

1 Content

This document gives an overview of the miro LogiButton MVP devices for the current firmware version 2.2.1

2 LoRaWAN Specification

Uplink Port	60
Join method	OTAA
ADR	Yes

3 Device Reboot

On reboot the device shows some status information on the display

Sequence	Display	Duration
Display test	Show all segments, blink LED	1 sec
Firmware version	2.2.1	1 sec
Battery level	Battery voltage in mV	1 sec
Operation mode	OPMODE 2	1 sec

After reboot the device will try to join.

4 Join

Join is always done with SF12.

Step/Result	Display	Duration
Join request	„JOINING“, blue LED blinking, LoRa segment blinking	-
Join ok	„JOIN OK“ In character 11-14 it will show the received dBm value	4 sec
Join failed	„JOIN NOK“	5 sec

5 Test Message

After Join a test message will be sent

Field	Description	Length	Value
Battery level	Battery level according to LoRaWAN specification	1 byte	0x00 – 0xFF
Message ID	Test-Message	1 byte	0x31
Firmware Version		1 byte	0x02
Hardware Rev		1 byte	0x02

6 Ordering Mode

After Join the device is in ordering mode. In ordering mode, the user can trigger an order

by pressing the button for a longer time. Short presses will be ignored, to avoid unintended order triggering.

The device will toggle between open and close order with every button press and the LoRaWAN message will be sent, accordingly.

Message for open order

Field	Description	Length	Value
Battery level	Battery level according to LoRaWAN specification	1 byte	0x00 – 0xFF
Message ID	Message Type	1 byte	0x01

Message for close order

Field	Description	Length	Value
Battery level	Battery level according to LoRaWAN specification	1 byte	0x00 – 0xFF
Message ID	Message Type	1 byte	0x11

Order messages are sent as confirmed messages. Display and LED will show if order has been successfully placed or failed.

7 Status Message

A status message will be sent in a regular interval

Field	Description	Length	Value
Battery level	Battery level according to LoRaWAN specification	1 byte	0x00 – 0xFF
Message ID	Test-Message	1 byte	0x31
Firmware Version		1 byte	0x02
Hardware Rev		1 byte	0x02
Device status	Current order state	1 byte	0x00 open 0x01 closed