



**Compact, Rugged,
Low power, LTE
Router for Industrial
IoT, SCADA and fleet
applications in private
and public networks.**

KEY FEATURES

- 4G LTE-A
- Dual 1x1 WiFi 5
- 1 Gigabit Ethernet
- Single/Dual Serial
- GNSS
- IP64 Rated
- AirLinkOS with AirLink Complete

RX55 Product Description

The AirLink® RX55 is optimized for Industrial IoT with ultra-low power consumption and a rugged design for extreme conditions. With advanced networking and industry standard container support capabilities, the RX55 delivers intelligence securely at the edge for mission-critical applications on both public and private networks.

Ideal Applications

Always on/reliable connectivity for fixed and mobile assets in:

- Utilities
- Oil & Gas
- Public Safety
- Agriculture
- Environmental monitoring
- Critical Infrastructure
- Smart Cities

Benefits

- Compact size makes installation easier
- Out-of-the box connectivity delivers same day operations
- Connect to a wide variety of devices from video to low-power IoT
- Leverage the world of IoT to drive new business opportunities



RX55 Services and Support



AIRLINK COMPLETE

Maximize your AirLink RX55 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 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](#)



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



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 RX55 router visit our [web page](#)



AirLink RX55 – Router Specifications

KEY FEATURES	
Cellular Radios	4G LTE-A
Wi-Fi	Dual 1x1 Wi-Fi 5
Ethernet	1x Gigabit Ethernet Port (RJ45)
Serial	Dual RS-232 serial port (DB9) - Base Model (with optional Y-cable) Single RS-232 serial port (DB9) - Wi-Fi & Wi-Fi Plus Model
GNSS	30 Channel GNSS
CAN	Wi-Fi & Wi-Fi Plus Model
I/O	1 GPIO
USB	USB 2.0 Micro-B
IP Rating	Sealed Aluminum Housing (IP64)
Services	AirLink Complete
Operating System	AirLink OS
Management System	ALMS

	NAM	EMEA-APAC
CELLULAR		
Technology	4G LTE-A	4G LTE-A
Cellular	4G, 3G	4G, 3G
Peak Downlink (Theoretical)	300 Mbps	300 Mbps
Peak Uplink (Theoretical)	150 Mbps	150 Mbps
LTE Category	Cat-7	Cat-7
Region	NAM	EMEA, APAC
Radio	EM7411	EM7421
MIMO	2x2	2x2
RF Connectors	SMA	SMA
SIM	Dual SIM (Mini-2FF)	Dual SIM (Mini-2FF)



NAM		EMEA-APAC
FREQUENCY BANDS		
4G LTE Bands	B2, B4, B5, B7, B12, B13, B14, B25, B26, B41, B42, B43, B48, B66, B71	B1, B3, B7, B8, B20, B28, B32, B38, B40, B41, B42, B43
3G HSPA+ Bands	B2, B4, B5	B1, B5, B8
WIRELESS CERTIFICATION		
Regulatory	FCC, IC, PTCRB	GCF, CE, RED, RCM
Carrier	Verizon, AT&T, T-Mobile Planned: Bell, Telus, Rogers	Planned: Telstra
Public Safety	FirstNet®	
Part Numbers	1104927 Base 1104928 Wi-Fi 1104934 Wi-Fi Plus	1104929 Base 1104930 Wi-Fi 1104933 Wi-Fi Plus

WI-FI (Optional)	
Wi-Fi Standard	Wi-Fi 5 802.11ac
Access Point	Dual
Client (Depot/WAN)	Yes
Client & AP	Yes
Peak Throughput (Theoretical)	433 Mbps
MIMO	Dual 1x1
Security	WPA2 Enterprise
Clients	10 per radio
SSID	1 per radio
Output Power	16 dBm
Frequency	2.4/5GHz
RF Connectors	SMA (Reverse Polarity)
ENVIRONMENTAL	
Operating Temperature	-40°C to +70°C / -40°F to +158°F -30°C to +70°C / -22°F to +158°F (Wi-Fi variant)
Storage Temperature	-40°C to +85°C / -40°F to +185°F
Humidity	95% RH @ 60°C
Military Specification	MIL-STD-810G (shock, vibration, thermal shock, humidity)
IP Rating	IP64

INDUSTRY CERTIFICATIONS	
Safety	IECEE Certification Bodies Scheme (CB Scheme)
Vehicle Usage	E-Mark (UN ECE Regulation 10.04), ISO7637-2, SAE J1455 (Shock, Vibration, Electrical)
Environmental Directives	RoHS2, REACH, WEEE, Prop 65
Hazardous Environments	Class 1 Div 2 – Ambient temperatures of -30°C to +60°C IECEX & ATEX
Rail Usage	EN50155 (Pending)
POWER	
Input Voltage	7 to 36 VDC
Power Consumption	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
Power Modes	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
SECURITY	
AAA	802.1x / Radius authentication with Wi-Fi and Ethernet
Firewall	Stateful firewall with port forwarding, DMZ
WLAN Encryption	WPA2/WPA3 Personal/Enterprise
Firmware Update	Secure Firmware Update



NETWORK AND ROUTING

Sierra Cognitive Wireless
 IPv4 and IPv6 Routing
 Network Address Translation (NAT)
 Port Forwarding
 DHCP Server
 IP Passthrough
 LAN Segmentation
 IPv4 Passthrough and IPv6 Prefix Extension
 WAN/LAN Connection Policy Management
 Policy-Based Routing
 Configurable MTU size
 Static Routing
 WAN Ethernet

QoS Application/Traffic Priority Queuing

WAN Monitors Connection Failure Recovery

VPN

Integrated with ACM VPN Server
 IPsec protocol with IKEv1/IKEv2
 FIPS 140-2 Level 1 compliant

Encryption AES128/AES192/AES256

Hashing SHA256/SHA384/SHA512

Key Exchange DHGroup14/15/16/17/18/19/20/21

LAN to LAN and Host to LAN
 Up to 10 concurrent tunnels per link
 MOBIKE protocol
 IP compression
 Full/Split Tunnel
 Dead Peer Detection (DPD)

ROUTER MANAGEMENT INTERFACES

ALMS
 Local web user interface
 REST API (Beta)

EDGE COMPUTING

Support for Edge Compute Containerized Applications (Beta)

RAM^{1,2} 50 MB (Base & Wi-Fi)
 200 MB (Wi-Fi Plus)

Storage (Flash)¹ 200 MB (Base & Wi-Fi)
 2.8 GB (Wi-Fi Plus)

CPU Dual Core ARMv7 32-bit

1. Approximation available to containers (not device total)

2. Depends on other enabled features

AIRLINK COMPLETE

Services AirLink Complete

Support 24/7 with current AirLink Complete subscription.

Warranty 1 year standard warranty with up to 5 years extended warranty with current AirLink Complete subscription.

Device Management ALMS with current AirLink Complete subscription.

Software Updates Unrestricted critical firmware updates.

ACCESSORIES

In The Box RX55, DC Power Cable and Quick Start Guide

Other Accessories (sold separately) 2000579 AC Adapter, 12VDC
 6000659 DIN Rail Bracket
 6001238 Dual Serial Y-cable
 6001479 Serial CAN Y-cable
 For Antenna options visit: [web page](#)

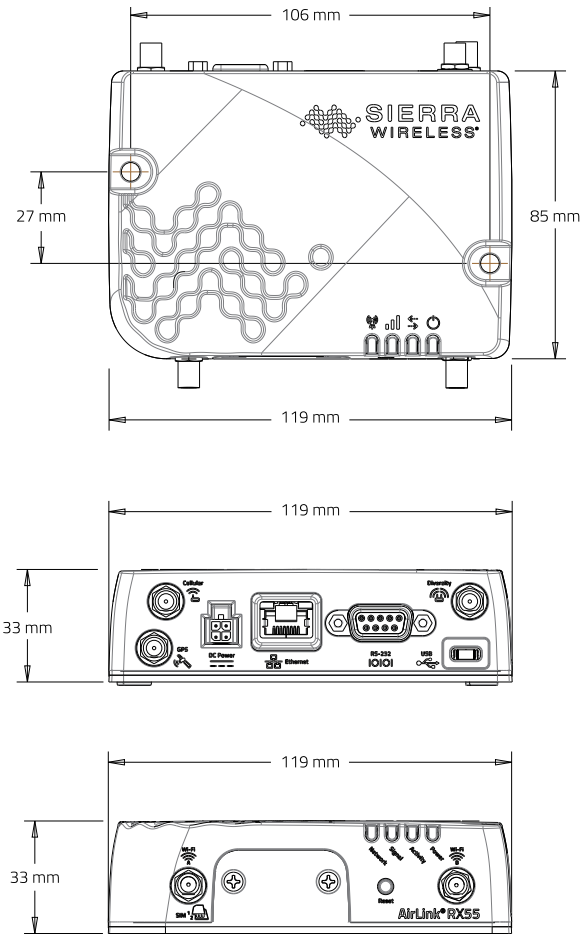
DIMENSIONS

Size 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



AirLink RX55 – Router Dimensions Diagram



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 them their next IoT solution.

For more information, visit www.sierrawireless.com.

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