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Chapter 1 Overview

1.1 Overview

Host computer testing software for radar is designed for displaying 24G mmWave radar measurement information, integrated with radar parameter setting and displaying to help users to test radar module quickly and smoothly.

1.2 Main Characteristics

This software is for IR24VDA-for human presence perception

This software is for IR24SMA and IR24BDA-for sleep monitoring

This software is for IR24FDA-for falling detection

Support sensitivity gear setting, falling detection alarm time setting and scenario setting

Support displaying measurement information from radar module

Support receiving/sending of original command

1.3 Operating Environment

Operating System :

CHN/ENG Windows7/10 ;

Chapter 2 Installation

2.1 Installation

This software is installation-free. Just copy the file to your PC, with a double click on Radar.exe for direct use.

Chapter 3 Software Instruction

3.1 Software Preview

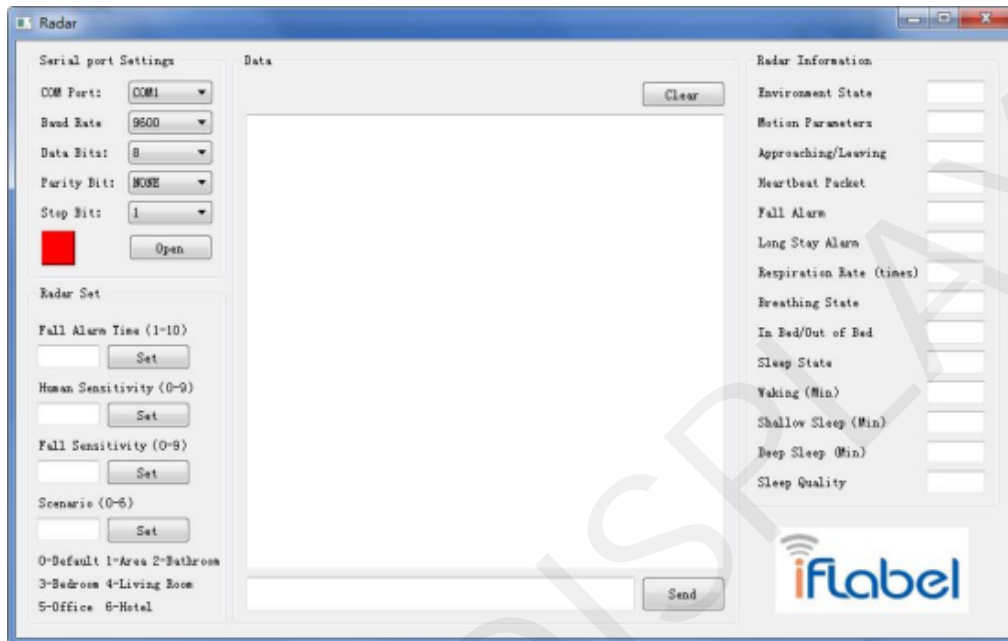


Figure 1 Software Preview

Chapter 4 Testing Method

4.1 Hardware Connection

24G mmWave radar module uses standard serial port to output data. Users can connect radar via USB to serial port module and use this host computer software to finish initial test referring to relevant data. Connection diagram see below:

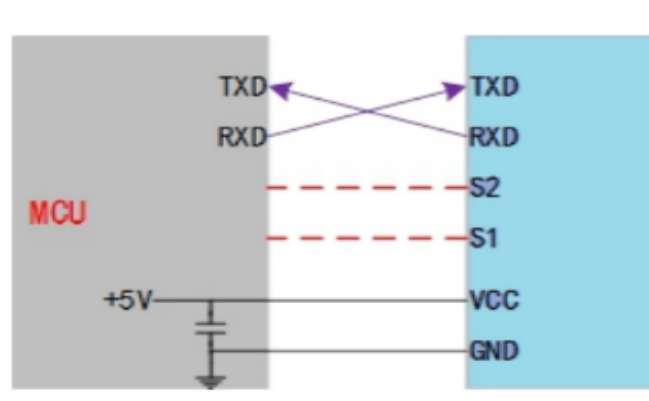


Figure 2 Hardware Connection

4.2 Serial Port Settings

After connecting hardware, open the software, select relevant serial port and set baud rate as 9600, data bits as 8 digits, parity check NONE, stop bit as 1 and click "Open".

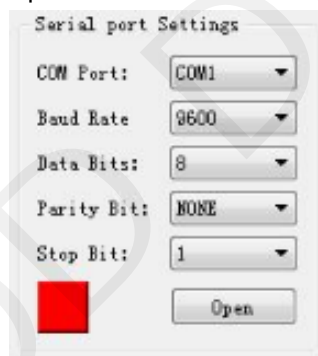


Figure 3 Serial Port Settings

4.3 Radar Settings

Users can via this radar set to select radar sensitivity, scenario and other parameters.

Note : Falling Alarm Time and Fall Sensitivity are for IR24FDA for falling detection.



Radar Set

Fall Alarm Time (1-10)
 Set

Human Sensitivity (0-9)
 Set

Fall Sensitivity (0-9)
 Set

Scenario (0-6)
 Set

0-Default 1-Area 2-Bathroom
 3-Bedroom 4-Living Room
 5-Office 6-Hotel

Figure 4 Radar Settings

4.4 Radar Information Return

Radar information return interface can real-time display the measurement information from radar module including environment state, motion parameter, approaching/leaving state and heartbeat packet are universal parameters for 24G mmWave radar module. Falling detection, long-stay alarm are parameters for IR24FDA for falling detection. Respiratory rate, respiration state, in bed/out of bed, sleep state, waking, shallow sleep, deep sleep and sleep quality are parameters for IR24SMA and IR24BDA for sleep monitoring.



Radar Information

Environment State	<input type="text"/>
Motion Parameters	<input type="text"/>
Approaching/Leaving	<input type="text"/>
Heartbeat Packet	<input type="text"/>
Fall Alarm	<input type="text"/>
Long Stay Alarm	<input type="text"/>
Respiration Rate (times)	<input type="text"/>
Breathing State	<input type="text"/>
In Bed/Out of Bed	<input type="text"/>
Sleep State	<input type="text"/>
Waking (Min)	<input type="text"/>
Shallow Sleep (Min)	<input type="text"/>
Deep Sleep (Min)	<input type="text"/>
Sleep Quality	<input type="text"/>

Figure 5 Radar Information Return

Chapter 5 FAQs

5.1 Abnormal Serial Port Connection

- A. Serial Port Missing : Serial port driver is not installed/ data line is abnormal / power-supply is abnormal. Please restart the software if still unresolved
- B. Data Not Displayed : Please check if serial port setting is correct, connection is correct. If serial port is disconnected, please unplug serial port line, reconnect it and restart software.

5.2 Incorrect Radar Parameters

Please check if the radar is installed correctly, measurement environment meets the requirement. Please refer to related radar product specification for detail instruction and specific parameters.