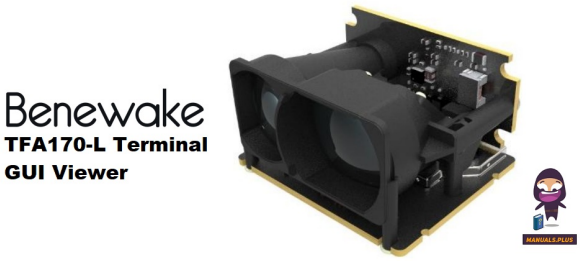


Benewake TFA170-L Terminal GUI Viewer User Manual

Contents

Benewake

Benewake TFA170-L Terminal GUI Viewer

Specifications

- **Product Name**: TFA170-L Terminal GUI Viewer
- **Platform:** Windows 10 and above
- **Main Function**: Real-time display and data recording

Brief Introduction

System Introduction

TFA170- L Terminal is a GUI software used by TFA170-L, 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.

Preparation before testing

			
TFA170-L	12V power supply	RS232-USB converter	PC with Windows 10

File Structure

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

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

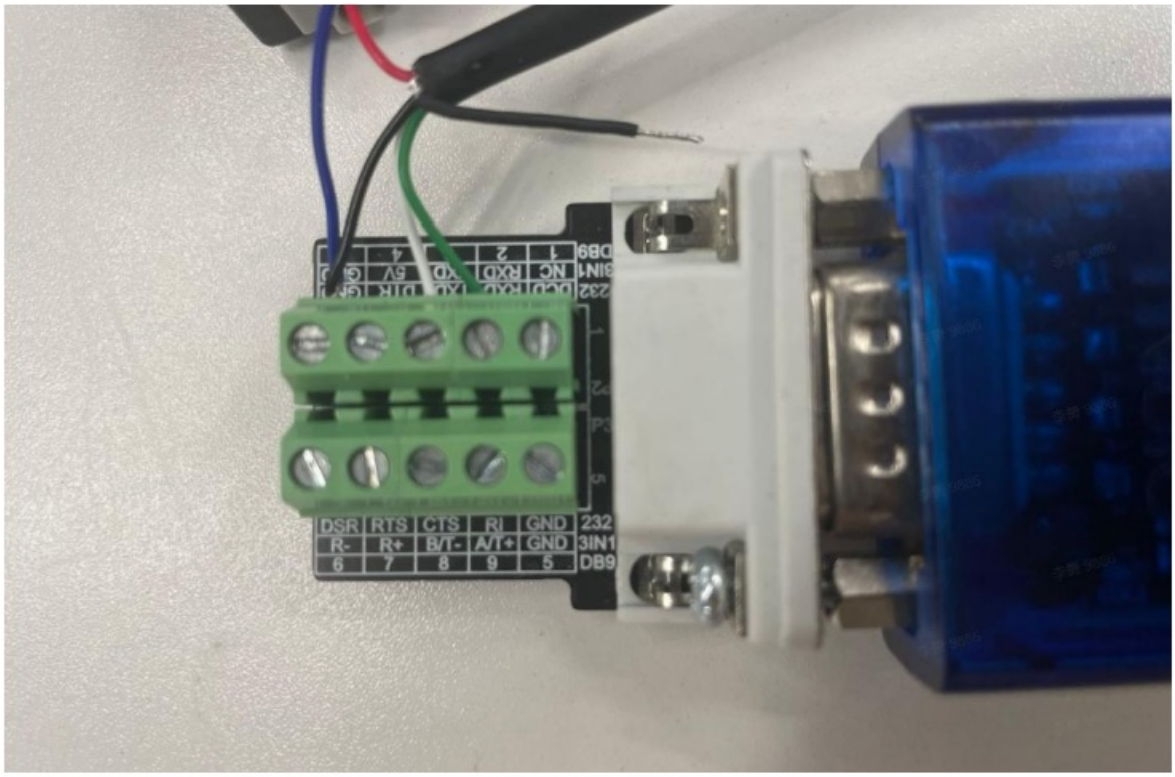
Operating Instruction

Connection

Connect TFA170-L to PC via the RS232-USB converter:

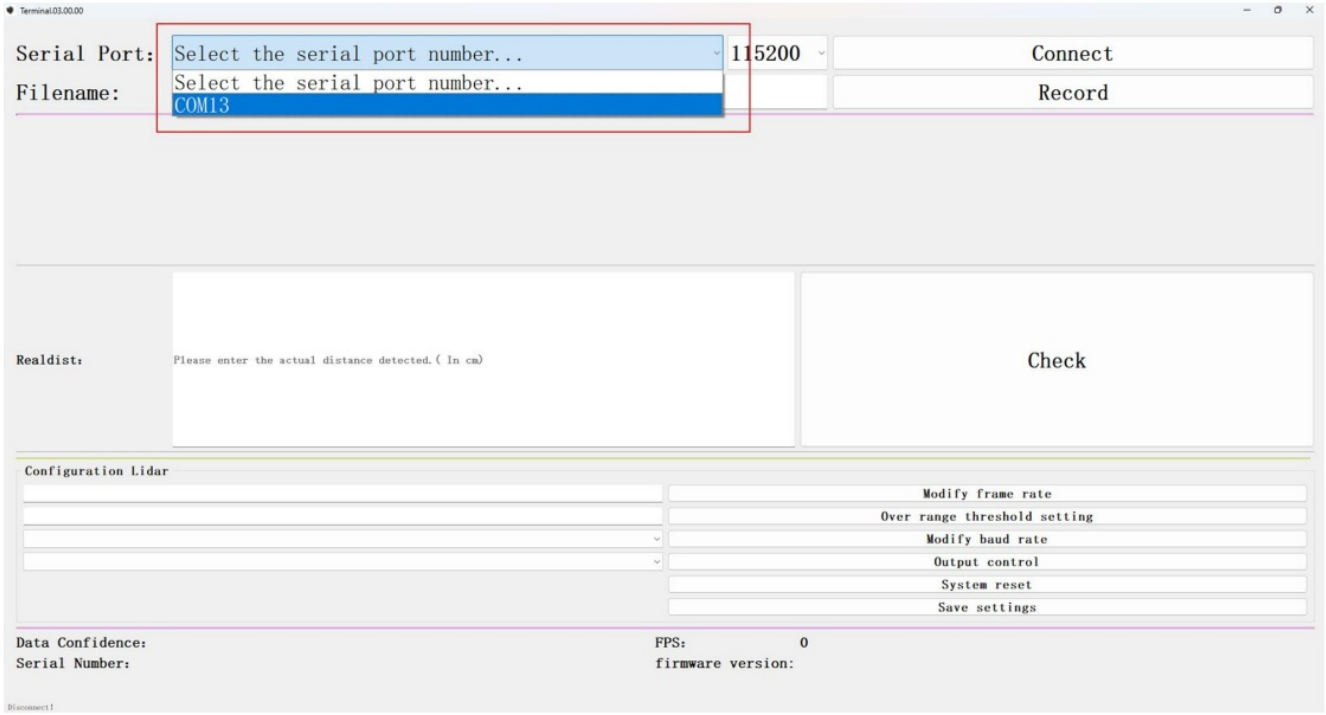
1. As the wire sequence is defined, connect LiDAR's RS232-RX(White cable) to TXD of the RS232-USB converter, then connect RS232-TX(Green cable) to RXD.
2. Connect the GND and VCC of the power adapter to the RS232-USB converter.

(**Note:** connect GND of LiDAR to converter before powering on.)

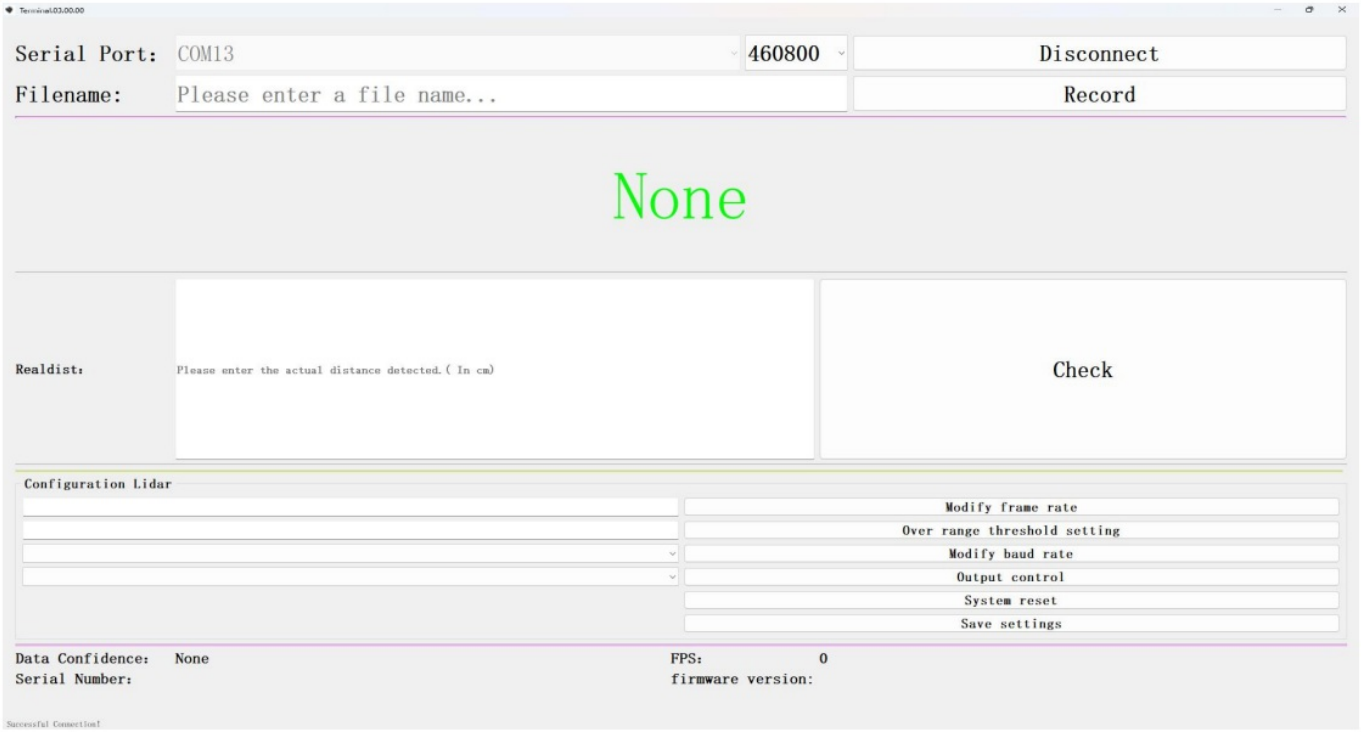


3. Connect USB of the converter to PC.

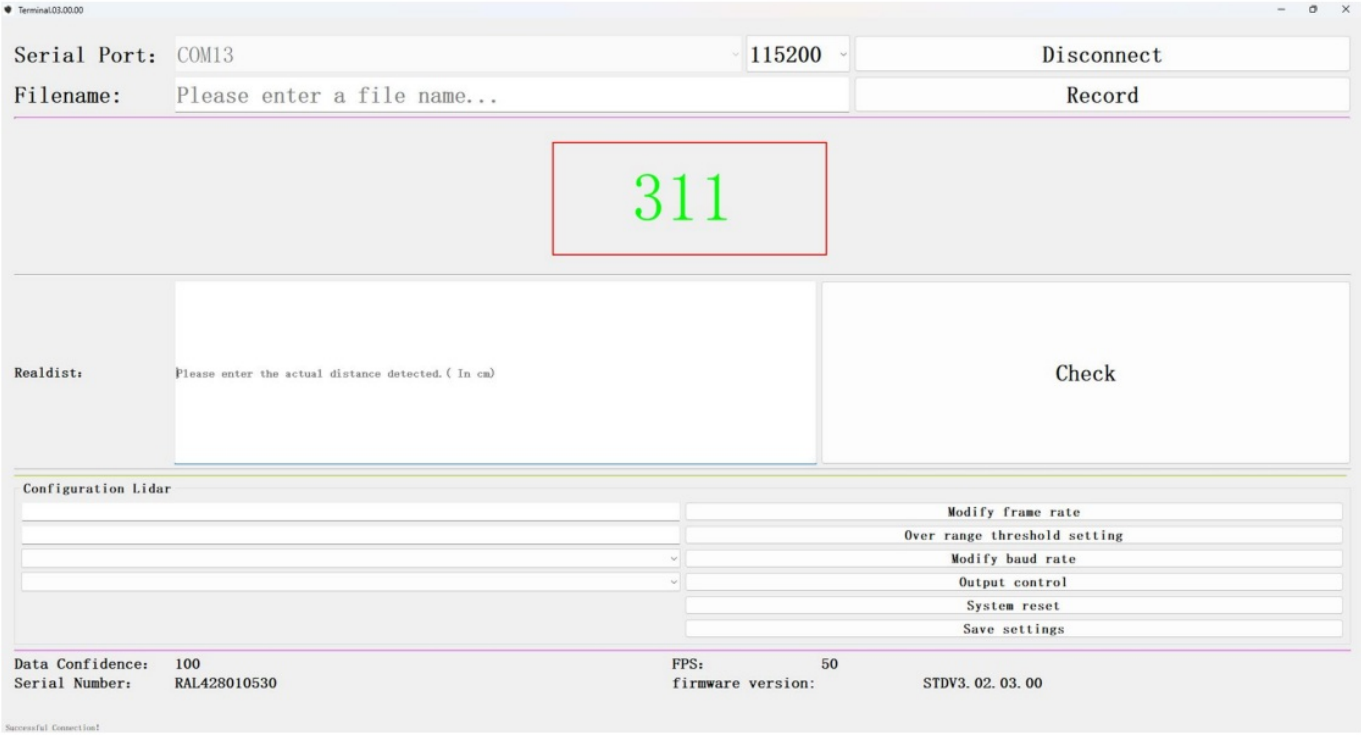
   Open the GUI after successful connection, choose the serial port of the converter, then click “Connect”, there will be data output in the GUI (Default baud rate: 115200) .



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



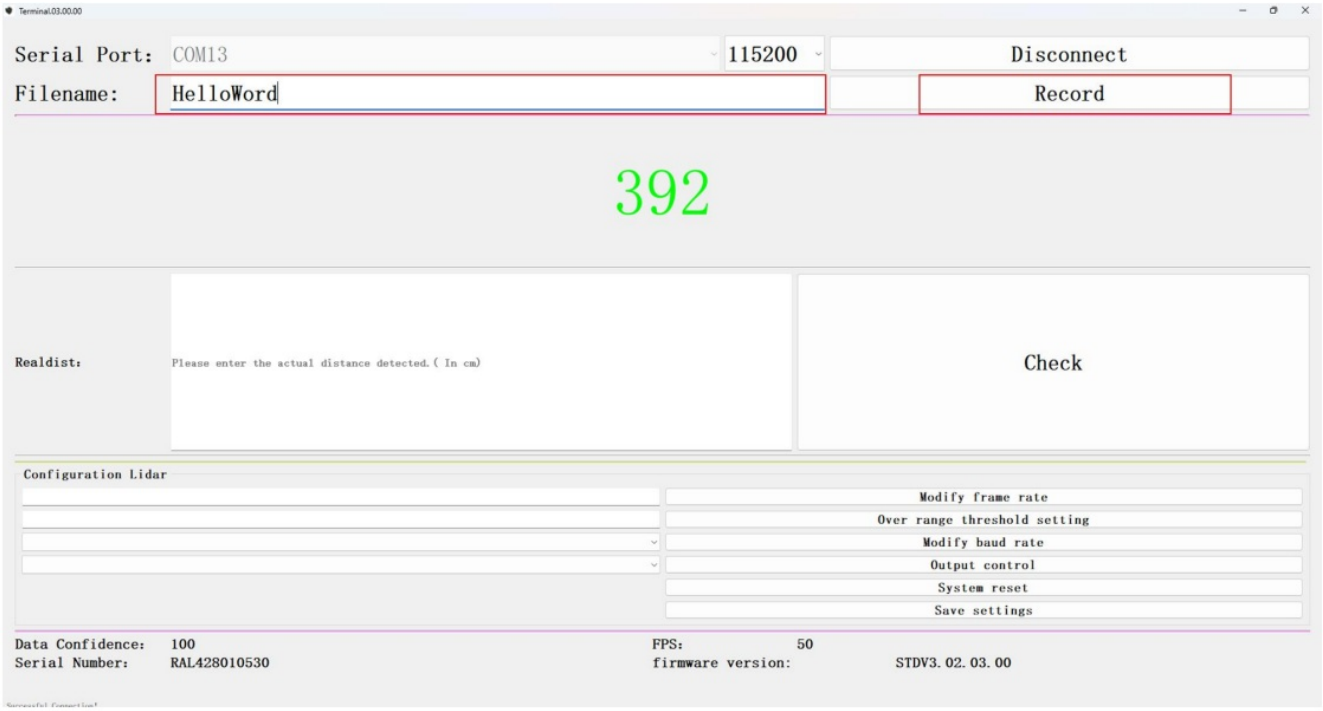
Real-time data display



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

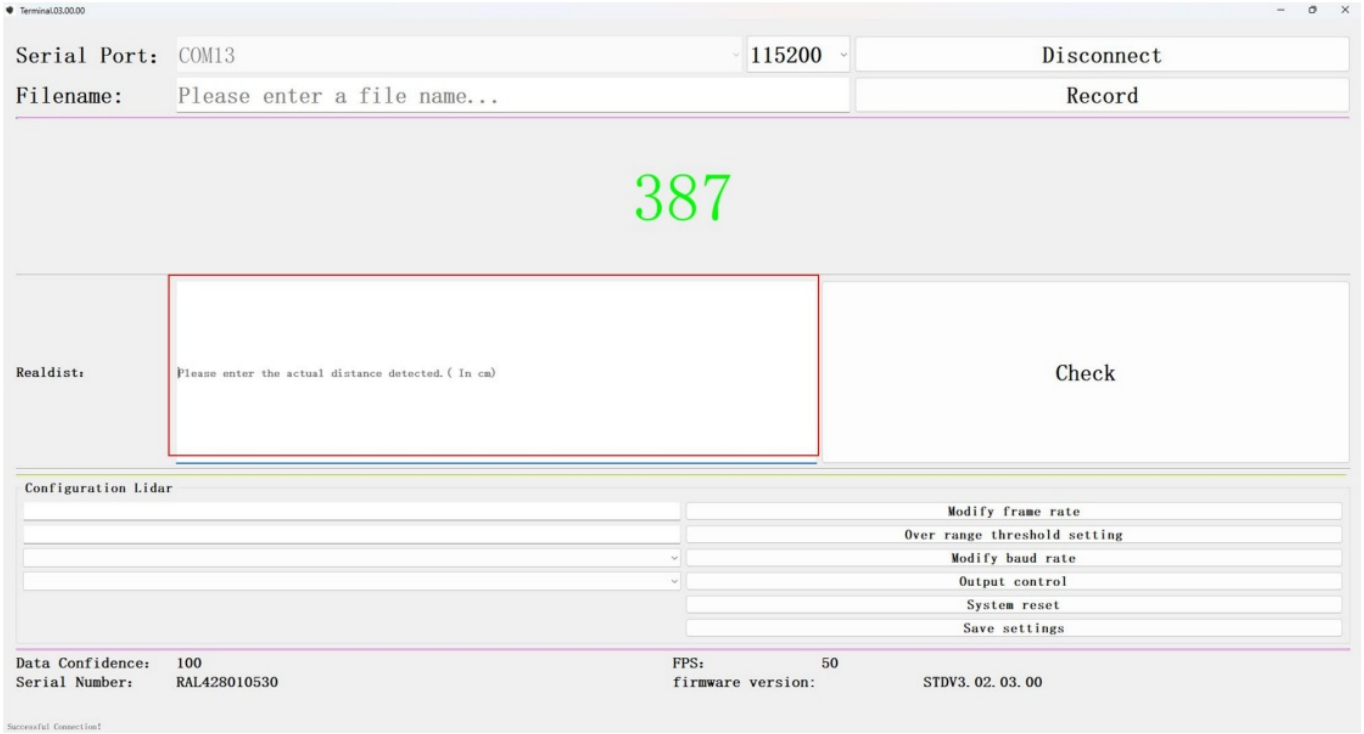
Data Recording

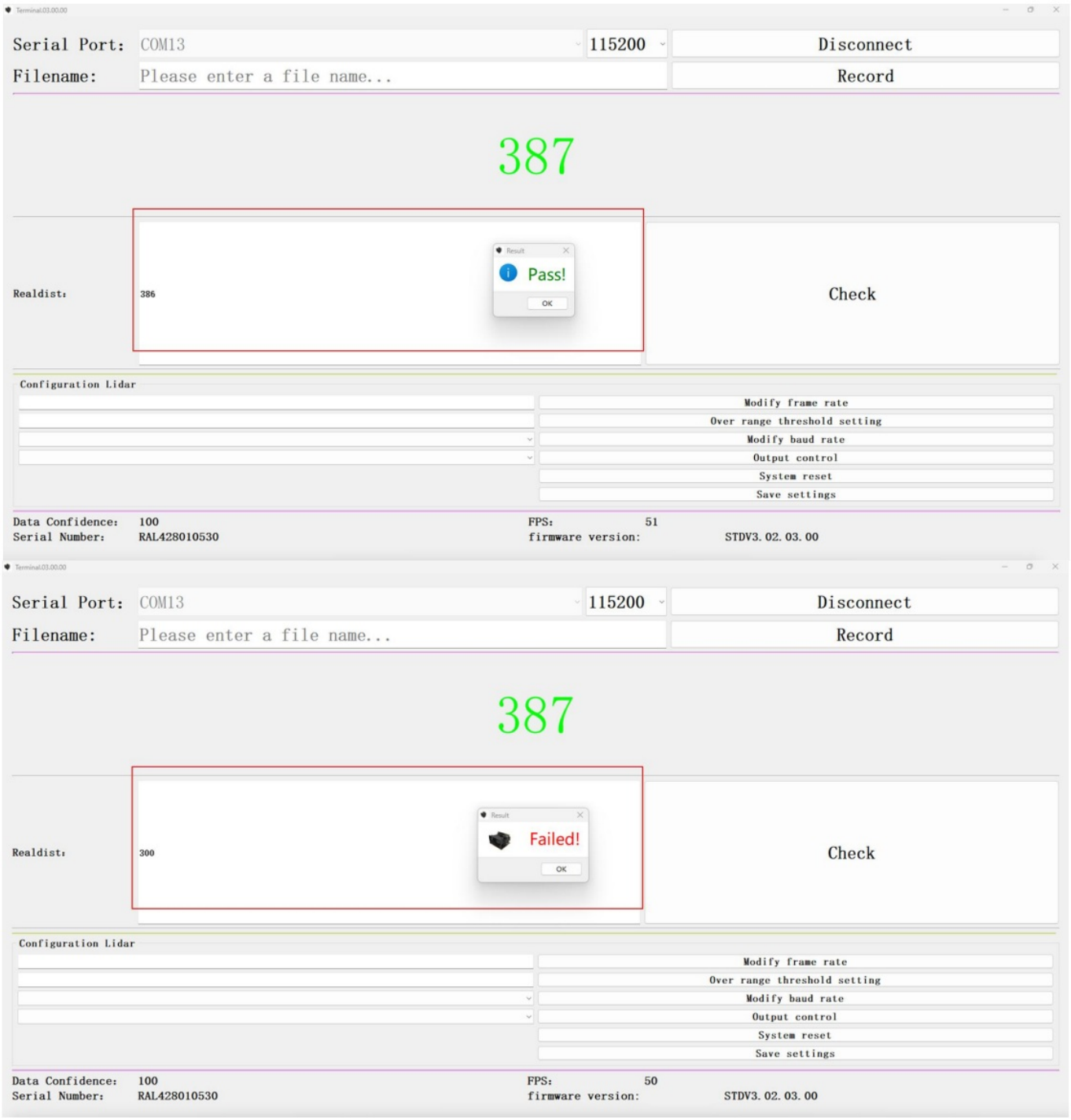
- Input the file name in “Filename”, then click “Record”, the GUI will save data of LiDAR automatically.
- Click “Recording” to finish recording, the data file will pop up automatically. The file format is “.txt”.



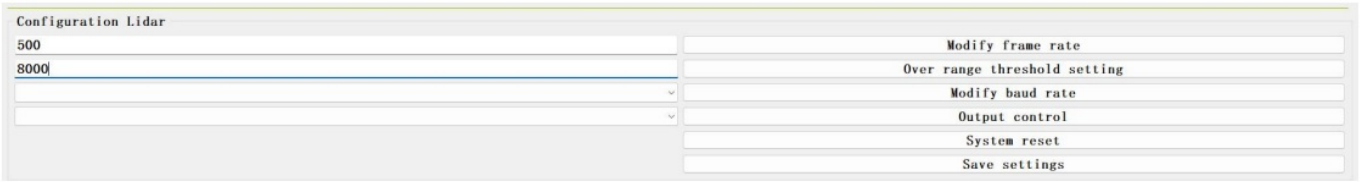
Data Verification

- 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, if the data of LiDAR is 387cm, if the real distance is 386cm, the GUI will output “Pass”, otherwise, it will output “Failed”.



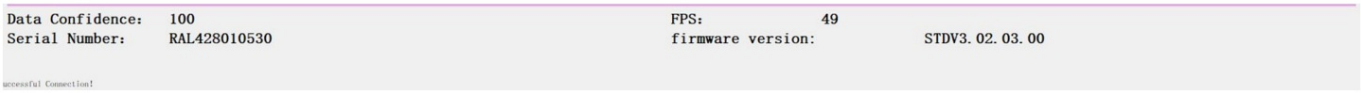


LiDAR Configuration



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

LiDAR Status



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

FAQ

- **Q: What should I do if the GUI shows “None” due to incorrect baud rate?**
  - A: If the GUI shows “None,” check the baud rate setting and ensure it matches the device’s communication settings.
- **Q: How can I troubleshoot connection issues between TFA170-L and PC?**
  - A: Ensure proper wiring connections between the LiDAR, RS232-USB converter, and PC. Check if all connections are secure and follow the recommended sequence.

Documents / Resources

	Benewake TFA170-L Terminal GUI Viewer [pdf] User Manual TFA170-L Terminal GUI Viewer, TFA170-L, Terminal GUI Viewer, GUI Viewer, Viewer

References

- User Manual