

1. SYSTEM OVERVIEW

1.1 Overview

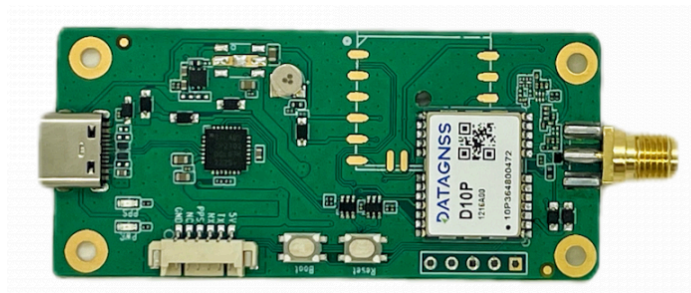
NANO-EVK is a simple, friendly demo kit to evaluate the GNSS modules.

It integrates a USB interface to power the board and communicates with Host device. Additionally, it is equipped with a 2.54mm connector, which allows easy integration with Raspberry Pi SBCs.

It can be powered and communicate directly from the Pi.

There is also an extra 1.25mm pitch 6-pin connector for convenient transmission of test data to other devices.

1.2 Product Photo

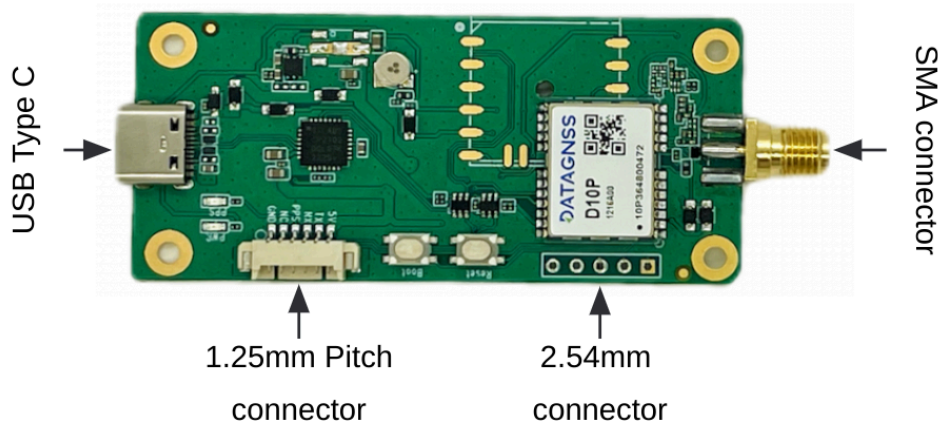


EVk has two states: green PCB and black PCB. The functionality is the same.

Order information

Item P/N	default configuration
nano-evk-DP10	L1+L2, 230400bps, GPS+GLONASS+GALILEO+BDS

1.3 Features



5 Pins Header 2.54mm

Support input and output 5V power supply, and support output data from this header
This connector is compatible with Raspberry Pi Pins connector.

TX	RX	GND	5V	5V
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1.25mm Pitch connector

support output data from this connector.

5pin header and connector can only choose one.

GND	NC	PPS	RX	TX	5V
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USB Type C connector

Support power supply and data.

Button and LED

1. Reset button(PRRSTX), Press the reset button to generate a hardware reset to the module.
2. Boot button(PRTRG), The boot button is used to set the module to enter BootROM command mode.

In this mode the module executes only the minimal functionality, such as updating new firmware.

3. Follow these steps to enter BootROM command mode:

- * Press and hold the BOOT button first, and then press RESET button. After that, release the RESET first, and then release the BOOT button.

4. The power LED indicates the power status. When the module is powered on, the LED is on.

Notes: The Boot button is not available for GEM1205.

1.4 Applications

1.4.1 Testing with an android phone

Using a dedicated OTG cable, the EVK can easily connect to an Android phone. On your Android phone, you can download specialized software for tasks like EVK evaluation, RTK positioning, and RTK accuracy testing.

Supported App on the Google Play store:



SW Maps - GIS & Data Collector



Mapit GIS - Map Data Collector

1.4.2 Integrate with Raspberry Pi

EVK's 2.54mm connector is compatible with the 40-pin interface of the Raspberry Pi and provides 5V power and communication (UART). Two screws, compatible with the Raspberry Pi, enable seamless integration.

(You can obtain more detailed information on the product's wiki page.)

2. QUICK GUIDE

1. To start using the Evaluation kit, please make the following prepared:

- EVK
- GNSS Antenna
- USB cable

2. Install the latest version of Satrack for Windows to the PC.

3. Connect the EVK with the antenna and PC.

4. Launch the Satrack application.

5. Select the corresponding COM port.

6. Set the baud rate if necessary by choosing “Device settings” on toolbar.

If the port is selected and the baud rate is set correctly, Satrack program will show the received EVK output on the screen, signal strength, as well as satellite constellation.

