

Datasheet

Rev. 0.1

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History

Version	Date	Note
0.1	2017-8-9	Initial Release

Notes:

Hardware version V1.0

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图 1 RB11 Appearance

Introduction

RB11 is a smart home for the home, high reliability detection of human pyroelectric infrared detector, mainly for indoor detection. And the wireless communication method meets Lora protocol standard.

RB11 is an infrared detector equipment used to detect human pyroelectric, mainly for security and lighting.

RB11 has four different models to suit different application requirements, the difference lies in whether the tamper switch, temperature sensor and photosensitive sensor circuit of the three differences. A type has only tamper switch, B type has only photosensitive sensor, C type has three of them, D type does not have any of them.

	Tamper switch	Light sensor	Temperature sensor
RB11A	V		
RB11B		V	
RB11C	V	V	V
RB11D			

Motion Detector

Main property

- Meets the Lora™ protocol
- 2 sections ER14505 battery AA SIZE (3.6V / section) parallel power supply
- Detection angle: level of 110 degrees, vertical 60 degrees.
- The mechanical rotation angle is 40 degrees
- Built-in serial communication FLASH memory AT25DF041, 4Mbit capacity
- Tamper switch, light sensor and temperature sensor to be chosen
- Detection speed: ≥ 0.2 m (M) / sec (S) moving speed alarm output

Motion Detector**Electrical property**

Power Supply	2 sections ER14505 battery AA SIZE (3.6V / section)
Working Voltage	3.6V
Working Current	12mA (RX)、120mA (TX)
Standby Current	100uA

Frequency property

Frequency	410-525MHz 862-1020MHz (Optional)
Channel number	19dBm (Typical)
TX power	-121dBm (Frequency deviation=5kHz, Bit Rate=1.2kb/s)
Antenna type	Build-in antenna
Communication rang	2km (Typical output power)
Rx sensitivity	1.2~300kbps
Data transfer rate	FSK/OOK

Physical property

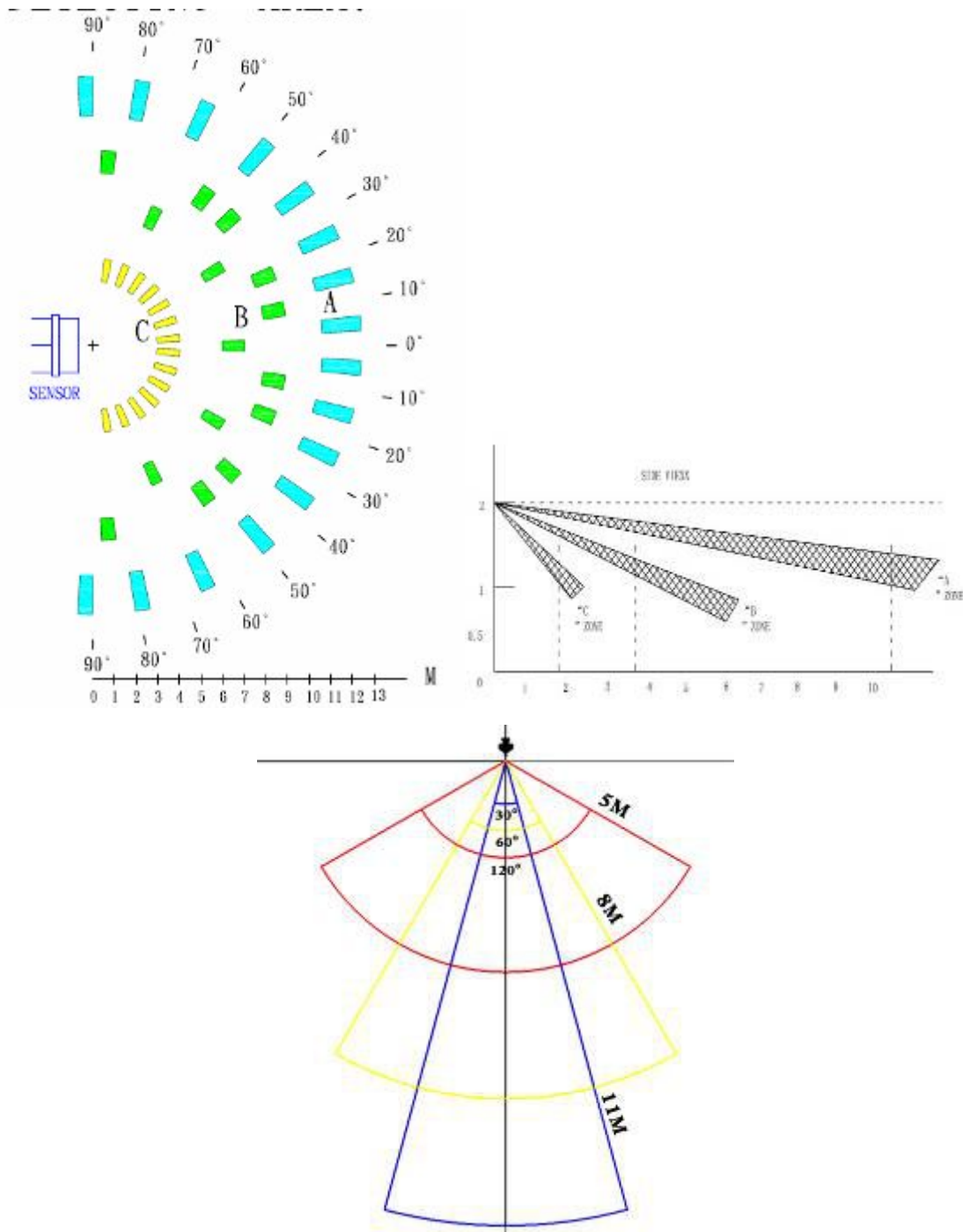
Dimension	125mm*80mm*89mm
Humidity	<95%RH
Working Temp.	-10°C ~ +50°C
Storage Temp.	-40°C ~ +85°C

Sensing range

Mounting height	2 to 2.2 meters from ground level
Mounting angle	Incline 15 degrees to the ground
Sensing angle	110°
Sensing distance	2 meters to 12 meters

Motion Detector

Fresnel lens size and detection range:



Lens detection range horizontal projection schematic



Lens detection range space diagram

The coverage area A- Distance: 11 meters; sensing angle: 30°.

The coverage area B- Distance: 8 meters; sensing angle: 60°.

The coverage area C- Distance: 5 meters; sensing angle: 120°