Laird CONNECTIVITY

FLEXIBLE MULTI-WIRELESS GATEWAY FOR BRIDGING YOUR LORAWAN DEVICES TO THE CLOUD

New: v2.0 upgrade for improved cellular performance!

Laird Connectivity's **Sentrius™ RG191+LTE Series** LoRaWAN-enabled gateway is the ultimate in secure, scalable, robust LoRaWAN solution for end-to-end control of your LoRaWAN network. Leveraging our field-proven, reliable WB50NBT wireless bridge certified module, it also offers enterprise **dual-band Wi-Fi and wired Ethernet** for complete design freedom. Based on the **Semtech SX1301/SX1257 chipset designs**, it offers a **LoRaWAN range up to ten miles** and pre-loaded **LoRa Packet Forwarder software**, perfect for highly scalable, flexible IoT networks. The Sentrius RG191 + LTE and associated IP67 variant gateways **works with our RM1xx certified modules and RS1xx Series sensors** for simple out-of-the-box integration.

It is compatible with third-party Cloud and LoRa partners, as well as any LoRaWAN certified client devices. In addition to the existing LoRaWAN US902-928 support, the Sentrius RG191 +LTE Series now also supports **LTE CAT 1 connectivity.** This delivers regulatory compliant, multi-protocol connectivity in long-distance IoT sensors and devices, for actionable IoT intelligence.

LTE is perfect for use cases or physical deployments where no local ethernet or Wi-Fi network is present to bridge the remote LoRaWAN data to cloud services.

- **LTE CAT 1 M.2 card** – 3GPP Release 11, Bands B2/4/5/12/13 supported – North America Region
  – Certified for AT&T and Verizon
- **Full Linux operating system** – Kernel v4.x running on Atmel A5 Core @ 536 MHz
- **Multiple interfaces** such as LTE CAT 1, LoRaWAN, Wi-Fi 802.11a/b/g/n and Ethernet
- **8-Channel LoRaWAN support** with up to +27 dBm max TX power
- **Comprehensive Certifications** for FCC, ISED, and PTCRB and co-located radio certification
- **Industrial temperature range** (-30° to +70° C)
- **Advanced deployment tools** including intuitive web-based configuration and integrated presets for multiple external LoRa Network Server vendors
- **Enterprise-grade security** built on our years of experience in wireless
- **Industry-leading support** works directly with our engineers to help deploy your design

FEATURES AT A GLANCE

PLATFORM FOR BUILDING ACTIONABLE IoT INTELLIGENCE
Route sensor data to the cloud with integrated LoRa Packet Forwarders from The Things Network (TTN), Senet, ChirpStack, AWS IoT Core for LoRaWAN, Actility ThingPark, and Semtech for simple application deployment.

AGGREGATE AND UTILIZE IoT DATA
Utilize a LoRaWAN network to capture, route, and process IoT data for your application.

MULTIPLE INTERFACE OPTIONS FOR ULTIMATE DESIGN CHOICE
Wide variety of connectivity interfaces: LoRaWAN, Dual Band Wi-Fi (2.4 and 5 GHz), Ethernet and Cellular LTE CAT 1 support.

COMPREHENSIVE SECURITY AND RELIABILITY
Robust multi-layer security at each interface to safeguard your network at every level.

BROAD CERTIFICATION AND APPROVALS
Fully certified for FCC, ISED, and PTCRB. Carrier support for AT&T and Verizon.

PERSONAL SUPPORT FOR YOUR IMPLEMENTATION
Partner with Laird Connectivity's Tier 2 support and engineering to help configure and deploy your application.

APPLICATION AREAS

Smart Metering and Remote Sensing
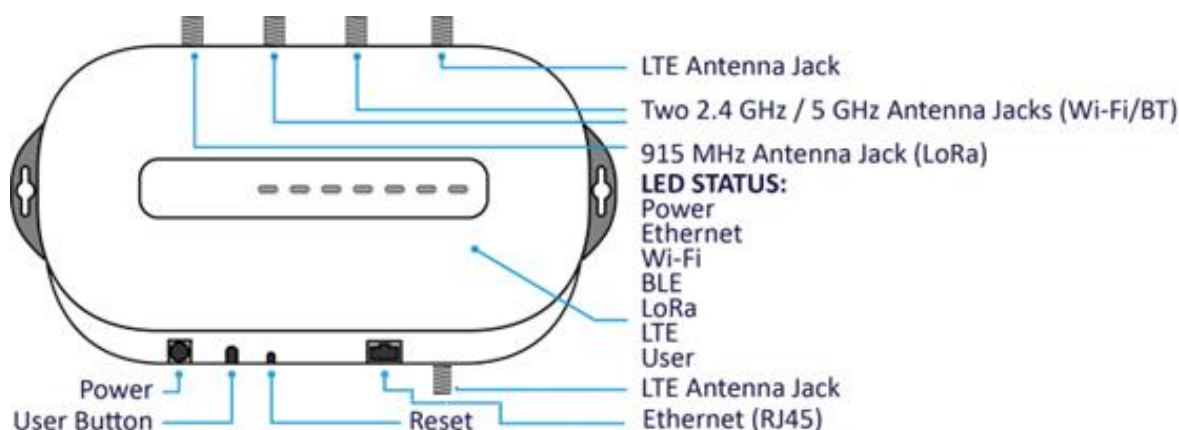
Industrial Automation / Monitoring and Control

Agricultural and Rural IoT / M2M Applications

Shared Specifications

Category	Feature	Specification
Chipset	LoRa®	Semtech SX1301/1257
	LTE CAT 1	Quectel EG91-NA
	Wi-Fi	Qualcomm Atheros QCA6004
Wireless Characteristics	Wi-Fi Spatial Streams	2x2 MIMO
	Wi-Fi Frequencies	2.4 and 5 GHz Operation
	LoRaWAN Regions	US 902–928 MHz
	LTE CAT 1 Band Support	North America - Bands B2/4/5/12/13
Interfaces	Wired	Ethernet - RJ45 Connector
	Wireless	LoRaWAN, Wi-Fi 2.4/5 GHz, LTE CAT 1
Power	Supply Voltage	12V/1A
	Power Adapter	External DC Power Supply with regional plug adapter (Standard) / Customer Supplied (IP67)
Security	Wi-Fi	Standards - WEP, WPA, WPA2. Encryption – WEP, TKIP, AES EAP Types - EAP-FAST, EAP-TLS, EAP-TTLS, PEAP-GTC, PEAP-MSCHAP, PEAP-SCHAPv2, PEAP-TLS, LEAP
Software	Operating System	Embedded Linux, 4.x Kernel
	LoRa	Packet Network Forwarder with default support for the following: ▪ Senet through legacy Semtech UDP packet, proprietary Senet or Semtech Basic Station forwarder, ▪ The Things Network (TTN) through Semtech Basic Station or Semtech UDP packet forwarder, ▪ ChirpStack through Semtech Basic Station or Semtech UDP packet forwarder, ▪ AWS IoT Core for LoRaWAN through Semtech Basic Station forwarder, ▪ Actility ThingPark through Semtech Basic Station forwarder, ▪ Original Semtech UDP packet forwarder.
	Configuration	Web-based interface via Ethernet/Wi-Fi/LoRaWAN/Cellular LTE TR-069 Remote Management functionality
Physical	Dimensions	133 x 275 x 30 mm (Standard) / 220 x 250 x 70 mm (IP67)
Environmental	Operating Temp.	-30° to +70°C
Approvals	Regulatory Cellular/Carriers	FCC, ISED PTCRB, AT&T, Verizon
Accessories	Included	915 MHz, 2x 2.4 /5 GHz, and 2x LTE antennas (5 total), External DC Adapter, Ethernet cable
Enclosure	Standard	Moulded plastic housing (blue)
Warranty		1-year warranty

For full specifications on RG1xx Gateways, please see the RG1xx User Guide.

CONNECTOR DIAGRAM (STANDARD RG191+LTE)

ORDERING INFORMATION

Part	Description
450-00107-K2	Sentrius™ RG191 US (US902-928) 915 MHz Gateway – LTE, LoRaWAN, Wi-Fi & Ethernet – US Power Adapter
450-00109-K2	Sentrius™ RG191 US (US902-928) 915 MHz IP67 Gateway – LTE, LoRaWAN, Wi-Fi & Ethernet

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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[450-00109-K2](#)