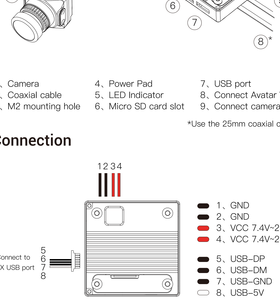
MOONLIGHT CAMERA

QUICKSTART GUIDE

V1.1

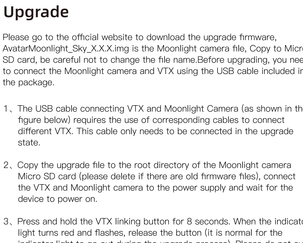
Introduction



1、Camera
2、Coaxial cable
3、M2 mounting hole
4、Power Pad
5、LED Indicator
6、Micro SD card slot
7、USB port
8、Connect Avatar VTX
9、Connect camera

*Use the 25mm coaxial cable

Connection



*Precautions

⚠
- Power consumption, Moonlight: 12V@0.8A; 8V@1.2A
  Moonlight + Avatar V2: 12V@1.4A; 8V@2.2A
  Please consider the overcurrent of the wire and the power supply capacity of the power supply.
- When use 6s batteries, it is recommended to solder capacitors at the power input.

Upgrade

Please go to the official website to download the upgrade firmware, AvatarMoonlight_Sky_X.X.X.img is the Moonlight camera file, Copy to Micro SD card, be careful not to change the file name.Before upgrading, you need to connect the Moonlight camera and VTX using the USB cable included in the package.

1、The USB cable connecting VTX and Moonlight Camera (as shown in the figure below) requires the use of corresponding cables to connect different VTX. This cable only needs to be connected in the upgrade state.

2、Copy the upgrade file to the root directory of the Moonlight camera Micro SD card (please delete if there are old firmware files), connect the VTX and Moonlight camera to the power supply and wait for the device to power on.

3、Press and hold the VTX linking button for 8 seconds. When the indicator light turns red and flashes, release the button (it is normal for the indicator light to go out during the upgrade process). Please do not cut off the power during the upgrade process!

4、The upgrade time is about 40 seconds. After the upgrade is successful, the VTX indicator light will flash green or stay on, and the Moonlight camera indicator will turn green and stay on.

Solutions to abnormal situations:
- If the REC indicator light turns solid blue during the upgrade process, it means the USB cable connection is abnormal. Please check whether the USB cable is connected properly or replug it.
- If the VTX indicator light changes to green flashing or solid light after long pressing the linking button without red light flashing, please check whether the firmware is correct or whether the SD card is detected.

Status indication

REC Indicator Status	
USB cable not connected	Steady blue light
Upgrade firmware	Red light rapidly flashes and Steady red light
Working fine	Steady green light
Recording status	Green light slowly flashes
Camera not detected	Blue light slowly flashes
VTX Indicator Status	
Binding status	Steady red light
Upgrade firmware	Red light rapidly flashes and Steady red light
Works fine, wireless is not connected	Green light rapidly flashes
Works fine, wireless is connected	Steady green light
Device overheated	red and green lights flash alternately quickly
REC board signal not recognized	Green light slowly flashes

Precautions

1、It generates a lot of heat during recording, so please pay attention to airflow for heat dissipation.
2、When using the built-in EIS or using gyro data, please provide shock absorption to the camera bracket to avoid anti-shake failure.
3、Built-in EIS is only supported when the VTX REC resolution is set to 2.7K.
4、Automatically stops recording when the chip core temperature exceeds 95 degrees Celsius.
5、The menu setting high frame rate does not support 2.7K/4K recording, and the standard frame rate does not support 1080p100fps recording.
6、Cannot record while in standby mode.
7、Please use high-speed U3 or above Microsd card.

Specification

Model	Moonlight
Firmware name	AvatarMoonlight_Sky_X.X.X
Sensor	1/1.8"Inch
FOV	160°
Aperture	F2.1
ISO	100-12800
Recording resolution	4K@30/60fps; 2.7K@30/60fps; 1080p@100/60fps; 720p@60fps
Max Recording Mbps	150Mbps
Max Transmission Mbps	50Mbps
Video format	MP4 (H.264)
Shutter	Rolling shutter
3D DNR	Support
Gyro flow	Support
Built-in EIS	Support
Wide Power Input	7.4V-25.2V
Memory card type	Micro SD, Max 256G
Power consumption	12V@0.8±0.1A
Dimensions	Camera:19.5mm*19mm*24mm REC Board: 34.5mm* 34.5mm*8.3mm
Weight	Camera(without wire): 8.9g; Recording board: 10g

CADDXFPV Support
email: support@caddxfpv.com

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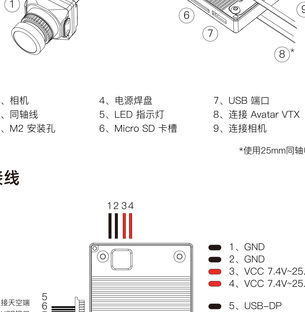
MOONLIGHT CAMERA

快速入门指南

V1.1

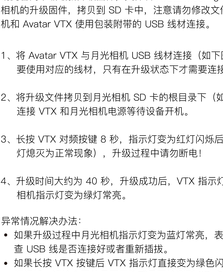
简介



1、相机
2、同轴线
3、M2 安装孔
4、电源焊盘
5、LED 指示灯
6、Micro SD 卡槽
7、USB 端口
8、连接 Avatar VTX
9、连接相机

*使用25mm同轴电缆

接线



*注意事项

⚠
- 功耗参考，月光相机: 12V@0.8A; 8V@1.2A
  月光相机+V2图传: 12V@1.4A; 8V@2.2A
  设备功耗较高，接线时需要考虑线材过流以及电源供电能力
- 使用6S电池供电建议在电源输入端焊接电容

升级

请到官网下载最新升级固件，文件名 AvatarMoonlight_Sky_X.X.X.img 对应月光相机的升级固件，拷贝到 SD 卡中，注意请勿修改文件名，升级前需要将月光相机和 Avatar VTX 使用包装附带的 USB 线材连接。

1、将 Avatar VTX 与月光相机 USB 线材连接（如下图所示）连接不同 VTX 需要使用对应的线材，只有在升级状态下才需要连接此线。

2、将升级文件拷贝到月光相机 SD 卡的根目录下（如果有旧固件文件请删除），连接 VTX 和月光相机电源等待设备开机。

3、长按 VTX 对频按键 8 秒，指示灯变为红灯闪烁后松开按键（升级过程中指示灯熄灭为正常现象），升级过程中请勿断电！

4、升级时间大约为 40 秒，升级成功后，VTX 指示灯变为绿色闪烁或常亮，月光相机指示灯变为绿灯常亮。

异常情况解决办法：
- 如果升级过程中月光相机指示灯变为蓝灯常亮，表示 USB 线连接异常请检查 USB 线是否连接好或者重新插拔。
- 如果长按 VTX 按键后 VTX 指示灯直接变为绿色闪烁或常亮，没有出现红灯闪烁，请检查固件是否正确或是否检测到 SD 卡。

状态指示

REC 指示灯状态	
USB 线连接异常	蓝灯常亮
升级固件	红灯闪烁和常亮
工作正常	绿灯常亮
录制状态	绿灯闪烁
未检测到摄像头	蓝灯慢闪
VTX 指示灯状态	
对频状态	红灯常亮
升级固件	红灯闪烁和常亮
工作正常，无线未连接	绿灯闪烁
工作正常，无线连接并出图	绿灯常亮
设备过热	红绿灯快速闪烁
未识别到 REC 板信号	绿灯慢闪

注意事项

1、在录制状态下发热量大，请注意气流散热
2、使用内置防抖或者使用陀螺仪数据时，请给摄像头固定平台做减震避免防抖失效
3、开启内置 EIS 防抖功能需将发射端录像分辨率设置为 2.7K
4、芯片内核温度超过 95 度时自动停止录像
5、菜单设置高帧率不支持 2.7K/4K 录像，标准帧率不支持 1080p100fps 录像
6、处于待机模式时不可录像
7、请使用高速 U3 以上规格 Micro SD 卡

参数规格

产品型号	月光/Moonlight
固件名字	AvatarMoonlight_Sky_X.X.X
传感器	1/1.8"Inch
FOV	160°
光圈	F2.1
ISO	100-12800
录制分辨率	4K@30/60fps：2.7K@30/60fps； 1080p@100/60fps; 720p@60fps
最大录制码率	150Mbps
最大传输码率	50Mbps
视频格式	MP4 (H.264)
电子快门	卷帘快门
3D DNR	支持
陀螺仪数据	支持
内置电子防抖	支持
宽电源输入	7.4V~25.2V
支持存储卡类型	Micro SD卡，最大容量256G
功耗	12V@0.8±0.1A
外形尺寸	相机:19.5mm*19mm*24mm 录像板: 34.5mm* 34.5mm*8.3mm
重量	相机(不含线): 8.9g；录像板: 10g

CADDXFPV 技术支持
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