RFU-400 FAQ

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Q1、How to increase communication distance of RFU-400? (2016/12/16, Ming)

Ans.：

We provide two ways to reference：

1. Use RF 650 bps baud rate. In the case of a straight line visual distance, the communication distance of 650 bps baud rate is up to 2 km.
2. Use the following diagram architecture：



Using two RFU-400s, connect their RS-232 or RS-485 to each other, as shown in the middle of the figure above. So that you can form a group of RFU-400 repeaters to extend the wireless communication distance.

Q2、Why some time RFU-400 would receive the data of others channel? (2016/12/16, Ming)

Ans.：

This is because although you use of different channels, but still in each other's communication bandwidth.

RFU-400 communication bandwidth = 40 k + communication baud rate

Assuming you use a communication rate of 38400 bps, the communication bandwidth is 78.4 kHz, so if the channel spacing is less than 78.4 kHz it is possible to receive data from each other.

The channel spacing of the RFU-400 in the 429 MHz band is 12.5 kHz, which is equivalent to an interval of 6 channels. The channel spacing in the 433 MHz band is 100 kHz, ie, adjacent channels will not be affected.

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Q3、Is there a repeater available for RFU-400 / RFU-433? (2019/11/12, Ming)

Ans.：

Only switch the DIP 7 and 8 (Data Format) of the RFU-400 / RFU-433 to ON and then power on it. The RFU-400 / RFU-433 module will have repeater function. **Please note that, the repeater function only supports one hop and not supports repeater to repeater.**

Q4、Is RFU-400 / RFU-433 possible to communicate with RS-485 device in repeater mode? (2019/11/12, Ming)

Ans.：

The RFU-400 would send repeater message with 2 bytes RSSI value to COM port in repeater mode. For example, user sends a message 0x01, 0x02, 0x03, 0x04, 0x05, 5 bytes through a RFU-400 to another. If there is a RFU-400 repeater received this message, the repeater would send 0x01, 0x02, 0x03, 0x04, 0x05, 0xAA, 0xBB, 7 bytes to COM port, where the 0xAA is RSSI of transmitter and the 0xBB is RSSI of the repeater. So the repeater mode of RFU-400 cannot connect with normal RS-485 device. **But RFU-433 can enable / disable the RSSI value through RFU-433 utility, so the repeater mode of RFU-433 can communicate with RS-485 device.**

Q5、What is the difference between RFU-400 and RFU-433? (2019/11/12, Ming)

Ans.：

Item	RFU-400	RFU-433
Frequency Band	429 MHz, 433 MHz	433MHz‘
‘Configure	DIP and Rotary switch	DIP, Rotary switch and utility
Antenna connecter	SMA	RPSMA
RSSI value	Fixed at the end of the RF message in repeater mode	Use utility to enable and disable
Output power	Default 19 dB (Max)	Default 10 dB (can set by utility)
RF Certification	none	CE

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