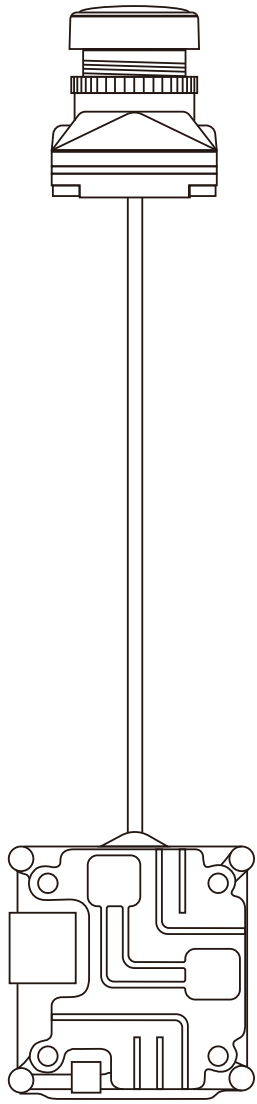
VISTA KIT

Quick Start Guide
快速入门指南

Nebula nano cam
Nebula micro cam
Nebula pro cam
Polar cam
Dji cam



CADDXFPV Support
CADDXFPV 技术支持
E:Support@caddxfpv.com

V1.2

EN

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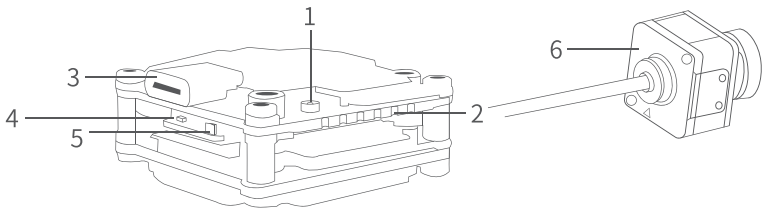
Introduction

The CADDXFPV Vista is an advanced video transmission module that supports a 5.8GHz digital video signal and 720p 120fps image transmission,with a transmission range of up to 4 km and a minimum end-to -end latency within 28ms*.The vista can be mounted on a racing drone and used with DJI FPV Goggles or a remote controller to transmit video,control signals ,and flight controller information wirelessly.

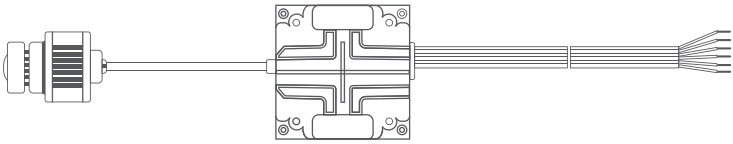


1. IPEX Antenna Ports
2. 3-in-1 Port
3. USB-C Port
4. Linking Status Indicator
5. Link Button
6. Camera

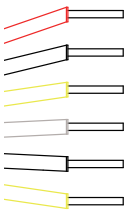
* The end-to-end latency is the total time from camera input to screen display. The device is able to reach its minimum latency and maximum transmission distance (FCC) in a wide open area with no electromagnetic interference.

Connection

Refer to the illustration below to mount and connect the vista to a racing drone.



3-in-1 Cable (Power, DJI HDL, UART)



RED: Power 7.4-26.4V
BLACK: Power GND
YELLOW: UART RX(Connects to Flight Controller OSD TX,0-3.3V)
WHITE: UART TX(Connects to Flight Controller OSD RX,0-3.3V)
BLACK: Signal GND
YELLOW: DJI HDL(Connects to Flight Controller S.Bus,0-3.3V)

- An electric soldering iron and soldering tin are required for connection. Make sure that there are no short circuits or open circuits when soldering the cables.
- There are up to eight channels for the Vista depending on the region (FCC: eight, CE/SRRC: four, MIC: three). Each channel has a bandwidth of 20 MHz. The public channel is 8, which is the default channel when the equipment is powered on. The channel can be changed manually to avoid interference from other devices.

- The Vista may become hot during or after operation. DO NOT touch the Vista before it cools down.
- DO NOT use the Vista for an extended period when the temperature is high or there is poor ventilation. Otherwise, the Vista may overheat and enter low-power mode which will affect its performance. If the Vista enters low-power mode, restart it or wait for it to cool down and it will automatically return to normal.
- Keep the Vista away from metal objects or carbon fiber frames.Make sure to choose a position where the transmission will not be blocked during flight.

Activation

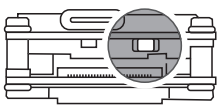
When powered on, connected the vista to your computer and run DJI ASSIST ANT™2 for activation.During the activation and upgrade process,there is a lot of heat.Please avoid direct contact to prevent burns.Overheating may lead to upgrade failure and unable to boot normally.You need to aware of the ambient temperature and use a fan to assist cooling.The warranty service does not support the crash caused by firmware refresh.

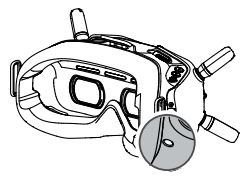
Download DJI Assistant 2 at https://www.dji.com/fpv/downloads

Linking

The vista support there linking methods:A. B, and A+B (Must link A before B).

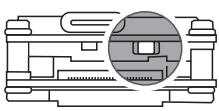
A.

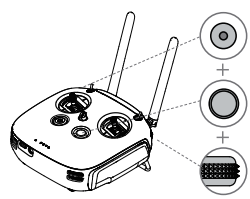




1. Power on the vista and the DJI FPV Goggles.
2. Press the link button on the vista and the goggles.*
3. The linking status indicator of the vista turns solid green. The goggles stop beeping when successfully linked and the video display is normal.

B.





1. Power on the vista and the DJI FPV Remote Controller.
2. Press the link button on the vista, and then press the record button, C button, and right dial on the remote controller simultaneously.*
3. Both the linking status indicators turn solid green when successfully linked.

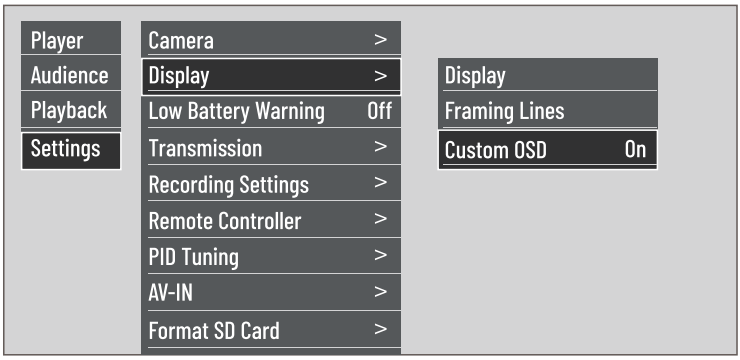
* When ready to link, the devices will give the following indication:
Vista: the linking status indicator turns solid red.
Goggles: the goggles beep continually.
Remote controller: the remote controller beeps continually and the status indicator blinks blue.

OSD display settings

1.After connecting the UART cable to the flight controller.
take the Betaflight flight controller software setting as an example.
Open the corresponding UART port and click save.

2.Select telemetered and OSD.click save.

3.Select the display content you need in the OSD page
(some OSD are not supported,please wait for subsequent
updates)



4. Select Settings-Display-Custom OSD ON in DJI FPV Goggle

Operating channel

Central frequency(MHz)	Channel1	Channel2	Channel3	Channel4	Channel5	Channel6	Channel7	Channel8
FCC	5660	5695	5735	5770	5805	5878	5914	5839
CE/SRRC	5735	5770	5805	-	-	-	-	5839
MIC	5660	5700	-	-	-	-	-	5745

Make sure you fully understand and abide by local laws and regulations before using this product.An amateur radio license may be needed in FCC regions when using channels 1,2,6,or 7, as they are amateur frequency bands.Users who use the amateur frequency bands with a modified or cracked version or without a license may be punished for breaking local laws or regulations.

Specifications

Weight	Vista: 18.5 g Antenna: 2.5g/1.5g
Dimensions	Vista: 30×29×13.5 mm Coaxial Cable: 120 mm
Operating Frequency	5.725-5.850 GHz
Transmitter Power (EIRP)	FCC/SRRC: <30 dBm; CE: <14 dBm
Min. Latency (end-to-end)	Low Latency Mode (720p 120fps): <28 ms; High Quality Mode (720p 60fps): <40 ms
Max. Transmission Distance	FCC/SRRC: 4 km; CE: 0.7 km;
I/O Interface	USB-C,IPEX,3-in-1 port
Supported Flight Control System	BetaFlight
Operating Temperature Range	0° to 40° C (32° to 104° F)
Input Power	7.4-26.4 V

Camera parameters

Model	Polar cam
Weight	9g
Dimensions	19×19×24 mm
Image ratio	16 : 9
Min.Latency	720p 60fps < 32ms
Sensor	1/1.8” CMOS Aperture: F/1.6 Shutter: Rolling shutter Iso: 100-25600 Min. Illumination: 0.00003Lux
FOV	162°(D);138°(H);75°(V)

Model	Nebula pro
Weight	6 g
Dimensions	19×19×20 mm
Image ratio	16 : 9/4 : 3
Min.Latency	720p 120fps < 28ms 720p 60fps < 32ms
Sensor	1/3.2” CMOS Shutter: Rolling shutter Iso: 100-25600
FOV	150° (D);122° (H) ;93° (V)

Model	DJI cam
Weight	8.2 g
Dimensions	21.1×20.1×27.4 mm
Image ratio	16 : 9/4 : 3
Min.Latency	720p 120fps < 28ms 720p 60fps < 32ms
Sensor	1/3.2” CMOS Shutter: Rolling shutter Iso: 100-25600
FOV	150° (D);122° (H) ;93° (V)

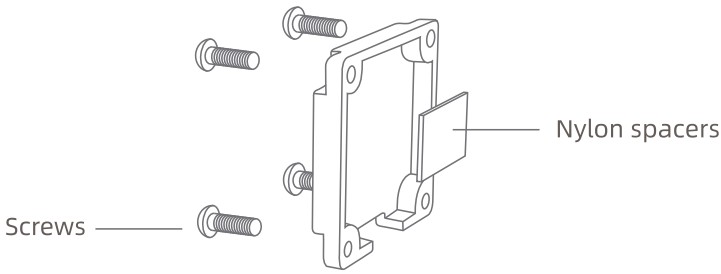
Model	Nebula nano
Weight	3.5 g
Dimensions	14×14×21 mm
Image ratio	16 : 9
Min.Latency	720p 60fps < 32ms
Sensor	1/3.2” CMOS Shutter: Rolling shutter Iso: 100-25600
FOV	138° (D);122° (H) ;75° (V)

Model	Nebula micro
Weight	5.8 g
Dimensions	19×19×20 mm
Image ratio	16 : 9
Min.Latency	720p 60fps < 32ms
Sensor	1/3.2” CMOS Shutter: Rolling shutter Iso: 100-25600
FOV	138° (D);122° (H) ;75° (V)

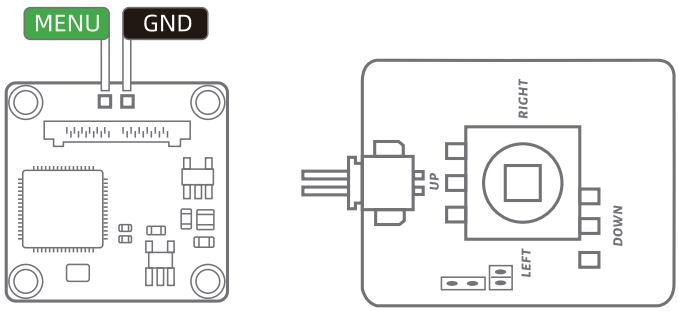
Menu board

Polar camera supports menu board adjustment, this function needs self-soldering, please be CAREFUL not to damage the camera structure during welding.

1: Remove the screws of the back cover.
Remove the nylon spacers.



2: Solder the menu wire and the gnd wire.
Install the back cover. Connect the OSD menu board.



1. Left/Right button

   Control the increase or decrease of saturation.

2. Up/Down button

   Control the increase or decrease of brightness.

3. Middle button

   Short press to save, long press for 3 seconds to restore factory settings.

* Menu board needs to be purchased separately

This content is subject to change.

Download the latest version from
https://www.caddxfpv.com/pega/download

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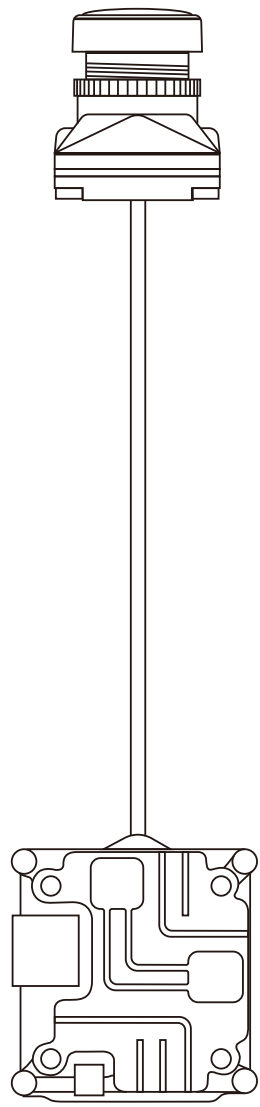
Nebula pro 相机
Polar 相机
DJI 相机



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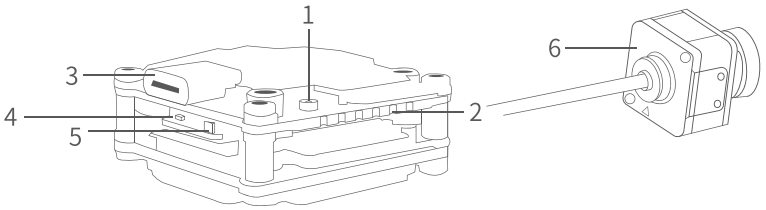
简介

VISTA 天空端是一款一体化高清图传设备，支持 5.8GHz 数字信号以及 720p 120fps 图传画面，端到端延时低至 28ms*以内，传输距离可达 4 km。可安装于穿越机或其他设备上与 DJI FPV 飞行眼镜或遥控器配合使用，通过无线通信传输视频图像、飞控系统信息以及地面端控制信号。

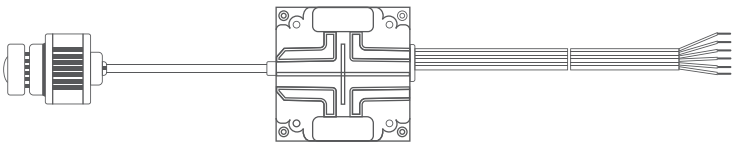


1. IPEX 天线接头
2. 三合一接口
3. USB-C 接头
4. 对频状态指示灯
5. 对频按键
6. 相机

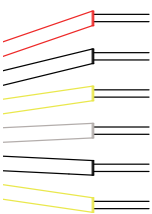
* 端到端延时为从相机采集到屏幕显示的总延时。在开阔无遮挡、无电磁干扰的环境使用，设备可以达到最低延时和最大传输距离（FCC 标准）。

安装连线

参照下图连线并将各模块固定于飞行器或其他设备上。



三合一连接线（电源，DJI HDL，UART）



红：电源（ 7.4-26.4 V ）
黑：电源 GND
黄：UART_RX（接飞控 OSD TX，0-3.3 V ）
白：UART_TX（接飞控 OSD RX，0-3.3 V ）
黑：信号 GND
黄：DJI HDL（接飞控 S.Bus，0-3.3 V ）

- 用户需自备电烙铁和焊锡进行连线。焊接时确保焊点牢固且不会出现短路或开路。
- 天空端最多支持 8 个带宽为 20 MHz 的频道（根据地区有所不同，FCC：8 个，CE/SRRC：4 个，MIC：3 个）。其中 8 号频道为公共频道，设备开启后会先进入该频道，用户可手动选择其他工作频道以避免设备间的干扰。

- 本产品发热较大，请勿在无外部散热的条件下直接触摸天空端。
- 请避免在环境温度较高且不通风的情况下长时间使用天空端，否则产品温度过高将进入低功耗模式，性能会受到影响。
- 尽量远离金属/碳纤维结构件，并确保飞行中天线不会被遮挡。

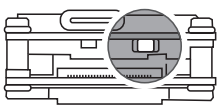
激活

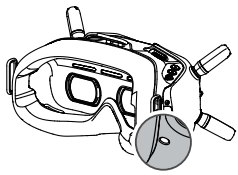
VISTA KIT 需在供电状态下连接至电脑并运行DJI ASSISTANT™ 2调参软件进行激活,激活与升级过程中发热较大,请避免直接接触以防烫伤,过热可能会导致升级失败无法正常开机,需注意环境温度和使用风扇辅助降温,刷新固件导致的死机不支持保修服务。(调参软件下载地址:https:/www.dji.com/fpv/downloads)

对频

天空端支持 A、B 以及 A+B（先 A 后 B）三种对频方式。

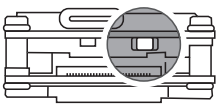
A.

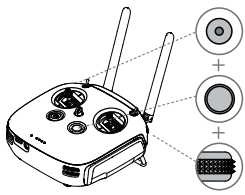




1. 开启Vista及飞行眼镜。
2. 分别按下Vista及飞行眼镜的对频按键。*
3.对频成功后,Vista对频状态指示灯绿灯常亮,飞行眼镜提示音停止并显示图传。

B.





1. 开启Vista及遥控器。
2. 分按下Vista的对频按键,再同时按下遥控器的录像按键、自定义按键C和右波轮。*
3. 对频成功后,Vista和遥控器的对频状态指示灯均绿色常亮。

* 等待对频时:
天空端 —— 对频状态指示灯红灯常亮
飞行眼镜 —— 响起嘀 - 嘀 … 的提示音
遥控器 —— 响起嘀 - 嘀 … 的提示音，且状态指示灯蓝色闪烁

OSD显示设置

1、在连接好UART线到飞控后，以Betaflight调参软件设置为例，打开相对应的UART端口，点击保存

2、勾选遥测输出与OSD，点击保存

3、在OSD页面内勾选所需要的遥测信息（部分内容不支持显示，请等待后续更新）

4、在DJI FPV Goggle中选择-设置-显示-自定义OSD 开启

工作频段

中心频率(MHz)	频道1	频道2	频道3	频道4	频道5	频道6	频道7	频道8
FCC	5660	5695	5735	5770	5805	5878	5914	5839
CE/SRRC	5735	5770	5805	-	-	-	-	5839
MIC	5660	5700	-	-	-	-	-	5745

使用本产品时需要充分了解并尊重当地的法律法规，避免违规使用。在FCC地区，使用频道1/2/6/7（业余无线电频段）时，需要持有业余无线电执照才能操作，如果无执照使用业余无线电频段或者通过改装、破解等手段迫使设备工作在该频段可能会由于违规当地法规而遭受到处罚。

产品规格

重量	Vista: 18.5 g 天线：2.5g/1.5g
外形尺寸	Vista: 30×29×13.5 mm 同轴线: 120 mm
通信频率	5.725-5.850 GHz
发射功率（EIRP）	FCC/SRRC ： <30 dBm ; CE ： <14 dBm
端到端最低延时	低延迟模式 (720p 120fps) ： < 28ms 高画质模式 (720p 60fps) ： < 40ms
最大传输距离	FCC/SRRC ： 4 km；CE ： 0.7 km；
接口	USB-C , IPEX，三合一，
支持飞控系统	BetaFlight
工作环境温度	0℃至 40℃
输入电源	7.4 -26.4 V

相机参数

型号	Polar cam
重量	9 g
外形尺寸	19×19×24 mm
图像比例	16 : 9
延迟	720p 60fps < 32ms
传感器	1/1.8” CMOS 光圈: F/1.6 快门: 卷帘快门 Iso: 100-25600 最低照度: 0.00003Lux
视场角	162°(D);138°(H);75°(V)

型号	Nebula pro
重量	6 g
外形尺寸	19×19×20 mm
图像比例	16 : 9/4 : 3
延迟	720p 120fps < 28ms 720p 60fps < 32ms
传感器	1/3.2” CMOS 快门: 卷帘快门 Iso: 100-25600
视场角	150° (D);122° (H) ;93° (V)

型号	DJI cam
重量	8.2 g
外形尺寸	21.1×20.1×27.4 mm
图像比例	16 : 9/4 : 3
延迟	720p 120fps < 28ms 720p 60fps < 32ms
传感器	1/3.2” CMOS 快门: 卷帘快门 Iso: 100-25600
视场角	150° (D);122° (H) ;93° (V)

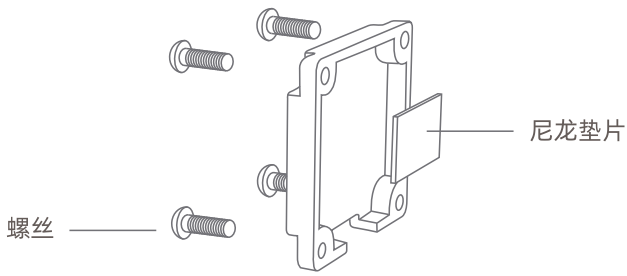
型号	Nebula nano
重量	3.5 g
外形尺寸	14×14×21 mm
图像比例	16 : 9
延迟	720p 60fps < 32ms
传感器	1/3.2” CMOS 快门:卷帘快门 Iso: 100-25600
视场角	138° (D);122° (H) ;75° (V)

型号	Nebula micro
重量	5.8 g
外形尺寸	19×19×20 mm
图像比例	16 : 9
延迟	720p 60fps < 32ms
传感器	1/3.2” CMOS 快门: 卷帘快门 Iso: 100-25600
视场角	138° (D);122° (H) ;75° (V)

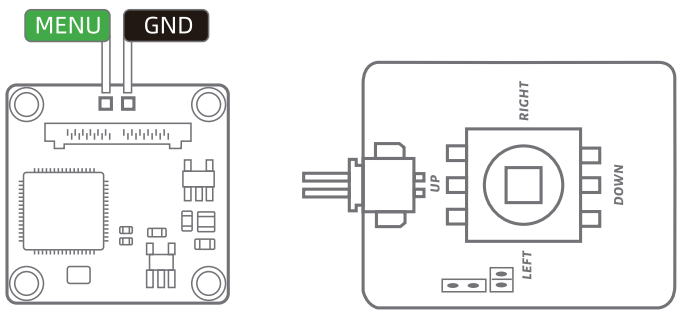
菜单板

polar相机支持菜单板调节，此功能需要自行焊接，焊接与拆解有风险，请知悉

1: 卸下后盖螺丝 - 取下尼龙垫片



2: 焊接menu与gnd线 - 安装后盖 - 连接OSD菜单板进行设置



1. 左/右 按键

控制饱和度的增加或减少。

2. 上/下 按键

控制亮度的增加或减少。

3. 中间 按键

短按可保存，长按3秒可恢复出厂设置。

* 菜单板需要单独购买

This content is subject to change.

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