

Operational description

BCNBW20301



Mysphera S.L.

Parque Tecnológico de Valencia

Ronda Auguste y Louis Lumiere, 23 - Nave 13,

46980 Paterna (Valencia)

info@mysphera.com

www.mysphera.com

Telf.: +34 96 182 71 77

Fax +34 96 182 94 15

Content

Content	2
1. Device version.....	3
2. Operational description.....	3
3. Case	3
4. Technical information.....	5
4.1. Connections	5
4.2. Radiofrequency	5
4.3. Power supply and consumption	5
4.4. Mechanical	5
4.5. User interface	5

1. Device version

This document is related to the MYSHERA Gateway Wireless (BCNBW20301):

- Case version 2

- HW version 3

- FW version 1

2. Operational description

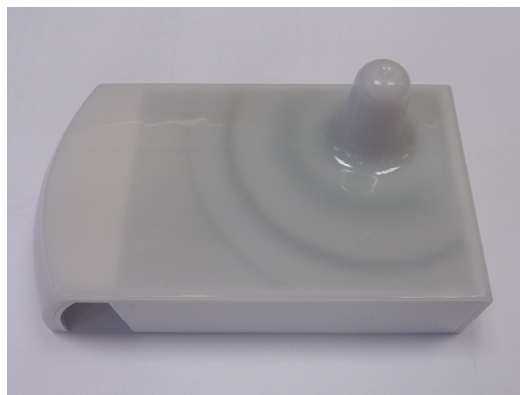
The hardware of the device is made out of a single PCB board. It includes a System-on-Chip microcontroller, among other components, featuring the radio transceiver. The antenna is a 2.4GHz patch PCB antenna.

The device is powered through the USB connector situated on the bottom side of the board. It is receiving frames by BLE from Tags and forward by wireless the signal to another device longer to the Tag.



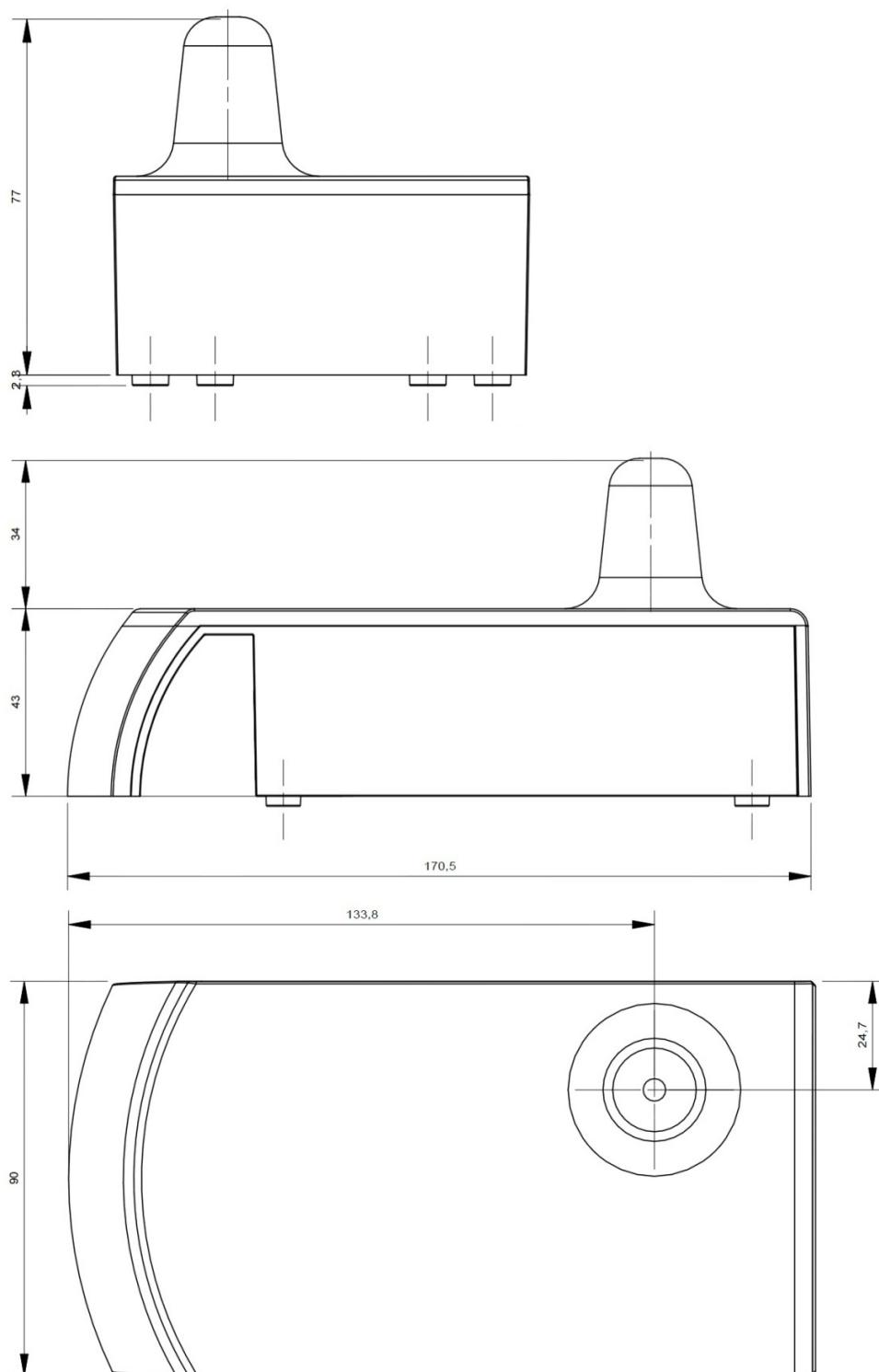
3. Case

The device's outer casing has been designed to fit and to protect the electronics. It comprises two parts: the base, holding the electronic board, and the cover.



Mechanical characteristics

(Figures are in millimetres)



Plastic material: ABS

4. Technical information

4.1. Connections

Wired connection: USB 2.0, limited power to 15 W

Communication protocol: Wireless

4.2. Radiofrequency

Standard: Bluetooth Low Energy (Bluetooth 4.0)

Bluetooth class: B

Broadcast channels: 37-39

Modulation: GFSK

Data rate: 1Mbps

Maximum Antenna Gain: 0 dBi

Maximum transmission power: 0 dBm

Maximum conducted output power calculated: 1,7 dBm

Reception sensitivity: -94dBm

4.3. Power supply and consumption

Typical consumption: 40mA

Power supply: 5V DC (USB)

4.4. Mechanical

Dimensions: 170mm x 90mm x 43mm

Weight: 200gr.

Casing material: ABS

Operating temperature: -5°C to 45°C

Storage temperature: -10°C to 50°C

Operating humidity: 25% to 75%

Storage humidity: 20% to 80%

4.5. User interface

Leds: blue, red, orange.