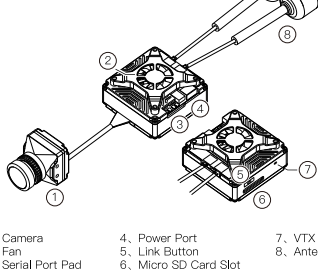


AVATAR GT KIT

QUICKSTART GUIDE

V1.1

Introduction



- 1、Camera
- 2、Fan
- 3、Serial Port Pad
- 4、Power Port
- 5、Link Button
- 6、Micro SD Card Slot
- 7、VTX LED
- 8、Antenna

Connection



- ⚠ Power consumption: 12V@1.5A
Please consider the power supply capability of the power supply.
- VTX generates a lot of heat when working, so please pay attention to airflow for heat dissipation

Linking

- Connect the VTX and the power of the goggles.
- Short press the VTX and goggles linking buttons respectively, when the VTX enters the pairing state The VTX LED turns red, and the goggles end is a DI... DI... DI...
- After the link is successful, the indicator light on the VTX LED turns solid green, the beeping sound on the goggles stops and the screen is displayed.

Upgrade

Please go to the official website to download the upgrade firmware, Avatar_Sky_X.X.X.img is the VTX file, be careful not to change the file name.

- Copy the upgrade file to the VTX Micro SD card directory, connect the power supply and wait for the device to start up (if there are old firmware files, please delete them).
- Press and hold the VTX linking button for 8 seconds, and release the button after the indicator light goes out. At this time, the VTX will automatically restart and enter the upgrade state, and the indicator light will change from blinking red to solid red and then turn off. The upgrade time is about 20 seconds, please do not power off during the upgrade process! (If the VTX continues to light up red, it means that the firmware cannot be detected or the firmware is wrong, please check the firmware file)
- After the upgrade is successful, the VTX indicator turns green and blinks.

*The Avatar GT TF card slot does not have a rebound function. Please stick the PVC sticker to the TF card before inserting it.

UART

The UART function enables the VTX communicate with the flight controller, allowing the VTX obtain the flight controller information. Take Betaflight Configurator as an example to introduce the UART setting method.

- Solder the white and gray wires of the 4 pin cable to the flight controller (refer to the Connection page).

Setup	Identifier	Configuration/MSP	Serial Rx	Telemetry Output
Ports	USB VCP	<input checked="" type="checkbox"/> 115200	<input type="checkbox"/>	Disabled AUTO
Configuration	UART1	<input checked="" type="checkbox"/> 115200	<input type="checkbox"/>	Disabled AUTO
Power & Battery	UART2	<input type="checkbox"/> 115200	<input type="checkbox"/>	Disabled AUTO

- Connect the flight controller to the Betaflight Configurator, and open the corresponding UART port (Take UART1 as an example in the figure) Check the MSP switch and click Save.

Video Transmitter	# set osd_displayport_device = MSP osd_displayport_device set to MSP
LED Strip	Allowed range: -1 - 31
Blackbox	set displayport_msp_serial = 0
CLI	

- Open the CLI command line and enter the content in red font
"set osd_displayport_device = MSP"
"set displayport_msp_serial = Y" (Where Y is one less than the number of the serial port. e.g. Y = 2 for serial 3)
"save"

Betaflight 4.4 or above version settings:

Setup	Identifier	Configuration/MSP	Serial Rx	Peripherals
Ports	USB VCP	<input checked="" type="checkbox"/> 115200	<input type="checkbox"/>	Disabled
Configuration	UART1	<input checked="" type="checkbox"/> 115200	<input type="checkbox"/>	VTX(MSP+Displayport)
Power & Battery	UART2	<input type="checkbox"/> 115200	<input type="checkbox"/>	Disabled

- 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).

Video Transmitter	# set osd_displayport_device = MSP osd_displayport_device set to MSP
LED Strip	
Blackbox	
CLI	set vcd_video_system = HD

- 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

Goggles Buzzer Status	
Link state	DI...DI...DI...
upgrade firmware	DI.....DI.....DI..... DI—
Upgrade failed	DI..DI..DI..
VTX Indicator Status	
Link state	Steady red light
upgrade firmware	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

- Before powering on, please install all antennas to avoid damage to components.
- 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.
- If you use it with other 5.8GHz devices at the same time, please choose a different channel.
- If you use the Gyroflow function of the camera, please provide shock absorption for the fixed deck of the camera to avoid the failure of the anti-shake.

VTX Specification

Name	Avatar GT KIT
Communication Frequency	5.725–5.850 GHz
Transmitter Power (EIRP)	MAX: 33dBm; FCC: <30dBm; CE: <14dBm; SRRC: <20dBm; MIC: <25dBm
I/O Interface	JST1.0*4(power cable); micro sd card slot
Mounting Holes	25.5*25.5mm; 20*20mm
Dimensions	33.8*33.8*23.4mm
SD card	Support 256G
Recording	1080p/720p
Weight	29.7g
Operating Temperature	-10~40℃
Channels	8
Wide Power Input	11.1V~25.2V
Supported FC System	Betaflight; Inav; Fettec; Kiss; ArduPilot
OSD	Canvas mode
Latency	Average delay 22ms
Antenna	2(IPEX)

Camera parameters

Name	Avatar pro camera
Image Sensor	1/1.8-Inch sony starvis2 sensor
Resolution	1080P/100fps; 1080P/60fps; 720P/100fps; 720P/60fps
Ratio	4/3 16/9
Lens	8Mp
FOV	160°
Aperture	F1.6
Shutter	Rolling shutter
Weight	9.5g
Dimensions	19*19*24mm
Min.Illumination	0.0001Lux
Coaxial Cable	140mm

VTX Antenna

Name	Avatar V2 antenna
Polarization	LHCP
Frequency range	5600MHz–6000MHz
Average Gain	1.9dBi
VSWR	≤1.5
Interface	IPEX-1
Dimension	D15mm X 45mm (without cable)
Weight	2g

CADDXFPV Support
email: support@caddxfpv.com

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<https://www.caddxfpv.com>