



General Description

The most significant difference between wireless link and wired link is that the wireless one is free from the cable installation and operating under the regulated distance. Once the wireless solution is designed in, product or device may apply in various phases, floors and high-elevated locations with appropriated power saving solution and installation.

RFMO-0201 is a complete RF board with a protocol-on-micro-processor structure and without extra driver installation, which is designed to replace the cable between the PC and the peripheral RS-232 equipments and make data transmitted over radio. RFMO-0201 uses 433.92 free-licensed ISM band. RFMO-0201 is designed to interface with RS-232 port, with its featured compact size it can be installed or embedded in various handheld devices.

- ♦ Note 1: Max 2 characters are allowed in every single transmission.
- ♦ Note 2: This product is utilized for control purpose. Continuous data transmission will not be adopted.
- ♦ Note 3: The duration of each transmission shall not be greater than one second and the silent period between transmissions shall be at least 30 times the duration of the transmission but in no case less than 10 seconds.

Product Features

- FCC Certified
- Max. Output Power 1mW
- RF Sensitivity: -102dBm
- Communication Range: 5 ~ 60 meters
- UART Data Rate: 9.6K bps
- 433.92 MHz ISM Band
- 2 Level FSK Modulation
- Embedded Micro Processor and UART Interface
- Optional On-board 50Ω PCB Loop Antenna
- TDMA Access

Application

- Security Device: Car Alarm, Home Security, RF ID
- Remote Automation: Remote Control, Home Automation
- Wireless Sensing: Weather Monitoring
- Long Range Control
- Wireless Data Log: Telemetry



General Description

Radio Frequency	433.92MHZ
Modulation Type	2-level FSK
Number of channel	One channel TDMA

Performance

RF Transmission Data Rate	16.2Kbps
UART Data Rate	9.6Kbps (Inter-communication)
Output Power	1mW
Sensitivity	-102 ~ -99dBm at 16.2kbps 10^{-1} BER
Communication range	5 ~ 60m line of sight

Power Requirement

Supply Voltage	3.3 ~ 5.0 Vdc
Transmit Current Consumption	10 ~ 17mA
Standby Current Consumption	< 60uA

Antenna

Optional	On Board Loop Antenna, 50 terminal
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Physical Properties

Board size (Without ANT)	34 x 34 x 8 (mm)
Connect Pitch	2.0mm
Operating Temperature	-10 ~ 65

Pin Configuration

Connector:

PIN 1: VCC Supply Voltage 5V

PIN 2: GND

PIN 3: FAIL Fail active Low

PIN 4: SUC Success active Low

PIN 5: STB Standby active Low

PIN 6: RX UART Receiver pin

PIN 7: TX UART Transmitter pin

PIN 8: TEST Test Pin

Pull Low before power on will be into the Test mode

Pull Hi will be release the test mode

PIN 9: MASTER/SLAVE Mode change pin

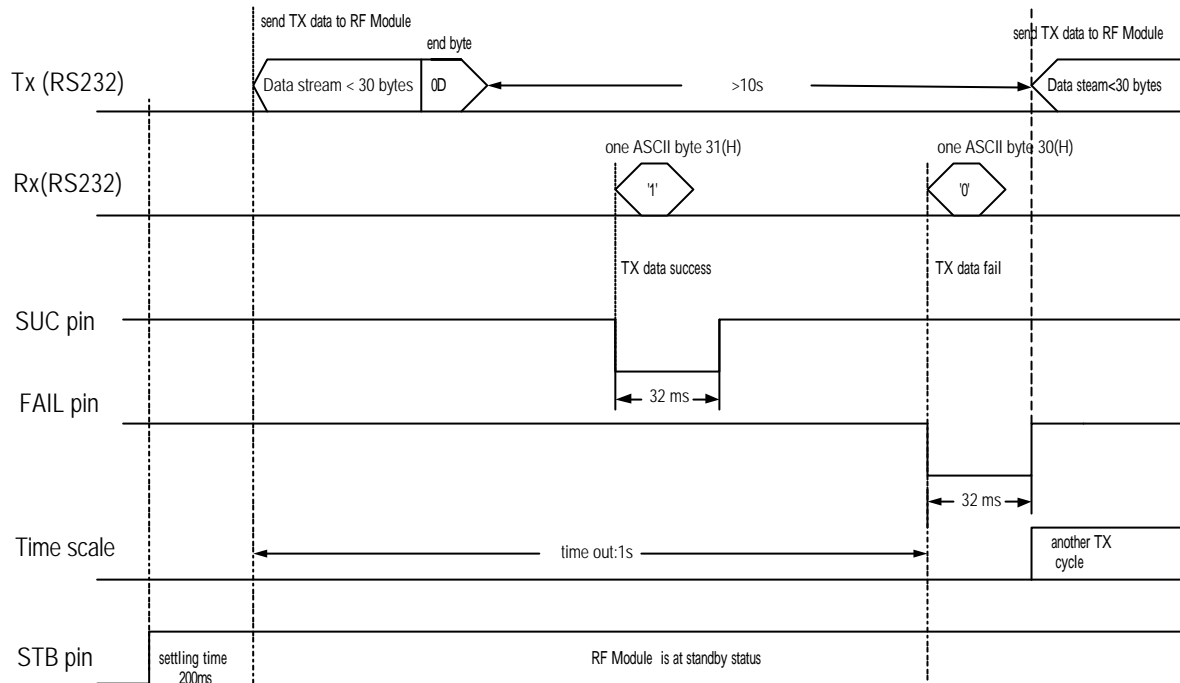
Low=SLAVE mode

Hi=MASTER mode

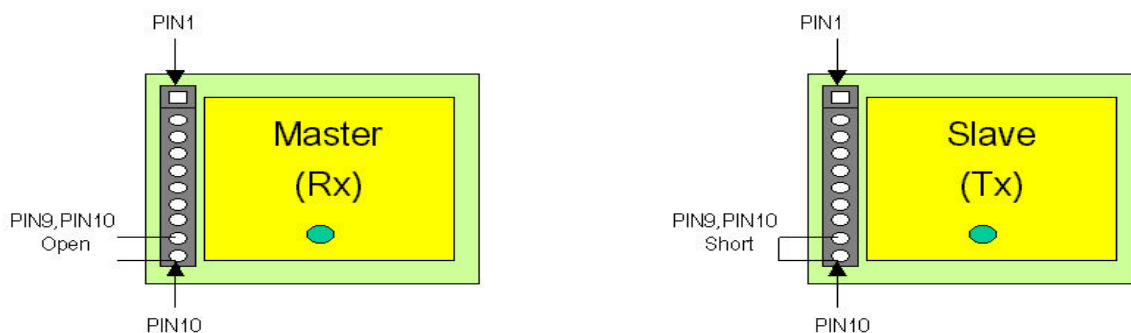
PIN 10: GND



Time Out Sequence with Programming Format



Operation Mode & Jumper Setting





Important Notice

Devices operated under the provisions of this paragraph shall be provided with a means for automatically limiting operation so that the duration of each transmission shall not be greater than one second and the silent period between transmissions shall be at least 30 times the duration of the transmission but in no case less than 10 seconds.

Federal Communication Commission Interference 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 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.

Information to User – The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.