## 1. General description

BLE_Adapter, one of ElecFreaks BLE series items, can enable you to upload code by BLE wireless. At the same time, it is a USB – TTL adapter.

Adopting TI CC2540 chip with 256 KB space, the BLE module can use BLE technology through the simple IO control, between the module and mobile, also between the module and module. The BLE module has both Master and Slave Mode, with the command control, through the serial port capable of switching module master-slave role, capable of configuring the serial port baud rate, capable of modifying the module radio name, capable of modifying the broadcast interval and the connection interval. Using this module, users can quickly transmit data in the form of Bluetooth packet. BLE Adapter can cooperate with our BLEduino Main board.
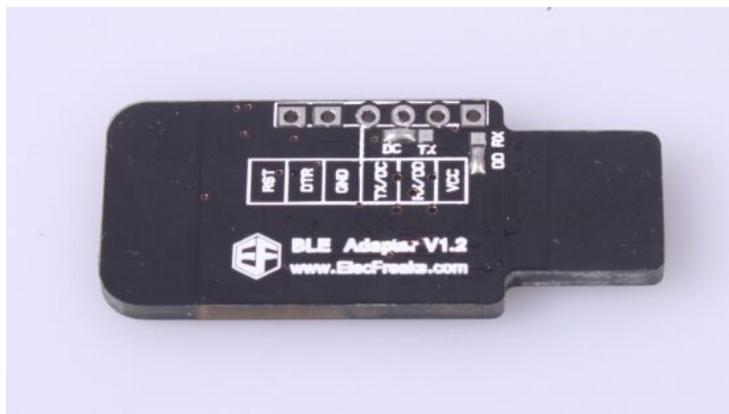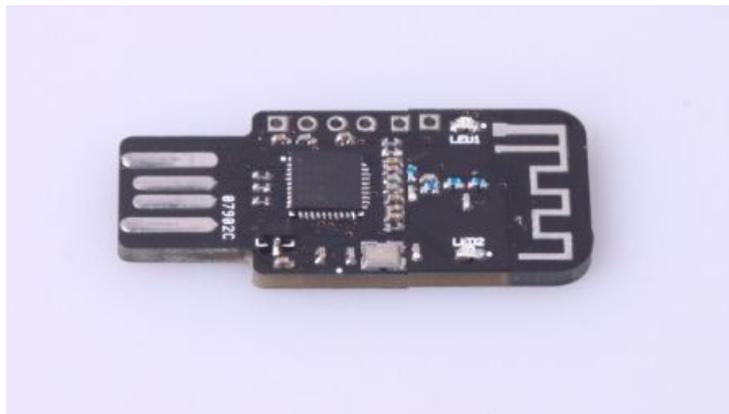
2. Features

- Small size, light weight, UART interface, compatible with Bee Adapter
- Develop bands, working band of 2.4GHz
- Wireless transfer rate up to 1Mbps
- Using PCB antenna, the reliable transmission distance greater than 50 m
- BLE protocol depth optimization, standby power 60 ~ 800uA
- Master-Slave in one, arbitrarily switching
- Supporting Android 4.3, IOS, PC
- Immersion Gold Craft
- Operating voltage：3.3V
- Dimension：18*41mm

3. Application

- Wireless programming
- Industrial remote control, telemetry
- Automotive testing equipment
- Portable, battery-powered medical equipment
- Automated data collection
- Bluetooth Printer
- Smart home, industrial control

4. Electrical Characteristics

PARAMETER	MIN	TYP	MAX	UNIT
Power Supply Voltage	3	-	3.3	V
Power Supply Current	1.5	100	2000	mA
High-level input voltage	3	3.3	3.3	V
Low-level input voltage	-0.3	0	0.5	V

5. Pining information

RST
DTR
GND
TX/DC
RX/DD
VCC

LED1
LED2

GND
D+
D-
VCC
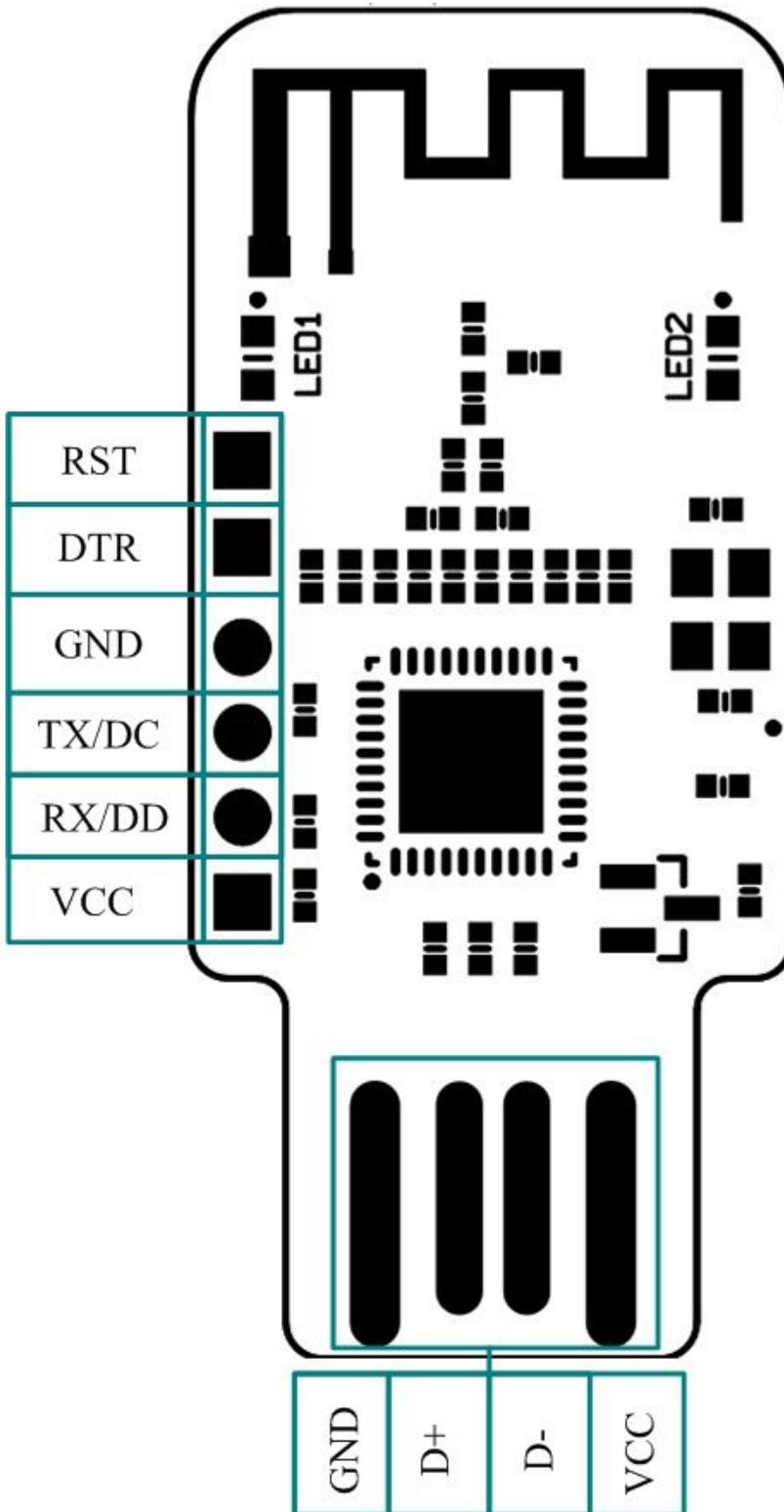
TYPES	Symbols	Description
	VCC	5V Power Supply
	GND	Power Ground
	RST	BLE Reset
	DTR	USB-TTL DTR
BLE pin	TX/DC	Serial Port TX/CC2540 Programming Interface DC
	RX/DD	Serial Port RX/CC2540 Programming Interface DD
	D+	USB Port D+
	D-	USB Port D-

6. Dimension
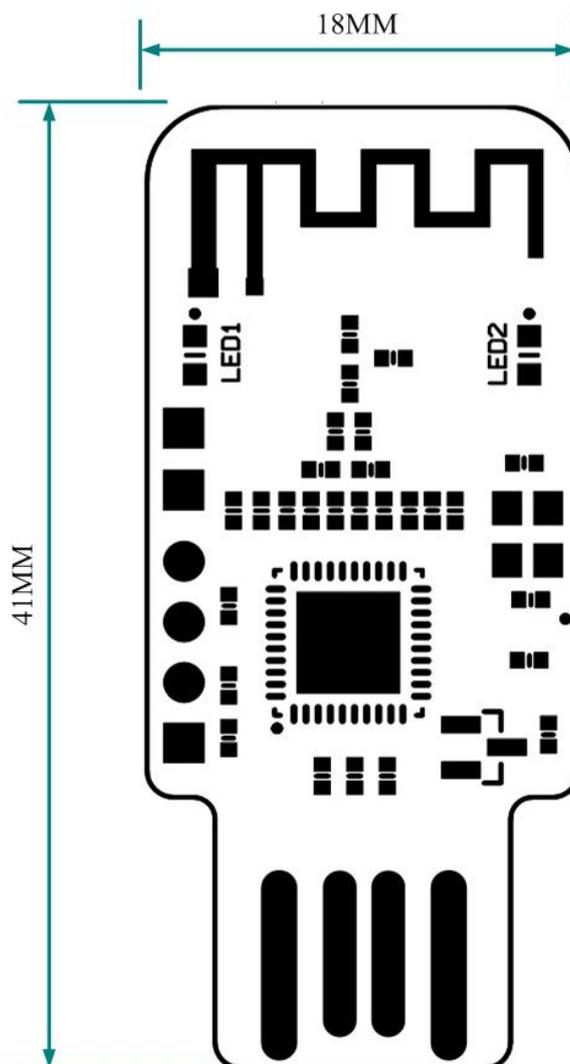
7. Revision history

REVISION	DESCRIPTION	RELEASE DATE
V1.2	Initial version	9/23/2014

8. Contact information

If you need more information, please refer to : http://www.elecfreaks.com