

HGLRC M100_MINI GPS

HGLRC

Summary:

Hello everyone, our M80 PRO gps has been well-received and loved by everyone in the past two years. Beginning in the new 2023, HGLRC will bring you the newly developed M100_MINI GPS. Using the new 10th generation UBLOX chip design, the positioning is fast and accurate. In the test of our HGLRC laboratory, it takes less than 1 minute for GPS to reach the 8 satellites required for take-off. The small and exquisite 15mmx15mm Size can be loaded on 2-7 inch traversing Drone. Selected ceramic antenna and externally expanded PCB design allow M100_MINI GPS to receive satellite signals effectively. At the same time, it supports receiving GPS, Galileo, and BDS three satellite signals, allowing you to quickly locate in any area. For the convenience of everyone, we have designed onboard LED indicators, including power indicator and positioning PPS indicator, so that you can know the working status of GPS well.

Features:

Using the new 10th generation UBLOX chip design, fast and accurate positioning..

Small size, compatible with 2-7 inch traversal Drone on the market

Selected ceramic antenna and externally expanded PCB design to effectively receive satellite signals

Support GPS, Galileo, BDS three-mode positioning, fast positioning in any area

Onboard POWER and PPS indicator lights, the working status is clear at a glance

Compatible power supply, support 3.3V-5V DC power input

Using UBLOX output protocol and 10Hz output frequency

Specification:

Chip: M10(10th Generation Chip)

Antenna: Ceramic Antenna

Frequency: GPS L1, GLONASS L1, BDS B1, GALILEO E1, SBAS L1, OZSS L1

Receive Channel: 72ch

Baud Rate: 115200bps

Output Protocol: UBLOX

Output Frequency: 10Hz

Input: 3.3V-5V

Size: 15x15x5.2mm

Weight: 2.6g

Speed Accuracy: 0.05m/s

Horizontal positioning accuracy: 2D ACC2.0m(Outdoor)

Receiver Sensitivity: Trace -166dBm

Capture -160dBm

Characteristics: High:50000m,

Speed: 500m/s,

acceleration 4G

Operating temperature: -40°C - +85°C

Storage temperature: -40°C - +105°C

Include:

HGLRC M100_MINI GPS X 1

Heat Shrink Tube (Φ12mm x 20mm) X 1

HGLRC sticker X 1

HGLRC Manual X 1

SH1.0-4Pin Cable X 1





Rapid positioning



Stable signal



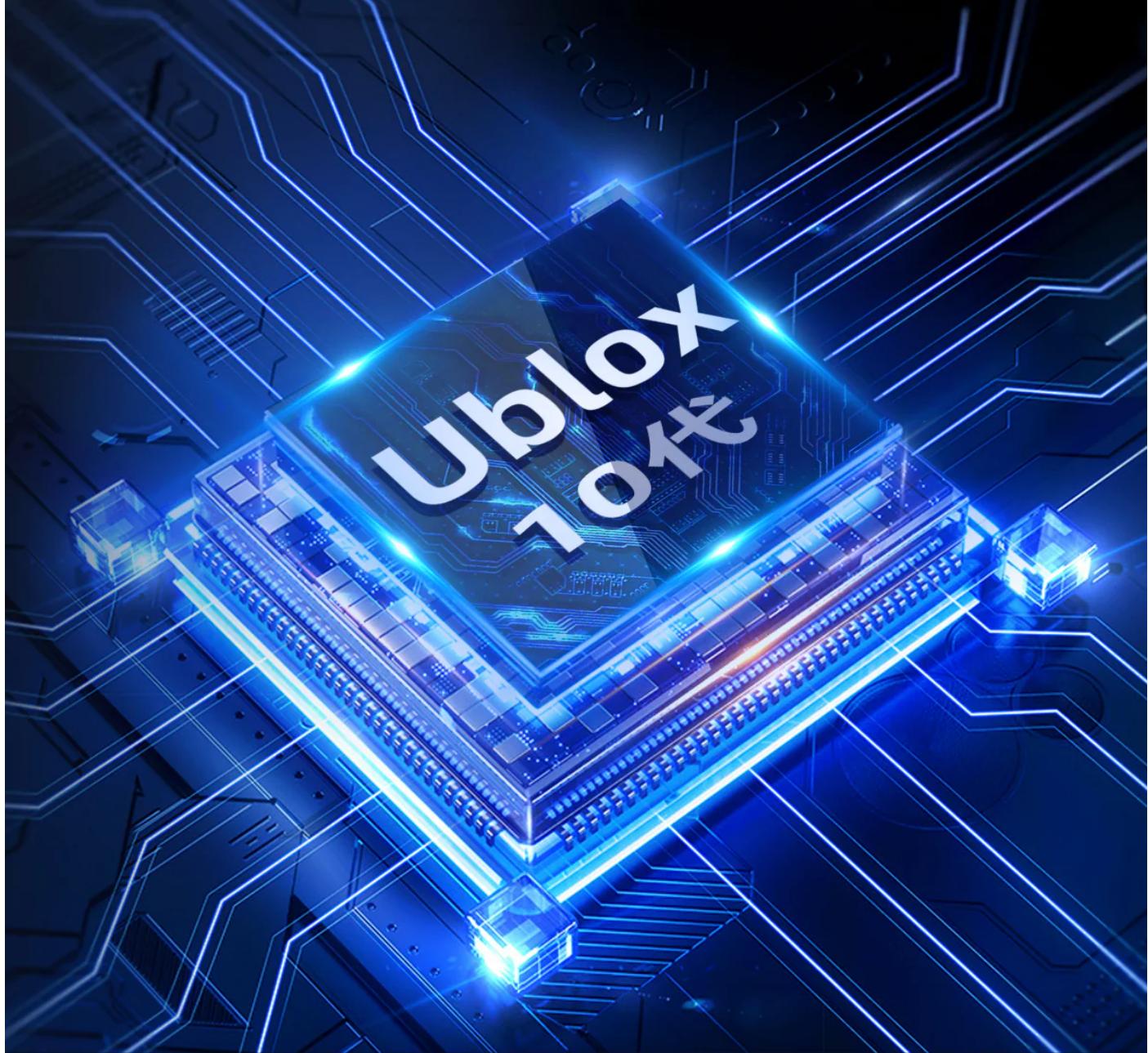
Small and exquisite Accurate positioning



Small and exquisite

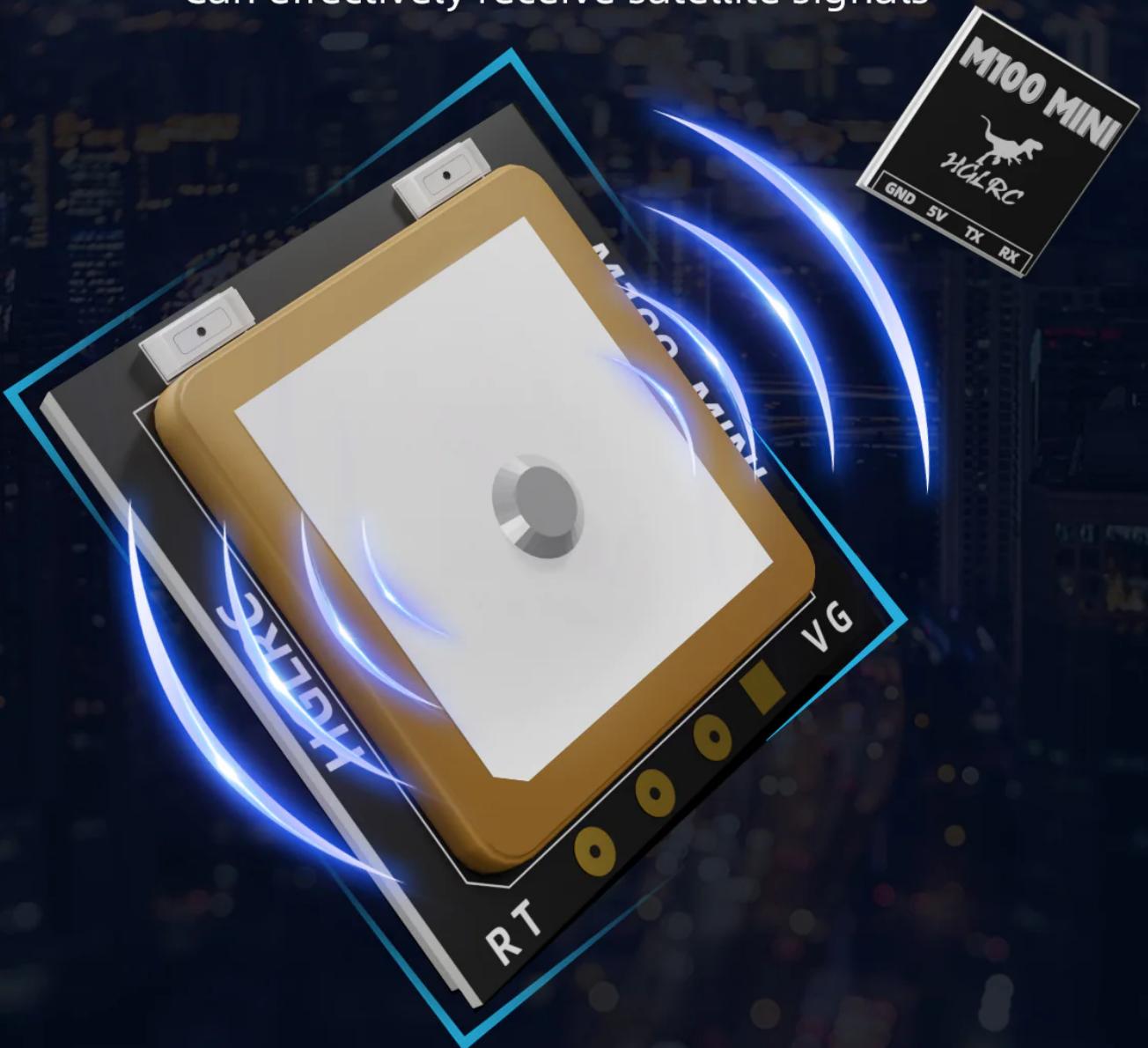
Rapid positioning

Imported 10th generation Ublox chip
Fast positioning, accurate positioning



Stable signal

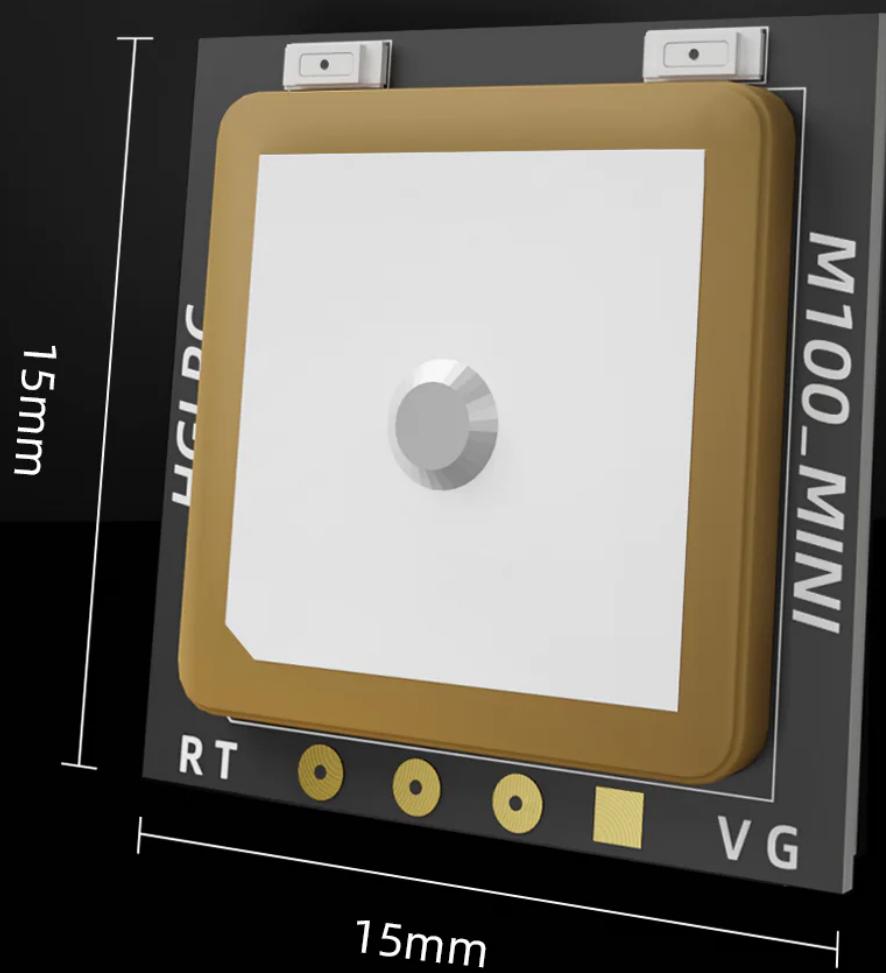
Elaborate modulation ceramic antenna
and expansion PCB board
Can effectively receive satellite signals



Small and exquisite

15mm x 15mm

Only 2.7g



Accurate positioning

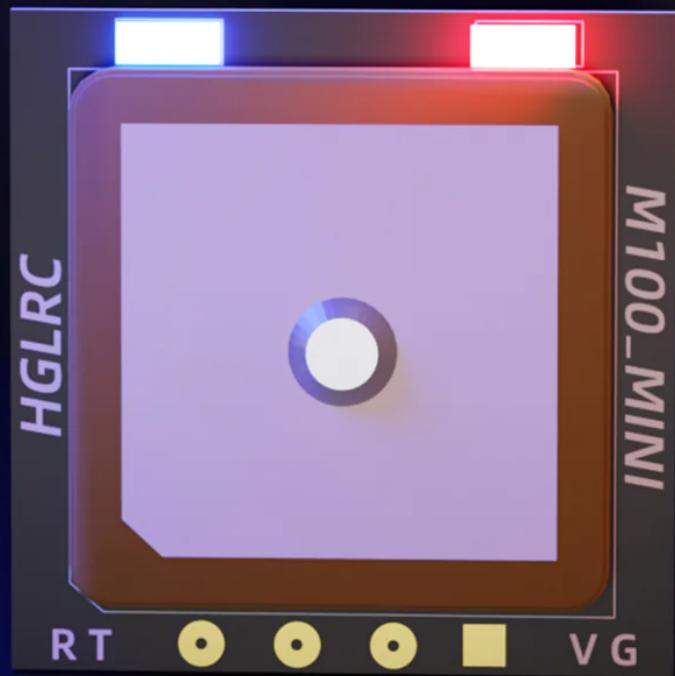
GPS+Galileo+BDS

Three mode positioning

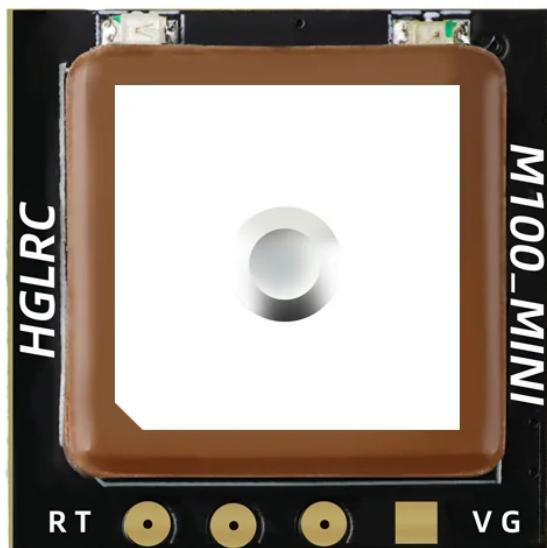


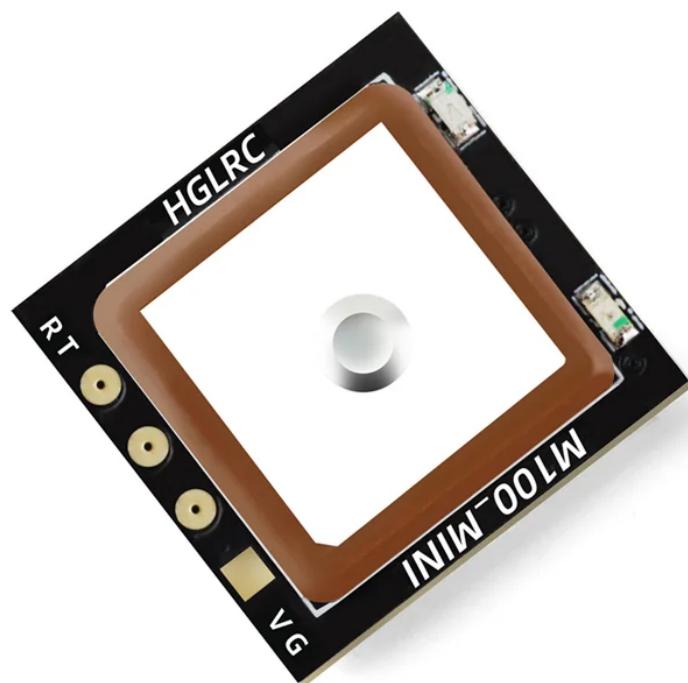
LED indicator light

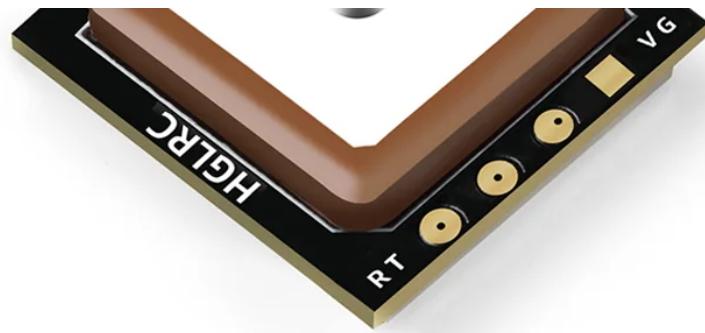
Board power indicator light,
PPS positioning indicator light
Work status is clear at a glance

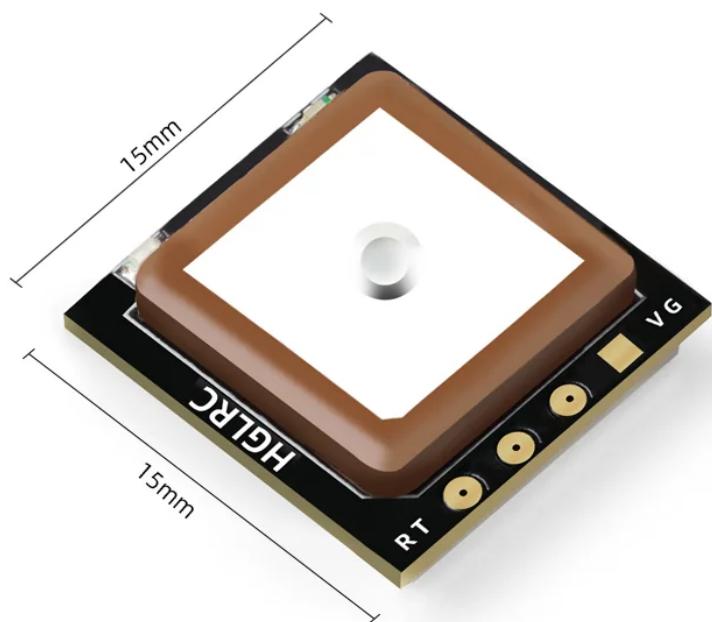


— Picture —



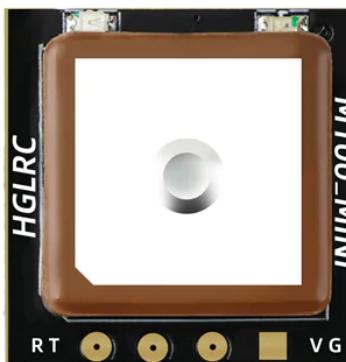






— Specification —

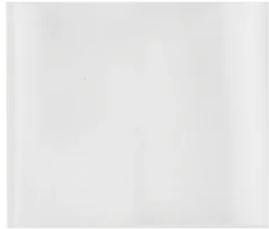
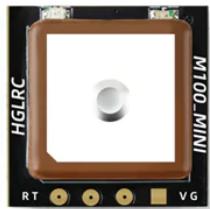
M100_MINI GPS



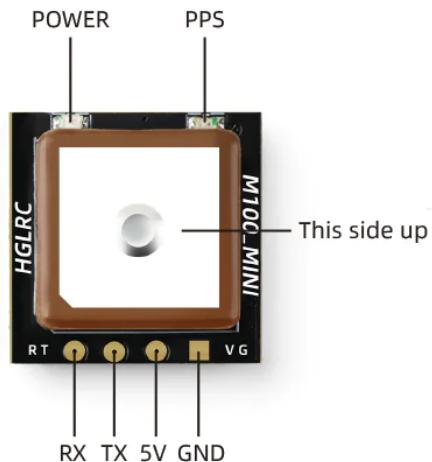
Technical Specification

1.Chip: M10 (10th generation chip)	6.Output protocol:UBLOX
2.Antenna: ceramic antenna	7.Output frequency:10Hz
3.Frequency:GPS L1, GLONASS L1, BDS B1 GALILEO E1, SBAS L1, QZSS L1	8.Power input:3.3V-5V
4.Receive channel:72ch	9.Size:15x15x5.2mm
5.Baud:115200bps	10.weight:2.7g

— Product List —

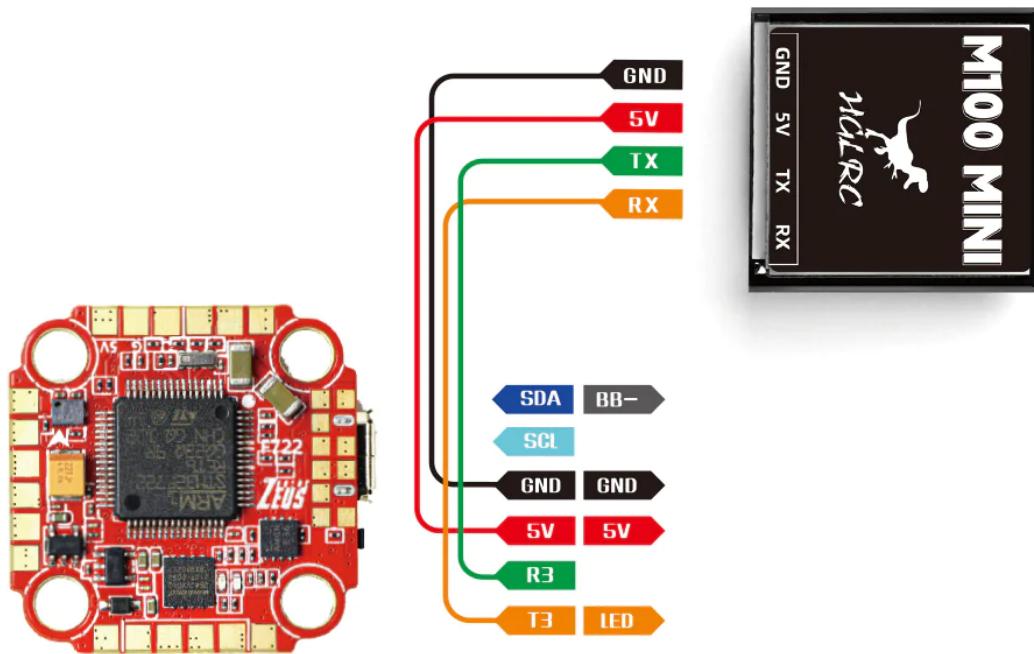


— Function Description —



Indicator light	PPS (red light))	Power (blue light)
Normal start	normal bright	normal bright
Real position accuracy	Flickering	normal bright

— Wiring diagram —



— Betaflight set —

1. Connect the GPS to any port of the flight control according to the wiring diagram, as demonstrated by UART3 .

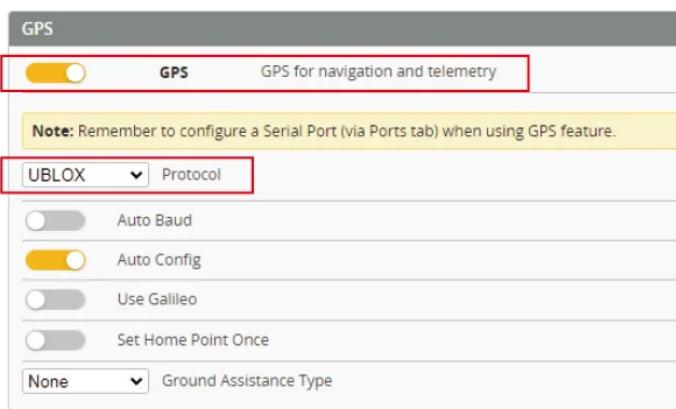
(Note: Be sure to connect the spare serial port or GPS special serial port)

2. Open the port page of Betaflight, set the sensor input type as GPS, baud rate 115200.

Find the UART3, open GPS in No.3 sensor input and select baud rate 115200

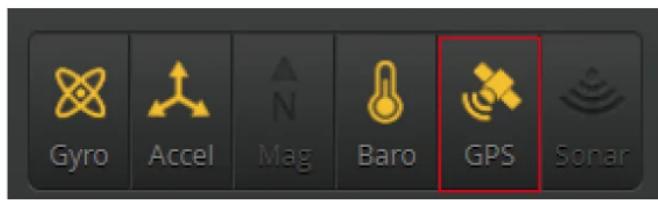
Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	<input checked="" type="checkbox"/> 115200	Disabled <input type="button" value="▼"/>	AUTO <input type="button" value="▼"/>
UART1	<input type="checkbox"/> 115200	Disabled <input type="button" value="▼"/>	AUTO <input type="button" value="▼"/>
UART2	<input type="checkbox"/> 115200	Disabled <input type="button" value="▼"/>	AUTO <input type="button" value="▼"/>
UART3	<input type="checkbox"/> 115200	GPS <input type="button" value="▼"/> 115200 <input type="button" value="▼"/>
UART4	<input type="checkbox"/> 115200	Disabled <input type="button" value="▼"/>	AUTO <input type="button" value="▼"/>
UART6	<input type="checkbox"/> 115200	ESC <input type="button" value="▼"/>	AUTO <input type="button" value="▼"/>

3. Open the configuration page of Betaflight, turn on GPS and enable UBLOX protocol.



4. Power on the quadcopter, the GPS indicator will light up when the GPS is working normally, and the GPS logo on the top of Betaflight will light up.





— Attention —

1. Please supply power to the GPS according to the specified voltage range.
2. Please weld carefully against the wiring diagram to avoid burning the GPS by short connection.
3. Please use BF4.3.0 firmware or above .
(too low version does not recognize 10th generation chip)
4. The GPS must be installed with the antenna facing upward and away from the motor,power line and other parts with interference.