

## Operating Instruction of 2.4G Wireless Serial

### 1. Pin Description

Pin Name	Type	Level	Description	Remarks
VCC			5V power input terminal	
GND			5V power ground	
TX	OUTPUT	5V	Serial communication output	
RX	INPUT	5V	Serial communication input	
DTR	OUTPUT	5V	Data terminal ready	
RST	INPUT	5V	Module reset pin, low level active	

### 2. Function Description:

The function of 2.4G Wireless Serial is to convert the 2.4G wireless communication into the serial communication. Namely, it converts the received wireless data into the serial data, or transmits the received serial data in the wireless mode. Duplex communication. The baud rate of the serial communication is fixed to 115200 bps.

### 3. Direction for Use:

(1) 2.4G Wireless Serial matches with 2.4G USB Dongle. The 2.4G Wireless Serial module is installed in the mCore main control board, and the 2.4G USB Dongle is connected to PC, to control the mCore main control board of the 2.4G wireless communication by PC.

(2) There are three display situations for the blue status indication light of the 2.4G Wireless Serial module, and these three situations correspond to different operation modes of the module.

Slow flash (default status)	It indicates to search the latest connection of 2.4G USB Dongle that is connected with it correspondingly.
Quick flash	Indicate to search the new 2.4G USB Dongle for the connection.
Constantly light	Indicate the successful connection.

<1> Status switching. Press the button in the module to switch between the quick flash status and the slow flash status when the module fails to be connected (in the quick flash or slow flash status).

<2> Slow flash. This is the default status when the module is powered on. The module will only search the latest 2.4G USB Dongle that is matched for the connection in this status. At this time, if the corresponding USB Dongle is also in the power-on status, the module will establish the connection with USB Dongle immediately. The status indicator light will be in the constantly light state after it is connected successfully.

<3> Quick flash. The module will search any USB Dongle that is not matched with it for the connection in this status. At this time, insert the USB Dongle that is matched with it into the USB port of PC for the power on. The module will establish the connection with USB Dongle immediately, and the status indicator light will be in the constantly light state.

<4> Multi-module use. When several pairs of 2.4G modules are used in the same house, it is necessary to enable 2.4G Wireless Serial is in the quick flash status firstly, and then use them after they are matched to connect successfully in pair. In this way, it can communicate between each pair of 2.4G modules without any interference.

(3) After 2.4G Wireless Serial is connected with 2.4G USB Dongle successfully, PC implements the 2.4G wireless communication with the mCore main control board, and uses the graphic programming software mBlock to control the mCore main control board. To understand more information on the use of mBlock, click next connection:

<http://mblock.cc/>

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.

NOTE: 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 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.

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: 2ACWW1300303M Or Contains FCC ID: 2ACWW1300303M "

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

1. 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.
  - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. 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 manufacturer's instructions as described in the user documentation that comes with the product