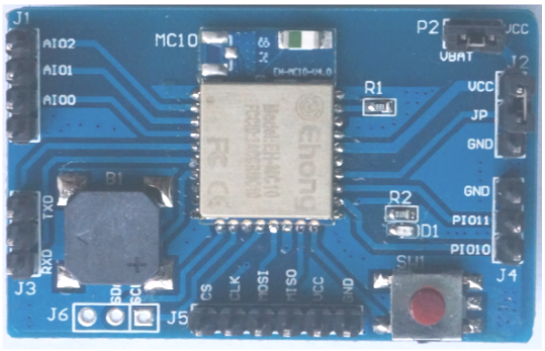
EH-MEVK-MC10-002

Bluetooth® Technology Development Board



- **Bluetooth® Radio**
  - Fully embedded Bluetooth® v4.0 single mode
  - TX power +9 dbm,-92.5dbm RX sensitivity
  - 128-bit encryption security
  - Range up to 100m
  - Integrated chip antenna
  - Multipoint capability(2devices at master)
- **Support Profiles**
  - BLE (Master and slave)
  - The generic attribute profile (GATT)
  - Health care, Sports and fitness, Proximity sensing profiles
  - Alerts and timer profiles
- **User Interface**
  - Send AT command over UART
  - Firmware upgrade over the air (OTA)
  - Transmit data: 300kbps transmission speed (UART)
  - I2C interface(Master)
  - debug SPI interface
  - PWM(2 channel)
  - LED display
  - Buzzer
- **General I/O**
  - 10 general purpose I/Os
  - 3 analogue I/O (10bit ADC)
- **Cell battery or DC 3.3V typical input**
- **Small form factor: 47.30 x 30.2x15mm**
- **Operating temperature range: -30 °C to 80 °C**

Version 2.0
July 21 2014

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1. Description

EH-MEVK-MC10-002 based on EH-MD10 module development board.
Internal rich interface, strong integrity, helps customers easy to design the BLE complete product.

The development board internal integration LED display, buttons, buzzer, battery holder, AIO interface, PWM interface, debug SPI interface and I2C interface. LED display, Buzzer, PIO10 and PIO11 are the module PWM interface, wirelessly controlled PWM modulation with the Ehong smart phone APP. External I2C interface sensor data collection.

After buying development board, the customer has software development capability, can choose to buy "Ehong SPI debugger "debugging software

2. Component Description

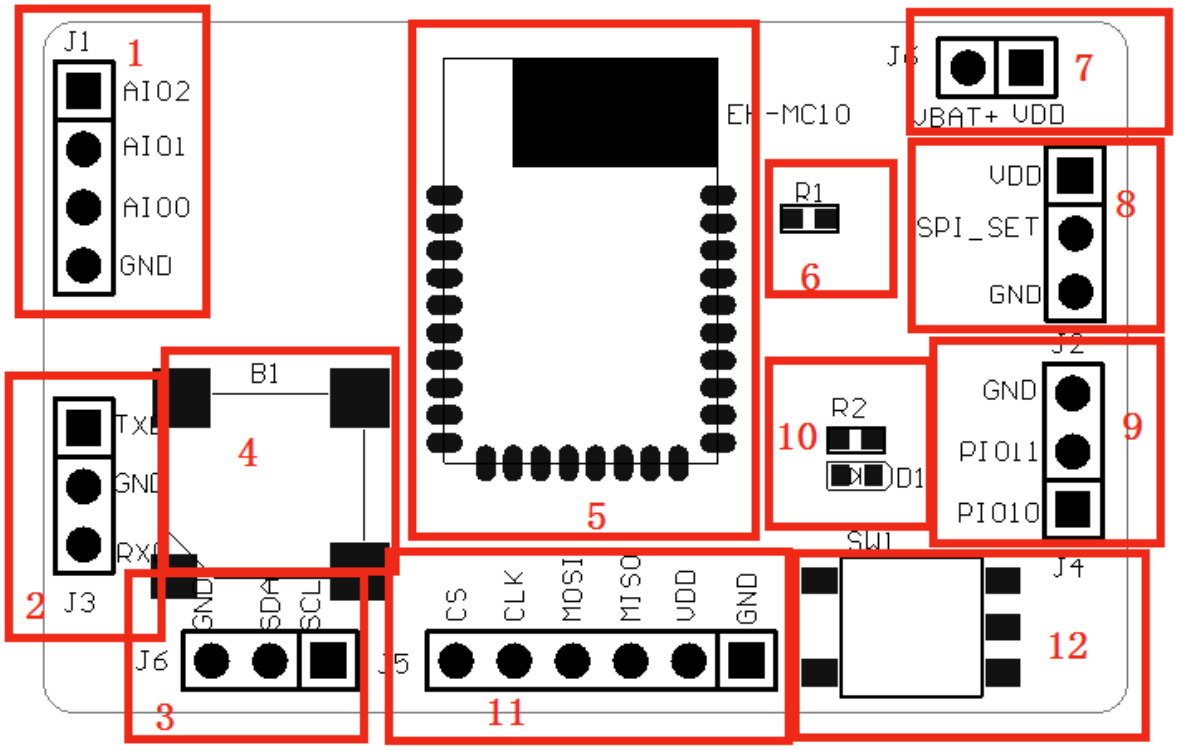

Figure 1： The Board Top View

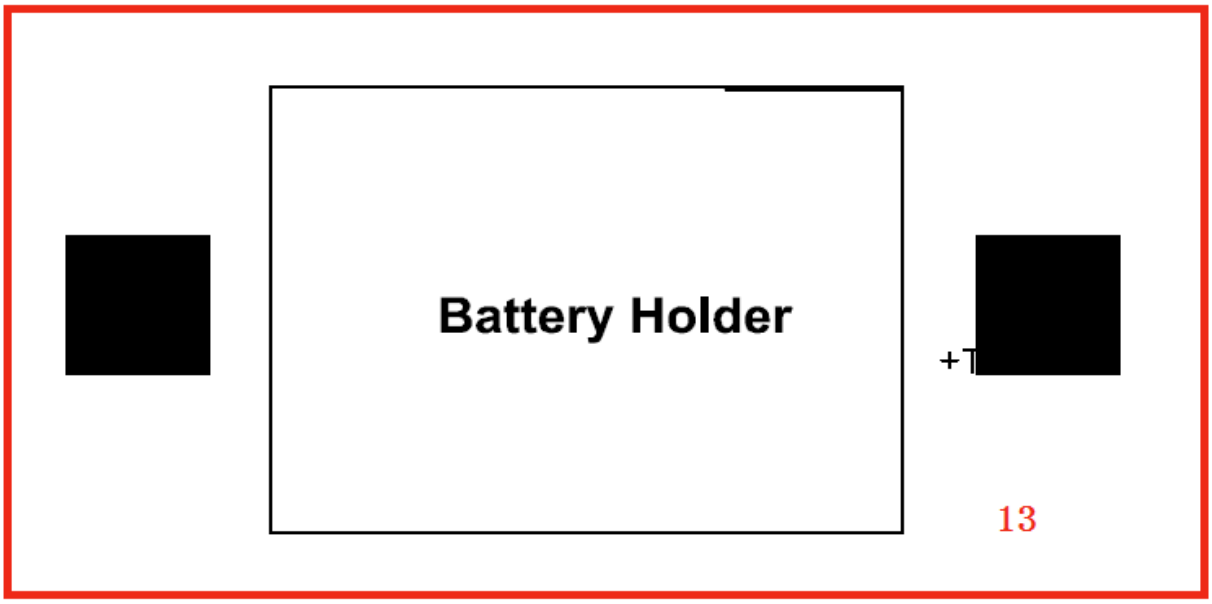

Figure 2： The Board Bottom View

Serial Numbber	Function definition
1	J1 3AIO's interface
2	J3 EH-MC10 Uart interface, With MCU RX and TX cross connection
3	J6 EH-MC10 I2C interface. external sensors, Such as temperature, weight,etc.
4	B1 Buzzer EH-MC10 PIO3 Drive.
5	EH-MC10 module
6	R1 EH-MC10 wakes up PIN connection. Wake up defuel is Low. Set module UART baud rate is higher than 2400 bps, this pin must be pull up .
7	J7 EH-MC10 power supply select. Two PIN Short circuits is select internal battery power supply, open circuits are external 3.3V power supply.
8	J2 EH-MC10 debug SPI select, High is debug SPI mode. Low is PIO(8:5)
9	J4 EH-MC10 PIO10, PIO11 are PWM port.
10	D1 LED display

11	J5 EH-MC10 debug SPI interface.
12	SW1 EH-MC10 PIO9 connection.
13	Battery Holder CR2032 Cell Battery

Table 1： Component Description

3. The Board accessories

USB To UART Cable

Figure 3： USB to UART Cable

A. Red line: VDD_+5V
B. Black line: GND
C. Green line: RXD
D. White line :TXD

Drivers download http://www.ehlink.com.cn/cn/support/

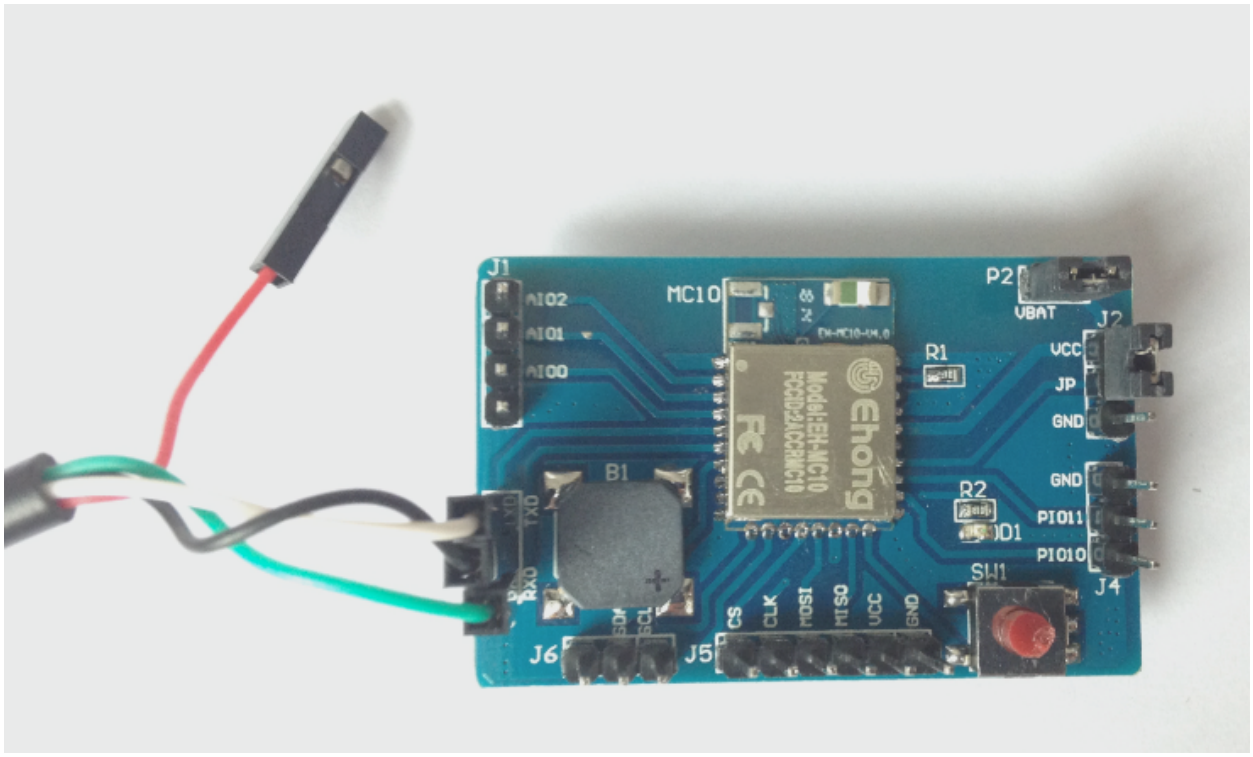

Figure 4: Cable connect the Board

The lines insert correspond to the board “J3 “interface, the module power supply. Such as the following:

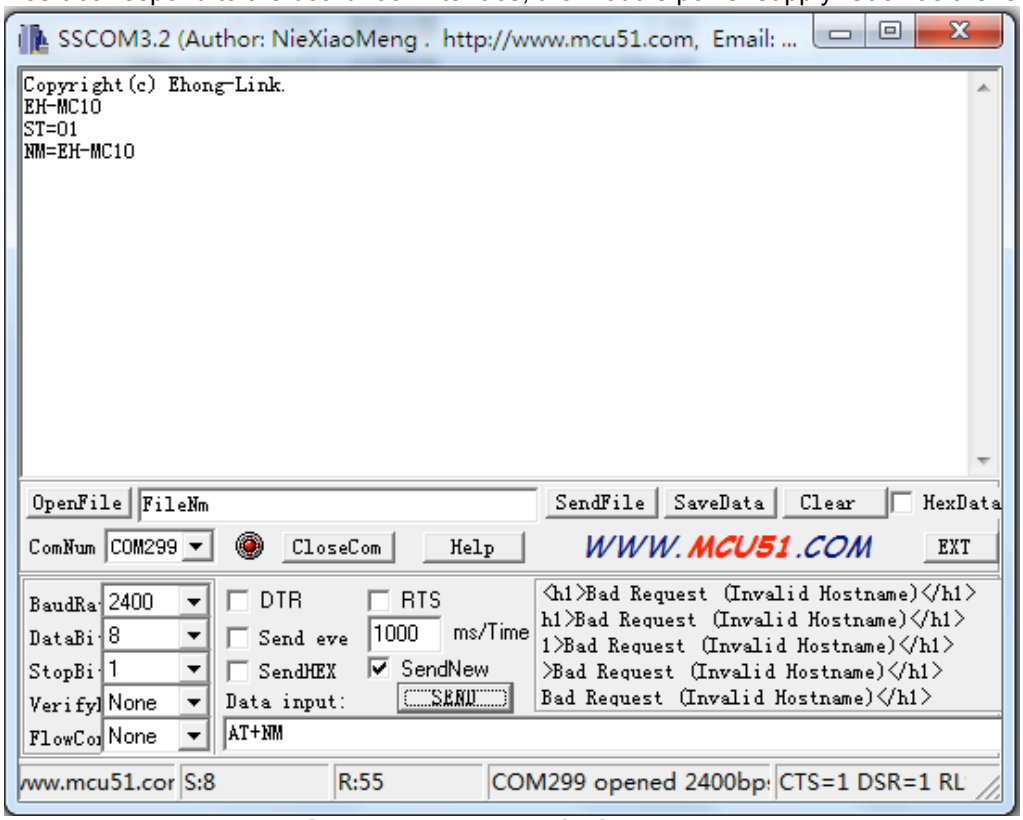

Figure 5: Serial port display of PC

4. The Board Schematic Diagram

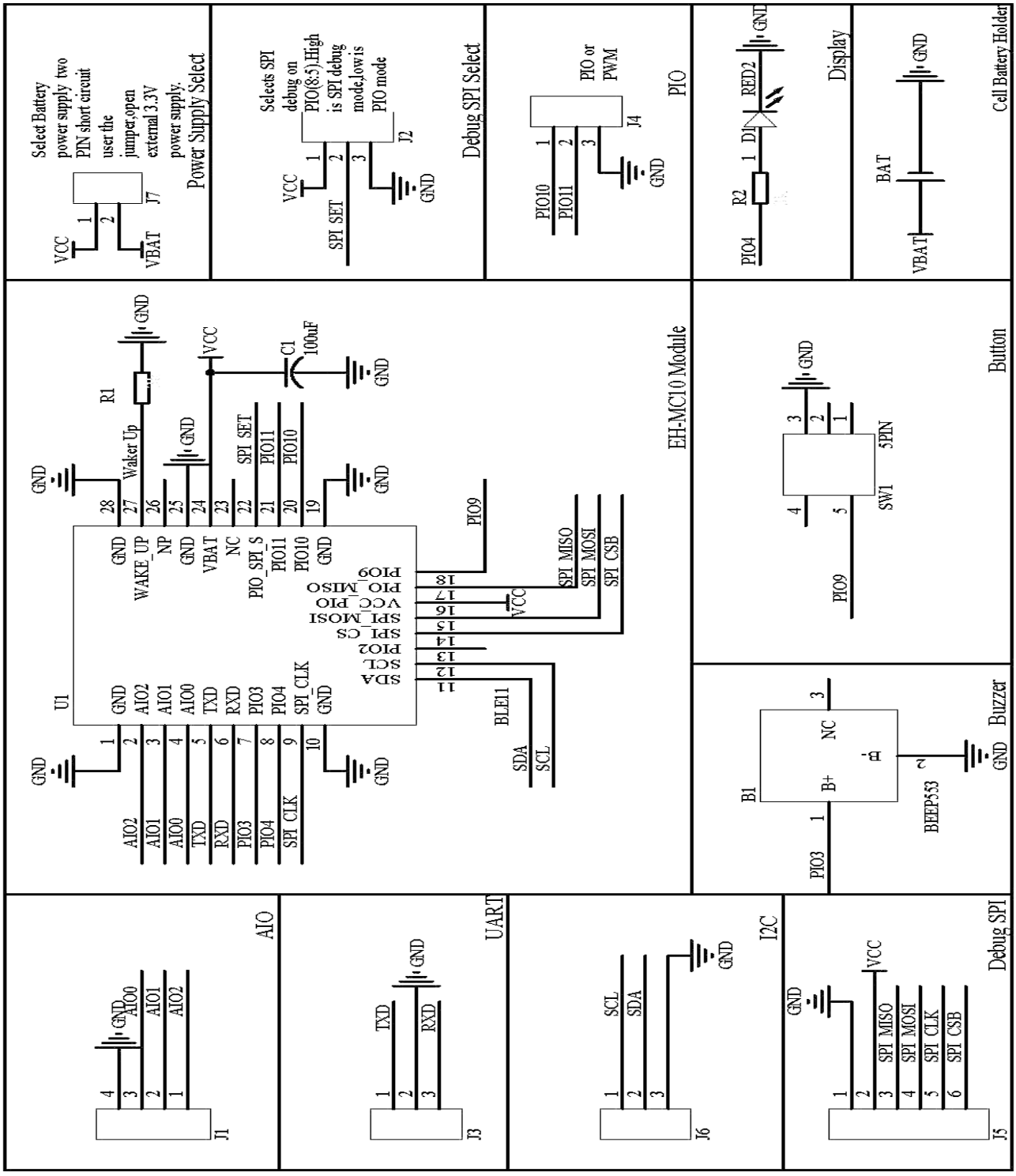

Figure 6： Schematic Diagram

5. Mechanical dimensions

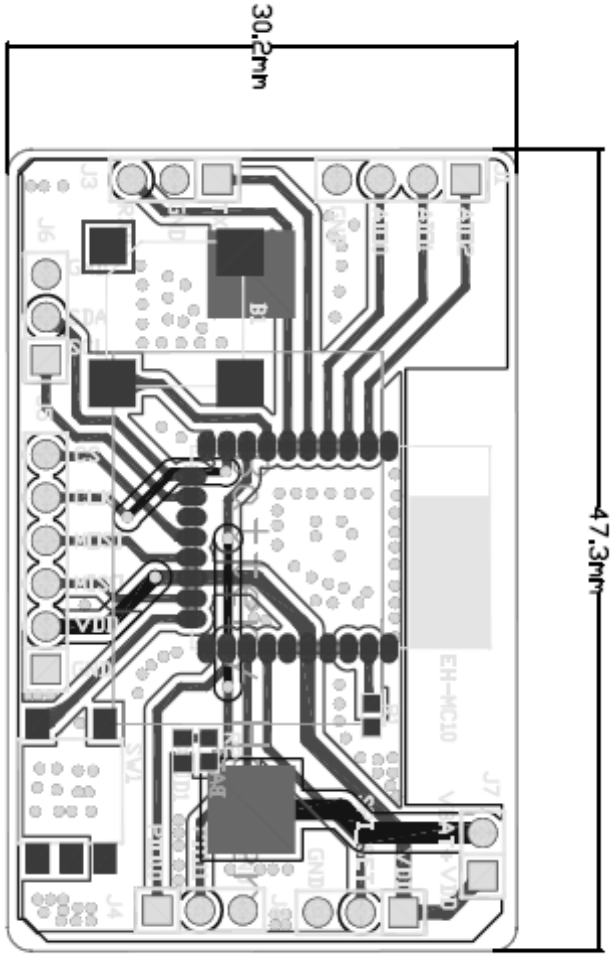

Figure 7: Mechanical dimensions

4. Contact Information

Sales: sales@ehlink.com.cn

Technical support: support@ehlink.com.cn

Phone: +86 21 64769993

Fax: +86 21 64765833

Street address: Rom1505, Blk 1st ,No.833 South Hong mei Rd ,Ming hang district shanghai