HIGH-PERFORMANCE LoRa-ENABLED GATEWAY CARD FEATURING M2.COM INTERFACE

The **Sentrius™ RG1xx-M2 LoRa-enabled concentrator card** combines Laird's long-standing expertise in optimized RF design with the emerging LoRaWAN ecosystem. The Sentrius RG1xx-M2 card enables OEMs to integrate a high-performance, certified LoRaWAN gateway interface to any Linux based platform. Laird's optimum hardware solution expands upon Semtech drivers and reference design for improved RF performance. Comprehensive integration and design services for a custom gateway are also available via Laird's dedicated Engineering Services team, as are qualified LoRa antenna solutions from Laird.

- **Optimized RF performance** – Improvements over Semtech reference design for:-
  - Power variation over temperature
  - Performance over frequency
- **Superior TX Performance** – Up to +27dBm
- **Standardized Interface** – M2 connector with compliance to M2.COM standard E type key.
- **Comprehensive Certifications –** FCC, IC, CE

Partner with Laird to create your own custom LoRa-enabled gateway

From embedded hardware, easy-to-connect antennas to expert integration services, Laird provides a comprehensive array of capabilities to build a customized LoRaWAN implementation, including:

LoRa-Equipped Concentrator card
Quickly add LoRaWAN capability to any Linux-based Gateway design via standard M2.COM interface.

Product Development Services
Laird is your partner for enclosure design, Linux driver implementation, FCC/IC/CE Certification testing, and more.

Antennas
Laird offers a family of high-gain omnidirectional antennas ideally suited for LoRa applications.

Application Areas

Smart Metering and Remote Sensing

Industrial Automation/Monitoring and Control

Agricultural and Rural IoT / M2M Applications

Shared Specifications

Category	Feature	Specification		
General Radio	Semtech Radios	SX1301 and SX1257 (x2)		
	Reference Design	Based on Semtech Rev 1.0 - SX1301 AP1		
Connectors	Connector Type	M2.COM E Key - http://www.m2com-standard.org/en-us		
	External Antenna	u.FL connector		
Power	Consumption	TX (max): 440mA.	RX (all channels): 340mA	Idle: 40mA
Voltage	Input	5V (+/- 10%)		
RF Characteristics	Frequency Range	RG186-M2 863 to 870 MHz RG191-M2 902 to 928 MHz		
	RX sensitivity	Up to -140 dBm		
	Max RF Output Power	Up to +27 dBm		
Software	Host Interface	SPI		
	Driver Support	https://github.com/Lora-net/lora_gateway (Laird testing done with Linux)		
Temperature	Operating Range	-30 to +85		
Physical	Dimensions	75 x 53 x 3.8 mm		
	Weight	<11g		
Regulatory	Certifications	FCC / IC / CE		
Warranty		12 months		

Ordering Information

RG186-M2	LoRaWAN Concentrator Card – M2.COM Interface (Europe)	Q2 2017	
RG191-M2	LoRaWAN Concentrator Card – M2.COM Interface (N. America)	Q2 2017	

Related Products

Sentrius™ RM1xx - LoRa + BLE Certified Modules

LoRa Class 1 + Bluetooth Low Energy module with *smart*BASIC for automated / hostless operation. Now with Bluetooth Central Mode.
www.lairdtech.com/products/rm1xx-series

Sentrius™ RG1xx – LoRa-Enabled Gateway

LoRa Class 1, Bluetooth Low Energy and 802.11ac Wi-Fi, completing the end-to-end solution for your own private, custom LoRaWAN network.
Coming Q2 2017

Did You Know?

LSR, a Laird Business, is a leader in Wireless Product Development, offering true end-to-end solutions through its array of services & technical expertise

LSR *a Laird Business*

Design Services
- RF Hardware & Antenna Design
- Software/Firmware Development
- Mobile App / Cloud Development
- Industrial Design
- Mechanical Engineering

EMC Testing & Certification
- On-Site FCC/IC/CE/Giteki/RCM EMC Certification
- Wireless & Antenna Testing
- EMC Emissions Testing
- International Testing Services

To learn more about LSR visit:
www.lsr.com

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