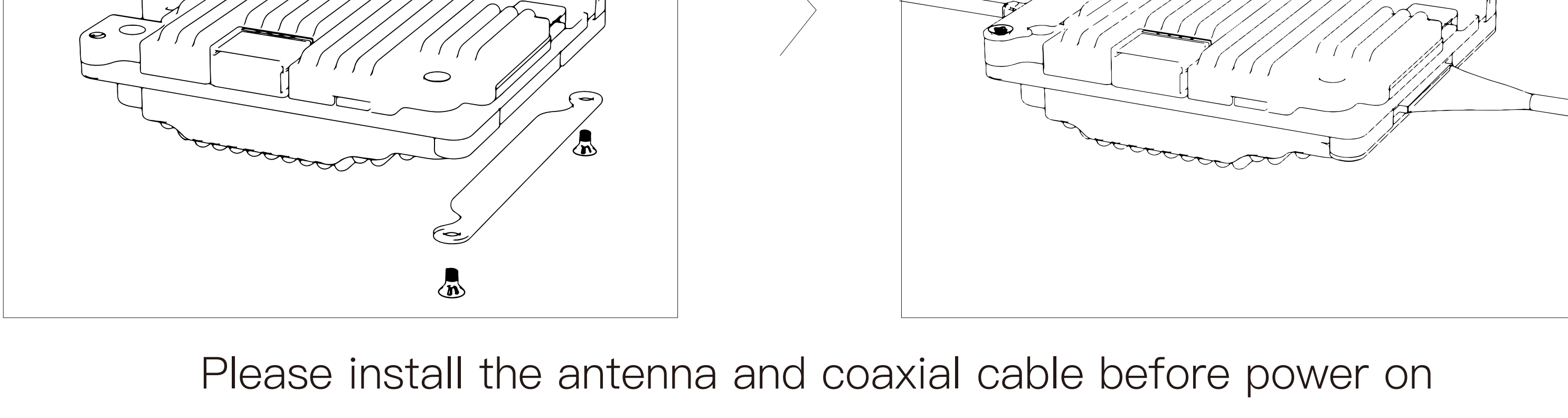
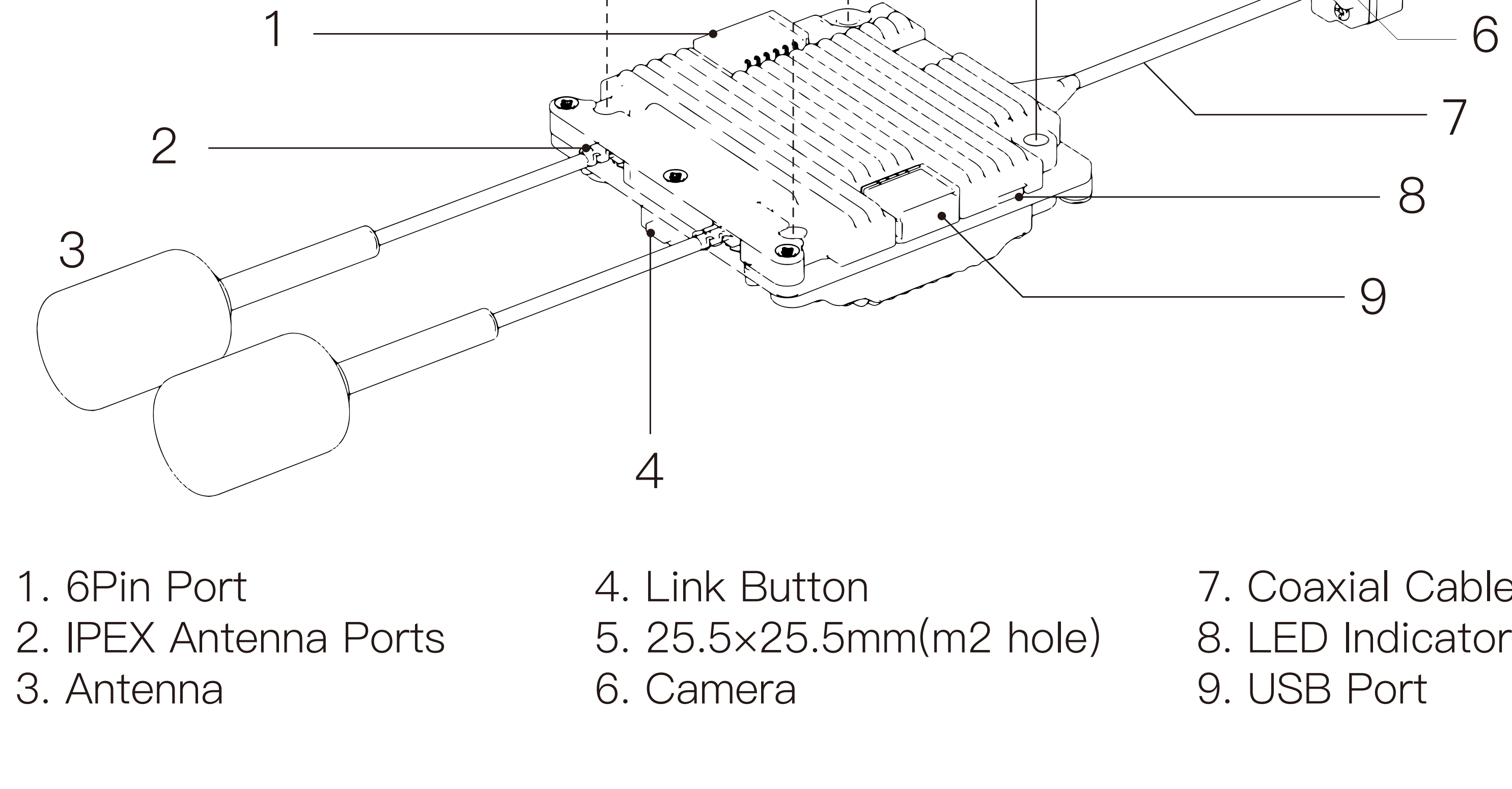


AVATAR KIT

QUICKSTART GUIDE

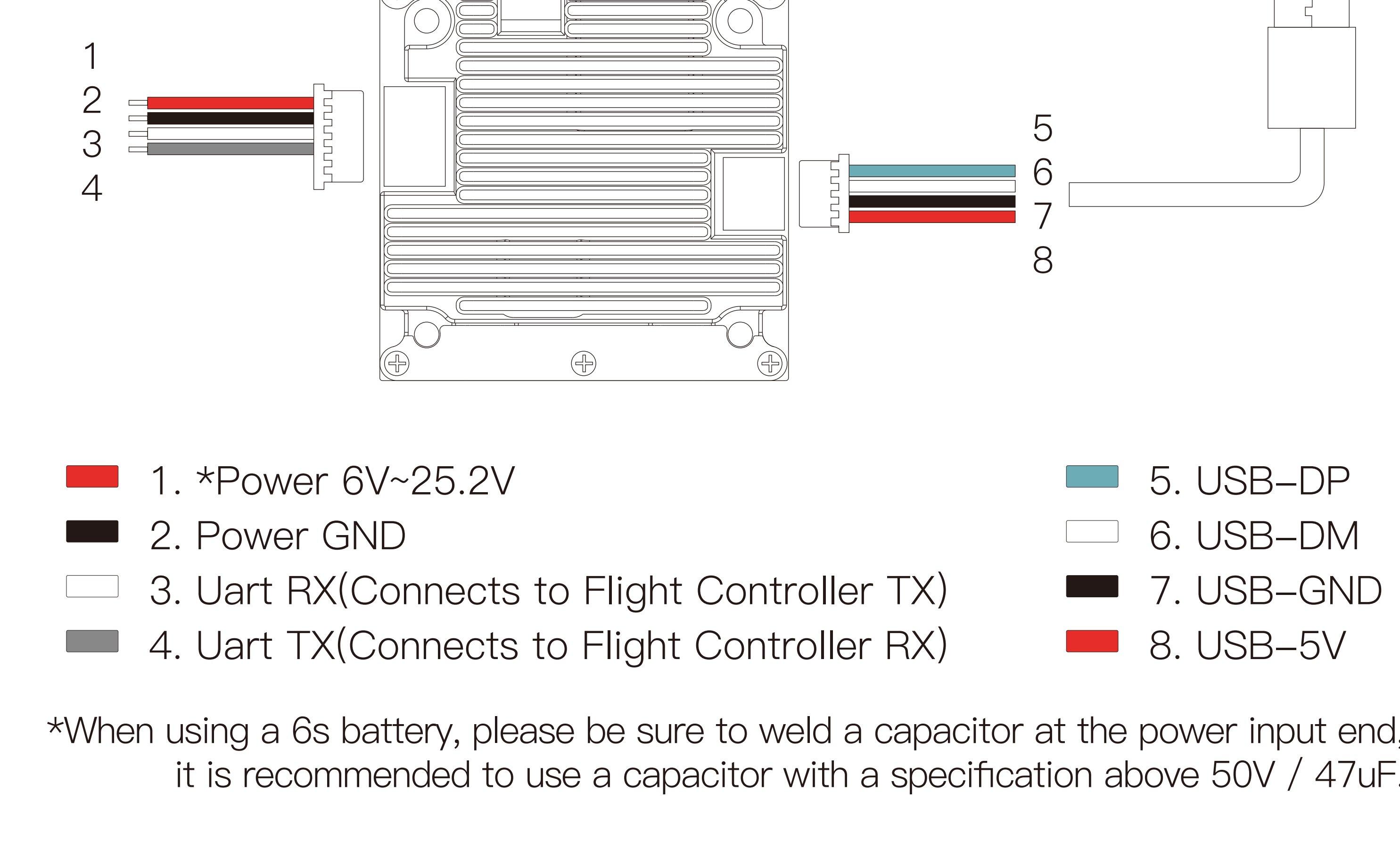
V1.0

Introduction



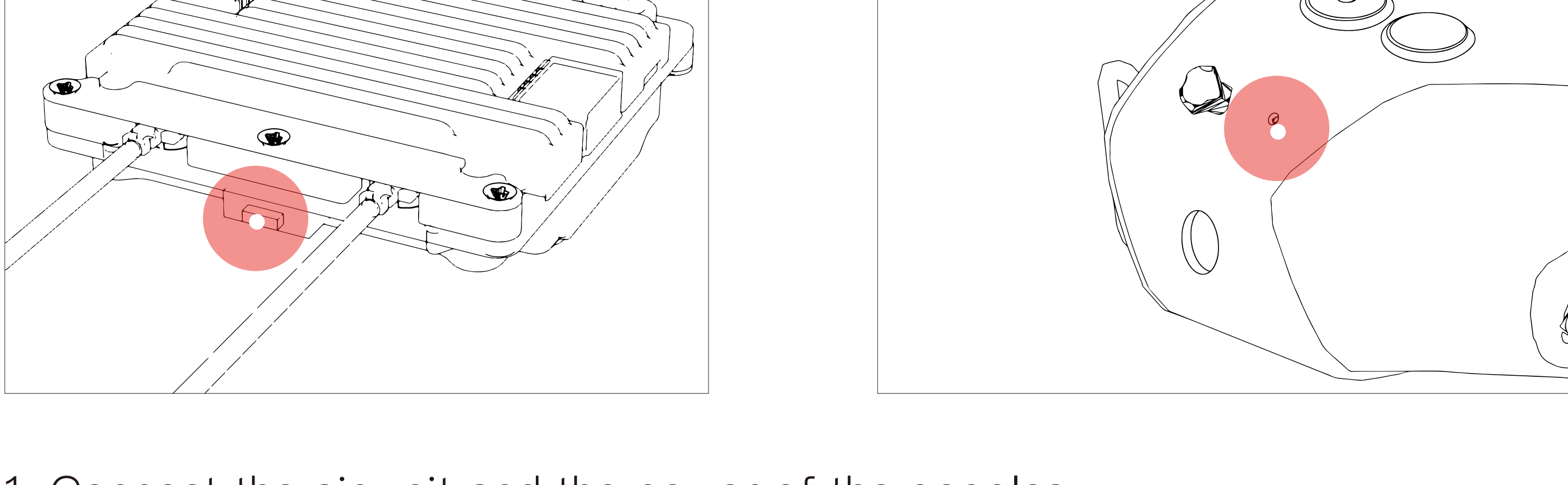
Please install the antenna and coaxial cable before power on

Connection



*When using a 6s battery, please be sure to weld a capacitor at the power input end, it is recommended to use a capacitor with a specification above 50V / 47uF.

Linking



1. Connect the air unit and the power of the goggles.
2. Wait for the air unit to initialize and the green light flashes, and the status icon appears on the goggles.
3. Press the link button of the air unit and goggles respectively (as shown in the picture), when the air unit enters the pairing state The indicator light turns red, and the goggles end is a di... di... di...
4. After the pairing is successful, the indicator light on the air unit turns solid green, the beeping sound on the goggles stops and the screen is displayed.

upgrade

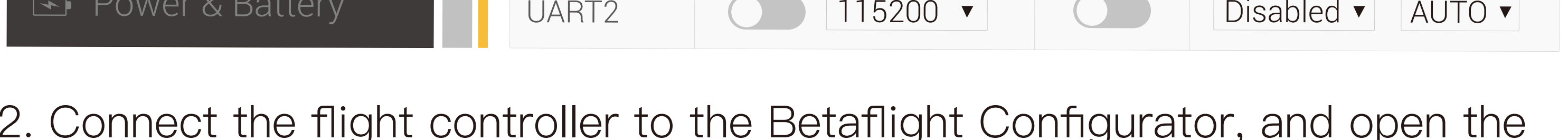
Please go to the official website to download the upgrade firmware, Avatar_Sky_X.X.X.img is the air unit file, Avatar_Gnd_X.X.X.img is the goggles file, copy it to the air unit or SD card, be careful not to change the file name. You need to turn on the power to use the U disk function.

1. Copy the upgrade file to the root directory of the air unit and the goggles, connect to the power supply and wait for the device to initialize(delete the old firmware file first if there in one)
2. Press the pairing button of the air unit and the goggle respectively for 8 seconds. When the air unit enters the upgrade status, the indicator turns on. It flashes red, and the goggles is beeping.....di..... di..... prompt sound (the upgrade time is long, please pay attention to the ambient temperature. do not cut off the power in the middle)
3. After the upgrade is successful, the indicator light of the air unit turns green and flashes, and the beeping sound stops after the goggles beeps for 5 seconds. After the upgrade is complete, please re-sync.

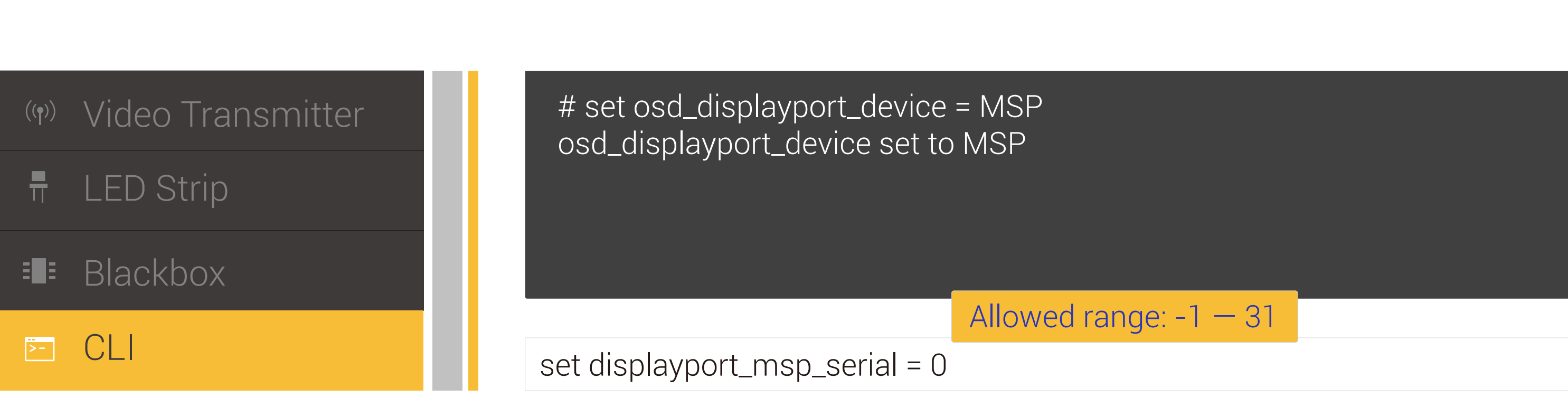
UART

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

1. Solder the white and gray wires of the 6 pin cable to the flight controller (refer to the Connection page)



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



3. 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”

Status indication

Goggles Buzzer Status	
In pairing state	di....di....di....
upgrade firmware	di.....di.....di..... di——
Upgrade failed	di..di..di..
VTX Indicator Status	
In pairing 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, but the image is abnormal	green light slowly flashes

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 1,2,6or 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.

VTX Specification

Model	Avatar module
Communication Frequency	5.725–5.850 GHz
Transmitter Power (EIRP)	FCC: <30dBm; CE: <14dBm; SRRC: <20dBm; MIC: <25dBm
I/O Interface	JST1.0*6(Power in) JST1.0*4(USB)
Mounting Holes	25.5*25.5 mm
Dimensions	33*33*9.5 mm
Storage	8 G
Recording	1080p/720p
Weight	16 g
Operating Temperature	–20–40℃
Channels	8
Wide Power Input	6V–25.2V
Supported FC System	Betaflight
OSD	Canvas mode
Latency	Average delay 22ms
Antenna	2(IPEX)

Camera parameters

Model	Avatar nano/Avatar camera
Image Sensor	1/2.7”Inch
Resolution	1080P/60fps, 720P/120fps, 720P/60fps
Ratio	16/9 4/3
Lens	2.1mm
FOV	170°
Aperture	F2.0
Shutter	Rolling shutter
Min.Illumination	0.001Lux
Weight	3.5g / 6g
Dimensions	14*14*17mm / 19*19*22mm
Coaxial Cable	90mm / 140mm

VTX Antenna

Model	Polar antenna
Polarization	LHCP
Bandwidth	5.6GHz–5.9GHz
Average Gain	2dBi
Radiation Efficiency	≥98%
VSWR	≤1.4
Connector	U.FL
Line Length	90mm
Dimension	H105mm*R11.2mm
Weight	1.5g