

**Description:**

The Topseed USB RF Receiver Module is a GFSK (Gaussian Frequency Shift Key) Superheterodyne for the frequency band 2.4 to 2.483 GHz ISM band. A complete solution for fast implementation, saving your time-to-market. It is a compact and low-cost radio/baseband module that can be implemented in any kind of peripherals device.

The USB RF Receiver Module consists of three major parts; a baseband controller, a radio that suitable for WORLD WIDE free ISM band applications, and a low power uC-controlled, includes a host and antenna interfaces and supporting circuitry, together with basic RF software for signaling at HCI (Host Control Interface) level. For Receiver's uC-controlled built-in USB interface.

As the USB RF Receiver module is a generic product, it can be used for many different types of application that require a RF capability.

**Specification:**

It is a single chip GFSK (Gaussian Frequency Shift Key) Superheterodyne Receiver IC and This modular contains a low noise amplifier (LNA), a balanced mixer, a fully integrated Circuits and a demodulator,

1. Range in meters: over 10 Meter from the Receiver
2. Frequency Range: 2.4 to 2.483 GHz (78 multi channels and 65535 ID channels for Remote Pointer)
3. Data transmitting by transistor module
4. Operational voltage: 5 V
5. Low power consumption: On normal operation less than 36 mA (5V)
6. Support Power down Mode and high efficiency power amplifier.
7. Receiver Fully compliant USB Interface
8. Suspend/resume operation and device remote wakeup
9. Weight: 72g
10. Operation Temperature: 50°C

**Table:**

| Item                    | Standard Specification |                          | Option |
|-------------------------|------------------------|--------------------------|--------|
| RF Characteristics (Rx) | Frequency Range        | 2.4GHz-2.483 GHz         | --     |
|                         | Modulation             | GFSK                     | --     |
|                         | Channel Spacing        | 1 MHz                    | --     |
|                         | Channel No.            | 78                       |        |
|                         | Channel I.D            | 65535                    | --     |
|                         | Data rate              | 64K bps                  |        |
|                         | Rx Sensitivity         | -80 dBm                  | --     |
|                         | Distance               | 30 m min.                | --     |
|                         | Antenna type           | PCB Track                |        |
| Input power             | USB Power              | 5 V                      |        |
| Power Consumption       | working mode           | 36mA                     |        |
|                         | saving mode            | 60uA                     |        |
| Mechanical Performance  | Button                 | 1                        |        |
|                         | Dimension              | 89.97 x 40.89 x 20.46 mm |        |

## Appendix: Warning Statement

### FCC Guidelines

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.

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

### Declaration of Conformity for R&TTE directive 1999/5/EC

Essential requirements – Article 3

Protection requirements for health and safety – Article 3.1a

Testing for electric safety according to EN 60950-1 has been conducted. These are considered relevant and sufficient.

Protection requirements for electromagnetic compatibility – Article 3.1b

Testing for electromagnetic compatibility according to EN 301 489-1, EN 301 489-3 has been conducted. These are considered relevant and sufficient.

Effective use of the radio spectrum – Article 3.2

Testing for radio test suites according to EN 300 440-2 has been conducted. These are considered relevant and sufficient.

Hereby, [Dong Guan Jess-Link Electronics Co., Ltd.], declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。