

## Specification

### 1. Function

This module is low cost and is suitable for the 2.4 GHz band radio frequency module of wireless applications. The module can launch the quantity (less than 18dBm), module of the working frequency is to be set, up to 1000 Kbps. In digital media, facial, support 4 pin (SPI) or 3 pin control, in the processing of the RF data, there are two modes to choose from: FIFO (using RF internal memory storage to transmit/receive data), Direct (directly transmitting/receiving). In FIFO mode, also support CRC (CRC16) and FEC (approximately 2 dBm) can increase the degree of spiritual sensitivity, data whitening, can be treated as data encryption, encoding/decoding of Manchester code.

### 2. Technical Specification

- Frequency bands: 2405.5MHz ~ 2475 MHz.
- Output power: less than 1.5mW/MHz
- GFSK modulation
- Low current consumption: RX:16 mA
- Low current consumption: TX:120 mA
- On chip regulator, supply voltage 1.9 ~ 3.6V. Typical: 3.3V
- Size: 27 \* 19 \* 8 mm
- On chip low power RC oscillator.
- Low current (< 1uA) in sleep mode and need only one crystal while working together with MCU.
- High sensitivity (-100dBm@250Kbps, -96dBm@500Kbps, )
- Programmable data rate up to 1000Kbps
- Support 4- wire(SPI) or 3- wire interface to access FIFO data, command and register setting
- Package handling hardware includes preamble, sync word, FEC, CRC data whitening and Manchester coding.
- Separate 64 – byte RX and TX FIFOs
- Support FIFO extension function and up to 256 bytes.
- Easy to use with an low cost MCU
- Fast settling time synthesizer for frequency hopping system.
- Digital RSSI output for clear channel indication
- Digital temperature output
- Build in 1 channel ADC for detect external analog element.
- Build in WWS (wireless wakeup system) for reduce power consumption of battery.
- Support Frequency compensation scheme to make use the low cost (low accuracy) crystal.

## **FCC Statement**

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 uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, 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:

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

This device complies with part 15 of the FCC Rules. 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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The devices must be installed and used in strict accordance with the instructions as described in the user documentation that comes with the product.

If the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module.

This exterior label can use wording such as the following:

“Contains Transmitter Module FCC ID: A6EF5H82175”

When the module is installed inside another device, the user manual of this device must contain below warning statements:

This modular could be installed in the fix or mobile devices only, installed in the portable device, like USB dongle is forbidden. This modular complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This modular must be installed and operated with a minimum distance of 20 cm between the radiator and user body.