

USB Bluetooth + SIR Adapter

Operation Principle

The USB Bluetooth + SIR Adapter is mainly composed by:

- BCM2045 single chip Bluetooth Transceiver and Baseband Processor
- IR modulator chip and SIR Tx/Rx module
- USB Hub switch
- EEPROM memory IC
- LED indicator
- 26MHz and 48MHz crystal
- PCB antenna
- 3.3V LDO regulator
- USB Male Connector

This module includes a SIR transceiver and the USB hub switch.

The BCM2045 is a monolithic single-chip, Bluetooth® 2.0-compliant, stand-alone baseband processor with an integrated 2.4-GHz transceiver. It is powered by the 3.3V LDO regulator which convert USB 5V to 3.3V. The 26MHz crystal provides the clock to BCM2045 and the EEPROM stores the firmware and MAC address information.

When the Adapter works, it receives data/command from USB and transmits them to other Bluetooth device by the PCB antenna and vice versa. The LED indicator will blink when there is any data/command sent or received by BCM2045.