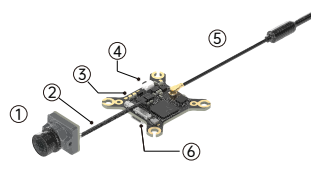
Ascent Lite VTX

Quick Start Guide

V1.1

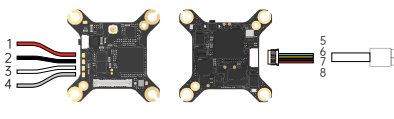
Introduction



1.Camera
2.Coaxial Cable
3.Power Pad
4.Link Button
5.Antenna
6.USB Port

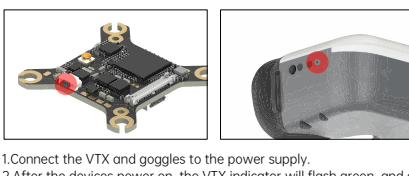
*This product is a visible light camera

Connection



1. Power in 3V~12.6V
2. Power GND
3. Uart RX(Connects to Flight Controller TX)
4. Uart TX(Connects to Flight Controller RX)
5. USB-DP
6. USB-DN
7. USB-GND
8. USB-5V

Linking



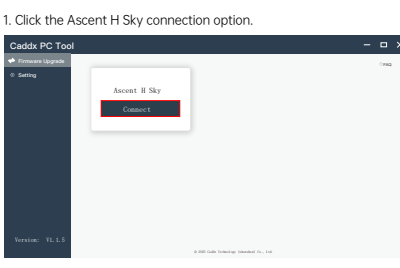
1.Connect the VTX and goggles to the power supply.
2.After the devices power on, the VTX indicator will flash green, and a status icon will appear on the goggles screen.
3.Press the pairing buttons on both the VTX and the goggles (as shown in the figure). When entering pairing mode, the VTX indicator turns red, and the goggles emit “beep... beep... beep...” sounds.
4.Once pairing is successful, the VTX indicator turns solid green, the beeping stops, and the video transmission image is displayed on the goggles.

Upgrade

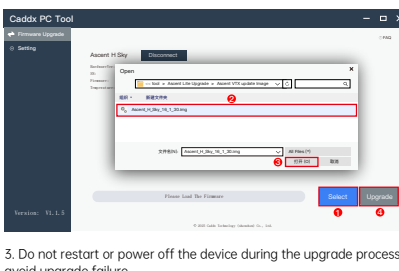
Please visit the official website to download the latest firmware. The file Ascent_H_Sky_XX_X_XX.img corresponds to the VTX firmware. Do not rename the file.
When upgrading the Ascent VTX, connect it to your computer using a Type-C USB cable, and open the Caddx_PC_Tool on your computer. Once the USB connection is established, follow the on-screen instructions to select the Ascent_H_Sky_XX_X_XX.img firmware file and start the upgrade process.

Notes:
1.When the Ascent VTX is connected to the computer via Type-C, no external battery is required, the USB port provides power to the module.
2.Do not disconnect the USB cable during the upgrade. Disconnect and reconnect it only after the upgrade is successfully completed.

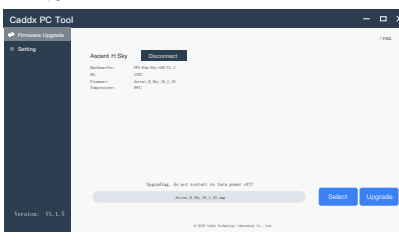
1. Click the Ascent H Sky connection option.



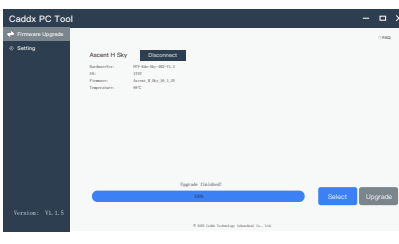
2. Click the Select button to open the pop-up window, choose the corresponding firmware version, then click Open to start the upgrade process.



3. Do not restart or power off the device during the upgrade process to avoid upgrade failure.



4. Upgrade completed.

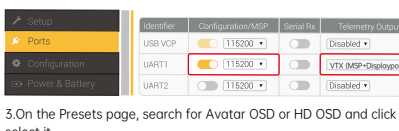


FC OSD

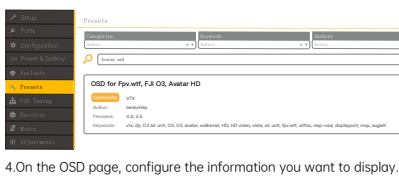
Betaflight 4.5 or later settings
By connecting the VTX serial port to the flight controller, you can access the flight controller's OSD information. Using Betaflight Configurator 10.10.0 with firmware version 4.5.0 as an example, the serial port configuration method is described below.

1.Solder the blue and green wires from the 6-pin power cable to the UART1 port on the flight controller (refer to the connection page). Here, UART1 is taken as an example.

2.Connect the flight controller to Betaflight Configurator, open the corresponding UART port, check the MSP option, and enable VTX (MSP + Displayport).



3.On the Presets page, search for Avatar OSD or HD OSD and click to select it.

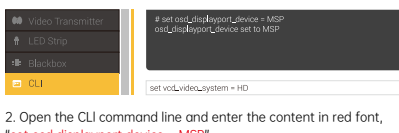


4.On the OSD page, configure the information you want to display.

Betaflight 4.4 version



1.Open the corresponding uart port (Take uart1 as an example in the figure Check the MSP switch and click Save, Check the VTX (MSP+Displayport)。



2. Open the CLI command line and enter the content in red font,
“set osd_displayport_device = MSP“
“set vcd_video_system = HD“
“save“

Status indication

VTX Indicator Status	
Link state	Steady red light
upgrade frmware	Red light rapidly flashes
Wireless connection, image output is normal	Steady green light
Wireless not connected	green light rapidly flashes
Wireless connection is normal, image is abnormal	green light slowly flashes

Precautions

1. Before powering on, please install all antennas to avoid damage to components.
2. When the standby mode is turned on, the power is limited to 10mW. Before taking off, you need to unlock the flight control or turn off the standby mode.
3. If you use it with other 5.8GHz devices at the same time, please choose a different channel.
4. If you use the Gyroflow function of the camera, please provide shock absorption for the fxed deck of the camera to avoid the failure of the anti-shake.

Specification

Name	Ascent Lite VTX
CMIIT ID	26J44M77E120
Model	WN13-4S09B
FCC IC	2BHG9-WN13-4S09B
Communication Frequency	5.725-5.829 GHz
Transmit Power (EIRP)	FCC/SRRC: < 20dBm; CE: < 14dBm
I/O Interface	JST1.0*4 (Power cord); HSG0.8*5 (USB)
Channels	3
Wide Voltage Input	3V~12.6V
Supported FC Systems	Betaflight; Inav; Fettec; Kiss; ArduPilot
Bitrate	25mbps
OSD	Canvas mode
End-to-End Latency	Average latency35ms
Antenna	1 (Ipex-1)
Operating Bandwidth	5M/ 10M/ 20M/ Auto
Image Sensor	1/2.8 inch
Resolution	1080P/ 60fps, 720P/ 100fps
Ratio	16/ 9
Mounting Hole	25mm
Weight	6g (Antenna not included)
Dimensions	Camera: 12*14*15mm VTX: 30.5*30.5*3.5mm
Transmission Distance	3KM
Control Mode	One aircraft, one controller

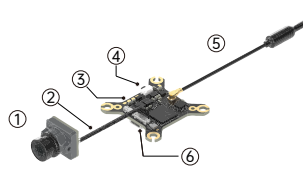
CADDXFPV Support
email: support@caddxfpv.com
This content is subject to change.Download the latest version from https://www.caddxfpv.com

Ascent Lite VTX

快速入门指南

V1.1

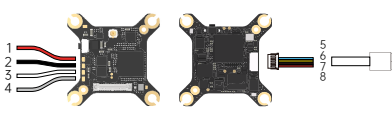
简介



1.相机
2.同轴线
3.电源焊口
4.对频按键
5.天线
6.USB接口

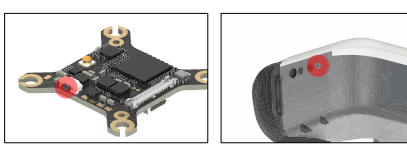
*此产品为可见光摄像头

接线



1. Power in 3V~12.6V
2. Power GND
3. Uart RX (连接飞控 TX)
4. Uart TX (连接飞控 RX)
5. USB-DP
6. USB-DN
7. USB-GND
8. USB-5V

对频



1. 连接 VTX 和眼镜电源。
2. 等待设备启机后，VTX 绿灯闪烁，护目镜上出现状态图标。
3. 分别按下 VTX 和眼镜的对频按钮（如图），当进入配对状态时，VTX 指示灯变为红色，眼镜端发出滴.. 滴... 滴..蜂鸣器提示。
4. 对频成功后，VTX 上的指示灯变为绿色常亮，眼镜蜂鸣器停止并显示图传画面。

升级

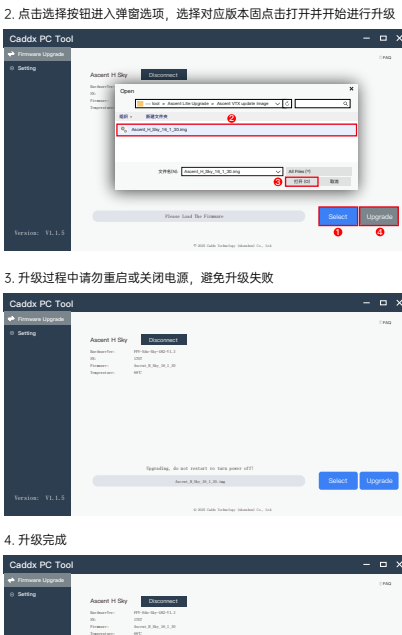
请到官网下载最新升级固件，Ascent_H_Sky_XX_X_XX.img 对应 VTX 端升级固件，注意请勿修改文件名。
Ascent VTX 升级的时候采用 Type-C 的 USB 线连接电脑，然后在电脑上打开 Caddx_PC_Tool 的工具，当连接 USB 线的时候，就可以根据提示，选择 Ascent_H_Sky_XX_X_XX.img 固件进行升级。

注意:
1. Ascent VTX 通过 Type-C连接电脑时，外部无需电池供电，电脑的 USB接口会为模块供电。
2. 升级中请不要拔掉连接电脑的USB线。当升级成功以后再插拔USB线。

1. 点击 Ascent H Sky 连接选项



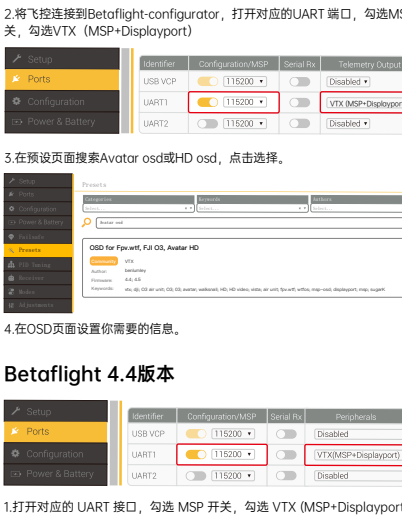
2. 点击选择按钮进入弹窗选项，选择对应版本固点击打开并开始进行升级



3. 升级过程中请勿重启或关闭电源，避免升级失败



4. 升级完成



飞控OSD

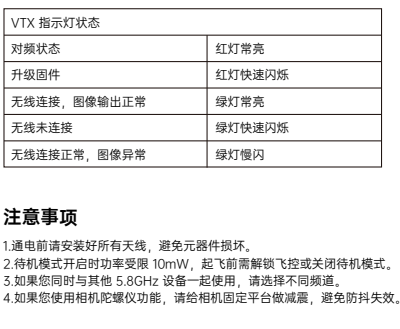
Betaflight 4.5或以上版本设置
将图传串口连接到飞控，可以获取飞控OSD信息，以Betaflight-configurator 10.10.0与固件4.5.0为例介绍串口设置方法。

1.将 6pin 电源线蓝线和绿线焊接到飞控 UART 1端口（参考连接页面），这里以 UART 1 为例。

2.将飞控连接到Betaflight-configurator，打开对应的UART 端口，勾选MSP开关，勾选VTX（MSP+Displayport）



3.在预设页面搜索Avatar osd或HD osd，点击选择。

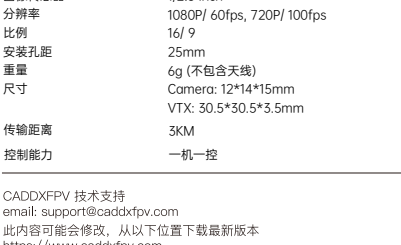


4.在OSD页面设置你需要的信息。

Betaflight 4.4版本



1.打开对应的 UART 接口，勾选 MSP 开关，勾选 VTX (MSP+Displayport)。



2.打开 CLI 命令行，输入红色字体内容，
"set osd_displayport_device = MSP"
"set vcd_video_system = HD"
"save"

状态指示

VTX 指示灯状态	
对频状态	红灯常亮
升级固件	红灯快速闪烁
无线连接，图像输出正常	绿灯常亮
无线未连接	绿灯快速闪烁
无线连接正常，图像异常	绿灯慢闪

注意事项

1.通电前请安装好所有天线，避免元器件损坏。
2.待机模式开启时功率受限 10mW，起飞前需解锁飞控或关闭待机模式。
3.如果您同时与其他 5.8GHz 设备一起使用，请选择不同频道。
4.如果您使用相机陀螺仪功能，请给相机固定平台做减震，避免防抖失效。

规格

名称	Ascent Lite VTX
CMIIT ID	26J44M77E120
型号	WN13-4S09B
FCC IC	2BHG9-WN13-4S09B
通信频率	5.725-5.829 GHz
发射功率(EIRP)	FCC/SRRC: < 20dBm; CE: < 14dBm
接口	JST1.0*4 (电源线); HSG0.8*5 (USB)
频点数量	3
宽电压输入	3V~12.6V
支持飞控系统	Betaflight; Inav; Fettec; Kiss; ArduPilot
比特率	25mbps
OSD	Canvas mode
端到端延时	平均延时35ms
天线	1 (Ipex-1)
工作宽带	5M/ 10M/ 20M/ Auto
图像传感器	1/2.8 inch
分辨率	1080P/ 60fps, 720P/ 100fps
比例	16/ 9
安装孔距	25mm
重量	6g (不包含天线)
尺寸	Camera: 12*14*15mm VTX: 30.5*30.5*3.5mm
传输距离	3KM
控制能力	一机一控

CADDXFPV 技术支持
email: support@caddxfpv.com

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