SIERRA WIRELESS®

FIRSTNET READY™

AirLink® RV55 Rugged LTE-A Pro Router
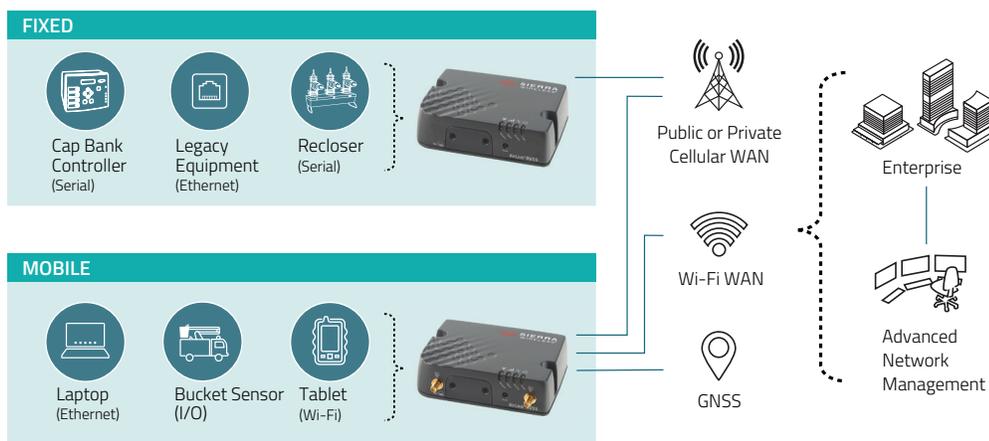
BENEFITS

- Centrally managed, secure LTE broadband connectivity for both remote fixed or vehicle applications in harsh environments

- Ultra-Low Power consumption, ideal for solar or battery powered installations.

- Connect your field workers and devices with flexible dual Wi-Fi, and ethernet

- Reduces complexity in connecting legacy equipment with dual-serial, ethernet, and multi-protocol support

- Powerful remote cloud-based or on-premises management solutions

- Proven reliability and over 3 million AirLink routers and gateways deployed

- Peace of mind - included 3-year warranty, direct 24/7 support, and device management access[1]

Compact, Industrial Grade, Low Power LTE-Advanced Connectivity

The AirLink® RV55 is the industry's most rugged, compact, LTE-Advanced Pro router. Simple to install, and easy to manage, the RV55 router is designed for connecting critical remote assets, infrastructure, and vehicle fleets. The RV55 is especially well suited for applications in energy, utilities, smart city and public safety. The RV55 provides real-time remote connectivity for SCADA, distribution management systems and metering.

The RV55 high-performance LTE-Advanced Pro connectivity, Wi-Fi and GNSS and location-based applications and dual connectivity for vehicle fleets and mobile workforce. An LTE-M/NB-IoT variant is perfectly suited for hard to reach conditions.

The RV55 supports an extensive range of LTE bands worldwide, and its LTE-Advanced Pro capabilities deliver up to 600 Mbps downlink speeds. The RV55 also supports new unlicensed LTE bands (eg. CBRS) to support dedicated Private LTE service.

FIXED

Cap Bank Controller (Serial)

Legacy Equipment (Ethernet)

Recloser (Serial)

MOBILE

Laptop (Ethernet)

Bucket Sensor (I/O)

Tablet (Wi-Fi)

Public or Private Cellular WAN

Wi-Fi WAN

GNSS

Enterprise

Advanced Network Management

Alcom electronics

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RV55		
North America	Global	Global
LTE-A Pro		LTE-M/ NB-IoT

	North America	Global	Global
LTE CATEGORY	Cat 12		Cat M1/NB1
Peak D/L	(Up to 600 Mbps DL)		Cat-M1: 300kbps Cat-NB1: 27kbps
Peak U/L	(Up to 150 Mbps UL)		Cat-M1: 375kbps Cat-NB1: 65kbps
4G LTE **Frequency Bands**	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)	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)	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***	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**			850, 900, 1800, 1900
APPROVALS **Regulatory**	FCC, IC, PTCRB	GCF, CE, RCM	FCC, IC, PTCRB, GCF, CE, RCM
Carrier	Verizon, AT&T/FirstNet FIRSTNET READY	Planned: Telstra	Planned: Verizon, AT&T
PART NUMBER **Regulatory**	1104303 1104302 (Wi-Fi)	1104332 1104331 (Wi-Fi)	1104333

	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, Active 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
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
INPUT/OUTPUT	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
LAN (ETHERNET/USB)	DHCP Server
	IP Passthrough
	VLAN
	Host Interface Watchdog
	PPPoE
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)
	Port Forwarding
	Policy Routing
	NEMO/DMNR
	VRRP
	Reliable Static Route
	Dynamic DNS
	Verizon PNTM
	IPV6 Gateway

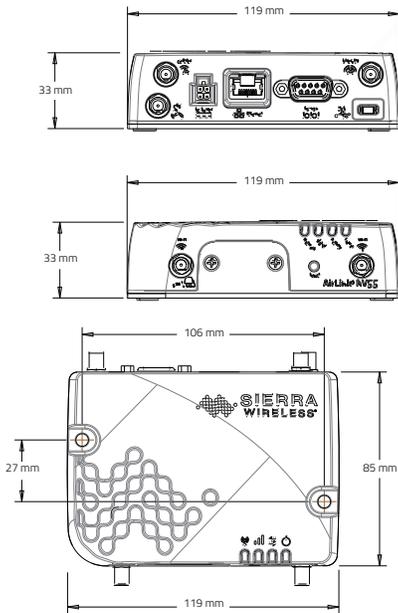|	**Specification**
SATELLITE NAVIGATION (GNSS)	30 Channel GPS and GLONASS Receiver
	Acquisition Time: 1 s Hot Start
	Accuracy: <2 m (50%), <5 m (90%), <0.2 m/s
	Tracking Sensitivity: -160 dBm
	Reports: NMEA 0183 V3.0, TAIP, RAP, XORA
	Multiple Redundant Servers
	Reliable Store and Forward
SECURITY	Remote Authentication (LDAP, RADIUS, TACACS+, DMZ)
	Inbound and Outbound Port filtering
	Inbound and Outbound Trusted IP
	MAC Address Filtering
	PCI compatible
	Secure Firmware Update
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

SIERRA WIRELESS®

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

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: IECEE Certification Bodies Scheme (CB Scheme), UL 60950**
	Vehicle Usage: E-Mark (UN ECE Regulation 10.04), ISO7637-2, SAE J1455 (Shock & Vibration)
	Hazardous Environments: Class 1 Div 2**
	Environmental: RoHS, REACH, WEEE
SUPPORT AND WARRANTY	Includes 1st Year AirLink Complete:
	• 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
	2000579 AC Adapter, 12VDC
	6000659 DIN Rail Mounting Brackets
	6001110 Cellular Paddle Antenna
	6001111 Wi-Fi 2.4/5GHz Paddle Antenna
	See website for more antenna options.

For carrier specific band support please refer to the hardware user guide.
** *Ambient temperatures of -30C to +60C*

DIMENSIONS

119 mm
33 mm

119 mm
33 mm

106 mm
27 mm
85 mm
119 mm

AirLink Networking Solution - Related Products

AIRLINK NETWORK 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 MANAGER / MOBILITY MANAGER (AM/AMM)

• Deployable in the enterprise data center (on-premises) or in the cloud
• Advanced, end-to-end network and asset management for both fixed and mobile networks.
• Remote, real-time configuration, control and troubleshooting of AirLink devices

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-onVPN capability