

BITalino (r)evolution Core Component Data Sheet

COMP-CORE-BT(BLE) 131120

SPECIFICATIONS

- > **Sampling Rate:** 1, 10, 100 or 1000Hz
- > **Analog Ports:** 4 in (10-bit) + 2 in (6-bit)
+ 1 auxiliary in (battery)
- > **Digital Ports:** 2 in (1-bit) + 2 out (1-bit)
- > **Communication:** Bluetooth 2.0
- > **Range:** up to ~10m (in line of sight)
- > **Size:** 65 x 5 mm
- > **MCU:** Atmel ATmega328p chipset
- > **Battery:** Built-in 3.7V Li-Po battery charger

FEATURES

- > Real-time data streaming
- > Perfect for exploratory research
- > Plug & play sensor connection
- > Raw data acquisition
- > On-board battery charger
- > Easy-to-use
- > Affordable
- > Status and low battery indicator LEDs

APPLICATIONS

- > Psychophysiology
- > Biomedical projects
- > Electrical engineering
- > Human-Computer Interaction
- > Robotics & Cybernetics
- > Physiology studies
- > Biofeedback

GENERAL DESCRIPTION

The BITalino (r)evolution Core offers all the functionalities you know from BITalino in the simplest form possible. All the core capabilities of data acquisition and real-time data streaming are present in this small-factor device. The UC-E6 sockets on the Core and sensor boards (bought separately) provide plug & play connection (by cable) of BITalino or third-party blocks to the analog and digital ports. The Assembled version provides an even more user-friendly solution for the ones that are not interested in using the board or simply prefer the concealed look of the BITalino (r)evolution Core.

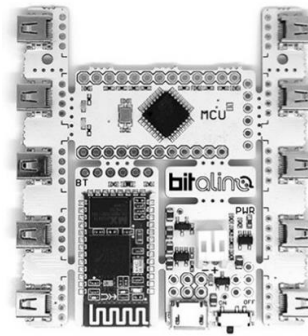


Fig. 1. BITalino Core MCU+Power+Bluetooth blocks pre-connected in a ready to use all-in-one board with UC-E6 sockets.; available with Bluetooth (Fig. 4) or Bluetooth/BLE (Fig. 5).



Fig. 2. Assembled BITalino Core with an enclosure for user-friendly applications. From up-left to down-left: O1, O2, PWM, A6, A5. From right-up to right-down: I1, A4, A3, A2, A1. **See Figures 4 & 5 as complement.**



Fig. 3. BITalino or third-party sensors can be connected by cable to the main board in any user-defined configuration (all the enclosures shown in the image are optional accessories).

bitalino

PLUX – Wireless Biosignals, S.A.
Av. 5 de Outubro, n. 70 – 2.
1050-059 Lisbon, Portugal
bialino@plux.info
<http://bialino.com/>

REV A

© 2020 PLUX 

This information is provided "as is," and we make no express or implied warranties whatsoever with respect to functionality, operability, use, fitness for a particular purpose, or infringement of rights. We expressly disclaim any liability whatsoever for any direct, indirect, consequential, incidental or special damages, including, without limitation, lost revenues, lost profits, losses resulting from business interruption or loss of data, regardless of the form of action or legal theory under which the liability may be asserted, even if advised of the possibility of such damages.



BEWARE: DIRECT OR INDIRECT COUPLING TO THE MAINS MAY RESULT IN SHOCKING HAZARD



BITalino (r)evolution Core Component Data Sheet

COMP-CORE-BT(BLE) 011020

FUNCTIONAL BLOCKS

I1 - Digital Input

1-bit

A4 - Analog Port

10-bit

A3 - Analog Port

10-bit

A2 - Analog Port

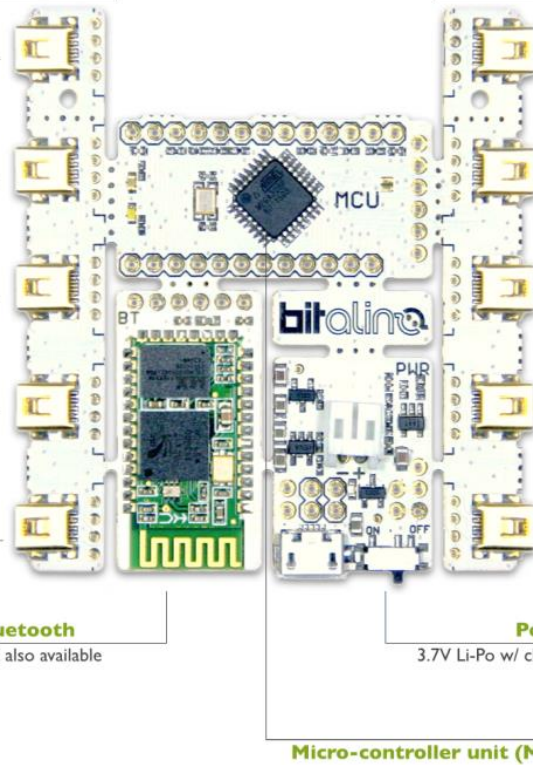
10-bit

A1 - Analog Port

10-bit

Bluetooth

BLE also available



O1 - Digital Output

1-bit

O2/I2 - Digital Output/Input

1-bit

Pulse-Width Modulator

8-bit

A6 - Analog Port

6-bit

A5 - Analog Port

6-bit

Power

3.7V Li-Po w/ charger

Micro-controller unit (MCU)

Fig. 4. BITalino Core with Bluetooth connectivity.

I1 - Digital Input

1-bit

A4 - Analog Port

10-bit

A3 - Analog Port

10-bit

A2 - Analog Port

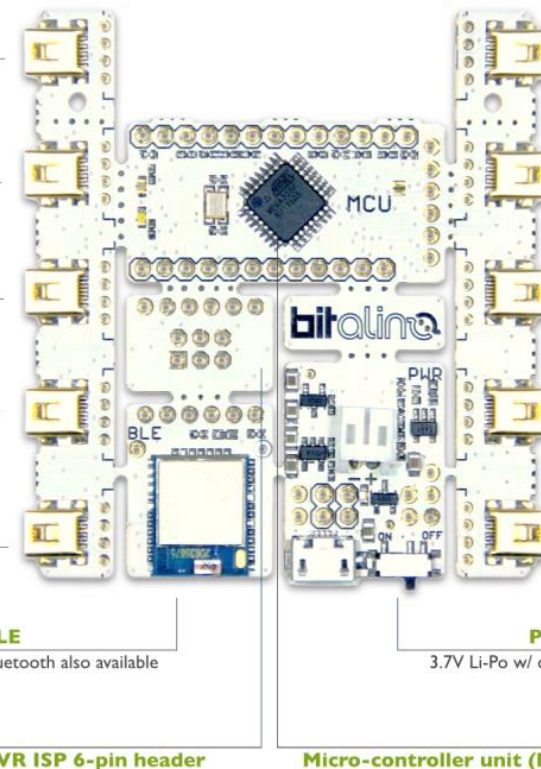
10-bit

A1 - Analog Port

10-bit

BLE

Bluetooth also available



O1 - Digital Output

1-bit

O2/I2 - Digital Output/Input

1-bit

Pulse-Width Modulator

8-bit

A6 - Analog Port

6-bit

A5 - Analog Port

6-bit

Power

3.7V Li-Po w/ charger

AVR ISP 6-pin header

Micro-controller unit (MCU)

Fig. 5. BITalino Core with Bluetooth and BLE connectivity.

BITalino (r)evolution Core Component Data Sheet

COMP-CORE-BT(BLE) 011020

PACKAGING



Fig. 6. BITalino (r)evolution Core ships in a convenient eco-friendly packaging that can double as an enclosure.

ORDERING GUIDE

Part #	Description
COMP-CORE-BT	Ready-to-use MCU+Bluetooth+Power toolkit*
COMP-CORE-BT	Ready-to-use MCU+BLE+Power toolkit*
BUNDLE-REV-CORE-BT	Our trialed & tested BITalino (r)evolution Core BT fully tested and pre-assembled with the battery and casing, so you can use it with any sensor configuration of your liking. This model is fitted with Bluetooth communication.

* Battery not included