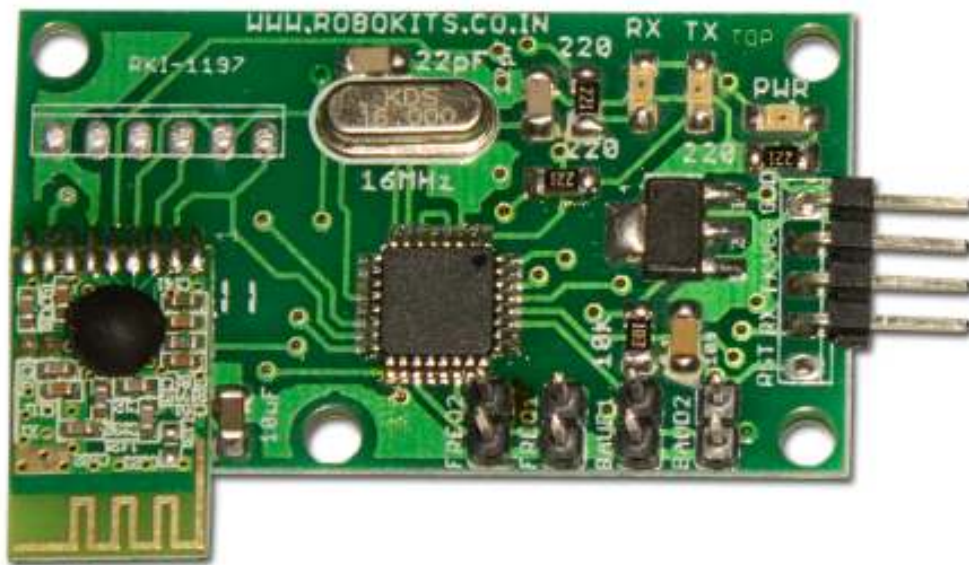


RF 2.4Ghz Serial Link [RKI-1197]



Users Manual

Robokits India

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Make your products wireless with RF 2.4GHz Serial Link module. It is ideal for connecting to all electronic products that require medium range full-duplex, high-speed and reliable communication.

RF 2.4GHz Serial Link module is an embedded solutions providing wireless end-point connectivity to devices. These modules use a simple proprietary networking protocol for fast point-to-multipoint or peer-to-peer networking. They are designed for high-throughput applications requiring low latency and predictable communication timing.

It should be connected to any TTL/CMOS logic serial RXD and TXD lines and can support baud-rate of 9600bps, 19200bps, 38400bps and 57600bps. It also supports 4 unique RF channel selections to reduce congestions on the same channel during peer-to-peer communication.

This Package Includes

- **A RF 2.4GHz Serial Link**

Features

- **No configuration needed for out-of-the-box RF communications**
- **Standard Serial Communication Socket for easy integration**
- **Fast 250 kbps RF air-data rate to the end node**
- **2.4 GHz for worldwide deployment**
- **Baud-rate selection and channel frequency selection**
- **Up to 100meters outdoor open air node-to-node range**

Applications

- **Wireless telemetry for transmitting sensor data**
- **Remote control applications with fast response requirements**
- **Wireless Home Networking applications**
- **Point-to-point and point-to-multipoint network topologies**
- **Wireless mouse, wireless keyboard and other wireless user interface devices**
- **Wireless data logging applications**
- **Audience response systems**
- **UAV communication and control**
- **Swarm Robotics**
- **Wireless Audio transmission applications**

Pin-out Info

Pin 1- Ground

Pin 2- VCC (4.25V to 12.0V regulated power)

Pin 3- Transmit Serial Data Output from Module (3.3V TTL)

Pin 4- Receive Serial Data Input from External Device (3.3V to 5V TTL)

Baud Jumper Info

Default No Baud Jumper – 9600bps

Baud 1 Jumper – 19200bps

Baud 2 Jumper – 38400bps

Baud 1 & Baud 2 Jumper – 57600bps

Freq Jumper Info

Default No Freq Jumper – 2433MHz

Freq 1 Jumper – 2438MHz

Freq 2 Jumper – 2443MHz

Freq 1 & Freq 2 Jumper – 2450MHz

LED Info

PWR LED – power supply present

TX LED – RF transmission of data

RX LED – RF reception of data

Usage Steps

1. Connect external devices with serial communication capabilities to the TXD and RXD pins of two modules for wireless communication. Provide power to the GND and VCC pins.
2. Check GND(-) and VCC(+) terminals. (Do not connect the power supply in reverse or else the circuit will be damaged.)
3. Power LED should be on.
4. Send serial data to the RXD line of the first module at the correct baud rate based on the baud rate jumpers. Default baud rate is 9600bps. The TX led should blink representing attempts to send the data it is receiving on the RXD serial line.
5. The second module at the other end of the wireless communication link will receive the data sent wirelessly by the first module and its RX LED will blink showing that it is correctly receiving the data.
6. Receive the output of the link serially from the TXD line on the other module at the baud rate selected based on the baud jumpers.
7. Data can be sent simultaneously to and from each module and will be received wirelessly at the other end seamlessly.
8. Multiple units can send and receive data to each other as all the data is broadcasted on the wireless channel.
9. If multiple simultaneous point-to-point communications are required the frequency jumpers can be used to have them communicate on separate channels.



Service and Support

Service and support for this product are available from Robokits India. The Robokits Web site (<http://www.robokits.co.in>) maintains current contact information for all Robokits products.

Limitations and Warrantees

The **RF 2.4Ghz Serial Link [RKI-1197]** is intended for personal experimental and amusement use and in no case should be used where the health or safety of persons may depend on its proper operation. Robokits provides no warrantee of suitability or performance for any purpose for the product. Use of the product software and or hardware is with the understanding that any outcome whatsoever is at the users own risk. Robokits sole guarantee is that the software and hardware perform in compliance with this document at the time it was shipped to the best of our ability given reasonable care in manufacture and testing. All products are tested for their best performance before shipping, and no warranty or guarantee is provided on any of them. Of course the support is available on all of them for no cost.

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