**RV55 LTE-A PRO –** FCC, IC, PTCRB, GCF, CE, RCM, IFT, Anatel
	RV55 LTE-M/NB-IOT – FCC, IC, PTCRB, GCF, CE, RCM
Carrier**	
North America	**RV55 LTE –** Verizon, AT&T, T-Mobile
	RV55 LTE-A PRO – Verizon, AT&T/FirstNet, US Cellular, T-Mobile, Telus
Global	**RV55 LTE-A PRO –** Verizon, AT&T, Telstra (Planned)
	RV55 LTE-M/NB-IOT – Verizon (Cat-M), AT&T (Cat-M)

PART NUMBERS	
North America	**RV55 LTE –** 1104335
	RV55 LTE-A PRO – 1104303, 1104302 (Wi-Fi), 1104302 (Wi-Fi)
EMEA	**RV55 LTE –** 1104337
Global	**RV55 LTE-A PRO –** 1104332, 1104331 (Wi-Fi), 1104331 (Wi-Fi)
	RV55 LTE-M/NB-IOT – 1104333

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.

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 @ 60°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
	• 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/U DP 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):
- 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
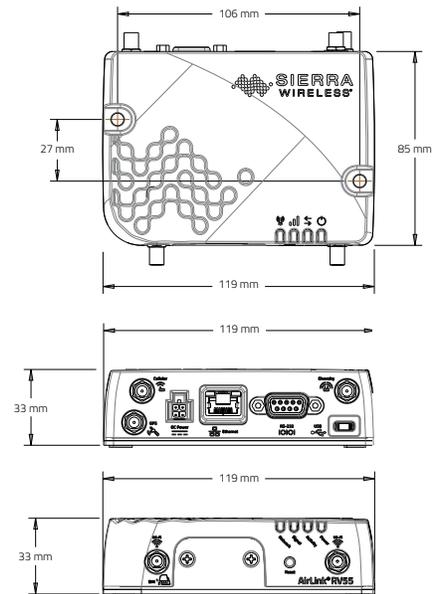
RV55 Services and Support

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*