1.Software

- a) Install USB<-> SPI driver: CP210x_VCP_Win2K_XP_S2K3.exe
- b) Install BlueLet on PC BlueLet 7.0.376.0.zip
- c) Install Android iBridge Apk: iBridge_SDK_Demo_check
- d) Use serial port tool to send/receive data via COM port: Commix.exe
- e) Install iPhone iBridge Apk: ios iBridge_App

2. Set up i482e

- f) When installing USB<-> SPI driver, click next to complete the installation. After the driver is installed, please restart PC to enable it.
- g) Connecting i482e with PC via a USB cable.
- h) i482e device name: BlueSoleil E
- i) i482e baud rate: 115200

2.1 Check COM port

Check virtual com port number in device manager, See Figure 1 below. In this example, the created virtual com port is COM6.



显设备管理器	
文件(ṟ) 操作(_) 查看(⊻) 帮助(Ш)	
E-A IVT-0047	
● G IDE ATA/ATAPI 控制器	
□●● 处理器	
■→ WAAWAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Bluetooth Serial Port (COM3)	
Bluetooth Serial Port (COM4)	
Justooth Serial Port (COM8)	
⑦ 打印机端口(LPT1)	
□ ┘ ┘ ┘ 通讯端口(COM2) □ □ 计算机	
■ 3 1 开(1)	
□ ◎ 键盘	
• 国 国 人体学输入设备 • 国 国 人体学输入设备 • 国 国 一 国 一 国 一 国 一 国 一 国 一 国 一 国 一 国 一	
■ 3 鼠标和其它指针设备	
□ 😌 通用串行总线控制器	
■■■ 网络道配畚	

Figure 1 Virtual COM port

2.2 Open Commix tool

Please set the serial port tool configuration which is highlighted with red rectangle in Figure 2 below.

≡Commix 1.3	
串口 COM6 ▼ 波特率 115200 ▼ 应用 □ DTR □ RTS	打开串口
数据位 8 ▼ 校验位 N元 ▼ 停止位 1 ▼ 「无冗余校验	暂停显示
输入HEX 显示HEX 输入ASC 显示ASC ▼忽略空格输入 ▼自动换行 □ 显示间隔	
	 ▲ ▲ ▲ ▲ ■ ■
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Press open COM port button in Commix, and then press the reset button in i482e development board. The location of this reset button is illustrated in Figure 3 below.



Figure 3 i482e Development Board's Init & Reset Button

≡Commix 1.3	
串口 COM6 ≤ 波特率 115200 ▼ 应用 「 DTR ▼ RTS	关闭串口
数据位 8 ▼ 校验位 № 元 ▼ 停止位 1 ▼ Γ 无冗余校验	暂停显示
输入HEX 显示HEX 输入ASC 显示ASC ☑ 忽略空格输入 ☑ 自动换行 □ 显示间隔	
	 ▲ ▲ ⑤ 发送 ● 「回车发;
\CR\LFIM_READV\CR\LF	~
	1

Figure 4 Bluetooth Initialization Completes

After Commix tool reports the indication which is illustrated in Figure 4 above, i482e could work afterwards. Reset button is also the Init button. It needs to press this button to initialize Bluetooth before using i482e development board.



3.SPP Data Transfer

3.1 Testing SPP with PC

If i482e is tested with PC, it needs to install software 1.1, 1.2 and 1.4 which is summarized in the chapter 1.

- a) When installing BlueLet on PC, click next to complete the installation. It needs to re-start PC after the installation. At the same time, dongle needs to be plugged in PC during the installation.
- b) Open BlueLet, search Bluetooth devices, and then establish SPP with i482e. During connecting, a message will be shown to indicate with which COM port is connecting, and the used COM port could also be inquired by viewing My device property in BlueLet.

₽ 我的设	备属性		2
常规 可说 《 首 串	7问性 服务 次连接远程设备的 口可以从这里册购	串口 高级 约蓝牙串口,将会》 余。	硬件 泰加一个蓝牙串口。已安装
串口	连接方向	设备名称	自动连接
COM3 COM4 COM8	连入 连入 连出	BlueSoleil E I	正是
			属性 (2)
		确定	取消 应用 (4)

Figure 5 BlueSoleil Setting





Figure 6 Connecting SPP

c) Open Commix tool, and set configuration as shown in Figure 7.



Figure 7 Commix configuration

d) Open COM port, and press Send button to send data. The received data is directly displayed in Commix.



≡Commix 1.3	
▲ 口 COM8 → 波特率 115200 → 应用 C DTR F RTS	关闭串口
数据位 8 ▼ 校验位 N无 ▼ 停止位 1 ▼ 「无冗余校課	验 暫停显示
输入HEX 显示HEX 输入ASC 显示ASC ☑ 忽略空格输入 ☑ 自动换行 □ 显示间隔	
abcdefg	友送数据区域 (1) 发送)
123456789123456789123456789123456789 abcdefg abcdefg	接收数据区域
	~
Commix 1.3	
■Commix 1.3 串ロ ^{COM6} ▼ 波特率 ¹¹⁵²⁰⁰ ▼ 应用 「 DTR ▼ RTS	上 口 X 关闭串口
➡ Commix 1.3 申口 COM6 ヹ 波特率 ¹¹⁵²⁰⁰ ヹ 应用 □ DTR ☞ RTS 数据位 8 ヹ 校验位 N无 ヹ 停止位 1 ヹ □ 无冗余格	上 日 送 关闭串口 2验 暫停显示
■ Commix 1.3 ^申 ロ ^{COM6} ご 波特率 ¹¹⁵²⁰⁰ ● 应用 □ DTR □ RTS 数据位 ⁸ ● 校验位 N无 ● 停止位 ¹ ● □ 元元余材 輸入HEX 显示HEX 輸入ASC 显示ASC □ 忽略空格输入 □ 自动换行 □ 显示间隔	▲ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●
■ Commix 1.3 ▲ロ ^{COM6} → 波特率 ¹¹⁵²⁰⁰ → 应用 □ DTR □ RTS 数据位 ⁸ → 校验位 N无 → 停止位 ¹ → □ 无冗余材 輸入HEX 显示HEX 輸入ASC 显示ASC □ 忽略空格输入 □ 自动换行 □ 显示间隔 123456789	美田串口 美田串口 蒼停显示 ご 清除显示 満除显示 (1) 发送 (1) 发送 (1) 欠送

Figure 8 Send/Receive Data

3.2 Testing SPP with Android

If i482e is tested with Android phones, it needs to install software 1.3.

After successfully setting up i482e, run iBridge to search devices, and then establish SPP connection in order to send/receive data.





Figure 9 i482e Receives Data





4. GATT Data Transfer

4.1 Testing GATT with iPhone

If i482e is tested with iPhone, it needs to install software 1.5.

When testing i482e, it must make sure there is no any active connection between i482e and other remote device.



Run iPhone App, press Search to search devices, and then press Connect to establish GATT connection. After GATT connection is established, it could send/receive data to/from iPhone. See Figure 11 below.



Figure 11 i482e sends data



Figure 12 iPhone receives data



If iPhone App cannot find i482e, or fails to establish the connection with i482e, or fails to transfer data between i482e and iPhone, please follow the procedures below to check the test environment.

- 1. make sure the hardware platform is correct and complete.
- 2. make sure driver and software are installed correctly.
- 3. make sure driver and software awork properly.
- 4. Re-start mobile phone or reset i482e.

5. If the device BlueSoleil E exists in iPhone's Bluetooth manager device list, ignore this device firstly, and then establish GATT connection between i482e and iPhone. This is a security strategy. Users upper layer needs to save pairing records, so it uses this method to solve this issue.

FCC

FCC NOTICE

The device complies with Part 15 of the FCC Rules. The device meets the requirements for modular transmitter approval as detailed in FCC public notice DA00-1407.Transmitter Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

CAUTION

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Cypress Semiconductor may void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- a. Reorient or relocate the receiving antenna.
- b. Increase the separation between the equipment and the receiver.
- c. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- d. Consult the dealer or an experienced radio/TV technician for help.

LABELING REQUIREMENTS.

The Original Equipment Manufacturer (OEM) must ensure that FCC labeling requirements are met. This includes a clearly visible label on the outside of the OEM enclosure specifying the appropriate identifier for this product as well as the FCC Notice above. The FCC identifier is FCC ID, in any case the end product must be labeled exterior with.

To satisfy FCC exterior labeling requirements, the following text must be placed on the exterior of the end product."Contains Transmitter module FCC ID S78-I482E"