

miro Edge Performance

Modular high-performance family of industrial LPWAN gateways, combining multi-connectivity and multi-frequency capabilities.



Description

miro Edge Performance is a powerful OEM/white-label product family of fully LoRaWAN®- and mioty®-compatible gateways targeting industrial, large scale network applications with high demand for robustness and longevity.

The device features a high-performance processing module based on the NXP i.MX93 processor, enabling it to run advanced applications, such as on-premise network management solutions. With a modular design, these gateways include integrated interfaces such as Ethernet, Power over Ethernet (PoE) or DC supply, and three Mini PCIe connectors. Combined with a Yocto-based Linux OS, this design ensures seamless integration into various infrastructures.

The built-in web frontend facilitates easy integration of diverse technologies and frequency bands. The gateway also includes a remote management system (RMS) that supports firmware-over-the-air updates (FUOTA), remote access, and real-time device health monitoring, all integrable with customers' IT infrastructures.

Features

- ▶ Support for 868/915 MHz and 2.4 GHz LoRaWAN® and ETSI Listen Before Talk (LBT)
- ▶ Support for 868 MHz mioty®
- ▶ Based on i.MX93 processor module
 - 2x Cortex® A55, 1.7 GHz
 - 1x Cortex® M33, 250 MHz
 - 2 GB DDR, 8 GB eMMC
- ▶ Modular design: 3 × Mini PCIe
- ▶ Ethernet, LTE (3G/4G), WiFi, Bluetooth
- ▶ Dual SIM support
- ▶ PoE and 9 - 36 VDC supply
- ▶ Preconfigured or web-based configuration
- ▶ Customer specific branding and configuration

Applications

- ▶ Large scale LPWAN
- ▶ Smart Metering / Smart Buildings
- ▶ Industry 4.0
- ▶ Healthcare
- ▶ Supply Chain & Logistics
- ▶ Facility Management

Document Information

About

File name	Document type	Date	Revision
DS miro Edge Performance	Datasheet	2025/07/15	Preliminary

Revision History

Date	Release	Changes
2025/07/15	Preliminary	-
2025/07/10	Preliminary	Update to product revision 2.0

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Technical Specifications

Mechanical Specifications		
Weight	~500g, tbd	
Dimensions (without antennas)	141 x 138 x 51 mm	
Enclosure	Aluminum, anodized	
Mounting options	Wall mount, DIN Rail	
Ingress protection	IP40	
Operating Conditions		
Temperature range	-20 – 55 °C	
Humidity	0 – 95 % RH, non-condensing	
Processor		
Processor	NXP i.MX93	
Core	2x Cortex® A55, 1.7 GHz 1x Cortex® M33, 250 MHz	
Memory	2 GB DDR, 8 GB eMMC	
Operating System	Yocto-based Linux	
Device Power Supply		
Standard	9 – 36 VDC with M12 connector, PoE 802.3af (12 W)	
Optional	PoE 802.3at (25 W)	
LoRa® Radio / Wireless		
	868 MHz / 915 MHz	2.4 GHz
Chip set	SX1302	SX1280
Rx sensitivity ¹	-141 dBm (SF12)	-130 dBm (SF12)
RF transmission power ¹	up to 27 dBm	up to 24 dBm
Data rates ¹	0.6 – 300 kbps (FSK) SF7-SF12, 125/250/500 kHz	0.6 – 253 kbps (LoRa) Up to 1.3 Mbps (FLRC) Up to 2 Mbps (FSK)

mioty® Radio / Wireless	868 MHz
Chip set	CC1260
Rx sensitivity ¹	-136 dBm
RF transmission power ¹	up to 27 dBm

¹ See gateway card datasheet for detailed specifications

Certifications

CE	Pending
FCC	Pending

⚠ FCC Caution:

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Mechanical Dimensions

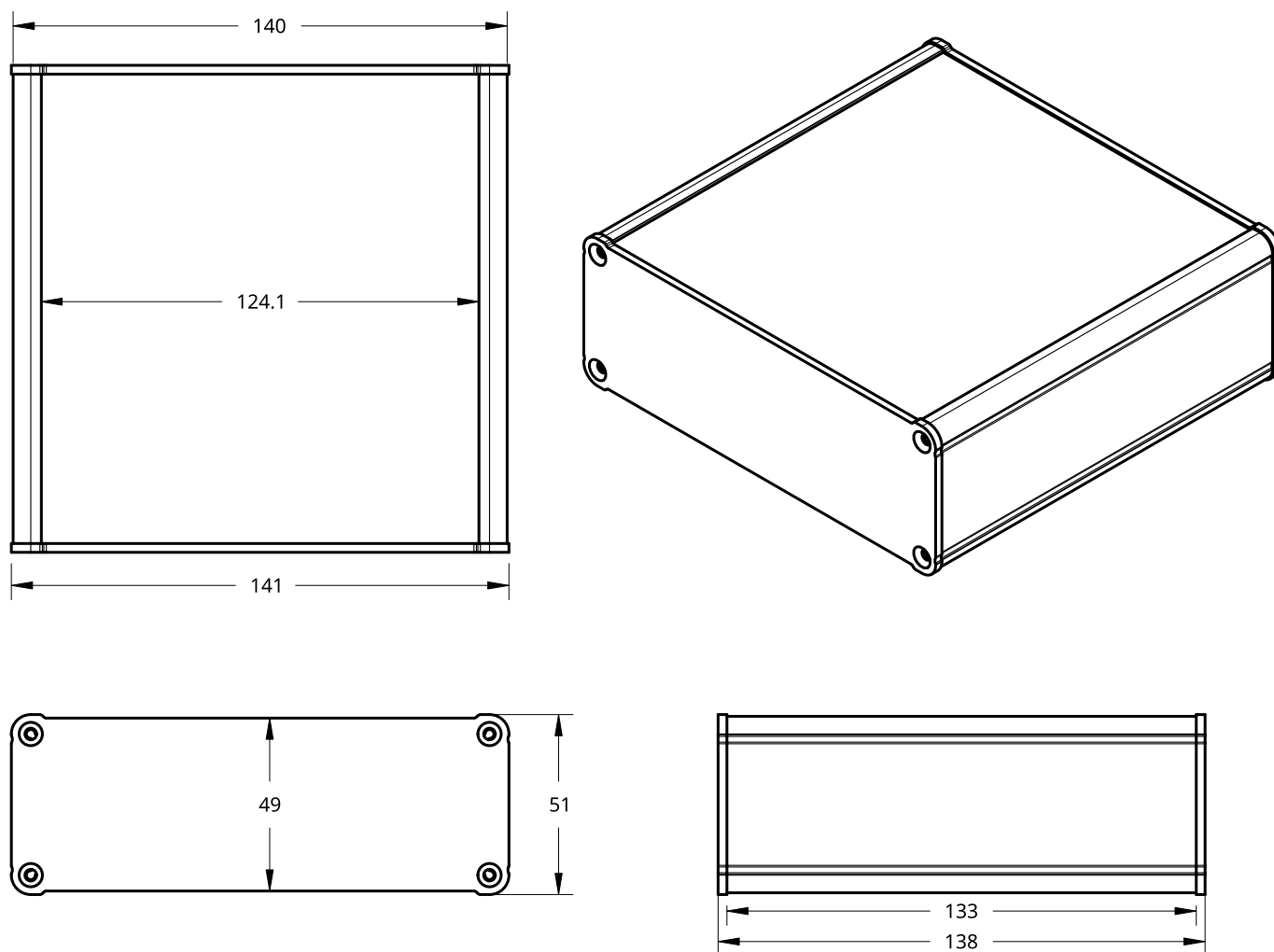


Figure 1: Mechanical Dimensions in mm

Additional Documentation

Additional Ressources

Product information page	To be released
Technical documentation	https://miromico.ch/products/details/miroEdge-Performance

Device Options

Product ID	ISM BAND			Options	
	868 MHz	915 MHz	2.4 GHz ¹	LTE	SIM
EDGE-PERF-LW-868	✓				
EDGE-PERF-LW-868-LTE ²	✓			✓	✓
EDGE-PERF-LW-915		✓			
EDGE-PERF-LW-915-LTE ²		✓		✓	✓
EDGE-PERF-LW-2G4 ¹			✓		
EDGE-PERF-LW-2G4-LTE ²			✓	✓	✓
EDGE-PERF-MY-868	✓				
EDGE-PERF-MY-868-LTE ²	✓			✓	✓

¹ With power amplifier and hardware ranging support.

Keep in touch

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