



## LoRaWAN™ Concentrator Card based on Semtech SX1301 and SX1308 Chips in Mini PCIe Form Factor

The n-fuse LRWCCx-MPCIE family of cards enable OEMs to build high-performance, certified LoRaWAN gateway solutions. Moreover it allows to retrofit existing routers and other edge-level network equipment with LoRaWAN gateway capabilities.

### Key Features

- Compact size
- Broad usage spectrum through standard mini PCIe connector
- SX1301/ SX1308 digital base band processor with dual SX1257 Tx/Rx front-ends
- Output power level up to 23 dBm
- 3.3V Power Supply
- USB Host Interface (through mini PCIe)

### Application Areas

- Internet of Things (IoT) and Industrial Internet of Things (IIoT) Applications
- Smart City
- Agricultural Monitoring
- Home-, Building-, Industrial Automation
- Remote Control
- Wireless Alarm and Security Systems

## Specifications

Category	Feature	Description
General Radio	Semtech Radios	SX1301/ SX1308 and 2x SX1257
Connectors	Connector Type	Mini PCI Express (full length)
	External Antenna	u.FL connector 50 Ω
Host Interface		USB
Power	Input Voltage	3.3 VDC +/- 5%
	Consumption	TX (max): 440 mA RX (all channels): 340 mA Idle: 40 mA
RF	Frequency Range	863 to 870 MHz
	RX Sensitivity	Up to -140 dBm <sup>1</sup> Up to -138 dBm <sup>2</sup>
	Max RF Output Power	Up to +27 dBm <sup>1</sup> Up to +23 dBm <sup>2</sup>
	Status Indication	LED RX TX
Software	HAL user space driver	<a href="https://github.com/Lora-net/lora_gateway">https://github.com/Lora-net/lora_gateway</a> <sup>1</sup> <a href="https://github.com/Lora-net/picoGW_hal">https://github.com/Lora-net/picoGW_hal</a> <sup>2</sup>
Operating Conditions	Temperature	-48 to +85° C <sup>1</sup> 0 to +70° C <sup>2</sup>
Physical	Dimensions WxHxD	51 x 30 x 4 mm (PCB)
	Weight	<11g
Regulatory	Certifications	CE / LoRa-Alliance (all pending)
Materials	RoHS, REACH	
Warranty		24 months

<sup>1</sup> for SX1301, <sup>2</sup> for SX1308