WLS-R01

Quick Start

1 What's in the Shipping Package?

The shipping package contains the following items:

WLS-R01 module
+
0 dBi antenna
(ANT-104-01)

Plastic bracket
(4PASO-0029)

Quick Start

> If any of these items are missing or damaged, please contact your local distributor for more information. Save the shipping materials and cartons in case you need to ship the module in the future.
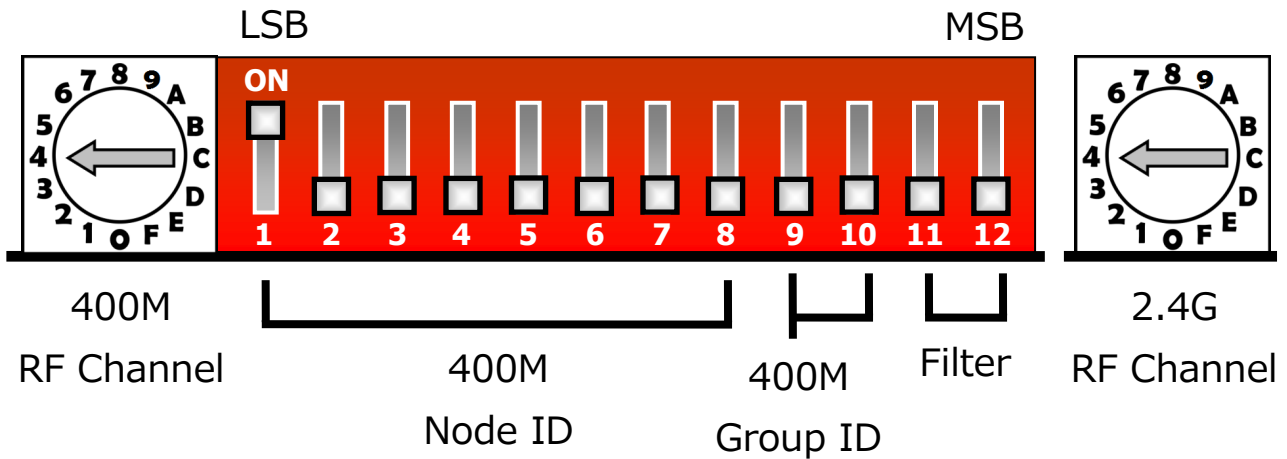
2 Preparing the Device

1. Refer the chapter 3. to configure the DIP switch and rotary switch of WLS-R01 module.

2. Power Supply : +10 ~ +30V$_{DC}$

+Vs   GND   +Vs   GND
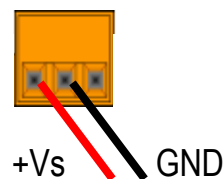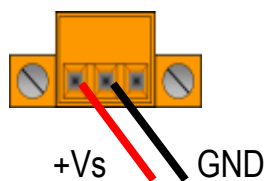
3 DIP Switch, Rotation Switch and LED

The configuration of WLS-R01 can be adjusted by using the external rotary switches and the DIP switches. The WLS-R01 device should only be rebooted once the configuration is complete.

> Rotation switch description：

1. 400M RF channel，the ranges are 0x00 to 0x0F. WLS-R01 can communicate with RFU-400 in same 400M RF channel.

| RF Channel (MHz)			
0: 429.8125	1: 429.8250	2: 429.8375	3: 429.8500
4: 429.8625	5: 429.8750	6: 429.8875	7: 429.9000
8: 429.9125	9: 429.9250	A: 429.1750	B: 429.1875
C: 429.2000	D: 429.2125	E: 429.2250	F: 429.2375

2. 2.4G RF channel，the ranges are 0x00 to 0x0F. WLS-R01 can communicate with WLS-T01 in same 2.4G RF channel.

RF Channel (MHz)			
0: 2405	1: 2410	2: 2415	3: 2420
4: 2425	5: 2430	6: 2435	7: 2440
8: 2445	9: 2450	A: 2455	B: 2460
C: 2465	D: 2470	E: 2475	F: 2480

➢ DIP switch description：

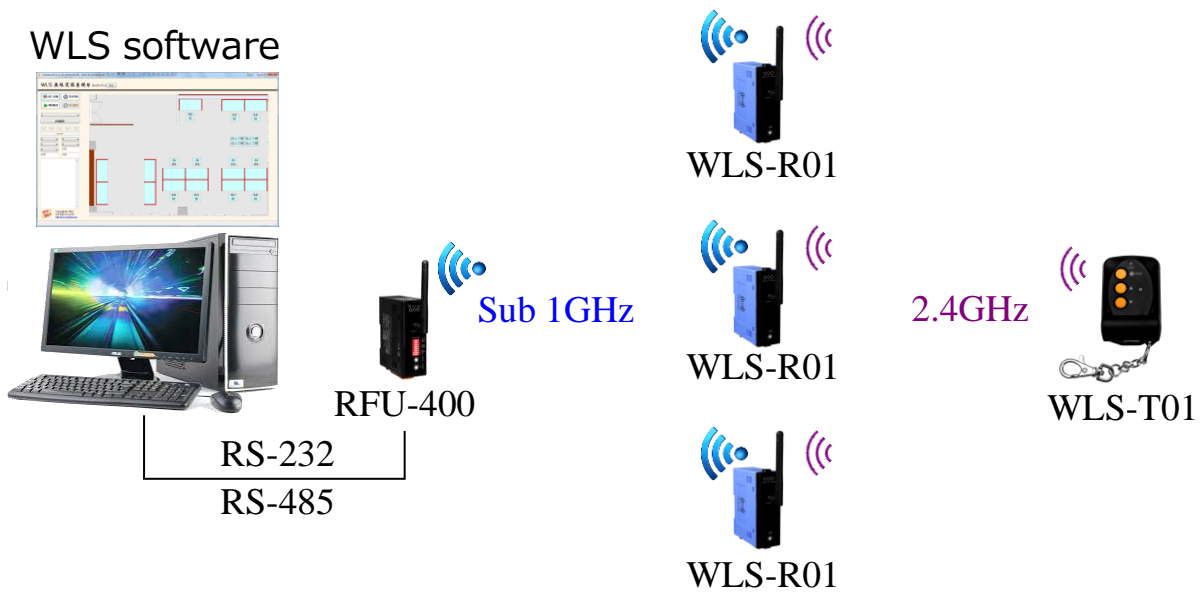| Number	Name	Status	Value	Description
1	400M Node ID	OFF	-----	The ranges are 0x01 to 0xFF. If 400M Node ID is set to 0x00, the LED of RF_Tx will steady lit to caution, and WLS-R01 doesn't transmit wireless packages of location, the user need to switch to other Node ID and reboot WLS-R01.
1		ON	0x01	
2		OFF	-----	
2		ON	0x02	
3		OFF	-----	
3		ON	0x04	
4		OFF	-----	
4		ON	0x08	
5		OFF	-----	
5		ON	0x10	
6		OFF	-----	
6		ON	0x20	
7		OFF	-----	
7		ON	0x40	
8		OFF	-----	
8		ON	0x80	
9	400M Group ID	OFF	-----	The ranges are 0x00 to 0x03. It is need same with RFU-400.
9		ON	0x01	
10		OFF	-----	
10		ON	0x02	
11	Filter	OFF	-----	The ranges are 0x00 to 0x03. 0x00: No giving up any data. 0x01: Giving up the data with RSSI < -75dBm. 0x02: Giving up the data with RSSI < -60dBm. 0x03: Giving up the data with RSSI < -45dBm.
11		ON	0x01	
12		OFF	-----	
12		ON	0x02	

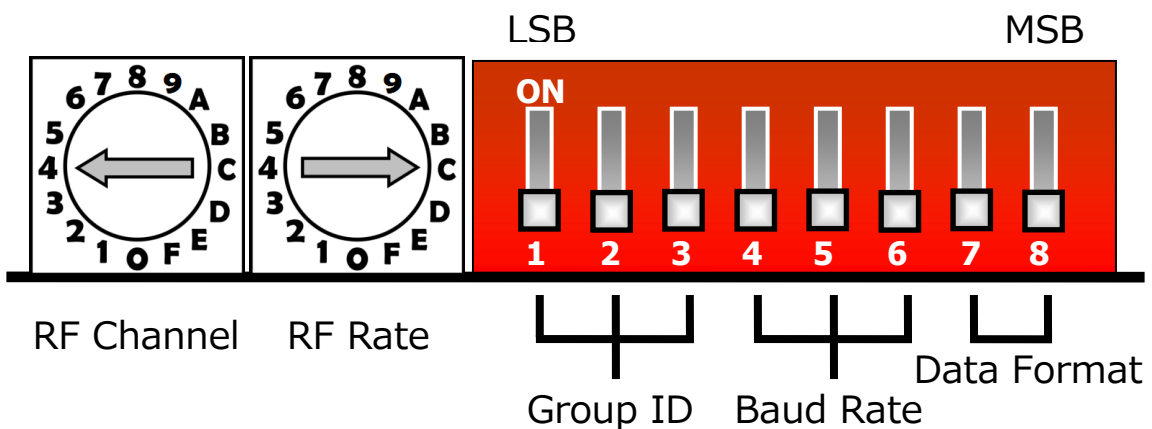There are 3 LEDs in the WLS-R01, and they are PWR, RF_Tx and RF_Rx. The description of 3 LEDs as below:
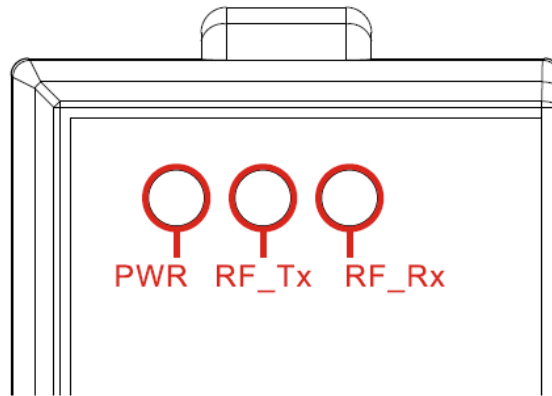
1. PWR：Power LED, red, it will steady lit after power-on. If the LED don't steady lit, it means the power have problem.

2. RF_Tx：RF Transmitting LED, green, it will blink once when WLS-R01 transmits a wireless package of 400MHz. If 400M Node ID is set to 0x00, the LED of RF_Tx will steady lit to caution, and WLS-R01 doesn't transmit wireless packages of location, the user need to switch to other Node ID.

3. RF_Rx：RF Receiving LED, green, it will blink once when WLS-R01 receives a wireless package of 2.4GHz.

4 Startup to use

Wireless Location System (WLS) includes the modules that RFU-400, WLS-T01, WLS-R01 and WLS software. The user need to check the wireless setting of each module as below. If the user need more detail about parameters of wireless setting, please refer to the user manual of each module. The last, if the user have any questions, please send to service@icpdas.com.

WLS software

WLS-R01

Sub 1GHz

WLS-R01

2.4GHz

RFU-400

WLS-T01

RS-232

RS-485

WLS-R01

1. RFU-400 :

LSB   MSB

ON

1   2   3   4   5   6   7   8

RF Channel   RF Rate

Group ID   Baud Rate

Data Format

2. WLS-T01 :

The default value about RF channel is 4, RF power is F, Node ID is the last two bytes of build-in IEEE address. If the user adjust WLS-R01 2.4GHz RF channel to 4, the WLS-R01 will can receive the wireless package.

3. WLS-R01 :
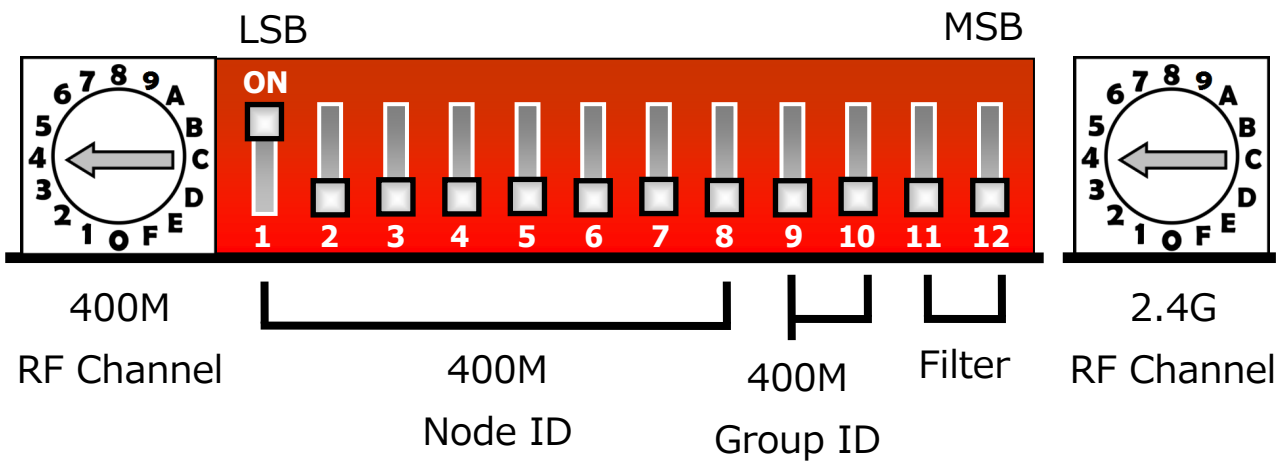
When WLS-R01 will be installed, please let sensing symbol (((●))) face to center of field.