

Circuit Description

AK801 is a high-performance, low-cost wireless transceiver SoC chip, the radio frequency works in the 2.400 ~ 2.480GHz general ISM frequency band; on-chip integrated matching network, transmitter, receiver, frequency synthesizer, GFSK modem and low-power MCU system, Chip peripheral devices are the simplest in the industry.

The AK801 is compatible with the BLE iBeacon protocol, The chip has low cost and good performance,

- Low power consumption

Transmit mode (0dBm) working current 19mA@0dBm.

Receive mode (1Mbps) operating current 18mA.

Sleep current 2uA.

- low cost

32MHz 10P crystal oscillator, ± 50 ppm, no external matching capacitor required.

Built-in matching network.

- High performance

The receiving sensitivity in 1Mbps mode is -95dBm.

Maximum conducted Peak output power:6.22dBm

Good anti-interference performance; high degree of suppression of adjacent channels of receiving filter.

The Bluetooth chip(AK801) ; Crystal

oscillator(32MHz) provides the clock signal for the Bluetooth chip. Bluetooth signals get through a matching circuit, and then transmitted to the space through the

antenna (2402MHz - 2480MHz) . When the product is connected, the product can be in two - way communication with other Bluetooth devices, and then the device's Bluetooth module sends Bluetooth signals into space, the product receives the Bluetooth signal through an antenna, transmission to the Bluetooth chip via

matching circuit. When the external crystal oscillator and power supply conditions are satisfied, Bluetooth data transmission and control can be carried out according to the program set by the user.