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

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
- **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 TTN, Senet, Chripstack, 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 (all pending)

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
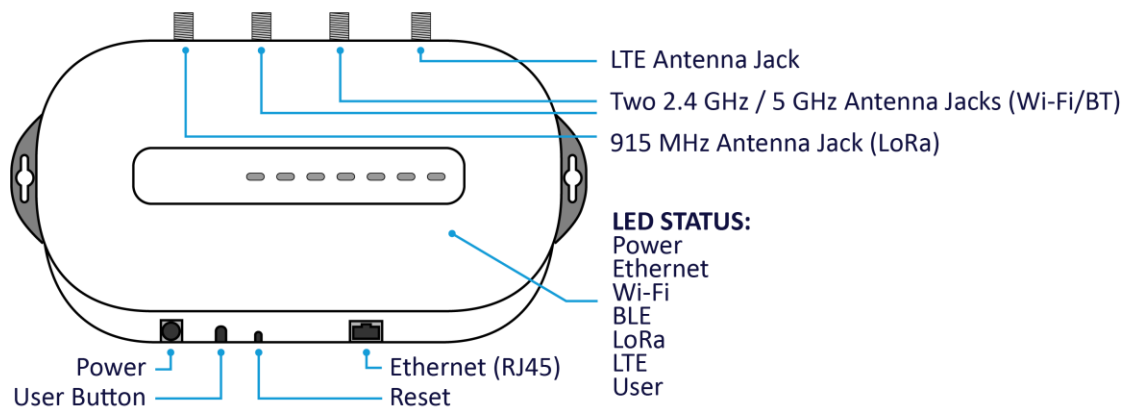
Industrial Automation/Monitoring and Control

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
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: ▪ Semtech UDP forwarder ▪ The Things Network (TTN) with Semtech Basic Station or UDP forwarder ▪ ChirpStack with Semtech UDP forwarder or Semtech Basic Station ▪ Senet through legacy Semtech UDP or proprietary Senet 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
Environmental	Operating Temp.	-30° to +70°C
Approvals	Regulatory Cellular/Carriers	FCC, ICED PTCRB, AT&T, Verizon (all pending)
Accessories	Included	915 MHz, 2x 2.4 /5 GHz, and LTE antennas (4 total), External DC Adapter, Ethernet cable
Enclosure	Standard	Moulded plastic housing (blue)
	IP67 Enclosure	IP67-rated external enclosure housing for main gateway PCB
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-K1	Sentrius™ RG191 US (US902-928) 915 MHz Gateway – LTE, LoRaWAN, Wi-Fi & Ethernet – US Power Adapter
450-00109-K1	Sentrius™ RG191 US (US902-928) 915 MHz Gateway – LTE, LoRaWAN, Wi-Fi & Ethernet - IP67 housing
690-1002	Pole Mount Bracket - Accessory for 450-00109-K1
690-1003	Wall Mount Bracket - Accessory for 450-00109-K1