



**Compact, Rugged,  
Low power, LTE-A  
Pro or LTE 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® Capable for public safety applications.

## 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
- Ultra-low power consumption, ideal for solar/battery powered installations
- Gain real-time remote connectivity for SCADA, distribution and metering
- Operate in remote and hazardous locations through battery and solar power
- Remote router management and comprehensive services through AirLink Complete

## RV55 Services and Support



### AIRLINK COMPLETE

Maximize your AirLink RV55 hardware investment with AirLink Complete – a comprehensive service package designed to empower you with the tools and support necessary to secure, optimize and effortlessly scale your RV55 deployments.

AirLink Complete includes\*:

- **AirLink Management Service (ALMS)** for remote device and security management
- **Expert technical support**
- **Extended hardware warranty** – up to 5 years maximum
- For more information on AirLink Complete visit our [web page](#)

*\*With active subscription. 1-year subscription included with the RV55 purchase*



### AIRLINK PREMIUM

Ideal for organizations managing mission-critical vehicle fleets, this service upgrade encompasses all the benefits of [AirLink Complete](#)\*, enhanced with:

- **Advanced Mobility Reporting\***: Offers comprehensive coverage and fleet reporting to monitor your network and vehicles.
- **Advance Replacement\***: Provides same-day shipping for in-warranty router replacements, minimizing downtime, spare inventory and keeping your operations running smoothly.

*\*With active subscription.*



### AIRLINK CONNECTION MANAGER (ACM) – [MOBILE VPN](#)

This purpose-built VPN solution securely extends your enterprise network to your AirLink router and its connected devices and applications.

Optimized for use in a mobile, multi-network environment, it seamlessly maintains VPN tunnels as users roam between multiple carrier and Wi-Fi networks to prevent downtime and loss of communications.

Available in a FIPS 140-2 compliant offering.



### ANTENNAS

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

## 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)
Peak U/L	RV55 LTE – Up to 50 Mbps
	RV55 LTE-A PRO – Up to 150 Mbps
4G LTE	
Frequency Bands	
North America	RV55 LTE - B2, B4, B5, B12, B13, B17, B66
	RV55 LTE-A PRO - B1, B2, B3, B4, B5, B8, B9, B10, B12, B13, B17, B18, B19, B20, B25, B26, B27, B28, B66
EMEA	RV55 LTE - B1, B3, B7, B8, B20, B28
Global	RV55 LTE-A PRO - B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B18, B19, B20, B26, B28, B29, B30, B32, TDD B41, TDD B42, TDD B43, TDD B46, CBR5 B48, B66
3G WCDMA/HSPA+	
Frequency Bands <sup>1</sup>	
North America	RV55 LTE - B2, B4, B5
	RV55 LTE-A PRO - B1, B2, B3, B4, B5, B6, B8, B9, B19
EMEA	RV55 LTE – B1, B8
Global	RV55 LTE-A PRO – B1, B2, B4, B5, B6, B8, B9, B19

2G EDGE/GSM/GPRS	
Frequency Bands	
EMEA	RV55 LTE – 900, 1800
APPROVALS	
Regulatory <sup>2</sup>	
North America	RV55 LTE – FCC, IC/ISED, PTCRB
	RV55 LTE-A PRO – FCC, IC/ISED, PTCRB
EMEA	RV55 LTE – GCF, CE
Global	RV55 LTE-A PRO – FCC, IC/ISED, PTCRB, GCF, CE, RCM, IFT, Anatel
Carrier <sup>2</sup>	
North America	RV55 LTE – Verizon, AT&T, T-Mobile
	RV55 LTE-A PRO – Verizon, AT&T/FirstNet, US Cellular, T-Mobile, Telus, Rogers, Bell, Southern Linc
Global	RV55 LTE-A PRO – Verizon, AT&T, Telstra
PART NUMBERS	
North America	RV55 LTE – 1104335
	RV55 LTE-A PRO – 1104303, 1104302 (Wi-Fi), 1105183 (TAA), 1105186 (Wi-Fi, TAA)
EMEA	RV55 LTE – 1104337
Global	RV55 LTE-A PRO – 1104332, 1104331 (Wi-Fi)

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

2: 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	<b>Operating Temperature:</b> -40°C to +70°C / -40°F to +158°F <b>Operating Temperature (Wi-Fi variant):</b> -30°C to +70°C / -22°F to +158°F <b>Storage Temperature:</b> -40°C to +85°C / -40°F to +185°F <b>Humidity:</b> 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	<b>Input Voltage:</b> 7 to 36 VDC Configurable I/O pin on power connector <ul style="list-style-type: none"> <li>Digital Input ON Voltage: 2.7 to 36 VDC</li> <li>Configurable Pull-up for dry contact input</li> <li>Digital Open Collector Output &gt; sinking 500 mA</li> <li>Analog Input: 0.5-36 VDC</li> </ul>
Power modes	<b>LTE Idle Power:</b> 900mW (75 mA @ 12VDC) <b>Standby Mode Power:</b> 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 <sup>3</sup>	
	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 <sup>4</sup>
Vehicle Usage	E-Mark (UN ECE Regulation 10.04)
Environmental	RoHS, REACH, WEEE <b>Hazardous Environments<sup>5</sup>:</b> Class 1 Div 2 – Ambient temperatures of -30°C to +60°C
Rail Usage	EN50155, ISO7637-2, SAE J1455 (Shock & Vibration)
LAN (ETHERNET/USB)	
	DHCP Server Host Interface Watchdog IP Passthrough PPPoE VLAN

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

4: Ambient temperatures of -30C to +60C

5: TAA Part Numbers do not have the C1D2 certification



## AirLink RV55 – Router Specifications

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 <b>Event Types:</b> Digital Input, Network Parameters, Data Usage, Timer, Power, Device Temperature and Voltage <b>Report Types:</b> RAP, SMS, Email, SNMP Trap, TCP (Binary, XML, CSV) <b>Event Actions:</b> Drive Relay Output
AIRLINK COMPLETE (1 Year Included With Router Purchase)	
Support	24/7 technical support*
Hardware Warranty	1-year standard hardware warranty Extended hardware warranty up to 5 years with current subscription**
Device Management	AirLink Management Service (ALMS)*
Software Updates	Unrestricted critical firmware updates through at least December 31st, 2029
AIRLINK PREMIUM (Optional Upgrade)	
Includes All Airlink Complete Features* and Adds:	
Advanced Mobility Reporting	Coverage and fleet reporting***
Advance Replacement	Same-day shipping for in-warranty router replacements***
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: <a href="https://semtechwireless.com/antennas">Semtechwireless.com/antennas</a>
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

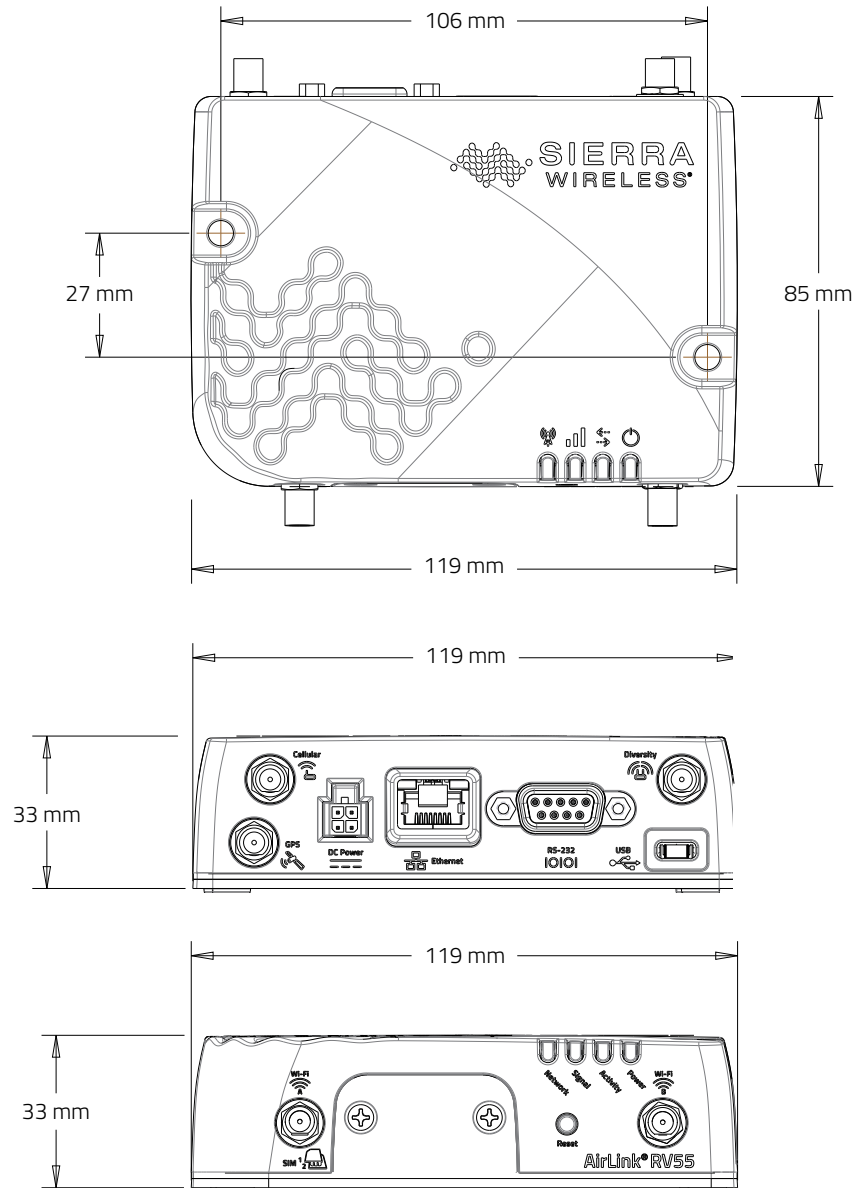
\*With current AirLink Complete subscription

\*\*Full warranty terms are available at [www.sierrawireless.com/end-user-warranty](https://www.sierrawireless.com/end-user-warranty)

\*\*\*With current AirLink Premium subscription



## AirLink RV55 – Router Dimensions Diagram



EBDS Wireless&Antennas  
[www.ebds.eu](http://www.ebds.eu)  
 +33 (0)9 72 36 76 46

### About Semtech

Semtech Corporation (Nasdaq: SMTC) is a high-performance semiconductor, IoT systems and cloud connectivity service provider dedicated to delivering high-quality technology solutions that enable a smarter, more connected and sustainable planet. Our global teams are committed to empowering solution architects and application developers to develop breakthrough products for the infrastructure, industrial and consumer markets.

To learn more about Semtech technology, visit us at [Semtech.com](https://www.semtech.com) or follow us on [LinkedIn](#) or [X](#).

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