miro
Scan'N'get

Ultimate order-on-demand device

Suitable for order-on-demand and ideal for an extensive business to customers application

Description

miro Scan'N'get is a LoRaWAN® compliant device based on optical Identification (OID) technology. The device can read printed codes on paper or objects and transmit the data through LoRaWAN®.

This makes the **miro Scan'N'get** ultimately suitable for large scale order-on-demand or logistics use cases at lowest cost. It enables the customer to place orders by scanning the OID code of the requested product or service.

miro Scan'N'get is available as customizable, white-labeled device. With battery lifetime of up to 10 years it is ideal for extensive business-to-customer applications.

Features

▶   LoRaWAN® class A device

▶   Optical identification (OID) technology

▶   Scans printed codes on paper or objects

▶   User feedback by LED and buzzer

▶   Battery lifetime of up to 10 years

Applications

▶   Facility management services

▶   Retail IoT applications

▶   Logistic use cases

▶   Digitalized order processes

Document Information

About

File name	Document type	Date	Revision
DS-miro-Scan-n-get	Datasheet	2022-04-14	1.1

Revision history

Date	Release	Changes
2021-03-02	1.0	Initial release
2022-04-18	1.1	Design change

Table of content

▌Functional Description

miro **Scan'N'get** is using optical identification technology to read a printed code from paper. The code can be printed using a high-quality laser printer or standard printing processes. The codes can be printed on a plain background or can be overlayed with images. This enables the creation of easy-to-understand order-on-demand or service request use cases. The low cost of the printed labels allows for cost effective high-volume use cases.

The OID codes are a two-dimensional array of small dots printed in the usual CMYK printing procedure's black channel. A high-quality laser printer capable of printing at least 1200 dpi is required to print codes. If the code needs to be readable in images or on a colored background, the black component of the image or color must be expressed solely in the C, M, and Y channels, as the black (K) channel is reserved for the OID codes (see figure 1). Alternatively, for best color quality, the OID code can be printed as a separated color.

The housing of **miro** **Scan'N'get** can be fully customer branded. The battery is pre-installed and allows for up to 10 years of operation time or roughly 10'000 transmissions on LoRaWAN® SF12.

The **miro** **Scan'N'get** features and RGB LED and a buzzer. For user interaction and signalization have been optimized for simple user interaction.
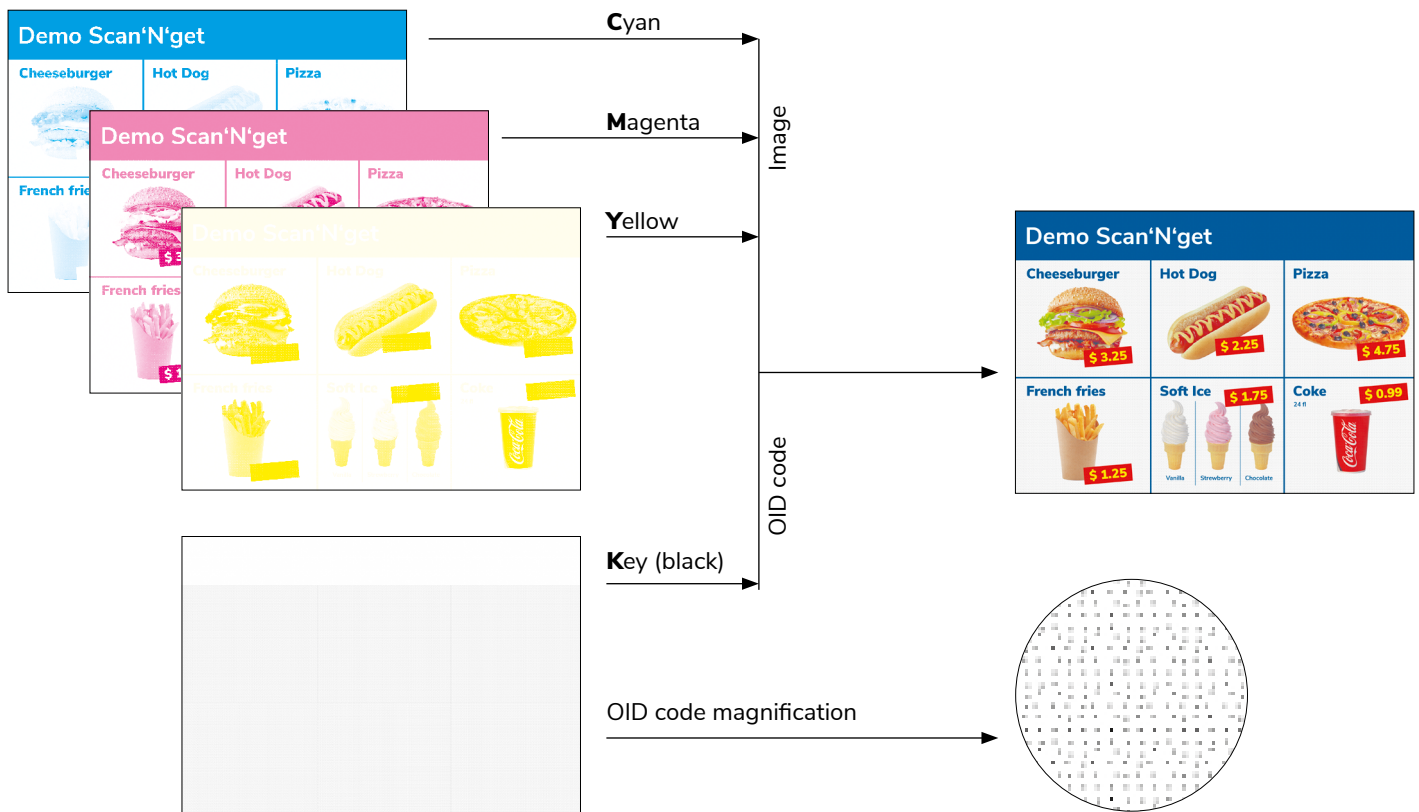

Figure 1: CMYK printing procedure

▎Technical Specifications

Mechanical speciafications	
Weight	50 g
Dimensions	150 × 25 × 15 mm
Enclosure	Plastic, ABS

Operating conditions	
Temperature	0 – 50 °C
Humidity	0 – 95 % RH, non-condensing

Device power supply	
Battery type	½ AA, LiSOCl$_2$, 3.6 V, 1.2 Ah
Expected battery lifetime	> 10 years

Radio / wireless	
Wireless technology	LoRaWAN® 1.0.3
LoRaWAN® device type	Class A
Supported LoRaWAN® features	OTAA, ADR, Adaptive Channel Setup
Maximum RX Sensitivity	-137 dBm
RF transmission power	14 dBm / 20 dBm (depending on region)

Mechanical Dimensions
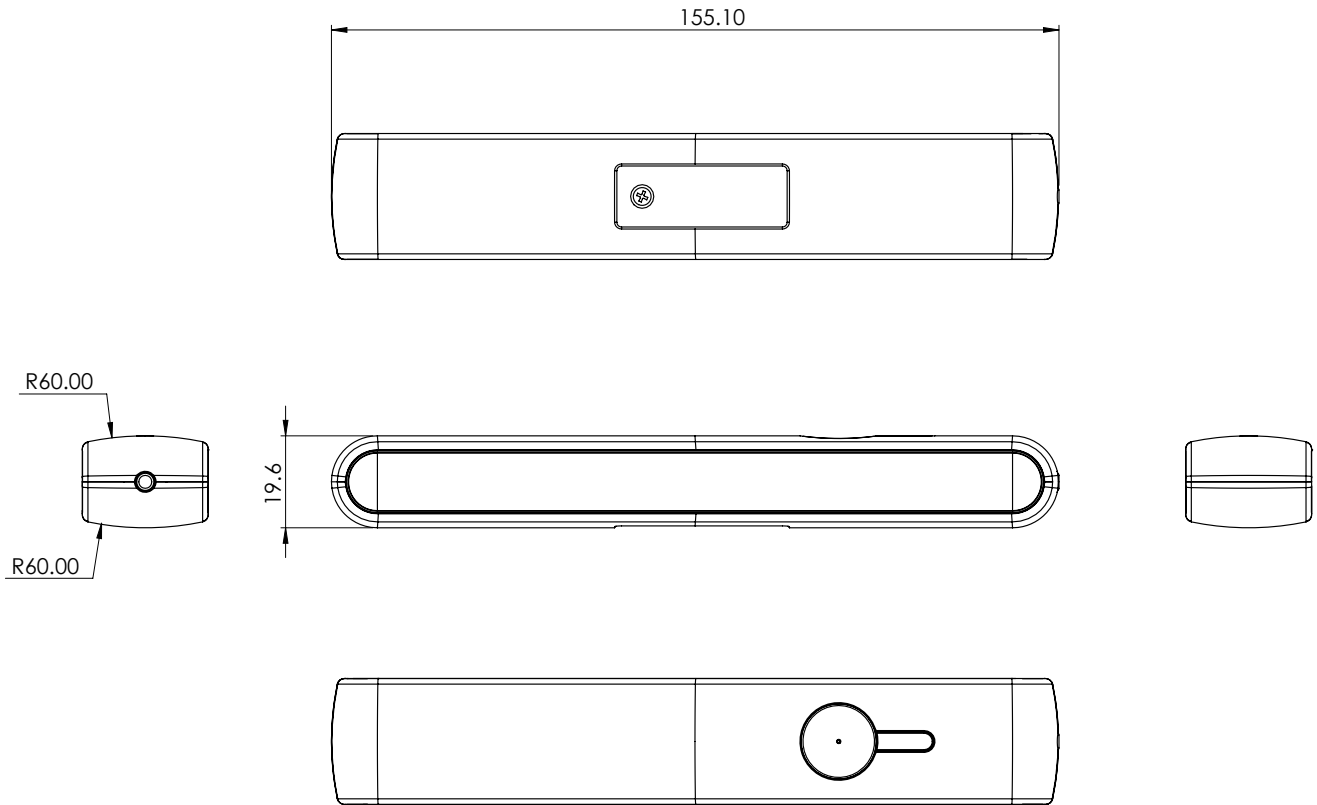
Figure 2: Mechanical Dimensions

Additional Documentation

Additional Ressources

Product Information Page	miromico.ch/miro-scannget
Technical Documentation	docs.miromico.ch/datasheets/devices.html

Device Options

Product ID	LoRaWAN® region					Options
	EU868	US915	AS923	AU915	IN865	White labeled
IOT-OID-LW/*	✓					✓

* LoRaWAN® Region (e.g. EU868)

Keep in touch

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