BETAFPV

P1 Air Unit HD VTX

使用手册 | USER MANUAL

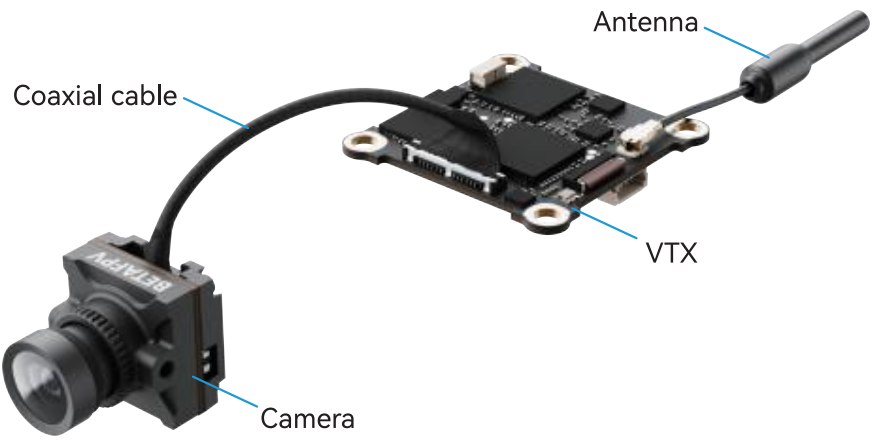
artosyn® Inside
& KAP Supported

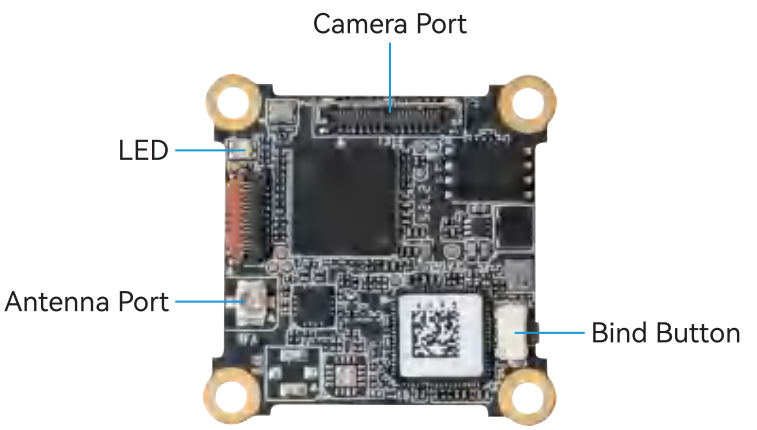
第 I 版　2025-12-17

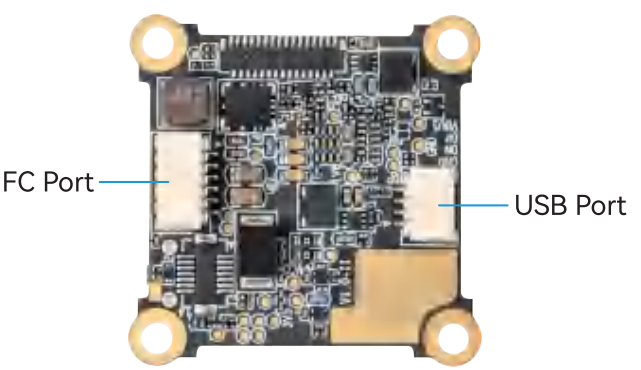
Artosyn Inside & KAP Supported: ArtLynk system uses the Artosyn's latest AR803X chipset, with core technology support provided by KAP. KAP company provides core technology support or product solutions to all FPV companies and ensures compatibility for various FPV products using Artosyn chipsets.

Collaborative and Open Community: ArtLynk system is a collaborative FPV ecosystem not belonging to ONLY one company. Many FPV enterprises and teams will design and produce their own products based on the ArtLynk system, ensuring broad compatibility and fostering community.

Product Pictures

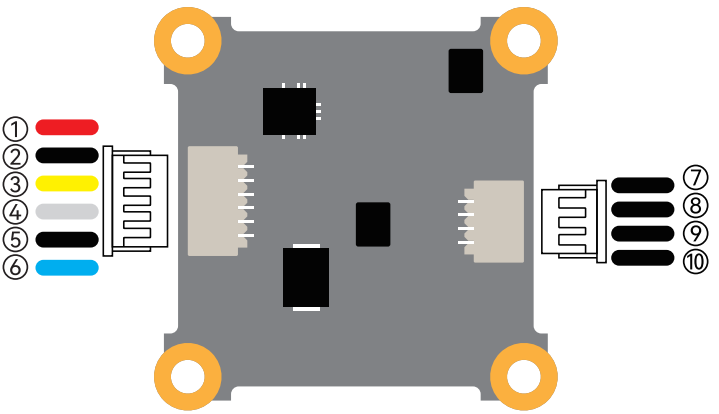






Wire Diagram

Following the below wiring diagram, correctly connect the 6-pin connector provided in the package to the flight controller via the flight controller connector.

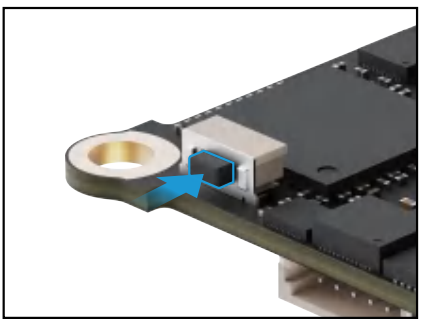


① POWER IN
② POWER GND
③ UART RX (Connecting FC TX)
④ UART TX (Connecting FC RX)
⑤ GND
⑥ N/A
⑦ USB-VBUS
⑧ USB-DP
⑨ USB-DN
⑩ USB-GND

Note:
• If you choose to solder on yourself, you must remove the 6-pin connector and prepare the soldering iron and solder. Ensure the solder joints are secure to avoid short circuits or open circuits.

Binding

Please make sure that the P1 Air Unit HD VTX and ground control equipments have been upgraded to the latest firmware before binding. The following uses the VR04 HD FPV goggles as an example to illustrate the binding steps:

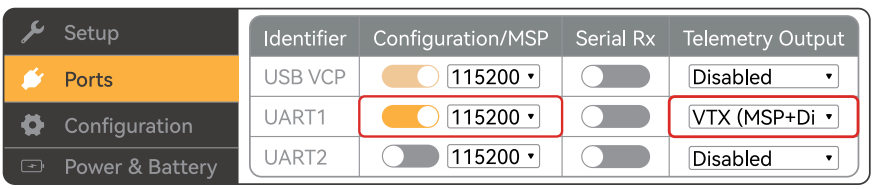


	P1 Air Unit HD VTX	VR04 HD FPV Goggles
First step	When powered on, the light will show solid green	When powered on, the start-up screen appears on the display
Second step	Short press the bind button to enter binding mode, the light will flash red quickly for around 30 seconds	Short press the bind button to enter binding mode, the buzzer will emit a 'beep... beep... beep... beep' prompt
Third step	The indicator light turn from flashing red to solid green, indicating successful binding	The buzzer emits a long 'beep' and the video transmission feed is displayed, indicating successful binding

Notes:
• Ground control equipments include FPV goggles, portable FPV monitors, receiver modules, and other equipments compatible with the ArtLynk VTX system. For specific binding steps, please refer to the relevant product manuals.
• If you fails to bind, please repeat the second step. Additionally, if you failed to bind due to overheating of the VTX, power off the video transmission for a period of time, then bind again.

Flight Controller OSD Configuration

After connecting the P1 Air Unit HD VTX to the flight controller, you can obtain the flight controller's OSD information and start serial port configuration:
• Connect the P1 Air Unit HD VTX to the flight controller according to the wiring diagram;
• Connect the flight controller to the Betaflight Configurator;
• Turn on the corresponding UART port, select the MSP switch, and choose VTX (MSP+Displayport);



• Configure the flight controller OSD.

Note:
• For Betafight versions 4.4.0 and earlier version, please open the CLI and enter the following content before configuring the flight controller OSD:

```
set osd_displayport_device = MSP
set vcd_video_system = HD
save
```

Manual

Please visit the Support page on our official website for detailed product tutorials or to download the latest firmware version.
Support link: https://support.betafpv.com/hc/en-us/articles/53204370908825-Manual-for-P1-Air-Unit-HD-VTX

Precautions

● Ensure all antennas are securely installed before powering on to prevent component damage.
● Interface cables must be connected strictly according to the specified pinout sequence; failure to do so may cause device malfunction or damage.
● Standby Mode automatically activates low-power mode. The flight controller must be unlocked or turned off Standby Mode before takeoff.
● Check the surrounding environment to ensure no other electromagnetic devices are present that may cause interference. Avoid using the same frequency as other equipment, or video transmission performance will be severely influenced.
● Fully understand and comply with local laws and regulations before use.

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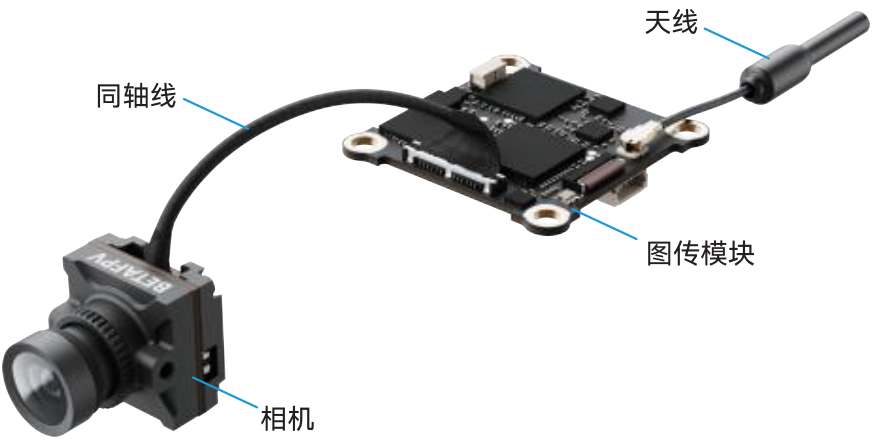
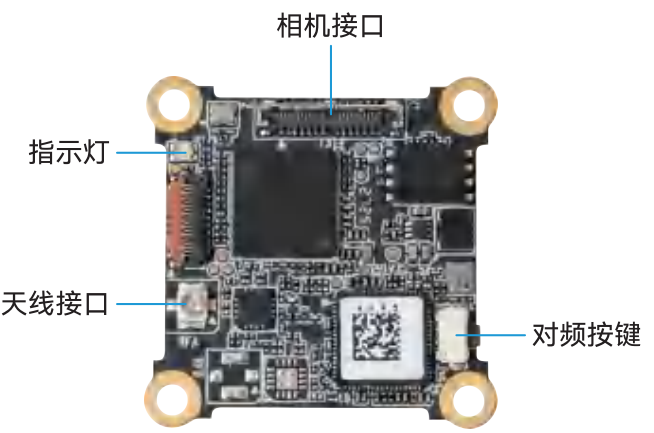
MADE IN CHINA

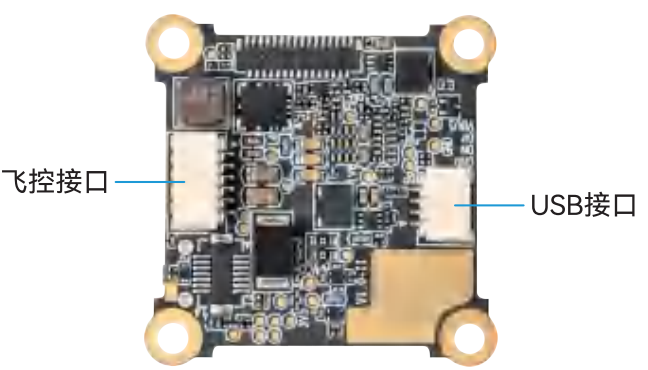
Artosyn Inside & KAP Supported:
ArtLynk高清图传系统使用了酷芯微（Artosyn）最新的AR803X芯片组，由酷奥谱（KAP）提供全套的技术支持。酷奥普（KAP）向各FPV厂商提供基于AR803X芯片组的解决方案或者技术支持，并且确保使用的ArtLynk无线高清协议相互兼容。

开放合作的FPV高清图传生态:
ArtLynk高清图传系统致力于搭建一套开发的FPV高清图传生态，该系统不再属于单个公司。FPV厂商和团队都可以基于该套系统设计，研发和生产相关的产品，并且可以相互之间连接和兼容。

产品图片

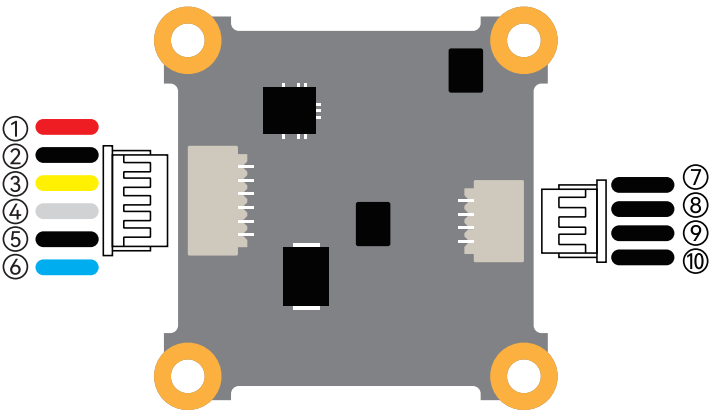






接线

按照下图线序说明，将包装内提供的6PIN连接线通过飞控接口正确连接至飞控。



① POWER IN
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③ UART RX (连接飞控TX)
④ UART TX (连接飞控RX)
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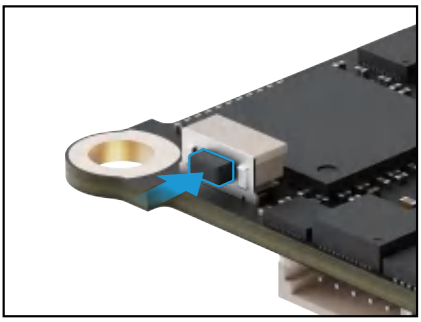
⑥ N/A
⑦ USB-VBUS
⑧ USB-DP
⑨ USB-DN
⑩ USB-GND

提示：

- 如果选择焊接方式，需自行拆除6PIN端子并自备电烙铁和焊锡进行焊接。确保焊点牢固，并避免短路或开路。

对频

对频前，确保P1 Air Unit HD VTX、地面端设备均已升级至最新固件。下面以VR04高清版飞行眼镜为例说明对频方法：

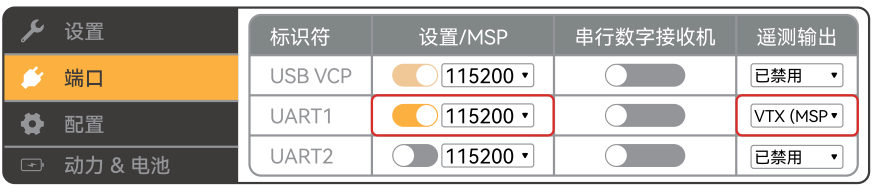


	P1 Air Unit HD VTX	VR04高清版
第一步	设备通电，此时指示灯绿灯常亮	设备通电，此时屏幕出现开机画面
第二步	短按对频按键进入对频状态，指示灯红色快闪，持续约30秒	短按对频按键进入对频状态，蜂鸣器发出“滴… 滴… 滴…滴”提示
第三步	指示灯由红色快闪变为绿色常亮，表示对频成功	蜂鸣器长响“滴”一声并显示图传画面，表示对频成功

提示：
● 地面端设备包括支持ArtLynk图传系统的FPV飞行眼镜、小飞手、接收模块等，具体对频操作请查阅相关设备说明书；
● 若对频失败，请重复第二步操作；如因图传过热导致对频失败，请将图传断电冷却后再进行对频操作。

飞控OSD配置

P1 Air Unit HD VTX与飞控连接后，可以获取飞控OSD的信息并进行串口配置：
● 按“接线”指引将P1 Air Unit HD VTX与飞控连接；
● 将飞控连接到Betaflight Configurator；
● 打开对应的UART端口，勾选MSP开关，选择VTX (MSP+Displayport)；



● 进行飞控OSD配置。

提示：
● Betafight 4.4.0及之前的版本，请打开CLI(命令行)，输入以下内容后再进行飞控OSD配置：

```
set osd_displayport_device = MSP
set vcd_video_system = HD
save
```

产品说明书

请访问官网Support页面，详细了解产品的使用教程，或下载最新版本的固件。
Support页面链接：https://support.betafpv.com/hc/en-us/articles/53204370908825-Manual-for-P1-Air-Unit-HD-VTX

注意事项

- 通电前请安装好所有天线，避免元器件损坏。
- 务必按照指定线序安装接口线材，否则可能导致设备异常或损坏。
- 待机模式自动开启动态低功率模式(Standby Mode)，起飞前需解锁飞控或关闭待机模式。
- 检查周围环境，确保无其它电磁设备干扰，并避免与其他设备使用相同频段，否则会严重影响图传性能。
- 使用前需充分了解并遵守当地的法律法规。