

Operational description

RDRDS20303



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1. Device version

This document is related to the MYSPHERA Reader Desktop Standard (RDRDS20303):

- Case version 2

- HW version 3

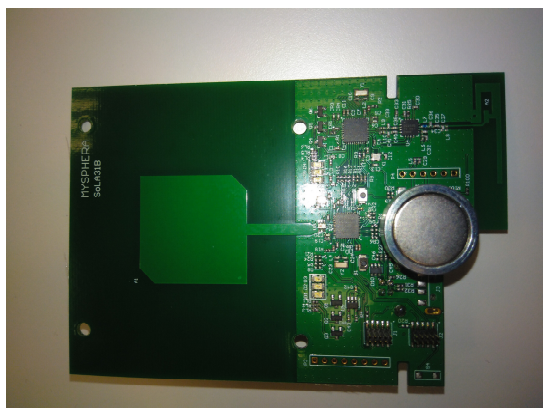
- FW version 3

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.

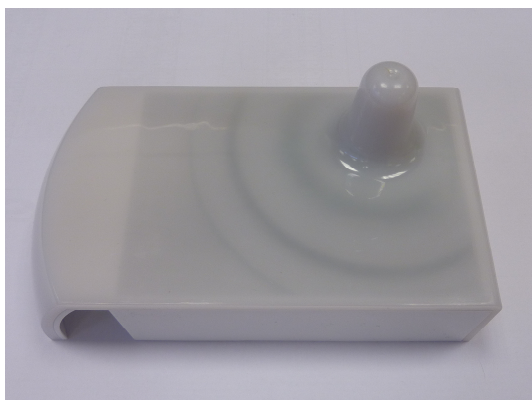
The device is powered through the USB connector situated on the bottom side of the board. When attached to a PC, it is registered as a keyboard using the HID protocol.

A picture of the board is shown below:



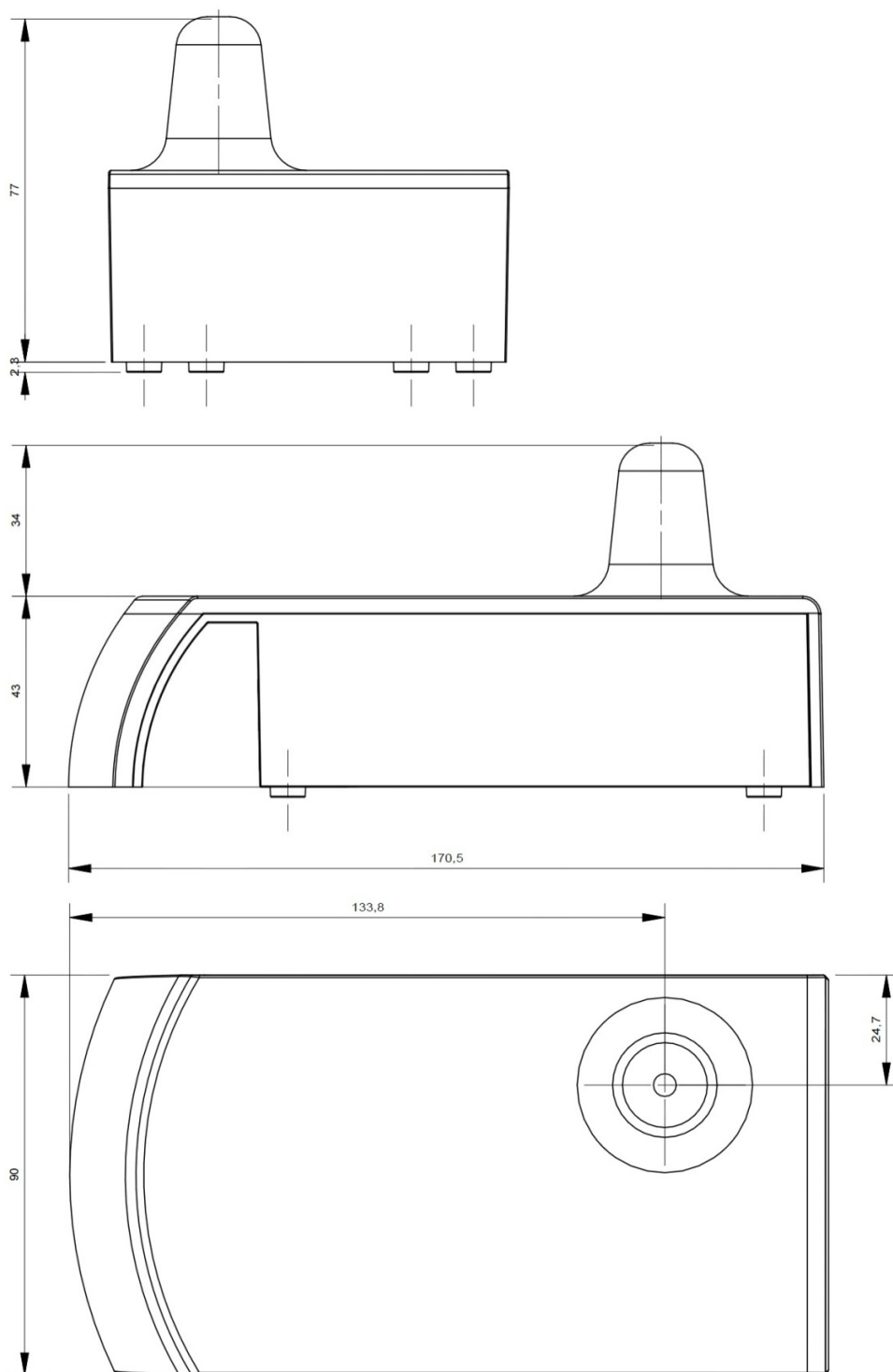
3. Case

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, 15 W limited power

Communication protocol: HID

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 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.

Digital device, class B.