■ INTRODUCTION

This USB TTL converter is a port-powered bi-directional USB to TTL/CMOS 5V converter, which can be used to convert any standard full-duplex USB port into a full-duplex TTL port and vice versa. The unit is powered from the USB port and it supports data auto-sensing & self-adjusting, and therefore, no baud rate setting is required.

The unit uses the latest FTDI chipset and is fully compatible with Windows 11/10/7/Vista/XP (32-bit & 64-bit), Mac, and Linux.

■ FEATURES

- Adds one TTL/CAN port to your USB port.

- Supports 9,600 to 921,600 baud.

- Supports Windows 11/10/7/Vista/XP (32-bit & 64-bit), Mac, and Linux.

- Plug and play (hot-pluggable, data format auto-sensing and self-adjusting).

- Port-powered, no external power required.

- No IRQs required, no IRQ conflicts.

- Supports all TF series LiDARs of Benewake.

■ SPECIFICATIONS

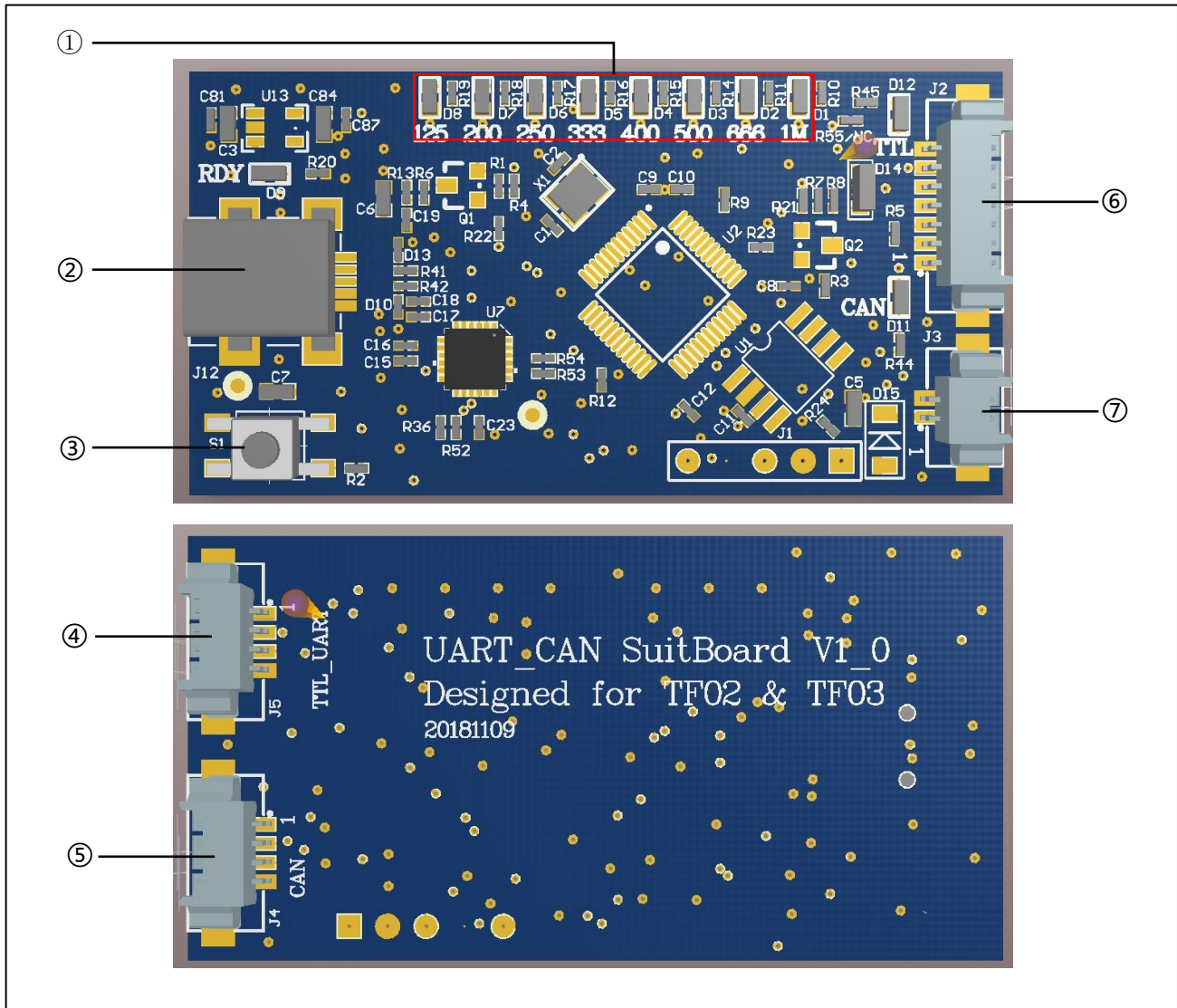| Compatibility	USB 3.0 (backward compatible)
Power Source	From USB port
Current Consumption	Less than 200mA
Baud Rates	9,600 to 115,200bps
Connectors	USB side: Mini-B TTL side: Molex 53261-0471, Molex 53261-0771, Molex 53261-0271
Dimensions	53.75mm * 27.94mm * 7.6mm (L*W*H)
Cable Length	100cm
Operating Temperature	0…50℃
Operating Humidity	Up to 90% RH (no condensation)

■ OVERVIEW

Figure 1 Overview of TTL / CAN to USB converter

① Indicators of CAN baud rate.

② Connector. Mini-B.

③ Push button. Switch Baud rate of CAN.

④ UART port. Connector for TFmini Plus / TFmini-S / TFLuna. Molex 53261-0471

⑤ CAN port. Connector for TFmini Plus / TFmini-S / TFLuna. Molex 53261-0471

⑥ UART / CAN port[1]. Connector for TF03 / TF350. Molex 53261-0771

⑦ Connector. Molex 53261-0271

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[1] This is a 7-Pin port, supports UART and CAN at the same time.
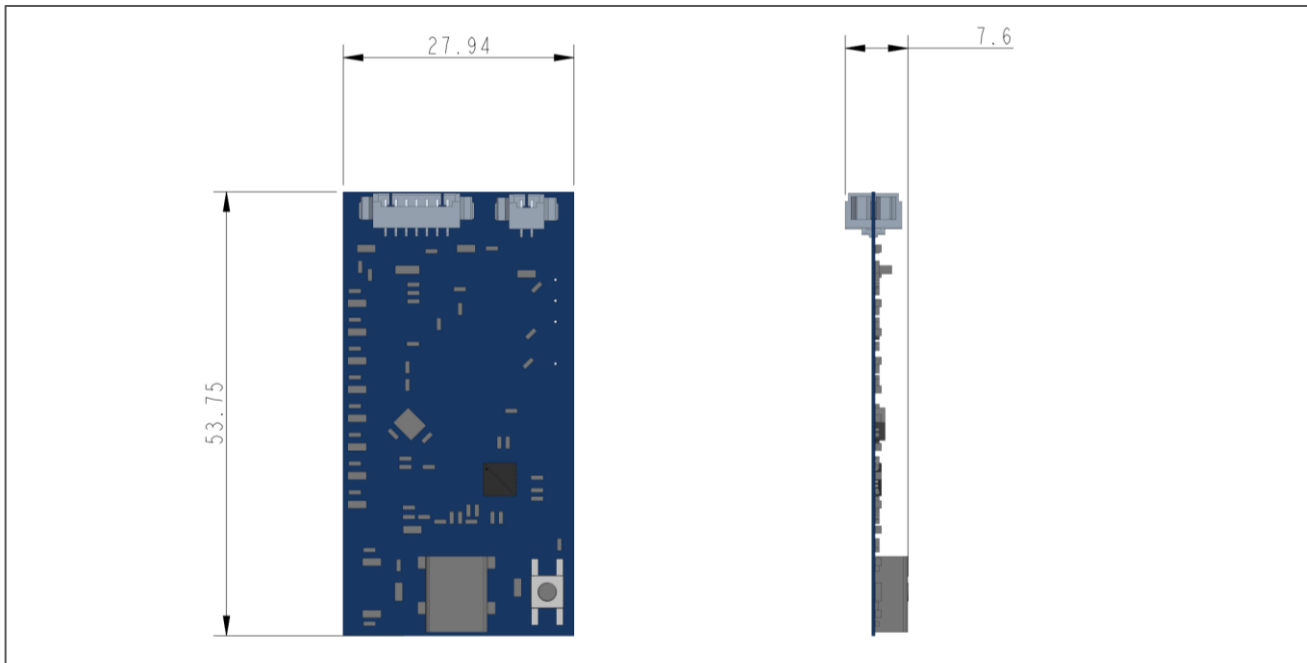
■ DIMENSIONS

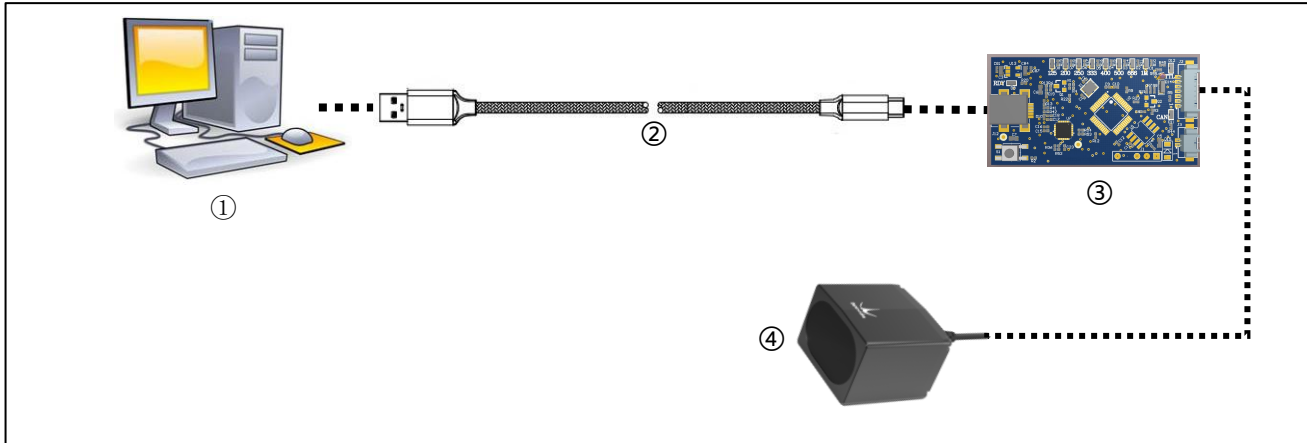*Figure 2 TTL / CAN to USB converter dimension schematic. Unit: mm*

■ CONNECTIONS

Figure 3 Connecting TF03 LiDAR with PC by TTL / CAN to USB connector

① Computer.

② Mini USB Cable, A-Male to Mini-B Cord USB 2.0 cable.

③ Benewake TTL / CAN to USB converter.

④ Benewake Single-Point LiDAR, TF03. Compatible with all TF Series LiDAR.

Note: The TTL / CAN to USB converter will generate two COM ports once it is connected to computer. See Figure 4 COMs generated in Device Manager by TTL / CAN to USB converter**. The COM port with small number is the UART port. The COM port with large number is the CAN port.**

■ TROUBLE SHOOTING

• Make sure that the TTL / CAN to USB converter is connected to your USB port, and the driver is installed correctly (as shown below); otherwise, please reinstall the driver (refer to CP210x USB to UART Bridge VCP Drivers - Silicon Labs (silabs.com)).
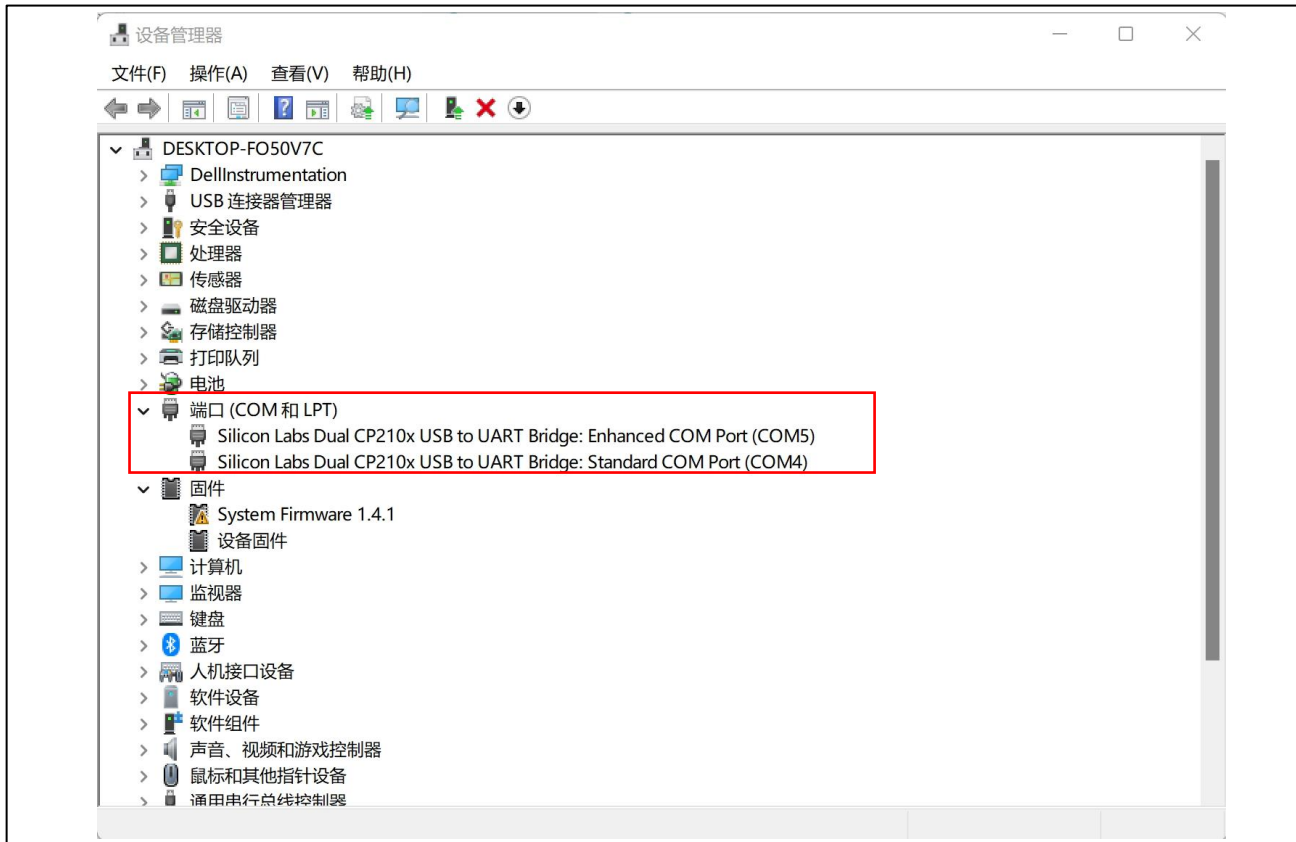

Figure 4 COMs generated in Device Manager by TTL / CAN to USB converter

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