

DS-TDSB00-EKH/2m 2 m Vital Sign Detection Radar

Introduction

Based on the 60 GHz frequency band, vital sign detection radar adopts FMCW, MIMO, beamforming, micro-Doppler feature extraction, and other technologies. It can detect the vital signs, including person, breath, heartbeat, etc.

Vital sign detection radar can be installed above the bed in the bedroom, and the non-contact detection will cover the bed. It can obtain the information, including the time in the bed, the time out of the bed, breath rate, heart rate, times of movements, etc., and help to analyze the sleep quality and health of the human body.



Key Feature

- No privacy disclosure.
- Remote and non-contact detection.
- Outputs the real-time breath rate and heart rate of the human body.
- Detects and outputs the information that if the human body is in the bed to the connected client software. Counts the time in the bed and the time out of the bed.
- Detects and outputs the human body movements to the connected client software, and counts the times of movements.

Typical Application

- **Whether the human body is in the bed:**

The radar provides real-time detection of the human body in the bed. If there is a person in the bed, the connected client software will show the sign that someone is in the bed, otherwise it will show the sign that no one is in the bed.

- **Breath rate and heart rate:**

If there is someone in the bed, the radar will detect and output the real-time breath rate and heart rate (unit: times/minute) to the connected client software. If there is no one in the bed, the breath rate and heart rate will be 0.

- **Body movements:**

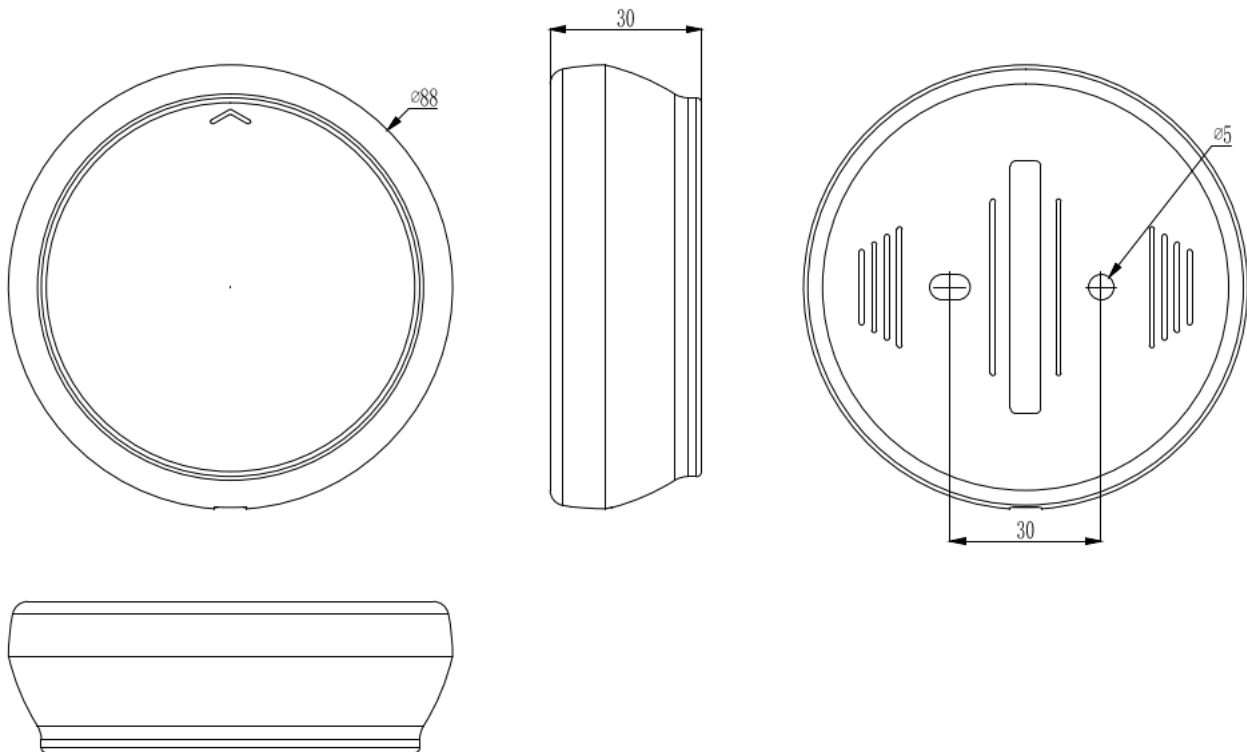
The radar will detect the real-time rolling over of the human body and count the times.



Specification

Working Frequency	60 to 64 GHz
Modulation Wave	FMCW
Frequency Span	3.5 GHz
Detection Range	0.1 to 2.7 m
Range Resolution	0.0435 m
Horizontal FoV	-45° to 45°
Vertical FoV	-45° to 45°
Breath/Heart Rate Resolution	0.08 Hz
Data Cycle	200 ms
Communication Interface	RS-485
Working Voltage	9 to 12 VDC
Working Electric Current	≤ 200 mA @ 12 VDC
Working Temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Weight	125 g

Dimension

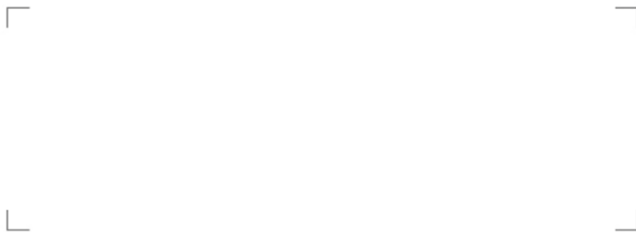


Unit: mm

Cables

Red, Black	12 V+/GND
Green, Blue	RS-485A/RS-485B
Yellow	OC controlled signal
Brown	Earth wire

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HIKVISION®

Headquarters

No.555 Qianmo Road, Binjiang District,
Hangzhou 310051, China
T +86-571-8807-5998
overseasbusiness@hikvision.com

Hikvision USA
T +1-909-895-0400
sales.usa@hikvision.com

Hikvision Australia
T +61-2-8599-4233
salesau@hikvision.com

Hikvision India
T +91-22-28469900
sales@pramahikvision.com

Hikvision Canada
T +1-866-200-6690
sales.canada@hikvision.com

Hikvision Thailand
T +662-275-9949
sales.thailand@hikvision.com

Hikvision Europe
T +31-23-5542770
sales.eu@hikvision.com

Hikvision Italy
T +39-0438-6902
info.it@hikvision.com

Hikvision Brazil
T +55 11 3318-0050
Latam.support@hikvision.com

Hikvision Turkey
T +90 (216)521 7070- 7074
sales.tr@hikvision.com

Hikvision Malaysia
T +601-7652-2413
sales.my@hikvision.com

Hikvision UK & Ireland
T +01628-902140
sales.uk@hikvision.com

Hikvision South Africa
Tel: +27 (10) 0351172
sale.africa@hikvision.com

Hikvision France
T +33(0)1-85-330-450
info.fr@hikvision.com

Hikvision Kazakhstan
T +7-727-9730667
nikia.panfilov@hikvision.ru

Hikvision Vietnam
T +84-974270888
sales.vt@hikvision.com

Hikvision UAE
T +971-4-4432090
salesme@hikvision.com

Hikvision Singapore
T +65-6684-4718
sg@hikvision.com

Hikvision Spain
T +34-91-737-16-55
info.es@hikvision.com

Hikvision Tashkent
T +99-87-1238-9438
uzb@hikvision.ru

Hikvision Hong Kong
T +852-2151-1761
info.hk@hikvision.com

Hikvision Russia
T +7-495-669-67-99
sateru@hikvision.com

Hikvision Korea
T +82-(0)31-731-8817
sales.korea@hikvision.com

Hikvision Poland
T +48-22-460-01-50
info.pl@hikvision.com

Hikvision Indonesia
T +62-21-2933759
Sales.Indonesia@hikvision.com

Hikvision Colombia
sales.colombia@hikvision.com