

Operational description

RDRDS20303



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1. Device version

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

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:



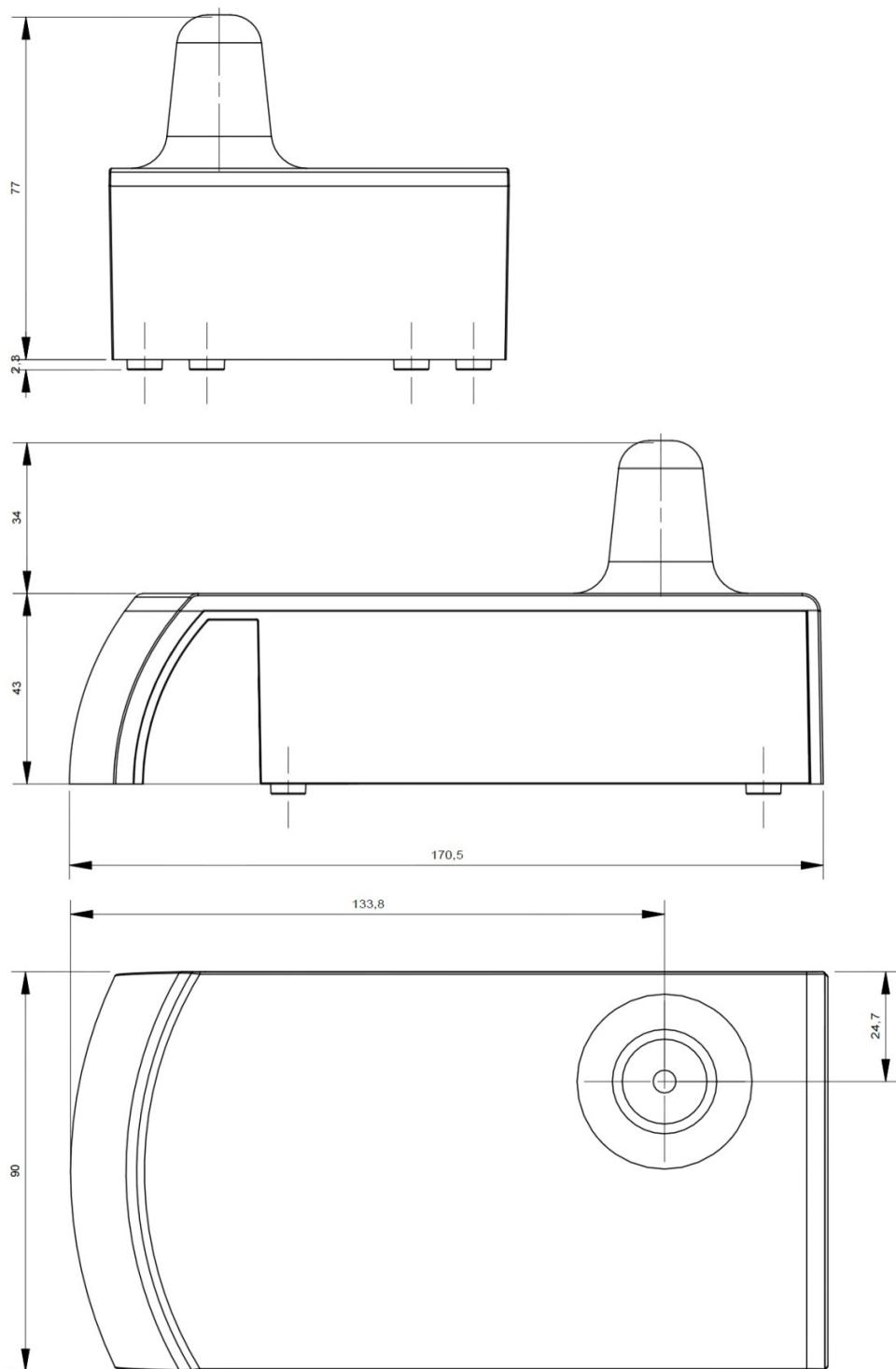
3. Case

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 limitated 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.