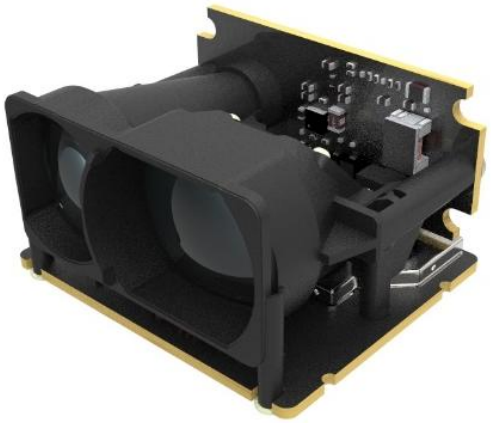
SPL170 Terminal

GUI Viewer User Manual



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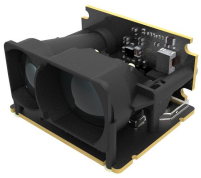
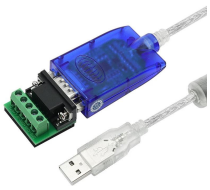
Catalog

1 Brief Introduction

1.1 System Introduction

SPL170 Terminal is a GUI software used by SPL170, which is mainly used for real-time display, recording the data. It's compiled on the Windows 10 platform, and it's recommended to install and use it on Windows 10 and above systems.

1.2 Preparation before testing

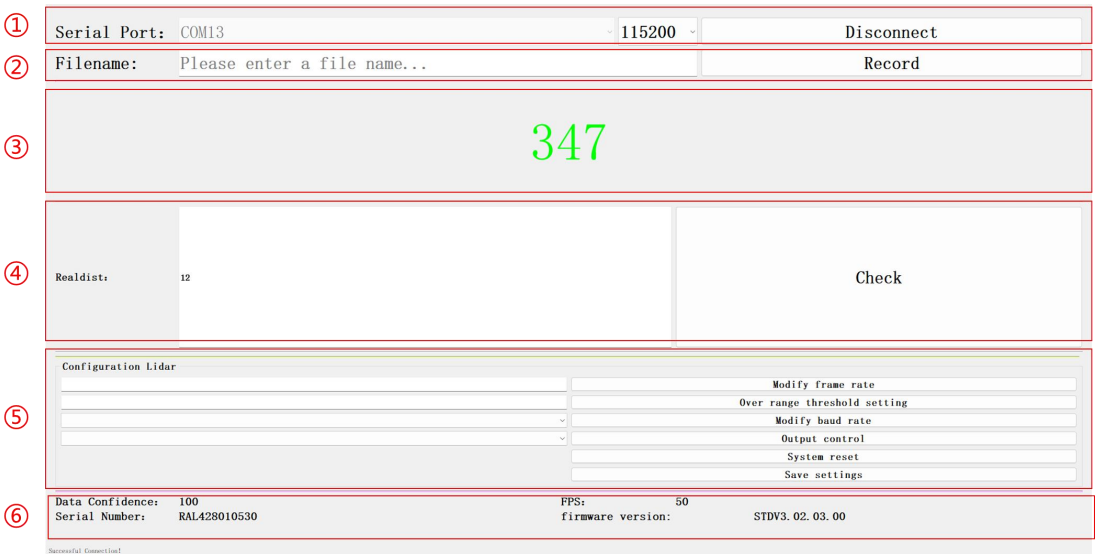
			
SPL170	12V power supply	RS232-USB converter	PC with Windows 10

2 File Structure

Terminal file structure as shown in the figure, double-click “main.exe” to open the GUI program.

3 Interface Introduction

The main interface is shown in the following figure:



1. LiDAR connection
2. Data recording
3. Real-time data display
4. Data verification
5. LiDAR configuration
6. LiDAR status

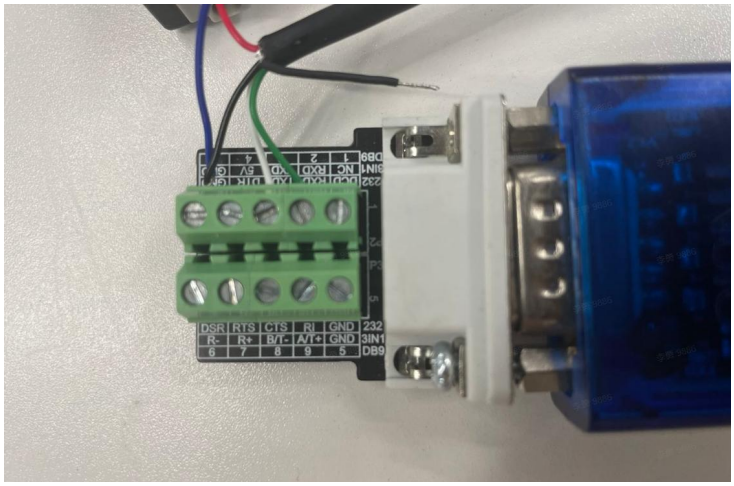
4 Operating Instruction

4.1 Connection

Connect SPL170 to PC via the RS232-USB converter：

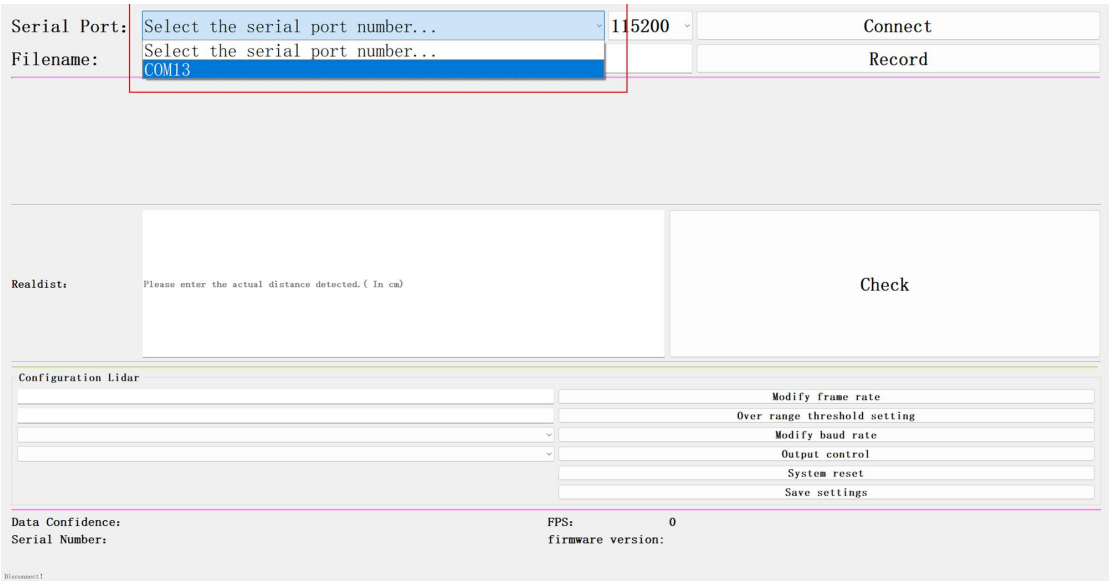
1. As wire sequence defined, connect LiDAR's RS232-RX(*White cable*) to TXD of RS232-USB converter，then connect RS232-TX(*Green cable*) to RXD.

2. Connect the GND and VCC of power adapter to RS232-USB converter.(Note: connect GND of LiDAR to converter before powering on.)

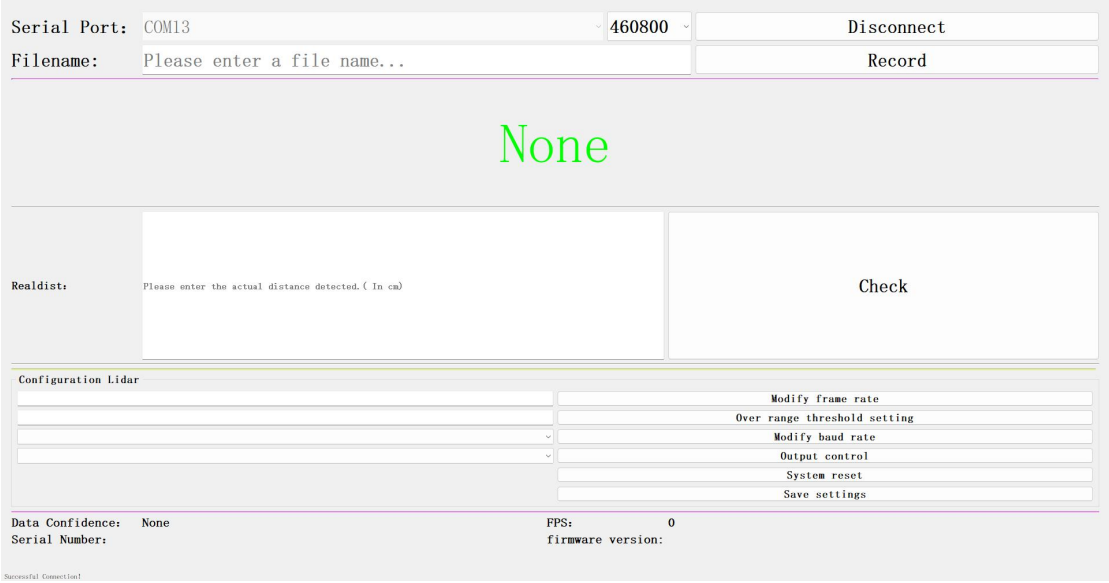


3. Connect USB of the converter to PC.

Open the GUI after successful connection, choose the serial port of the converter, then click "Connect", there will be data output in the GUI（Default baud rate: 115200）.



Note: If the baud rate is wrong, there will be "None" shown in the GUI.



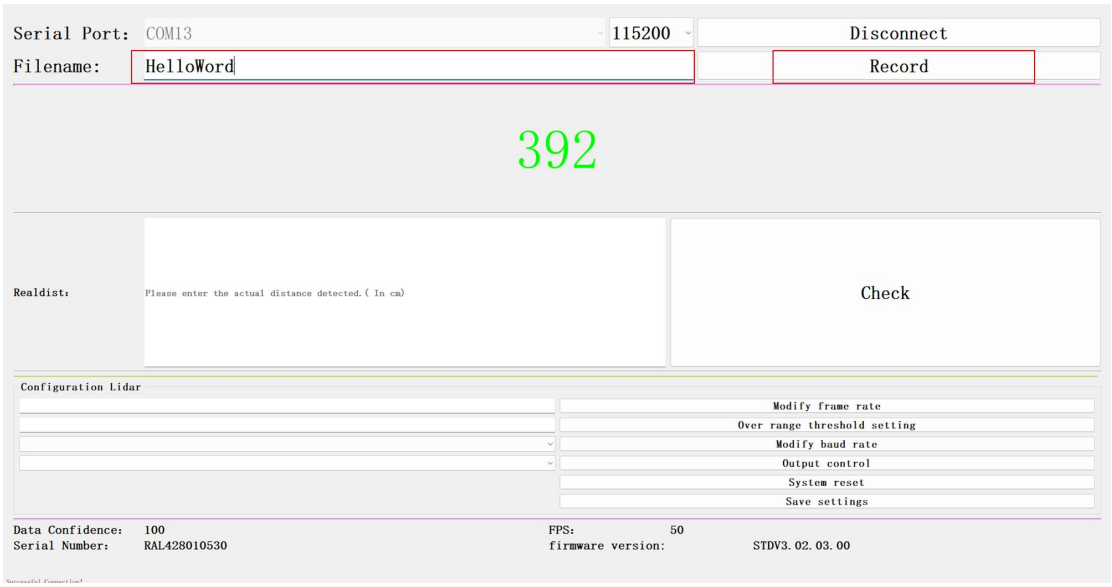
4.2 Real-time data display

The distance will shown as above after successful connection，the unit is CM.

4.3 Data Recording

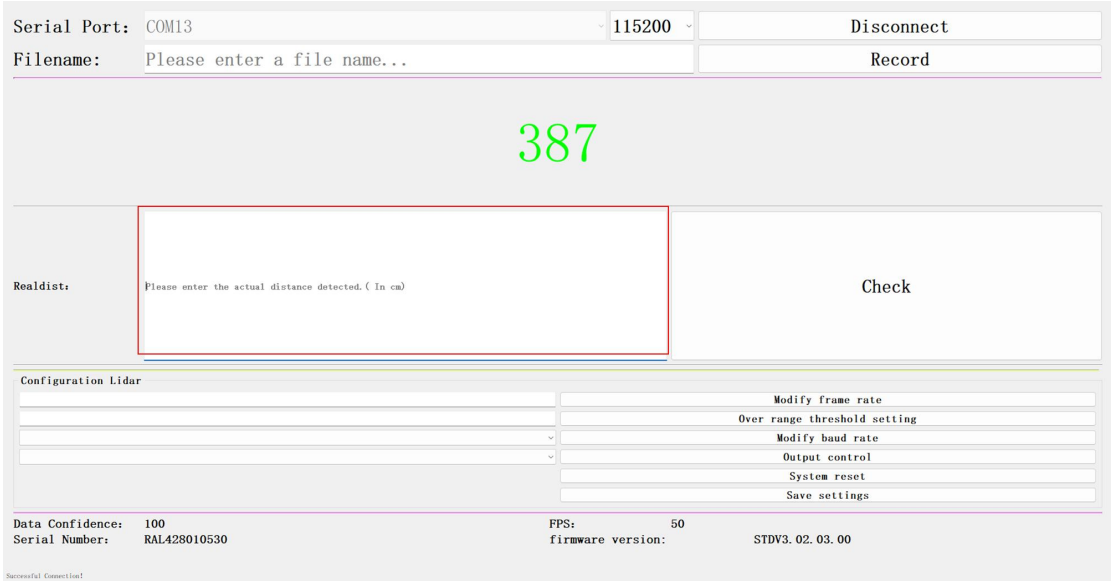
Input the file name in "Filename", then click "Record"， the GUI will save data of LiDAR automatically.

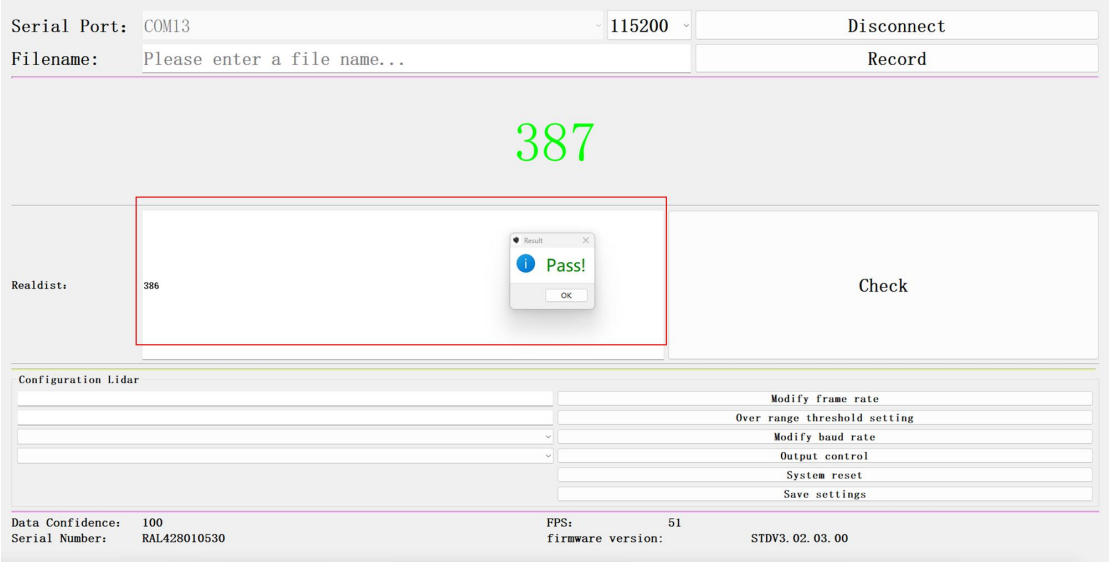
Click "Recording" to finish recording，the data file will pop up automatically. The file format is ".txt".

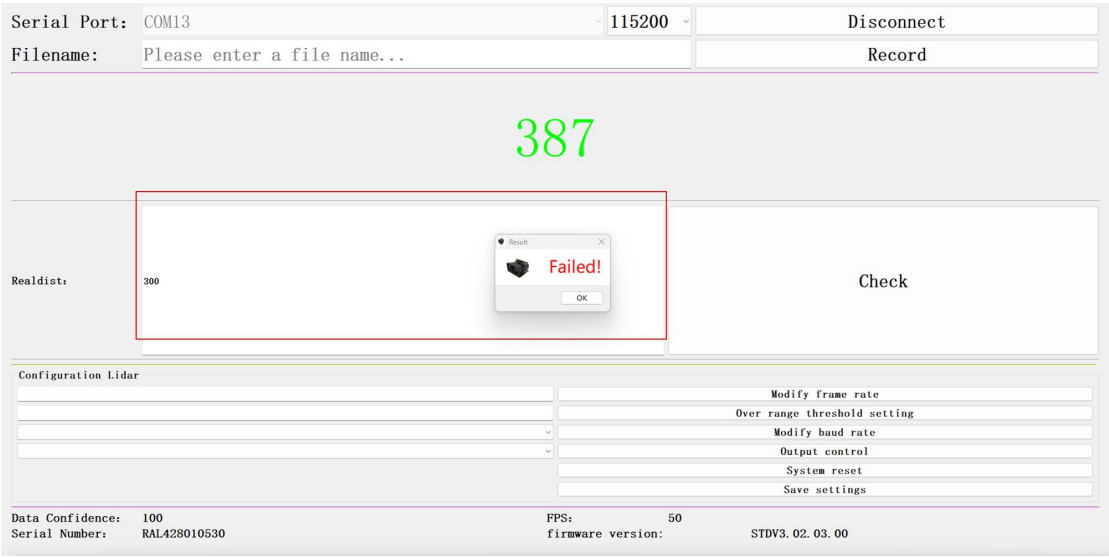


4.4 Data Verification

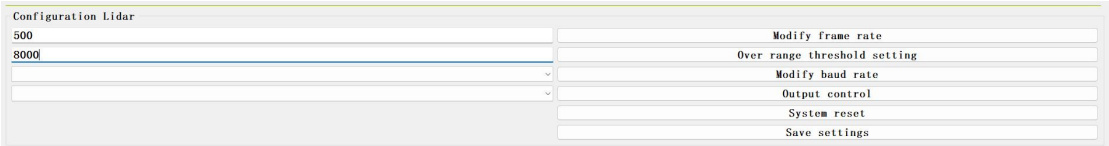
If you want to check the error between data and real distance, enter the real distance value next to the "Realdist:", then click "Check" to record data，when you click "Checking", the GUI will stop recording data and tell the error results(Pass or Failed).
For example, the data of LiDAR is 387cm, if the real distance is 386cm, the GUI will output "Pass", otherwise, it will output "Failed" .







4.5 LiDAR Configuration



- The GUI supports modifying the baud rate, frame rate, system reset, save configuration, over range threshold.
- Default frame rate value is 50Hz.
- Default over range threshold value is 10000cm，the unit is CM.

4.6 LiDAR Status

- The GUI will display the confidence level, frame rate, serial number, and software version number.
- The information will show automatically after connecting serial port.