Bee333 quick start guide

Bee333 is a development platform for IoT. It consists of five modules:

- Bee-MCU x 2 — universal wireless MCU module.
- Bee-WSN — energy harvesting and sensors module
- Bee-USBEE — module for PC or router connection
- Bee-UI — module for PC-less live demonstration and LED blinking

These boards implement two devices:

- Concentrator — Bee-MCU + Bee-USBEE + Bee-UI
- Node — Bee-MCU + Bee-WSN

Power up

To power up the node insert a CR2032 rechargeable battery into battery holder on the back side of Bee-WSN module and slide right switch SS2 (Fig.2 - 1). The 3V_PRP LED must light up and DIO1 LED on Bee-MCU board must start blinking.

To power up the concentrator plug any USB power source to mini-USB connector(Fig.1 - 2)

Usage

Data received from the node updates every 5 seconds on E-Ink display. That data also available via USB virtual serial port. FT232 converter drivers.

Serial port connection parameters:

- baud rate — 115200
- data bits — 8
- parity — none
- stop bits — 1

For disabling RGB LED blinking press knob button (Fig.2 - 1).

To switch between slow/fast update rate push SS1 (Fig.2 - 7) on Bee-WSN module. Fast update mode affects the USB virtual serial port only, E-Ink display update rate is constant.

In case of poor illumination, use USB adapter device as shown in Fig.3.
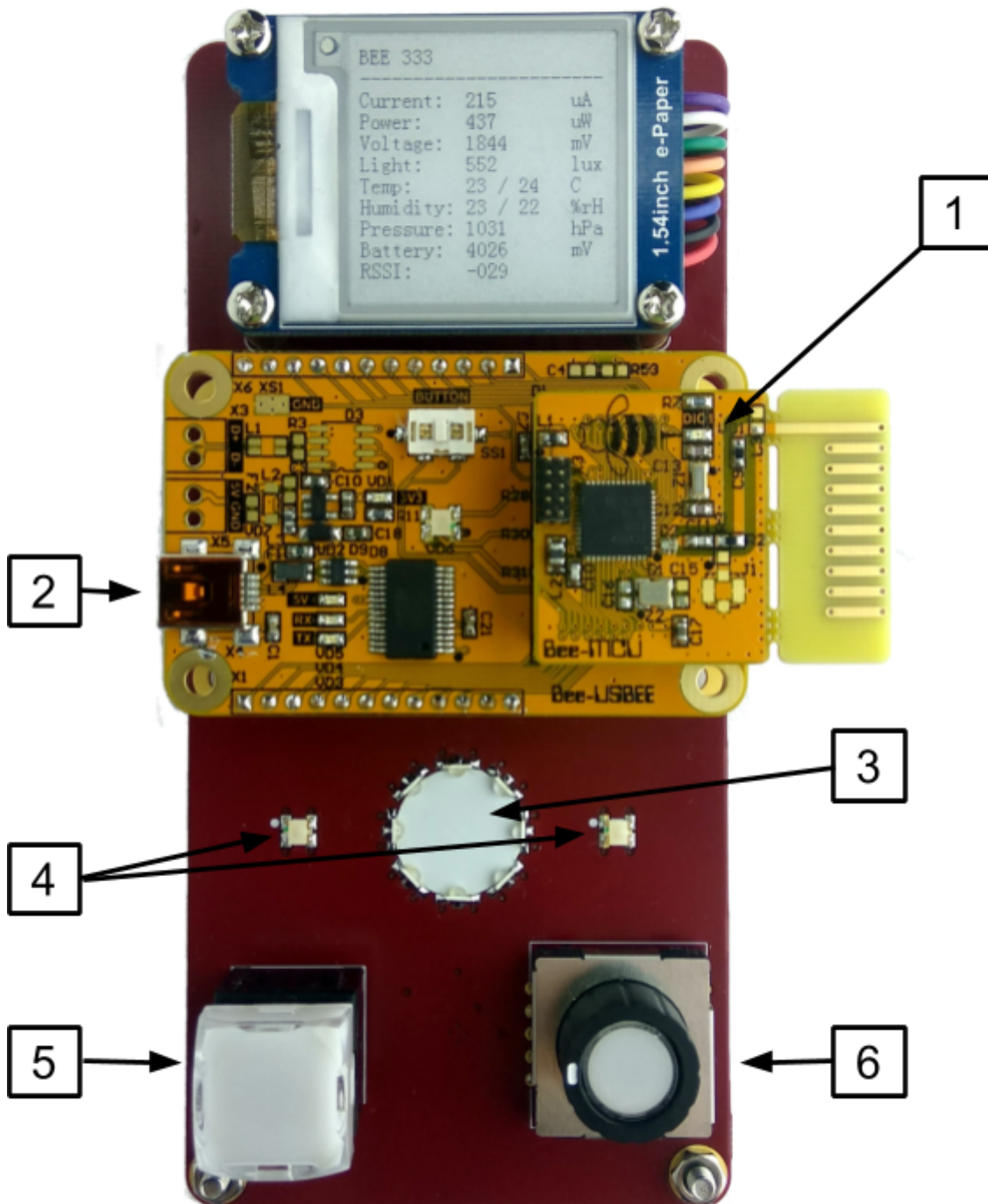
More information: Third Pin/Bee

Fig.1 Bee concentrator
1 — wireless RX LED; 2 — USB port; 3 — side LEDs indicator; 4 — RGB LEDs; 5 — RGB key; 6 — rotary knob
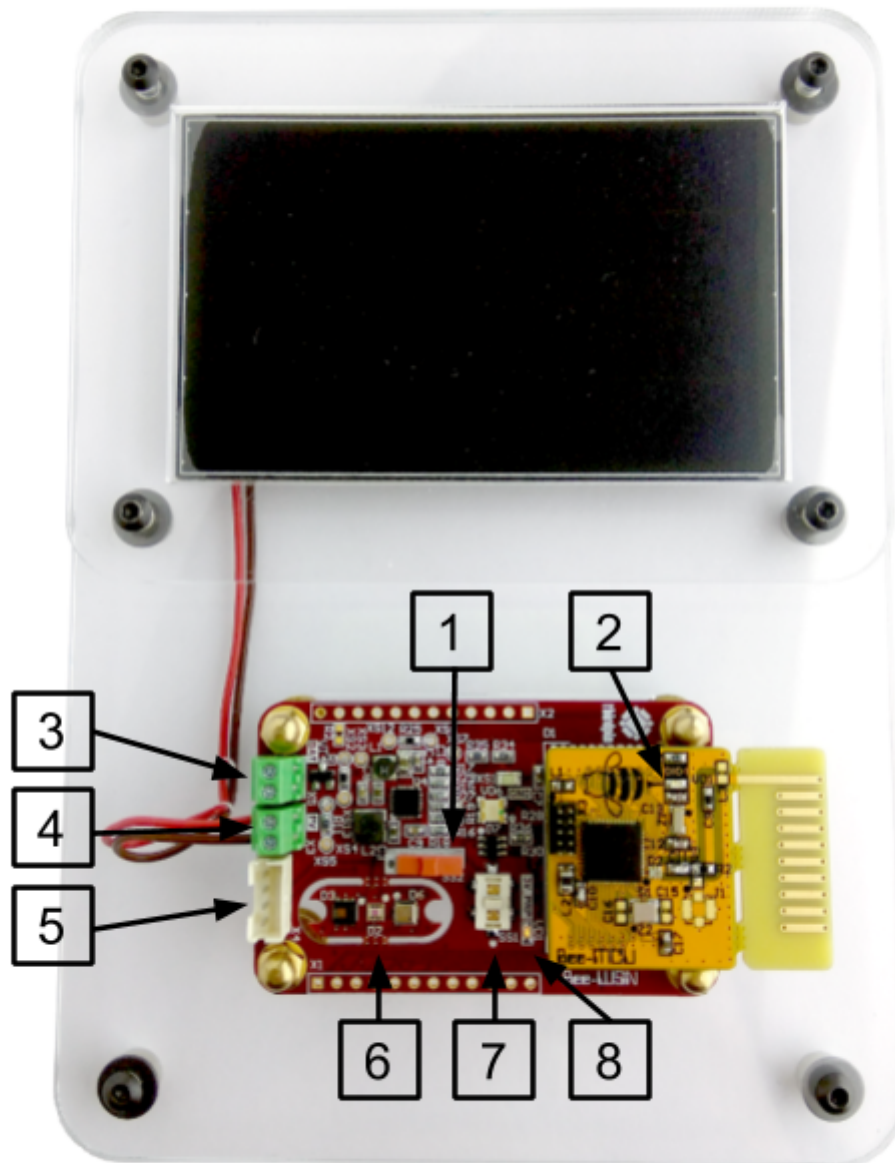
Fig.2 Bee node

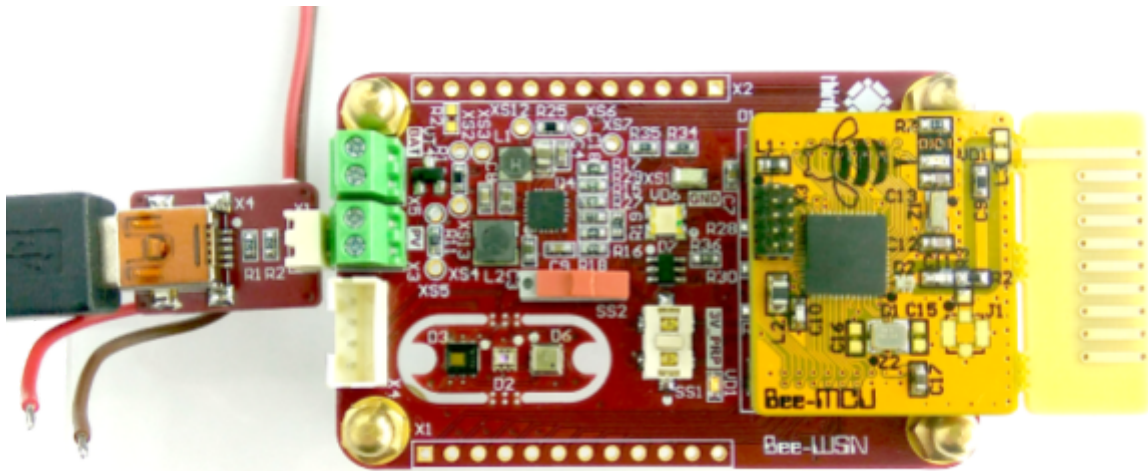1 — ON/OFF switch ; 2 — RX LED; 3 — battery connector; 4 — solar cell connector; 5 — external sensor connector; 6 — sensors; 7 — button; 8 — sensors power indicator

Fig.3 Bee node charging from USB