

Router



WLS-R01

Features

- Supports data conversion from ISM 2.4GHz frequency to 400MHz frequency
- Supports 16 segments of RF channels with 2.4GHz and 400MHz
- Supports RSSI filtering function
- Built in 2.4GHz 3dBi PCB directional antenna
- 2.4GHz wireless transmission range up to 100 m (Line of Sight)
- 400MHz wireless transmission range up to 500 m (Line of Sight)
- Supports external DIP and rotary switches for easy configuration
- DIN-Rail mountable



Introduction

WLS-R01 is a 2.4GHz wireless receiver, it is mainly installed in fixed position to receive the 2.4GHz wireless Locating data of WLS-T01 broadcast. In the other hand, WLS-R01 is also a wireless converter (called Router) from 2.4GHz to 400MHz. It can effectively use 400MHz high transmittance characteristics to extend the wireless transmission distance, and don't need add wire between the communication paths. The WLS software in the PC can use transparent function of RFU-400 to poll the wireless Locating data of WLS-T01, and then calculate the relative position of WLS-T01 by the algorithm.

WLS-R01 include two wireless frequency, one is ISM 2.4GHz global common frequency band total have 16 channels, the range of 16 channels are 2.405GHz to 2.48GHz, it can separated into 5MHz segments, and the wireless transmission range (line of sight, LOS) is 100 meters; the other is 400MHz frequency band total have 16 channels, the range of 16 channels are 429.1750MHz to 429.2375MHz and 429.8125 MHz to 429.9250 MHz, and the wireless transmission range (line of sight, LOS) is 500 meters. In addition, the user can divide four groups ID in the each 400MHz channel to avoid adjacent channels affect each other.

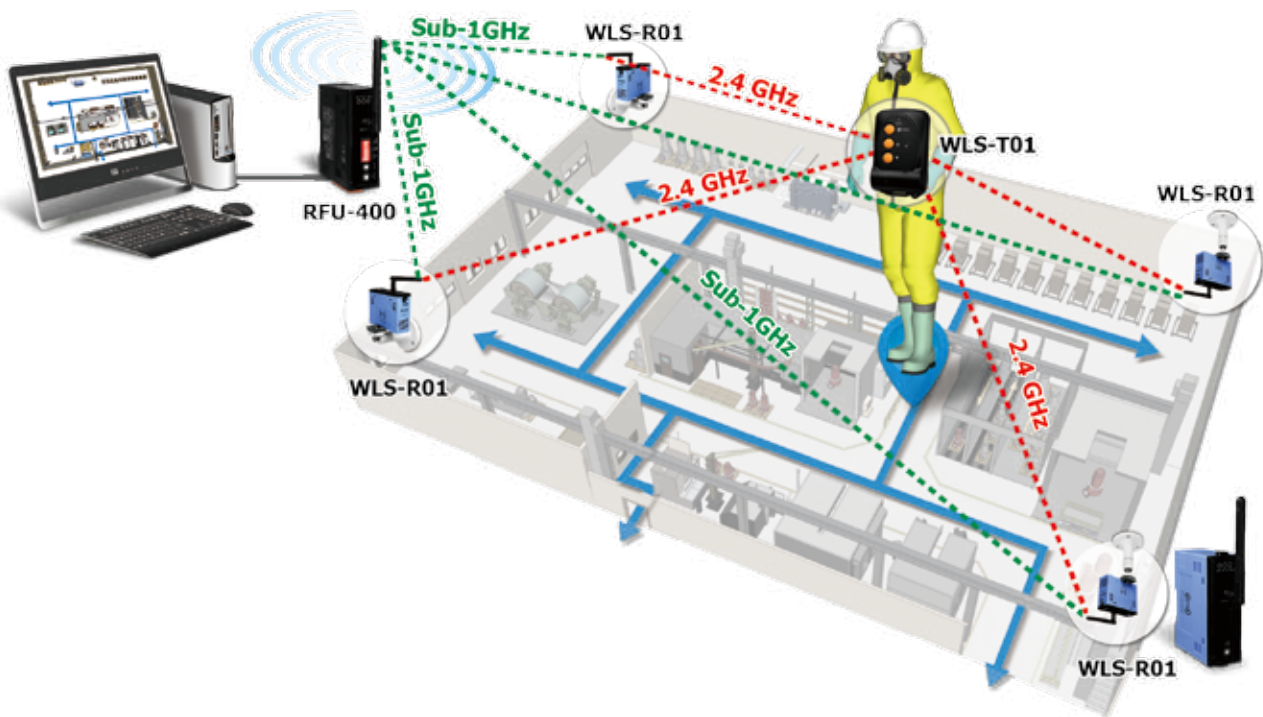
The user can simply use the DIP switch and rotation switch to configure the parameter, and don't need to add wire between the communication paths, that can speed up to build the system, and reduce the cost, so it very suitable for use in item tracking, personnel movements, factory regional management and other applications.

Specifications

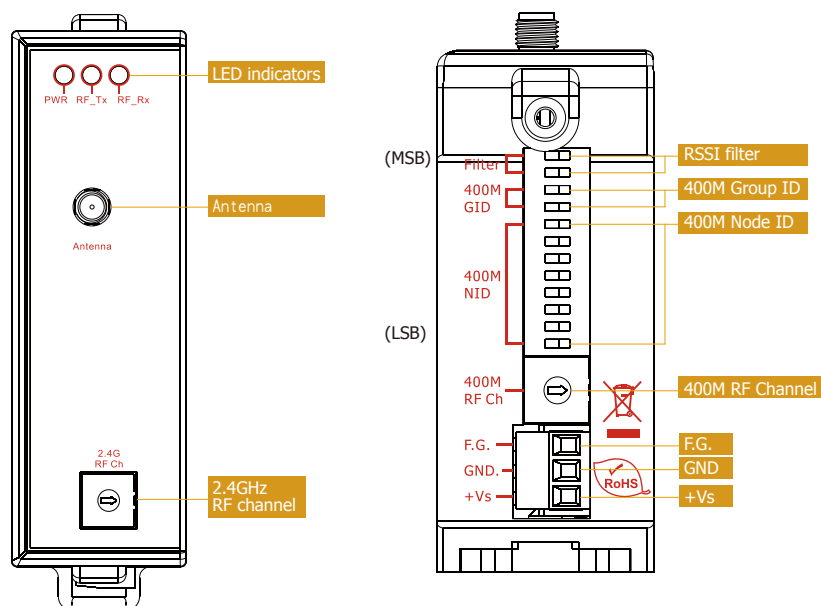
Wireless		
2.4GHz	Modulation	OQPSK (Offset Quadrature Phase-shift Keying)
	Spread Spectrum	DSSS (Direct-Sequence Spread Spectrum)
	RF Channels	16
	Transmission Power	16±1dBm (Default) / 17dBm (Max.)
	Wireless frequency	2.4GHz
	Antenna	2.4GHz - 3dBi PCB directional antenna
	Transmission Range (Line of Sight, LOS)	100m (Default)
	Number of tags supported	90 (Max., Tag Tx interval is 3 seconds)
400MHz	RF Channels	16
	Transmission Power	19dBm (Default / Max.)
	Wireless frequency	Channel 0~9: 429.8125 MHz ~ 429.9250 MHz Channel A~F: 429.1750 MHz ~ 429.2375 MHz
	Antenna	429MHz – 0dBi Omni directional antenna
	Transmission Range (Line of Sight, LOS)	500m(Default)
	Range of address	1~255 (0x01~0xFF)
LED Indicators		
Power	1 LED, Red	
400MHz Transmitted status	1 LED, Green	
2.4GHz Received status	1 LED, Green	
EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact for Power Line, ±8 kV Air for Random Point	

EFT (IEC 61000-4-4)	±4 kV for Power
Surge (IEC 61000-4-5)	±3 kV for Power
Power	
Required Supply Voltage	+10 V _{DC} ~ +30 V _{DC}
Power Consumption	1 W Max.
Mechanical	
Dimensions (L × W × H)	110mm x 33mm x 83mm
Installation	DIN-Rail
Environment	
Operating Temperature	-25°C ~ +75°C
Storage Temperature	-30°C ~ +80°C
Relative Humidity	10 ~ 90% RH, Non-condensing

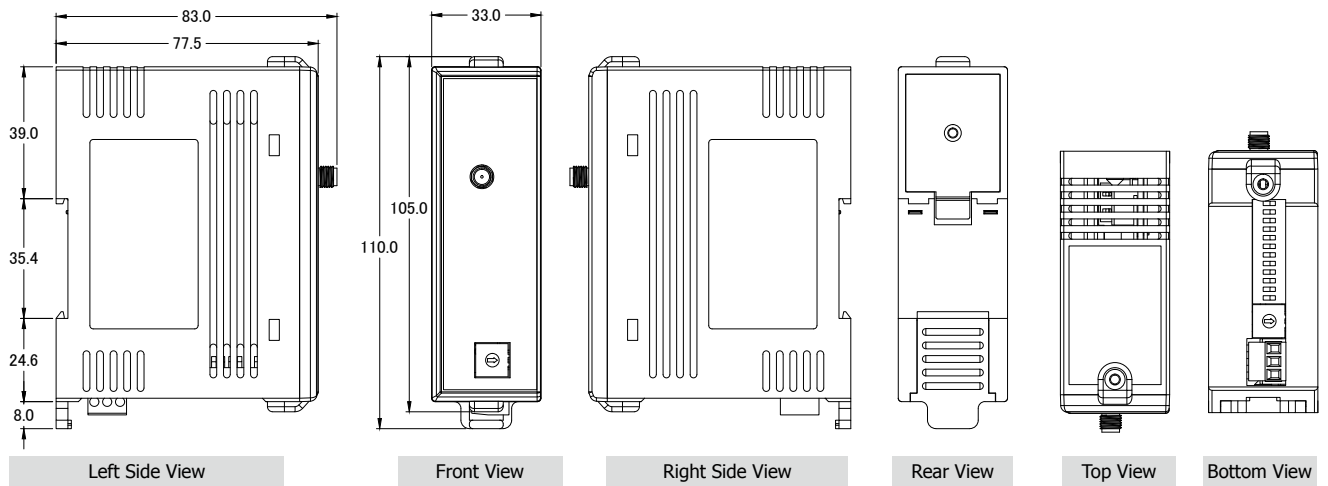
Applications



Appearance



Dimensions (Units: mm)



Installation



Type one



Type two

Ordering Information

WLS-R01 CR Wireless Locating System Receiver (RoHs)

Important Note: The receiver of wireless locating system be used together with the transmitter and the converter, please refer to WLS-T01 and RFU-400.

Accessories

WLS-T01 CR	Wireless Locating System Transmitter (RoHs)
RFU-400 CR	RS-232 / RS-485 to 429 MHz Radio Modem (RoHS)
ANT-104-01	0 dBi 429MHz External Antenna
Plastic bracket	Plastic bracket of installation (4PKW1W0000001)