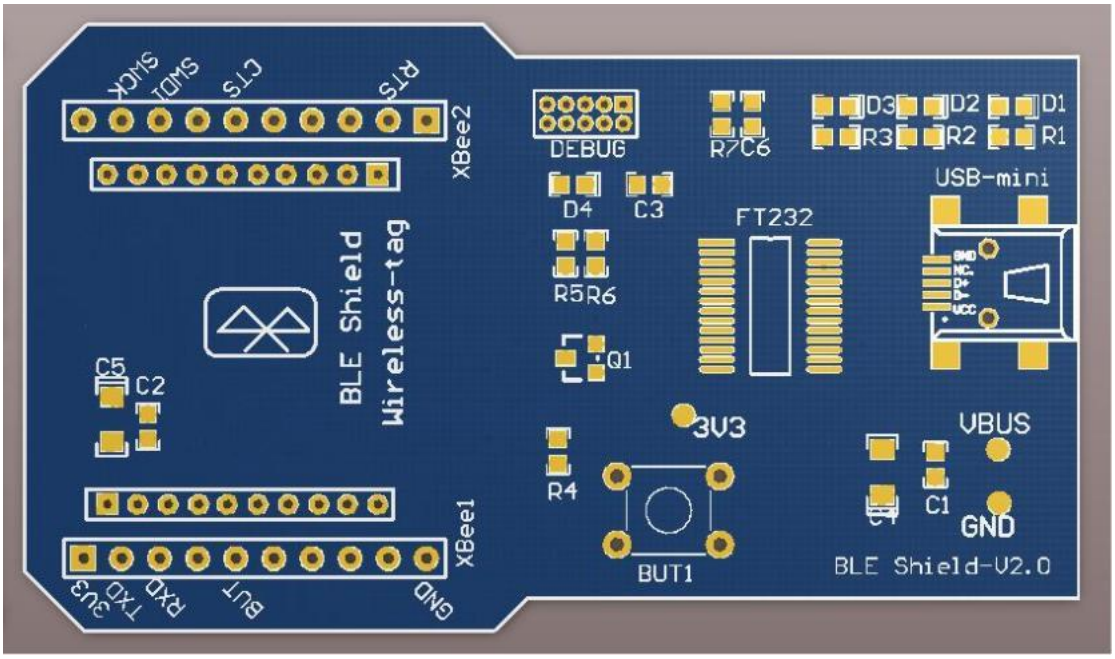
BLE 4.0 nRF51822-DK Specifications



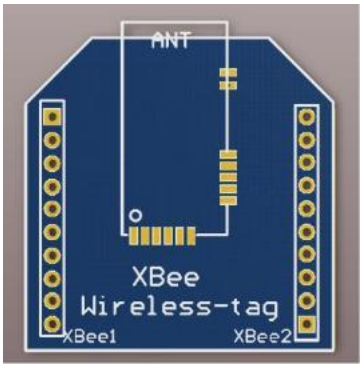
A. Overview:

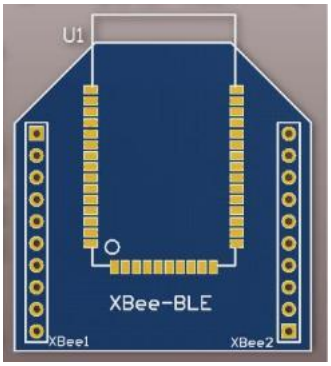
nRF51822-DK is tool designed for easy use its Wireless-Tag BLE Bluetooth nRF51822-01/02/04. You can easily connect the bluetooth module with PC through the nRF51822-DK. The bluetooth module works as slave device, can be searched and matched by bluetooth master terminal. After matched, input the data to bluetooth module via serial port debugging tools and the bluetooth module resent the data to the master module; at the same time, the Bluetooth module can send the data received from the master module to the serial port debugging tools. Developers can easily check the data content between the Bluetooth module and the master terminal.

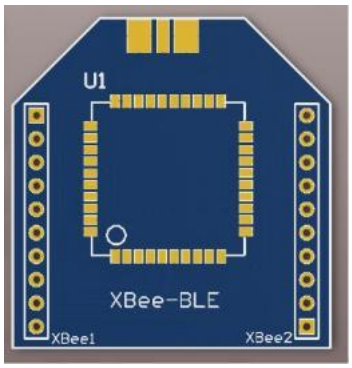
B. Instructions

a. The connection method of nRF51822-DK Tools and Bluetooth module: nRF51822-DK Tools interface is the currently popular XBee interface. Bluetooth module connect with nRF51822-DK Tools by XBee adapter board. Welding the module posted in the corresponding XBee adapter board, and then inserted the adapter board into the nRF51822-DK tools.

XBee adapter plate shown as below:







b. nRF51822-DK tool uses a FTDI USB-to-UART chip. so before connecting with PC, you first need to install the FTDI chip driver. After driver installation is successful, connect nRF51822-DK with PC through the USB cable, then the PC side can identify nRF51822-DK tools serial numbers;

c. Open the serial debugging tools in PC terminal, for example, the serial debugging assistant, the port number is FTDI Chip mapping Virtual COM port number, the serial port parameters set as follows: 9600 baud,; data format is 8 data bits, No parity, 1 stop bit format, and then open the serial port;

d. Use the Bluetooth main terminal device to query Bluetooth slave device, the Bluetooth master terminal may be a cell phone or other bluetooth main terminal device, you can use the phone as the main terminal, open the phone Bluetooth query the device, you can see WT_XXXXXX

Bluetooth device, click connection, then it can be paired with a Bluetooth salve device.

e. Bluetooth main terminal can use some phone APP software, you can input and output data, so after connecting with Bluetooth slave device by APP, you can transmit data to a Bluetooth module, after Bluetooth module receives data sent by APP , then the data is transferred to the serial debugging assistant's data receive buffer, you can check whether the data sent by APP and the Bluetooth received data matches; also input the data need to be sent by sending district of serial debugging assistant and then click Send, Send to APP of Bluetooth master terminal by Bluetooth module. Check whether the data sent by Blyetooth module is right by the data received by APP.

C. Remarks:

a. Bluetooth module is transparent transmission module, currently only can be used as a Bluetooth device (or used as a Bluetooth master device --- to be customized)

b. Bluetooth module is BLE4.0 low-power Bluetooth protocol which can only connect to PC and use in the main terminal device support low-power Bluetooth protocol.