LOCOSYS
GNSS Wireless & Communication

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Sub-meter Product
EVK Quick Guide

About LOCOSYS

LOCOSYS Technology Inc. established in 1995, a company that provide services the scope of which spans from both hardware and software in Global Navigation Satellite System (GNSS), Wireless Communication, Embedded System to Avionics, Automotive and Consumers electronics. LOCOSYS Technology Came from a well-known research organization of information industry, LOCOSYS sustains a strong R&D in Software, Hardware and system integration. Through its self own (International Automotive Task Force, IATF) IATF16949 : 2016 / ISO 9001 : 2015 certified production lines in Taiwan and carefully selected sites in China. LOCOSYS is a qualified supplier to tier 1 & tier 2 manufacture in Automotive industry (design house, EMS, OEM, ODM) and be the 2017 best partner of 'Automotive Dead Reckoning' in China automotive industry and provides solutions and services to various market segments. Stay in £\-level qualified module designer and supplier in the international market, deal the partnership with more than 20 Well-known distributors overseas, to provide our customers a complete OEM and ODM services.

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We will then contact you directly.
https://www.locosystech.com/en/page/Contact-Us/contact-info.html

Contents

Figure Index

1 Introduction

This document is the user guide of the EVB (Evaluation Board) of all LOCOSYS Sub-meter products.

2 Introduction to EVK

2.1 EVB of Sub-meter Module (For Module input voltage 3.3V)
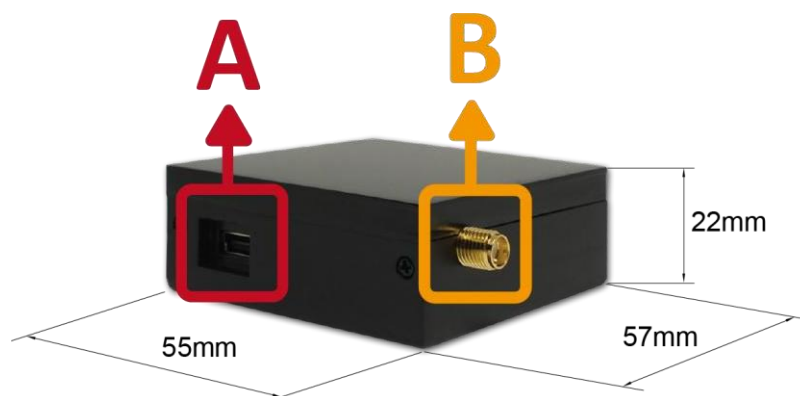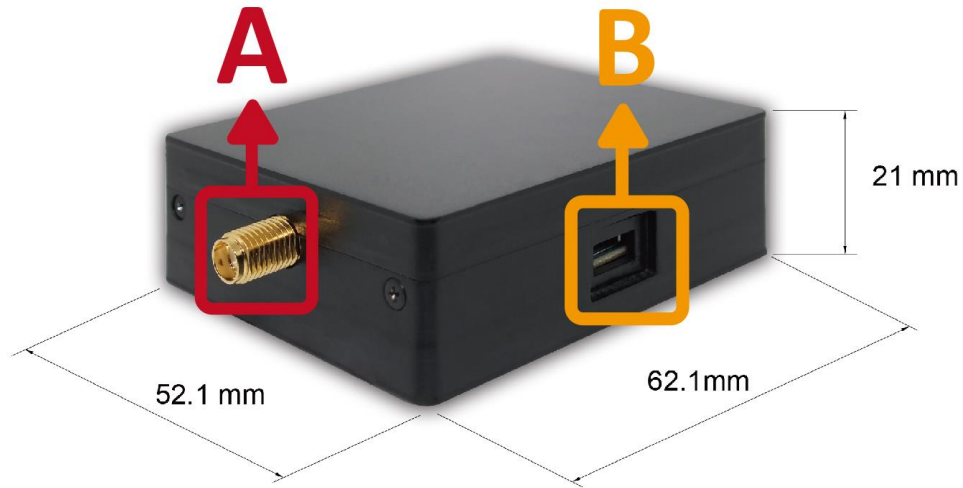

A	USB Connector
B	RF Connector

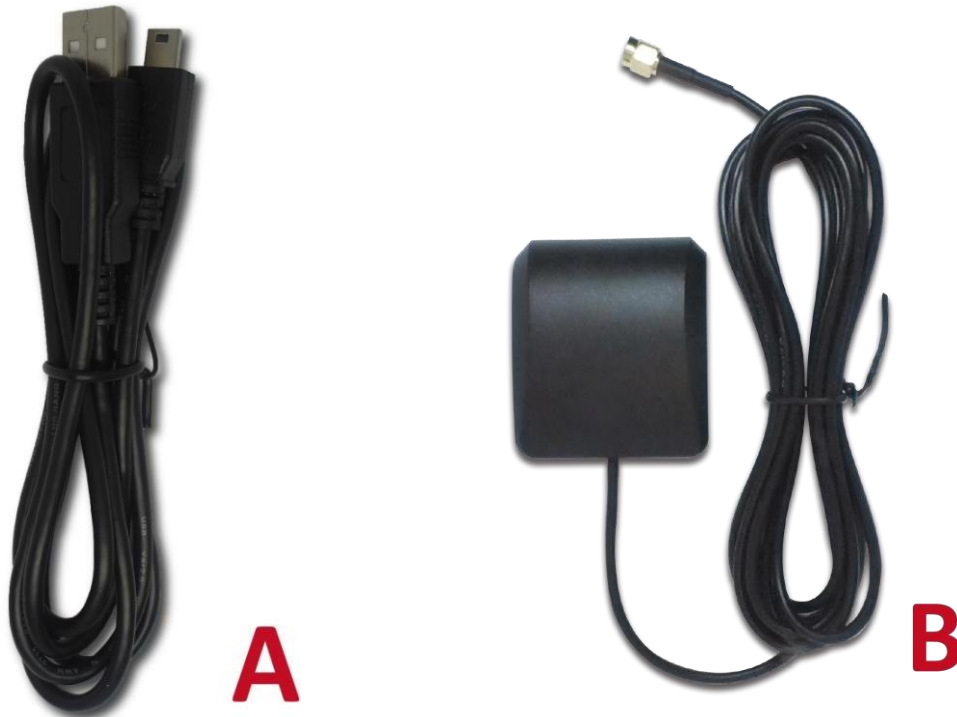Figure 1: EVB of Sub-Meter Module Top View (For Module input voltage 3.3V)

2.2 EVB of Sub-meter Module (For Module input voltage 1.8V)

A	**RF Connector**
B	**USB Connector**

Figure 2: EVB of Sub-meter Module Top View (For Module input voltage 1.8V)

2.3 Accessories

A	**Mini-USB Cable**
B	**GNSS active antenna (3.3V)**

Figure 3: Accessories

3. Install Device Driver

If your Windows OS is Windows 7, Windows 8, please install the Device Driver.

Before you connect the EVB with your computer, please check if your computer has installed a Driver already or not.   Please go to the following file path and check:
¡§My Computer¡¨ > ¡§Computer Management¡¨ > ¡§System Tools¡¨ > ¡§Device Manager¡¨
> ¡§Ports (COM & LPT)¡¨ > ¡§USB-Serial Controller D¡¨.

If your screen is shown like below one, it means your computer has not installed the Driver yet.
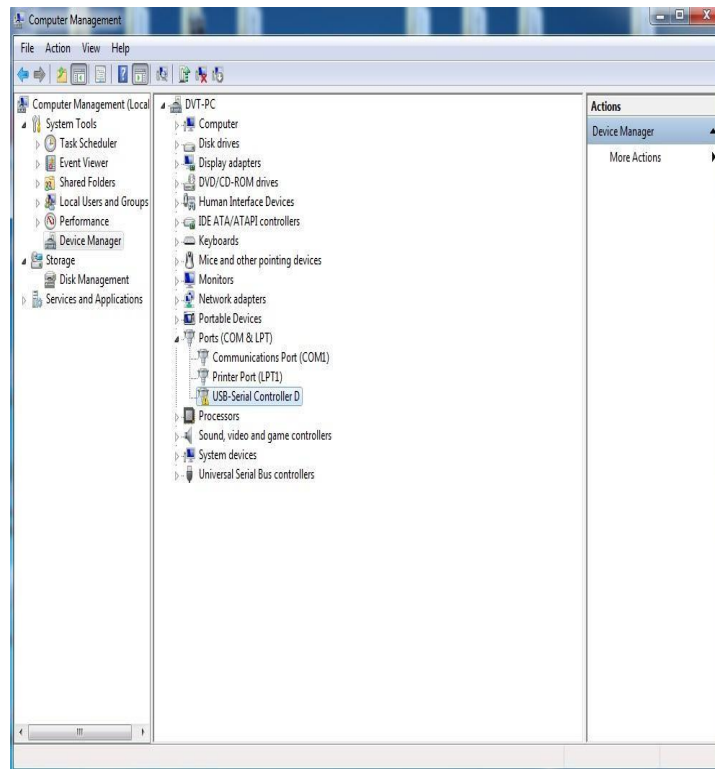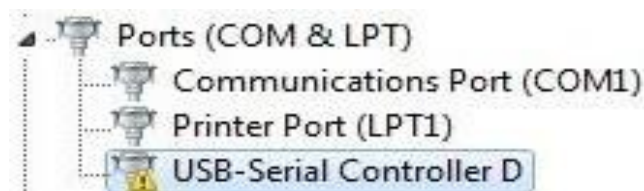
Figure 4: Computer Management

Figure 5: USB-Serial Controller D

Step 1: Power on your computer and boot to Windows. Run or double-click the PL-2303 Windows Driver Installer program.

Step 2: The InstallShield Wizard will be displayed to inform you that the PL-2303 USB-to-Serial driver will be installed on your computer. Click Next to continue.
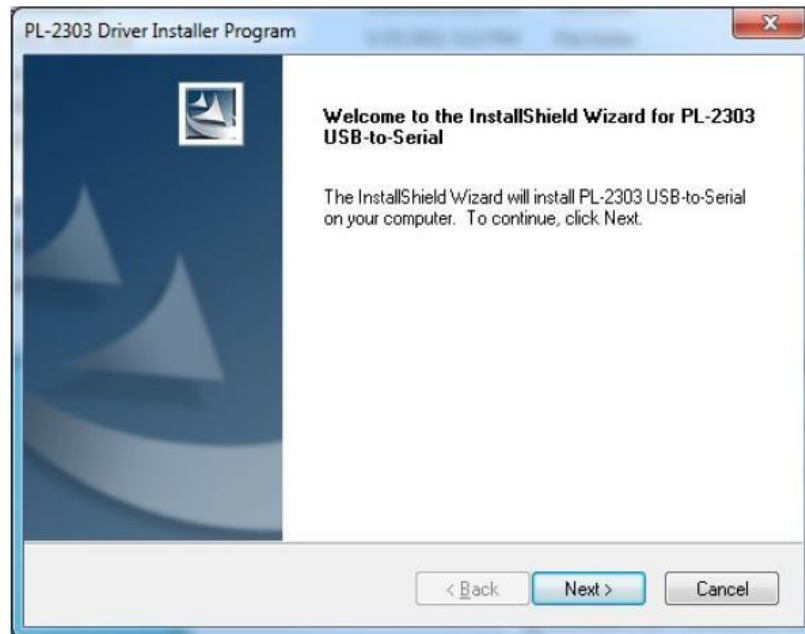

Figure 6: Install Prolific PL2303 driver

Step 3: The PL-2303 Driver Installer program will then start to install the drivers needed.
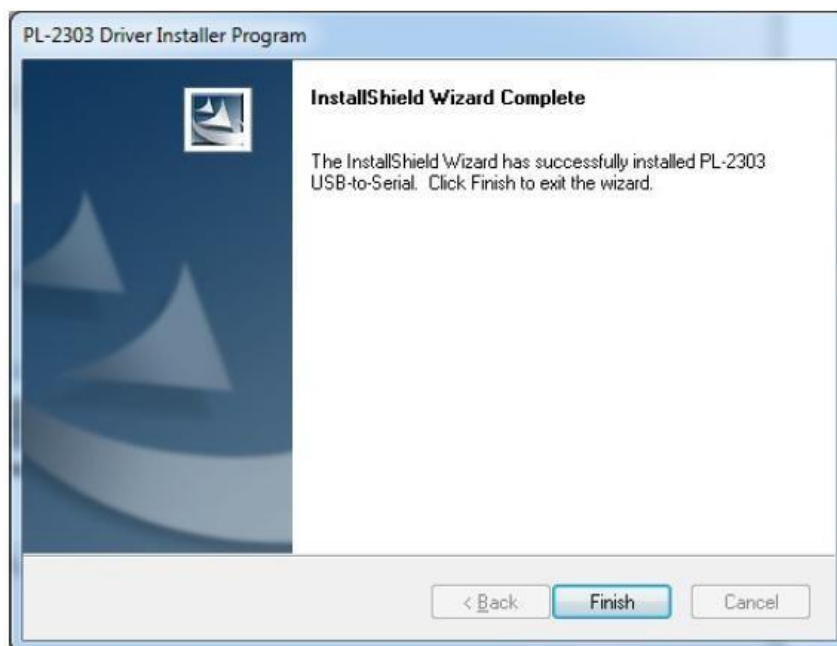

Figure 7: Prolific PL2303 driver setup status

6

Step 4: Click the Finish button to close the InstallShield program. If you have plugged the cable into the PC while running the setup installation, please unplug and replug the cable for the system to detect the device.
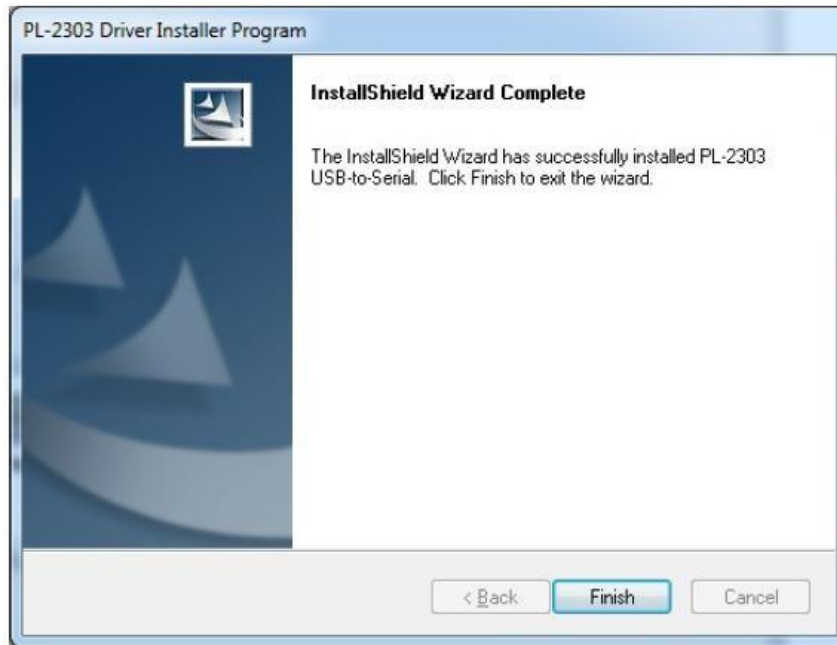

Figure 8: Prolific PL2303 driver Installshield complete

Step 5: Plug in the USB to Serial adapter to the PC USB port. Windows should detect the driver as Prolific USB-to-Serial Comm Port. Go to Device Manager and check for the ¡§Prolific USB-to-Serial Comm Port¡¨ device and the COM port numberassigned by Windows.
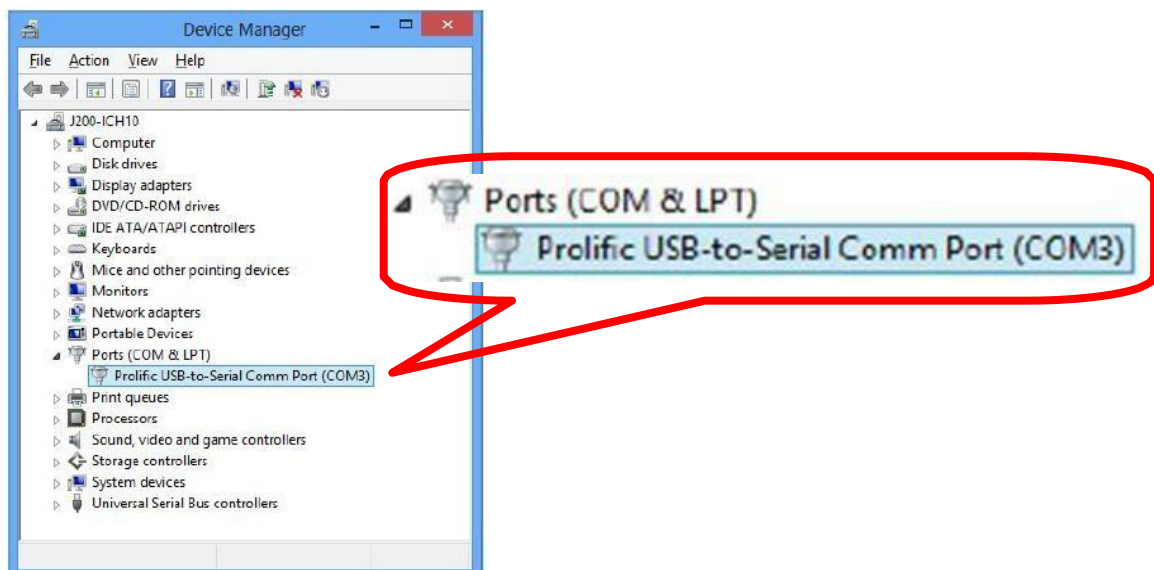

Figure 9: Prolific USB-to-Serial Comm Port (COM3)

4. Starting LOCOSYS Firebird

4.1 System Requirements

To use Firebird on a Windows PC, you must have at least the following:

➢ Operating System : Windows XP, Windows 7, Windows 8 or Windows 10

➢ CPU: Celeron 1.6GHz or above

➢ System Memory (RAM) : 2048 MB RAM and above

➢ Hard Disk : 50MB free space at least

➢ Screen : 800x600, "16-bit High Color" screen or above

➢ Internet: 802.11a/b/g/n/ac or Ethernet

4.2 Installation

Make sure the driver for USB has been successfully installed on your host PC/Notebook, and just copy Firebird.exe to a new empty folder on your hard disk .Create a shortcut on desktop if necessary.

(The USB driver can be downloaded from our website:

https://www.locosystech.com)

4.3 Uninstallation

This program does not add any key to system registry. If you don't want it to keep it no more, just delete the provided files and its shortcut from your hard disk.

4.4 Video resource

LOCOSYS Firebird combines all the position information inside and it is very easily to use. We prepare a video user guide, please check LOCOSYS website or Youtube channel.

You tube:

https://www.youtube.com/watch?v=wdcrL3NHvsw&ab_channel=LOCOSYS

Official web:

https://www.locosystech.com/en/page/unboxing/unboxing.html

5. FAQ (Trouble Shooting)

1. Why can the signals not be read from ¡§the PPS pin of the EVB¡¨?Ans :

(1) The locations of PPS Pin in different modules are also different. Please refer to the ¡§Pin Assignment¡¨ section of the corresponding datasheet. The PPS Pin of EVB can only support 1612-series

(2) PPS signals will not be output before you get the position..

2. Why can the position not be acquired?

Ans :

The GPS/GNSS part cannot acquire satellites signals. The reason may be due to

(1) Active antenna is problematic

(2) There is no provided voltage for active antenna

(3) The GPS/GNSS product is problematic.

3. Why can the Firebird software not detect the com port after the sub-meter EVK (¡§Module EVK¡¨ or ¡§Smart antenna EVK¡¨) is connected to my laptop via USB port?

Ans : The reason could be caused by inappropriate version of USB Driver. Please check the USB driver first. If the OS of your laptop is Windows system, please install the driver **PL2303_Prolific_DriverInstaller_v1.8.19** first, and check if it can work or not. If it cannot work still, please uninstall it first, and then install another USB driver **PL23XX_Prolific_windows_DriverInstaller_v206** and try to connect again.

If your laptops use other OS, please follow the comparison table between different OS and USB driver.

OS	USB Driver (Priority No.1)	USB Driver (Priority No.2)
Windows 7/8	PL2303_Prolific_DriverInstaller_v1.8.19	PL23XX_Prolific_windows_DriverInstaller_v206
Mac	PL2303_1.4.0	PL2303HXD&G_Mac Driver_v2.1.0_20210311
Linux	PL-2303 (Chip H/HX/X) for RedHat 7.3/8.0/9.0	PL2303G_Linux_Driver_v1.0.5
Android		PL2303G_Android_v1003_20210118

4. Why can the Firebird software not detect the com port after the Sub-meter Mouse Receiver is connected to my laptop via USB port?

The reason could be caused by inappropriate version of USB Driver.

Please install the corresponding USB Driver below for your Sub-Meter mouse receiver.

OS	USB Driver (For Sub-meter Mouse receiver)
Windows 7/8	PL23XX_Prolific_windows_DriverInstaller_v206
Mac	PL2303HXD&G_Mac Driver_v2.1.0_20210311
Linux	PL2303G_Linux_Driver_v1.0.5
Android	PL2303G_Android_v1003_20210118