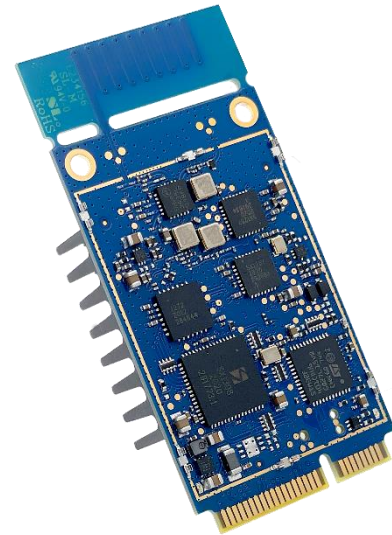


# miro EdgeCard



## GATEWAY CARD WITH INTEGRATED ANTENNA

Mini PCI Express compliant  
LoRaWAN<sup>®</sup> gateway card  
for 868 / 915 MHz with  
integrated antenna



**miro EdgeCard**, a mPCIe LoRaWAN<sup>®</sup> gateway card, provides a plug-and-play solution for long-range and low-power wireless communication networks based on LoRaWAN<sup>®</sup> standard.

The card is implemented using Semtech SX1301 or SX1308 chipset. It enables to build high-performance and certified LoRaWAN gateway solutions.

Each Gateway module offers eight receive channels and a single dedicated transmit channel. This allows for advanced duty cycle operation due to listen-before-talk and spectrum scanning capabilities.

### KEY BENEFITS

- SX1308/01 LoRa<sup>®</sup> concentrator chipset
- Supports 8 parallel receive channels
- Dedicated TX path with improved spectrum mask
- Fully mPCIe compliant card
- Software selectable integrated or external antenna (U.FL)
- Up to 30 dBm output power
- Available for 868 and 915 MHz ISM band

### APPLICATIONS

- LoRaWAN<sup>®</sup> gateways
- Smart building and facility management
- Industrial and home automation

## ABOUT

File name	miro EdgeCard datasheet
Document type	Datasheet
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Revision	1.2.78

## REVISION HISTORY

Date	Release	Changes
2021/02/11	1.1	New template
2021/08/09	1.2.74	Updated FCC info

## TABLE OF CONTENT

Document Information	2
Functional Description	3
Technical Specifications	4
Mechanical Dimensions	5
Additional Documentation	6
Device Options	6
Keep in touch	7

## Functional Description

**miro EdgeCard** is a high-performance picocell gateway card that supports the LoRaWAN® long-range wireless protocol.

**miro EdgeCard** is fully compatible mPCIe card allowing a quick setup of gateways using existing network devices. The device features a Semtech SX1301/SX1308 digital baseband chip combined with two SX1257 RF frontend chips and a dedicated transmission channel based using SX1272 to provide listen-before-talk and spectrum scanning capabilities. This enables to overcome the typical 1% duty cycle in ETSI applications.

The integrated RF power amplifier provides a maximum transmission power output of up to 30 dBm and high receive sensitivity of up to -142 dBm. This allows for a **miro EdgeCard** to be placed in high-density urban or long-range rural environments and connect a large variety of sensors to LoRaWAN® and proprietary networks based on LoRa®, (G)FSK, (G)MSK, ASK, OOK coding schemes.

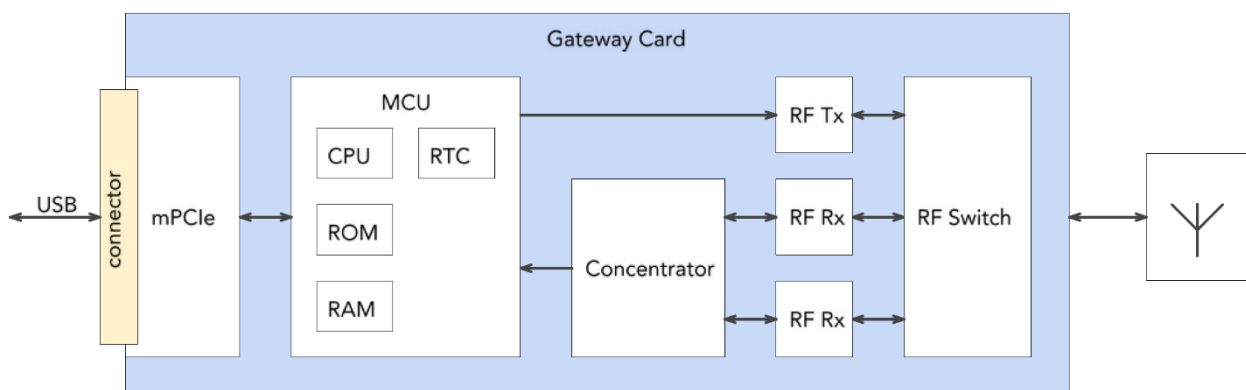


Figure 1: miro EdgeCard Block Diagram

# Technical Specifications

## MECHANICAL SPECIFICATIONS

Weight	16 g
Dimensions	63.15 x 30 x 25 mm

## OPERATING CONDITIONS

Temperature	0 – 80 °C
Humidity	0 – 95% RH, non-condensing

## DEVICE POWER SUPPLY

Power supply	According to PCI Express specifications
Power consumption	TBD

## RADIO / WIRELESS

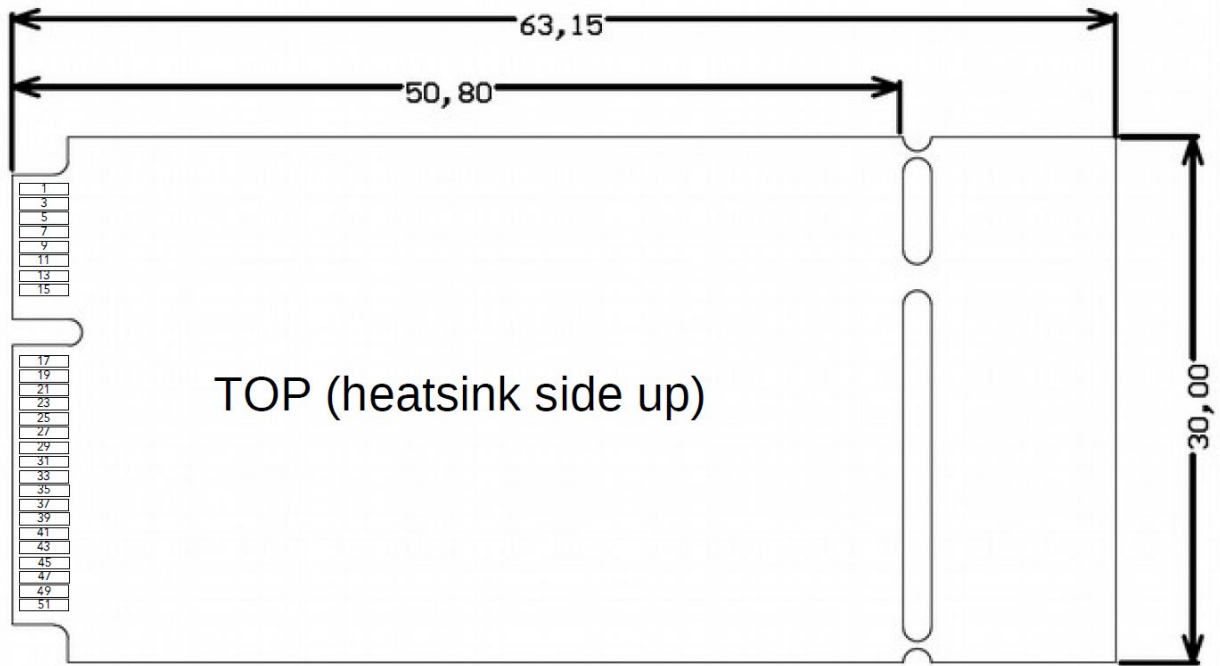
Supported ISM bands	868 MHz, 915 MHz
Data rates	0.6 – 300 kbps (FSK) SF7-SF12, 125/250/500 kHz (SubG LoRa®)
Rx sensitivity	-139.5 dBm (SF12)
RF transmission power	up to 30 dBm
LoRa antenna	Integrated or external U.FL antenna, software selectable

## CERTIFICATIONS

CE	<a href="#">RED 2014/53/EU</a>
FCC	FCC ID 2AUQE30REJ

FCC Caution: Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Antenna Model JCG410 by JIAXING JINCHANG ELECTRONIC TECHNOLOGY CO.,LTD, 3dBi gain

## Mechanical Dimensions



## Additional Documentation

### ADDITIONAL RESSOURCES

[Product Information Page](#)

[Product Website](#)

[Technical Documentation](#)

[Technical Documentation Website](#)

## Device Options

PRODUCT ID	ISM BAND		OPTIONS			
	EU868	US915				
GWC-EDGE-LW/□	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				



Keep  
in touch

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