



HGLRC M100_MINI GPS

说明书 V1.0



M100_MINI GPS

使用指南



产品参数

芯片：M10 (十代芯片)

频率：GPS L1，GLONASS L1，BDS B1，
GALILEO E1，SBAS L1，QZSS L1

电源：3.3V-5V

尺寸：15 x 15 x 5.2 mm

天线：陶瓷天线

接收频道：72ch

重量：2.7g

波特率：115200bps

输出协议：UBLOX

输出频率：10Hz

速度精度：0.05m/s

水平定位精度：2D ACC 2.0m(露天)

接收灵敏度：迹线-166dBm

捕获-160dBm

动态特性：高度：50000m，速度：500m/s，加速度4G

工作温度：-40°C~+85°C

储存温度：-40°C~+105°C

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接口定义



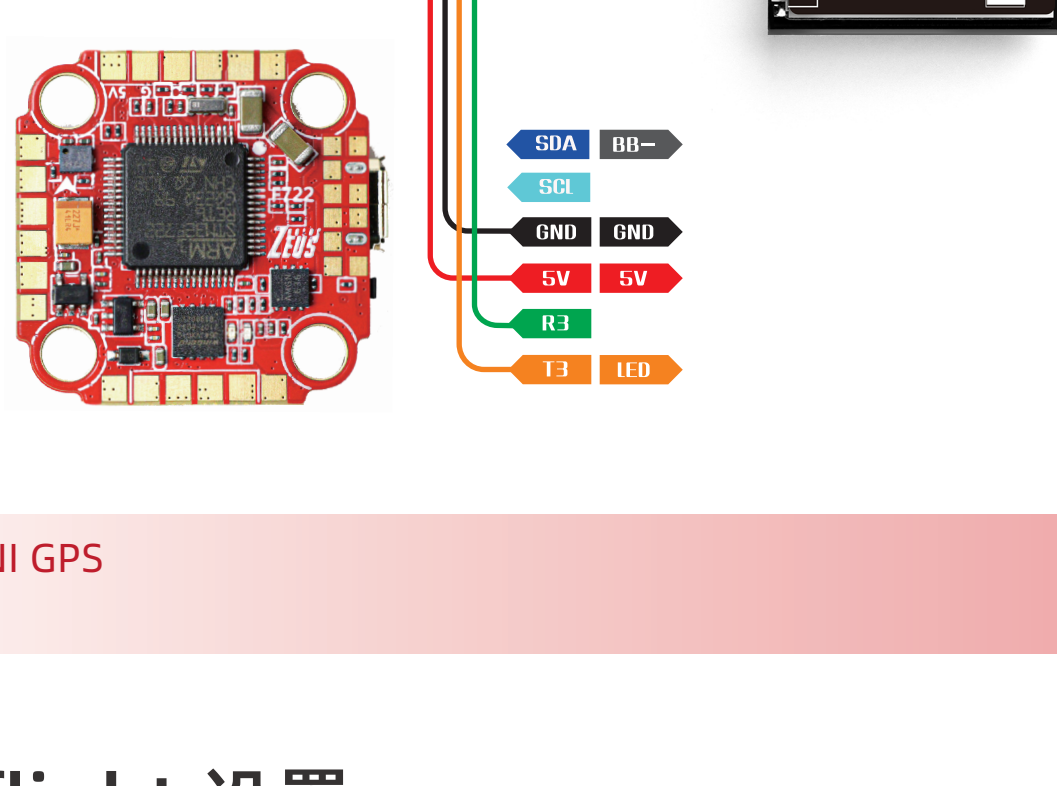
指示灯	PPS(红灯)	POWER(蓝灯)
正常启动	常亮	常亮
达到定位精度	闪烁	常亮

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接线图



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Betaflight 设置

1.按照接线图把GPS连接到飞控任意端口，以UART3示范
(注：一定要接空余的串口或GPS专用串口)

2.打开Betaflight的端口页面，设置传感器输入类型为GPS，波特率115200

标识符	设置/MSP	串行数字接收机	速率输出	传感器输入	外设
USB VCP	☒ 115200	.....	.....	已禁用 | AUTO	.....
UART1	☐ 115200	.....	.....	已禁用 | AUTO	.....
UART2	☐ 115200	.....	.....	已禁用 | AUTO	.....
UART3	☐ 115200	.....	.....	GPS | 115200	.....
UART4	☐ 115200	.....	.....	已禁用 | AUTO	.....
UART6	☐ 115200	.....	.....	电调 | AUTO	.....

3.打开Betaflight的配置页面，开启GPS，启用UBLOX协议



4.给飞行器通电，GPS正常工作时指示灯亮起，Betaflight顶端的GPS标识亮起



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注意事项

1.请按照规定范围内的电压给GPS供电。

2.请仔细对照接线图焊接，避免短接烧毁GPS。

3.请使用BF4..3.0以上的固件 (过低的版本不识别10代芯片)。

4.GPS的安装必须天线朝上，并且远离电机、电源线等有干扰的零件。

联系我们

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公司名称：广东化骨龙科技有限公司

技术电话：18033023851（微信同号）

官网网址：<https://hglrc.taobao.com>



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Manual V1.0



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Parameters

Chip:M10 (10th generation chip)

Frequency:GPS L1 , GLONASS L1 , BDS B1

GALILEO E1 , SBAS L1 , QZSS L1

Power Supply:5V

Size:15 x 15 x 5.2 mm

Antenna: ceramic antenna

Receiving channels:72ch

Weight:2.7g

Support Rate:115200bps

Output protocol: UBLOX

Output frequency: 10Hz

Speed Precison:0.05m/s

Level Positioning Precison:2D ACC 2.0m(Outside)

Receiving sensitivity:Trace-166dBm

Capture-160dBm

Dynamic characteristics: altitude: 50000m , speed: 500m / s ,
acceleration 4G

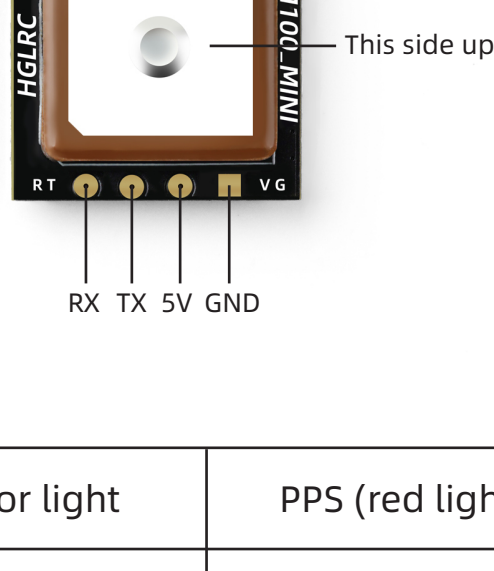
Working Temperature:-40°C~+85°C

Storage temperature:-40°C~+105°C

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Introduction

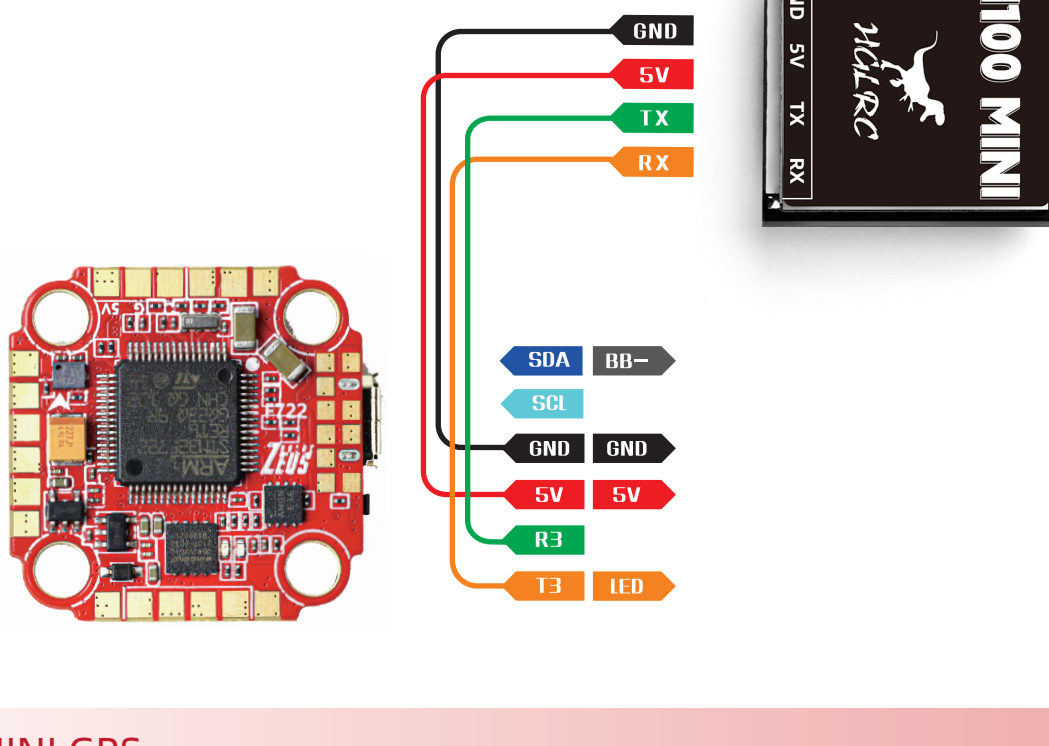


Indicator light	PPS (red light))	Power (blue light)
Normal start	normal bright	normal bright
Real position accuracy	Flickering	normal bright

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Wiring Diagram



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Betaflight set up

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

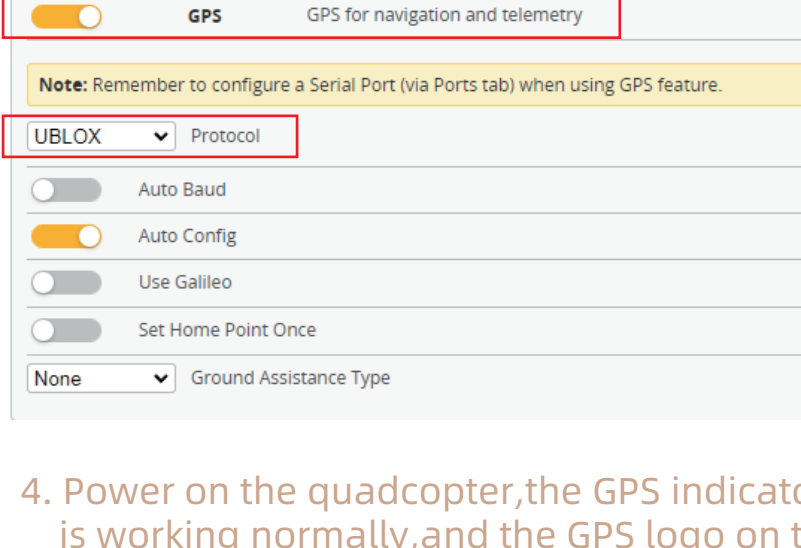
(Note: Be sure to connect the spare serial port or GPS special serial port)

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

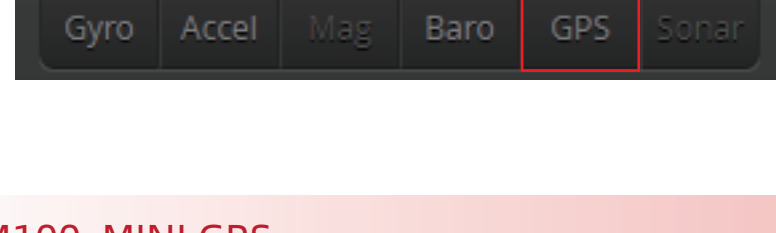
Find the UART3,open GPS in No.3 sensor input and select baud rate 115200

Identifier	Configuration/MSP	Serial rx	Telemetry Output	Sensor input	Peripherals
USB VCP	☒ 115200	.....	.....	Disabled	AUTO
UART1	☐ 115200	.....	.....	Disabled	AUTO
UART2	☐ 115200	.....	.....	Disabled	AUTO
UART3	☒ 115200	.....	.....	GPS	115200
UART4	☐ 115200	.....	.....	Disabled	AUTO
UART6	☐ 115200	.....	.....	ESC	AUTO

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.



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Attention:

1. Please supply power to the GPS according to the specified voltage range.

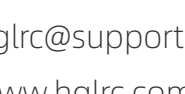
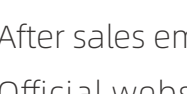
2. Please weld carefully against the wiring diagram to avoid burning the GPS by short connection.

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.

Contact us

Sincerely thanks for everyone trust! Welcome to choose HGLRC products



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