

# Wireless Motion Detector



## ZB11A1/B1/C1/D1

## DataSheet

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**ZigBee™ - Wireless Motion Detector**

**Introduction**

ZB11 series is the infrared detector which mainly used for indoor detection. It is a transceiver in the 2.4GHz ISM band and is fully compatible with the ZigBee Pro protocol. It can communicate with routers and coordinators in the ZigBee network.

ZB11 series is the human pyroelectric infrared detector which is mainly used for security and lighting. It complies with the IEEE802.15.4 Zigbee HA protocol standard, and is suitable for any ZigBee HA protocol network.

ZB11 series has four different models to suit different applications.

There are four different models depending on hardware functions:

	Motion Sensor	Tamper Switch	Light Sensor	Temperature Sensor
ZB11A/A1	V	V		
ZB11B/B1	V		V	
ZB11C/C1	V	V	V	V
ZB11D/D1	V			

\*ZB11A/B/C/D: powered by 2 x ER14505 3.6V Lithium AA battery

ZB11A1/B1/C1/D1: powered by 2 x 1.5V AA battery

**Appearance**



**ZigBee™ - Wireless Motion Detector****Main property**

- Comply with ZigBee Pro™ protocol, and suit for ZigBee network
- 2.4 GHz ISM frequency band, the total of 16 channels
- 2 alkaline batteries AA size (1.5V/section) for power supply in series
- Detection angle: Horizontal: 110°; Vertical: 60°
- Mechanical rotation angle: 40°
- Built-in serial communication FLASH memory AT25DF041; Capacity: 4Mbit.
- Tamper switch
- When the detected motion speed is  $\geq 0.2$  m/s, the alarm will be triggered.

**Technical Specification****Electric**

Power Supply	2 x 1.5V AA alkaline batteries
Operating Voltage	2.3—3.6V
Working Current	45mA (Max.)
Standby Current	100uA (Max.)

**Frequency**

Frequency	2.4—2.4835 GHz
Channel Number	16 (ISM 11 <sup>th</sup> ~26 <sup>th</sup> )
TX Power	7dBm (Max.)
Antenna Type	Metal antenna
Communication Distance	210m
RX Sensitivity	-101 dBm
Data Transfer Rate	250 Kbps
Modulation	DSSS (O-QPSK)

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**ZigBee™ - Wireless Motion Detector**

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**Detecting Range**

Mounting Height	2~2.2 meters from ground level
Mounting Angle	Incline 15° to the ground
Detecting Angle	110°
Detecting Distance	2 to 12 meters

**Physical**

Dimension	125 mm*80 mm*89 mm
Environment Humidity	<95%RH (No condensation)
Operation Temperature	-10°C ~ 50°C
Storage Temperature	-40°C ~ 85°C