



## iWSN-2200-R1

iWSN Data Concentrator with 1-port RS-485 and 1-Channel Relay Output (Asia Only)

### Introduction

iWSN-2200-R1 is an iWSN wireless data concentrator, it supports one 433MHz wireless communication interface and one RS-485 communication interface. The module supports Modbus RTU protocol slave, the main function can receive and buffer wireless data from up to 31 iWSN sensors. The users can send Modbus RTU commands to read the sensor's data by RS-485 interface. For wireless communication, the module supports up to 16 wireless channels and 8 groups ID which can be set by rotary switch and DIP switch; which is convenient for users to divide and manage the wireless network of 433MHz frequency. It can also automatically control relay output to react to emergency distress packages sent by iWSN-SOS series, so that the adjustment and maintenance of the modules can be more easy.

### System Specifications

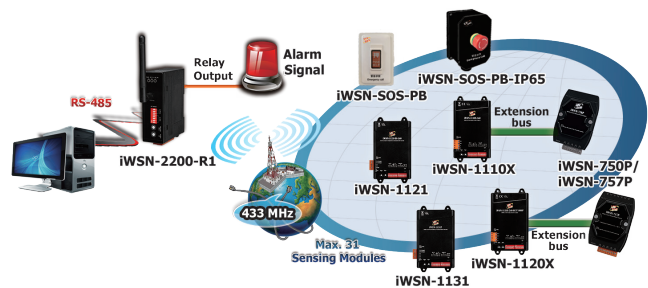
Model	iWSN-2200-R1
<b>EMS Protection</b>	
EFT (IEC 61000-4-4)	+/- 1kV
ESD (IEC 61000-4-2)	+/- 4kV Contact
Surge (IEC 61000-4-5)	+/- 1kV
<b>LED Indicators</b>	
Status	1 x Power 1 x RF_Tx 1 x RF_Rx
<b>Antenna</b>	
Connector	RP-SMA Male (Plug)
Dimensions (mm)	10 x 108 (Ø x L)
Type	0 dBi, Omni-Directional
<b>Relay Output</b>	
Channels	1 (Form A)
Type	Power Relay, (SPST N.O.)
Contact Rating	5A @ 250VAC 5A @ 30VDC
Operate Time	10ms (Max.)
Release Time	5ms (Max.)
Electrical Endurance	2 × 10 <sup>7</sup> ops.
Mechanical Endurance	1 × 10 <sup>5</sup> ops.
<b>COM Ports</b>	
Ports	1 x RS-485

### Features

- 433MHz Radio Frequency
- 16 RF Channels
- Supported Modbus RTU protocol (Slave)
- Supported data buffers of 31 iWSN sensors
- 1 Channel Relay Output

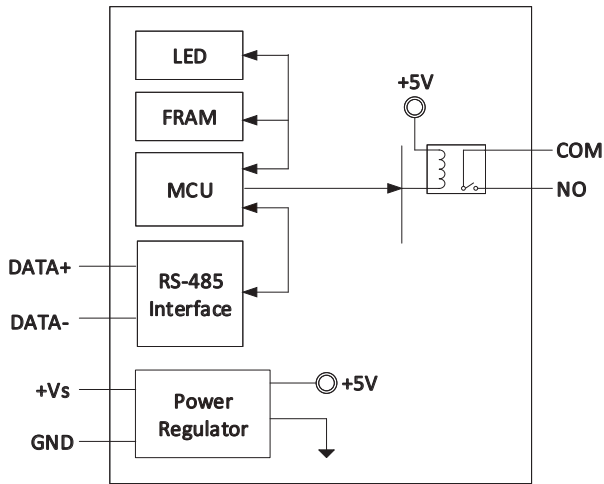


### Applications

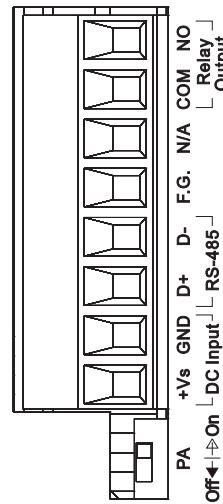


Model	iWSN-2200-R1
Baud Rate	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200bps, N81
Electrical Endurance	Modbus RTU
Mechanical Endurance	1 to 31
<b>Mechanical</b>	
Dimensions(L x W x H)	84 mm x 108 mm x 33 mm (Without antenna)
Installation	DIN-Rail
<b>Power</b>	
Consumption	0.5W Max.
Input Type	+10 to +30 VDC
<b>Mechanical</b>	
Dimensions (mm)	108 x 84 x 33 (W x L x H)
Installation	DIN-Rail
<b>Environment</b>	
Operating Temperature	-25 to +75°C
Storage Temperature	-30 to +80°C
Humidity	10 to 90% RH, Non-condensing

## Internal I/O Structure



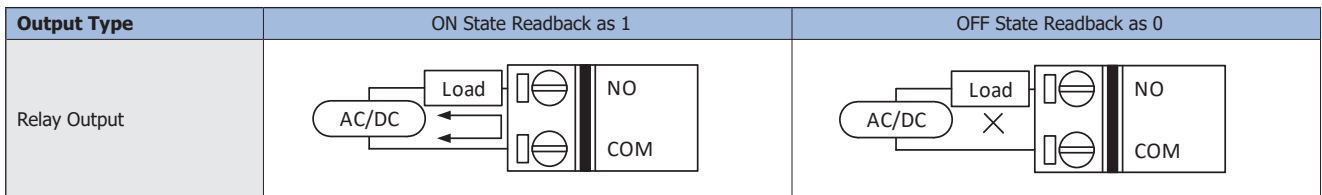
## Pin Assignments



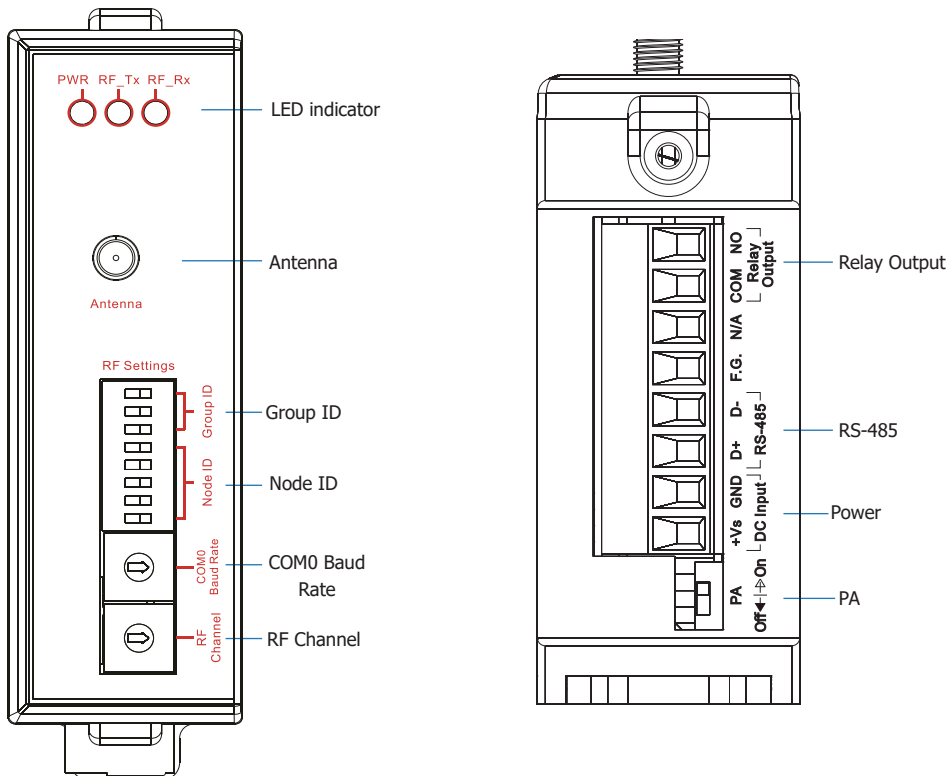
Pin	Name	Instructions
8	No	Relay Output
7	COM	
6	N/A	Reserved
5	F.G.	Shield ground
4	D-	RS-485
3	D+	
2	GND	+10V~+30VDC
1	+Vs	

Item	Instructions	
PA	No	Maximum power of wireless output
	COM	Normal power of wireless output

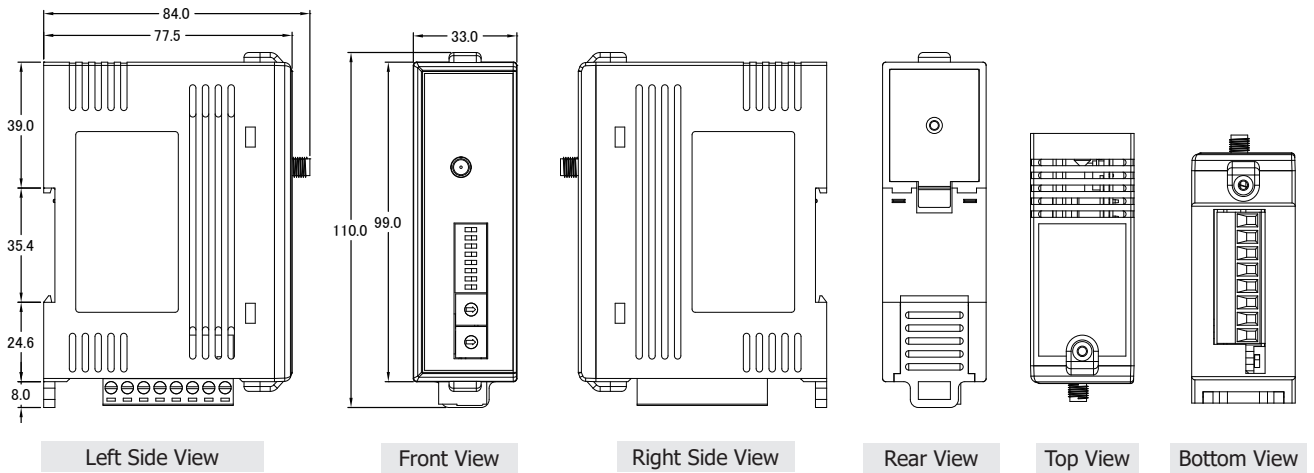
## Wire Connections



## Appearance



### ■ Dimensions (Units: mm)



### ■ Ordering Information

<b>iWSN-2200-R1 CR</b>	iWSN Data Concentrator with 1-port RS-485 and 1-Channel Relay Output (RoHS) (Asia Only)
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### ■ Accessories

Extension Cable		Antenna Base, Magnetic Disk Base with 1.5 Meter Cable
		3S001-1, RG58A/U 1 Meter Long RP-SMA (male) to RP-SMA (female)