TOPGNSS

Wireless GNSS positioning solution

RTK GNSS Board
GPS/BDS/GLONASS/GALILEO/QZSS

TOP-F906 High-precision GNSS receiver module with new F9 receiving multi-band GNSS module, integrated with u-blox multi-band RTK technology, can achieve centimeter-level accuracy

The TOP-F906 has built-in support for standard RTCM correction and supports centimeter-level navigation from a virtual reference station (VRS) in the local base station or network RTK settings. TOP-F906 GNSS module design with integrated USB, RS232, UART level compatible design with dual UART ports (UART1, UART2) Different output levels can be selected via the connection cable. The module integrates three antenna connectors (IPEX, MMCX pad SMA) for easy integration with different antennas. Supports a range of calibration services, allowing each application to optimize performance based on the individual needs of the application. Rich application interface, optional connector or soldering pin. The module is easy to integrate, low in design cost, package size is only 60*40mm, power consumption is small, multi-band GNSS reception, through the external wireless data transmission module radio,
can realize the precise positioning and navigation requirements of mobile industrial machinery, several seconds It achieves RTK centimeter accuracy and is very suitable for mass market adoption.

TOP-F906 Features:

Receiver type:
Default level: UART/TTL
184 channel
ZED-F9P GNSS module design
GPS L1C / A L2C, GLO L1OF L2OF,
GAL E1B / C E5b, BDS B1I B2I,
QZSS L1C / A L2C
Baud rate: 38400 (default) can be set
Update rate: 1HZ (default) can be set
RTK up to 20 Hz1
Working voltage: 3.3-5V
Dual port design: port 1, port 2.
Port 1: For configuration and NMEA or RTCM
data input and output.
Port 2: For NMEA or RTCM input.
USB can test and set parameters of TOP-F906
card by USB connection.RTK location
accuracy:
RTK 0.01 m + 1 ppm CEP
Convergence time:
RTK <30 seconds
Acquisition of cold start 24 seconds
Auxiliary start 2 seconds
Reoccupy 2 seconds
Size: 60*40mm

TOP-F906 breakout board features:
On-board Ultra low noise 3.3V voltage regulator with noise 9nV/Hz
USB, rs232 and Uart (Tx,Rx) interface
SMA IPEX antenna connectors
u-center GPS Evaluation Software
Extensive visualization and evaluation features
1TTL UART port, 1 RS232 port, 1 USB port
Power LED, GEO LED, RTK LED,FIX LED
Backup battery
Dimensions: 60x40 mm
Weight 12 gram

Board can be used for a Base or Rover operation mode!

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GNSS wireless solution provider

Port PIN Function Description:

TOP-F906 reserves three interfaces, including two 1.06PIN Port interfaces (Port1, Port2) and one USB port.

Port1 interface: Used for configuration and NMEA or RTCM data input and output.

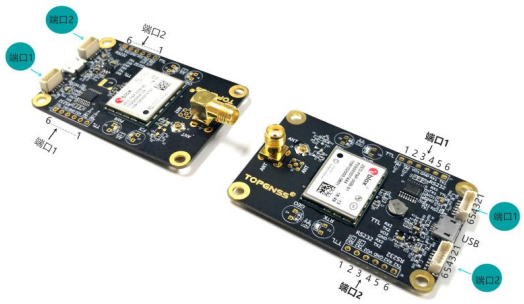
Port2 interface: for NMEA or RTCM data input and output. (This port defaults to RTCM data input and data output needs to be configured through the U-center tool to be used)

USB interface: It can test and set parameters of TOP-F906 card by USB connection.

Application hints:

Port 1 port: VOI PIN for TOP-F906 board voltage input VIN function (3.3-5.4v).

Port2 Port: VO2 PIN Voltage Output VOUT function, only for TOP-F906 board for external integration of BT, WIFI, wireless data module and wireless data radio power supply.



Port1 端口1 (Used to configure module parameters and NMEA RTCM output) **Tip: Port1 VO1 PIN for voltage input VIN 3.3-5.4V**							**Port2 端口2** (Input and output for NMEA or RTCM) **Tip: Port2 VO2 PIN is only used for voltage output VOUT 3.3-5.0V**					
Port1 PIN Definition TTL Share RS232							**Port2 PIN Definition** TTL Share RS232					
TTL				**RS232**			**TTL**			**RS232**		
序号	**1**	**2**	**3**	**4**	**5**	**6**	**1**	**2**	**3**	**4**	**5**	**6**
PIN	RX1	TX1	VO1 3.3-5.4V	GND	232 RX1	232TX1	RX2	TX1	VO2 VOUT	GND	232RX2	232TX2
TTL	RX1	TX1	VIN3.3-5.4V	GND			TTL					
RS232			VO1 3.3-5.4V	GND	232 RX1	232TX1			VO2 VOUT	GND	232 RX2	232TX

Tip: The default output VOUT voltage is equal to the input VIN voltage

The module can be set up using the U-center tool, which can be downloaded and installed from the U-Blox.com site. After the installation is complete, run the U-Center tool and use the PL2303 USB to serial port tool to connect the Top-3509P module port 1 port to the computer. After the module is powered up, the red LED will light up. If it is recognized normally, the serial will be assigned. Port number, run U-CENTER tool, select baud rate 38400, the module starts working. The module outputs RTCM data by default, and the module can be set as a base station by U-CENTER. For the specific setting procedure of U-CENTER, please refer to the PDF usage help file in the u-center program installation folder.

If you need additional help, feel free to contact us at sales@stotoncn.com