



**FEASYCOM**®

# **FSC-DB005**

**Bluetooth Module USB – UART Transceiver Get Started**

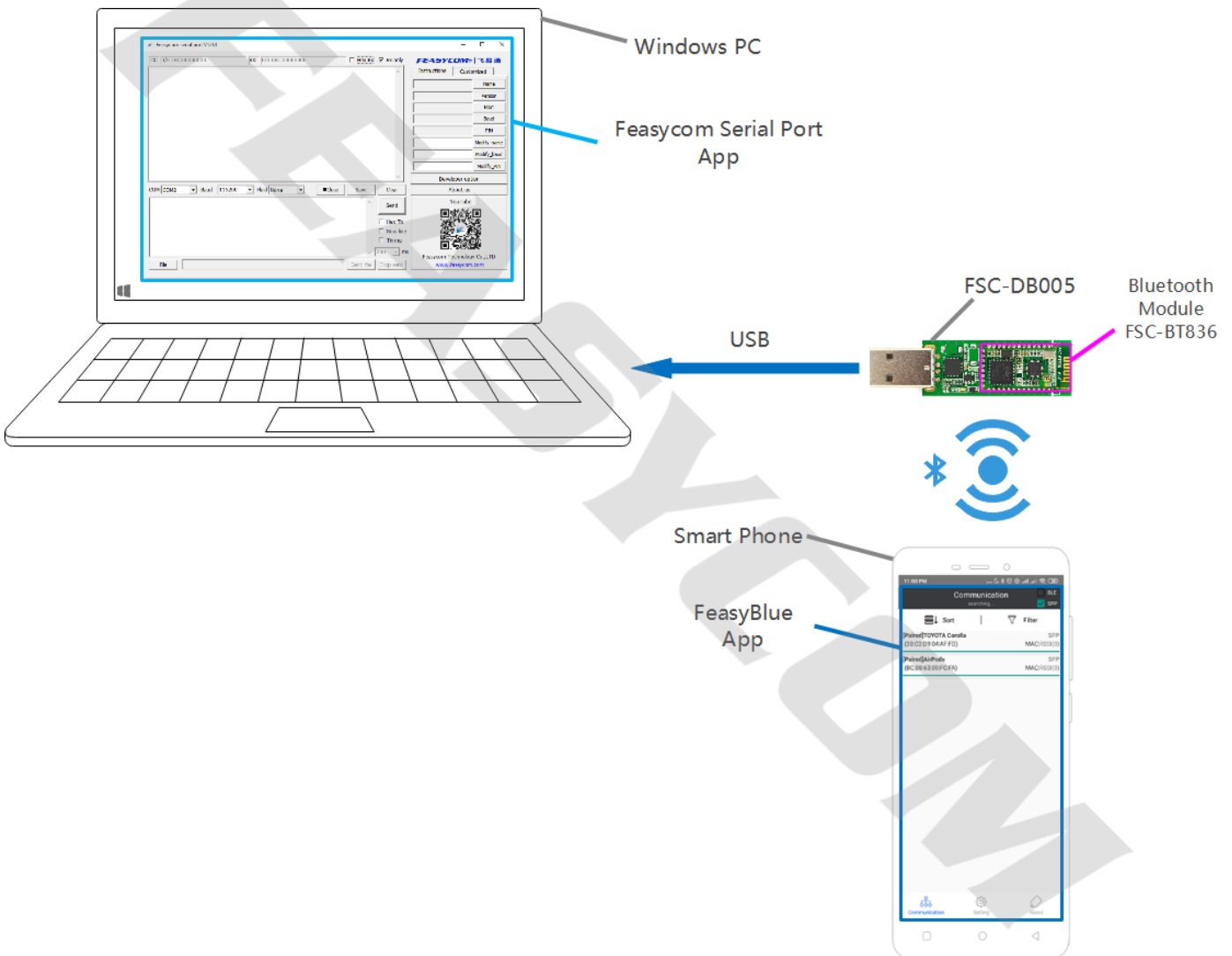
**Version 1.1**

# 1. Introduction

This application note describes quick start for using Feasycom dual-mode Bluetooth data-transceiving modules, including BT616, BT646, BT686, BT816S, BT826, BT836, BT906, BT909, etc. These modules share a pin-to-pin compatible package, and can be directly soldered on FSC-DB005 USB-to-TTL adapter.

In this application note, The basic usage of three Bluetooth profiles (SPP, GATT, HID) of Feasycom module will be introduced step by step.

# 2. Minimum System Diagram



- [1]. If you have already-on-hand USB-to-TTL cable other than FSC-DB005, you can simply wire TXD, RXD, GND, VDD pins of Bluetooth module with RXD, TXD, GND, VDD pins of your USB-to-TTL cable.
- [2]. Smart Phone in the diagram could be Android device (SPP, BLE, HID) or iOS device (BLE, HID).
- [3]. Certainly, this is just one of the application scenarios, you can wire the Bluetooth module with any other devices, Printed Circuit Boards (PCB) that meet the requirements (RXD and TXD for UART communication, GND and VDD for power supply).
- [4]. While wiring PIN32 and PIN33 of Bluetooth module with LEDs, connection status of Bluetooth module will be represented by LEDs for direct vision.

### 3. Common Setup Procedure

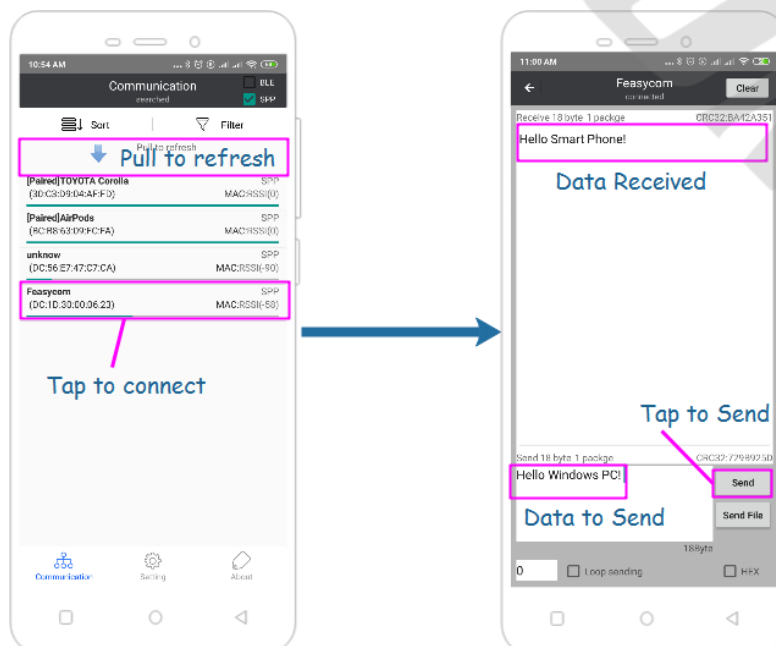
- Refer the demonstration in Chapter 2, prepare Windows PC, FSC-DB005-BT836.
- Download FSC-BP102 Windows driver and Feasycom serial port from: <http://www.feasycom.com/service/45.html>
- Plug FSC-DB005-BT836 in Windows PC, install driver for FSC-DB005, after driver installation finished, a COM port will be enumerated for FSC-DB005.
- Open Feasycom serial port on PC, select the correct COM, leave the other COM port settings (Baud, etc) as default if you didn't change them before, click 'Open' to open COM port.

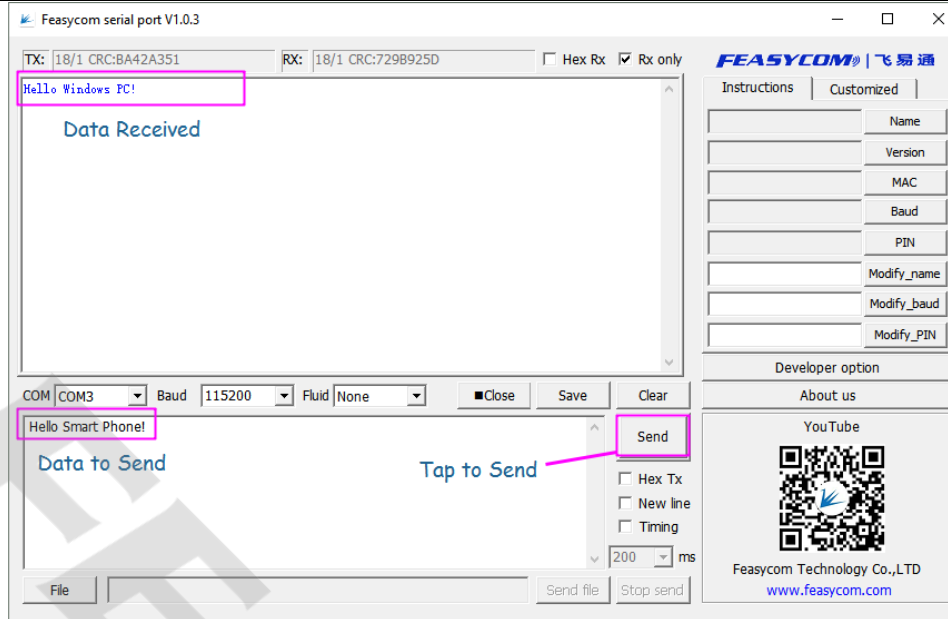
### 4. SPP Profile (BR/EDR)

#### 4.1 Operating Procedure

- Follow Common Setup Procedure in Chapter 3. Prepare Android device.
- Bluetooth module works in SPP-enabled mode by default, send AT+MODE=4 to module to change operating mode if need, for more information about AT commands, please refer to relevant Programming User Guide.
- Install FeasyBlue from Google Play app store, make sure FeasyBlue have permissions for using the locations of Android device, turn on Bluetooth of Android device. Installation link for FeasyBlue app: <https://play.google.com/store/apps/details?id=com.feasycom.feasyblue>
- Open FeasyBlue on Android device, pull down to refresh, tap the specific device (recognize by name, MAC, RSSI) to connect it, if connection established, the LED on FSC-DB005 will stop blinking and the status bar on the top of FeasyBlue app will show 'connected', input data into the Send edit box, and click 'Send', then the data in the Send edit box of FeasyBlue will show up on Feasycom serial port.
- Input data into the Send edit box of Feasycom serial port, and click 'Send', then the data in the Send edit box of Feasycom serial port will show up on FeasyBlue.

#### 4.2 Operating Example



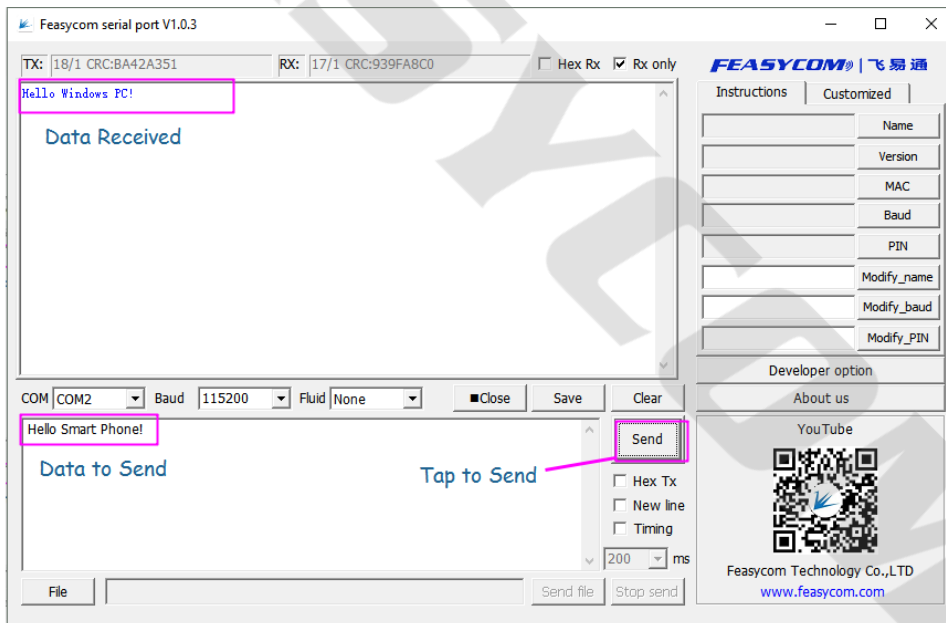
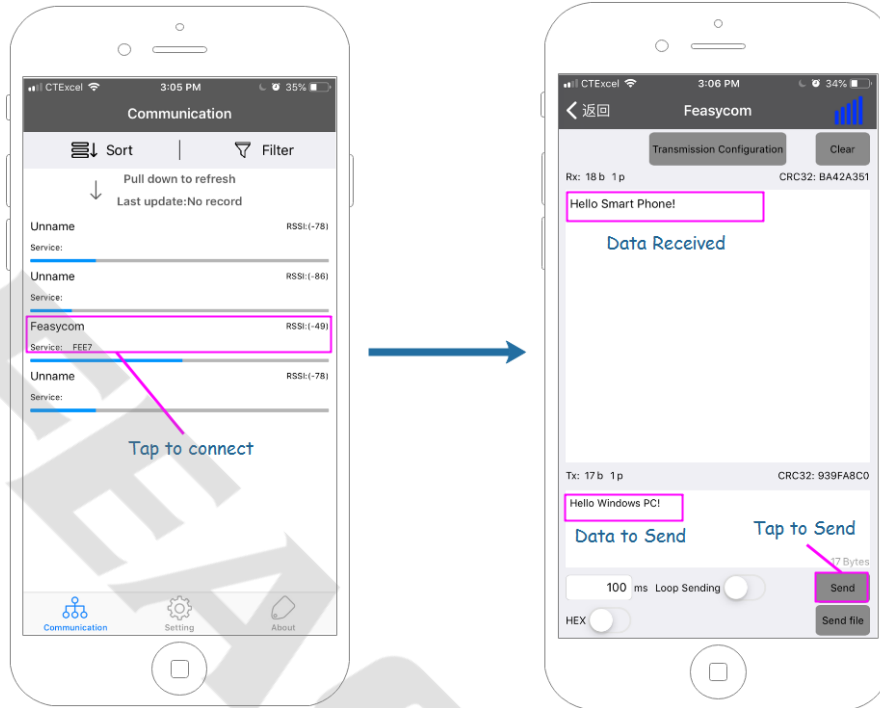


## 5. GATT Profile (BLE)

### 5.1 Operating Procedure

- Follow Common Setup Procedure in Chapter 3. Prepare iOS device.
- Bluetooth module works in BLE-enabled mode by default, send AT+MODE=4 to module to change operating mode if need, for more information about AT commands, please refer to relevant Programming User Guide.
- Install FeasyBlue from iOS App Store, turn on Bluetooth of iOS device.
- Open FeasyBlue on iOS device, pull down to refresh, tap the specific device (recognize by name, RSSI) to connect it, if connection established, the LED on FSC-DB005 will stop blinking, input data into the Send edit box, and click 'Send', then the data in the Send edit box of FeasyBlue will show up on Feasycom serial port.
- Input data into the Send edit box of Feasycom serial port, and click 'Send', then the data in the Send edit box of Feasycom serial port will show up on FeasyBlue.

## 5.2 Operating Example



## 6. HID Profile (BR/EDR)

### 6.1 Operating Procedure

- Follow Common Setup Procedure in Chapter 3. Prepare smart device (iOS device or Android device).
- Bluetooth module doesn't work in HID-enabled mode by default, send AT+MODE=2 to module to change operating mode, for more information about AT commands, please refer to relevant Programming User Guide.

- Navigate to smart device's Settings > Bluetooth, turn on Bluetooth of smart device, searching for Bluetooth module, tap the specific device (recognize by name) to connect it, if connection established, the LED on FSC-DB005 will stop blinking.
- Open Messages or any other apps allowed to input text, click edit box to prepare HID input.
- Input data into the Send edit box of Feasycom serial port, and click 'Send', then the data in the Send edit box of Feasycom serial port will show up on input-text-capable app of the smart device.

## 6.2 Operating Example

