Shenzhen Hi-Link Electronic Co., Ltd.

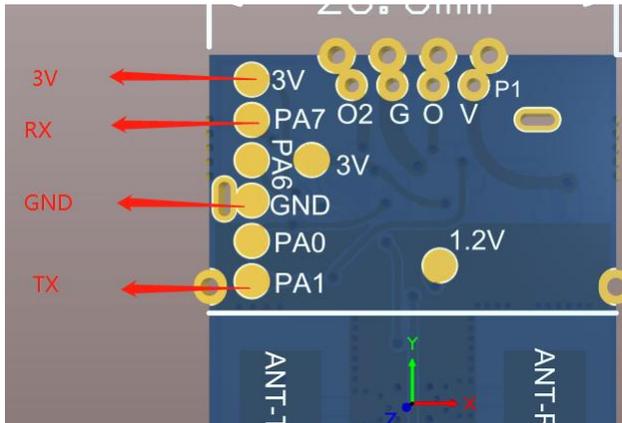# HLK-LD101V Serial Port Configuration Instructions

CONTENTS

1. Pin definition

* PA1 is the sending pin of the serial port of the radar module

* PA7 is the receiving pin of the serial port of the radar module

* GND is the power ground pin of the radar module.

* The serial port level is 3V TTL level, the baud rate for 57600

Diagram 1: Pin Definition

No.	Part	Port	Illustrate	Schematic	
1	P1	V	DC 3.3~15V		Front
2		G	Power ground		
3		O	TTL high level 3V		
4		O2	NC reserved		
5	P3	pad	Program download port		Back

Table 1: Pin description
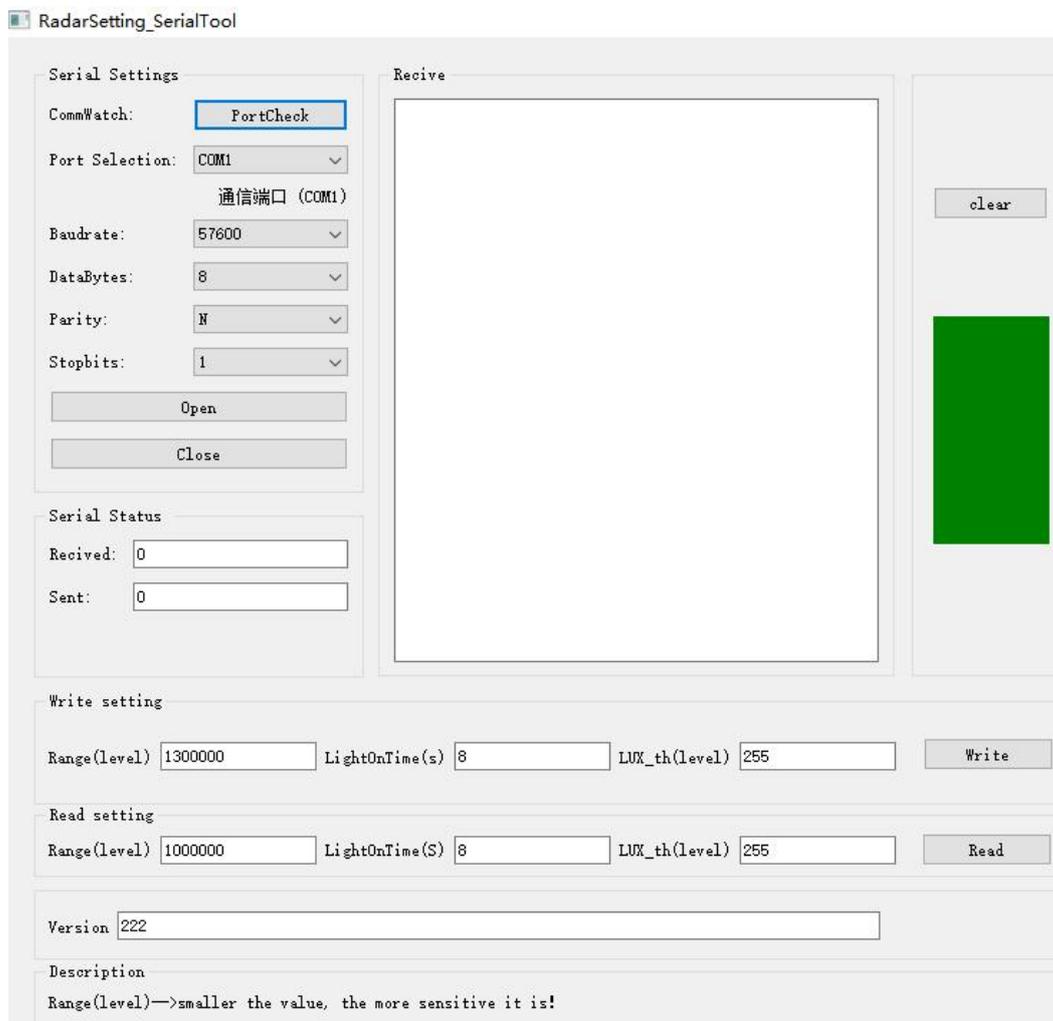
2. Client configuration program

Diagram 2: Config. tool

2.1. Operation process

1. Check the serial port, set 57600 baud rate, 8 data bytes, 1 stop bits, and open the serial port.

2. Connect the serial cable of the module, click Read Configuration, check whether the read configuration parameters have been updated, and whether the version number has been read out. If the data can be read normally, it means that the module is connected normally, and the read parameters will also be updated under the write configuration. At this time, you can Write the configuration parameters directly, or write them after modification.

3. After clicking the write configuration button, the information window prompts that the configuration is written successfully, and the module configuration has been updated at this time.

Note: Please refer to the following table for module parameters and radar thresholds. One unit of output delay is 385ms

2.2. Set the test mode (valid within about 10 seconds after power-on)

The allowable range of the sensing threshold TH value is set to 12000~1400000; when the TH value is set to be less than 12000 or greater than 1400000, set the TH value to the preset value of 120000. The higher the sensing threshold, the closer the corresponding sensing distance.

The output delay parameter range is 1~10800; when the set value is less than 1 or greater than 10800, the parameter value will return to the default value (15). The actual value delay time is the issued value*385 (ms), and the default delay time is 15*385, about 5s.

Steps	Items	Operation	Remarks
1	Serial cable	Connect the serial cable	/
2	Port number	Select the connected USB port	/
3	Baud rate	Select a baud rate of 57600	/
4	Serial port	Open serial port	Establish the connection between PC and radar module

Table 2：precondition

Notice:

1. Power the module correctly.

2. Connect the serial cable to the module correctly and reliably.

3. Pay attention to change the baud rate to 57600 when configuring the serial port parameters.

4. Every time when writing and reading data, the writing dialog box will prompt that the writing configuration is successful/reading configuration is successful, otherwise it is unsuccessful, and you need to check whether the serial port cable is connected.

5. The radar threshold is used to adjust the sensing distance, the range is 12000-1400000.

6. Output delay is used to adjust the output delay time, the range is 1-10800.

7. Light perception threshold parameters (the current module hardware does not support this function)

Threshold	Distance	Threshold	Distance	Threshold	Distance	Threshold	Distance
600000	0.6m	90000	2.3m	50000	3m	20000	5.5m

Table 3: Threshold Distance Configuration

Note: The above threshold value and corresponding sensing distance are based on the test results of the R&D module samples. There may be distance errors due to various factors such as test environment, moving target and moving speed, or sample differences. The above data are for reference only. For the actual distance, customers are required to verify the settings themselves.

Appendix A document revision history

Version No.	Scope of revision	Date
V1.0	Initial version	2022-11-10