

**Outdoor  
PM2.5/Noise/Temperature/Humidity  
Sensor with Solar Panel**

Datasheet

Rev. 0.1

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## History

Version	Date	Note
0.1	2017-10-19	Initial release

### Notes:

Hardware Version:  
61Z7266801V0.2  
61Z7266802V0.2  
61Z7266803V0.1

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Fig.1 R72623B Appearance (Image shown is for illustration purposes only. Actual product may vary.)

## Introduction

R72623B carrying temperature and humidity sensors can detect and send the environment temperature and humidity data via wireless communication, in line with LORA protocol standards.

R72623B carrying PM2.5 dust sensor which can be used to obtain suspended particulates in the air concentration of unit volume.

Also the external noise sensor of R72624B can detect the atmospheric environment noise.

## Main Features

- Temperature and humidity detection
- PM2.5 dust sensor
- Noise sensor (RS485)

## Electric

Power supply	Lithium Battery Pack (12V/5000mah)
Working voltage range	+11.1V~12.6V
RX current	12mA @3.3V
TX current	120mA @3.3V
Particle measurement range	0.3~1.0; 1.0~2.5; 2.5~10 (μm)
Particle mass concentration Effective range (PM2.5 standard value)	50~500 (μg/m <sup>3</sup> )
Noise measurement range	30dB-130dB
Noise measurement error	3%F.s
Noise sensor resolution	0.1dB
Temperature measurement range	-10°C — 50°C
Temperature measurement accuracy	+/-0.5°C @25°C
Humidity measurement range	5%RH---95%RH
Humidity measurement accuracy	+/-4.5%RH @25°C

## Frequency

Frequency	410-525MHz 862-1020MHz (Optional)
TX power	19dBm (Typical)
Rx sensitivity	-121dBm (Frequency deviation=5kHz, bit Rate=1.2kb/s)

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Antenna type	Build-in antenna
Communication range	2km (Typical output power)
Data transfer rate	1.2~300kbps
Spread technique	FSK/OOK

## Physical

Dimension	350mm*220mm*220mm
Working Temp	-10°C ~ +50°C
Storage Temp	-40°C ~ +85°C