



**AboCom Systems, Inc.**

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<http://www.abocom.com>

## Bluetooth Theorem

the frequency of Bluetooth is 2.4GHz ISM (Industrial- Scientific-Medicine) , working frequency is 2.400GHz to 2.4835GHz.and use frequency hopping technology to reduce interference of data transmission and receiving, and increase security of information transferring. Data was transmitting and receiving during fixed cycle in 78 channels by frequency hopping technology.

## Product description

1. Bluetooth module, U2, is a Bluetooth system which composed several interfaces including UART, USB and SPI.. The module is kernelled by a single chip radio and baseband IC for Bluetooth system.
2. Regulator, U1, transfer the voltage 5V at USB port to 3.3V as the module power source.

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<http://www.abocom.com>**3. Filter, FL3: SAW filter**Center Frequency,  $f_0$  : 374MHz

Minimum Insertion Loss : - 8.5 dB

3 dB Bandwidth : 20.5 dB

Relative Attenuation <sup>(4)</sup>

309 - 352 MHz : 50 dB

352 - 357.5 MHz : 50 dB

390.5 - 392 MHz : 45 dB

392 - 396 MHz : 40 dB

396 - 439 MHz : 42 dB

439 - 454 MHz : 45 dB

**FL1, FL2 : BandPass Filter**

Fc : 2450MHz

Pass Band : 2400~2500MHz

Insertion Loss : 1.2dB Max.

VSWR : 2.0 Max

ATT. : 25 dB.

**4. TX/RX Switch, U12:**

Tx : U12.6 (CTRLA=L) RF → RF2

RX: Antenna diversity

Insertion Loss = 0.5 dB

Isolation = 22 dB