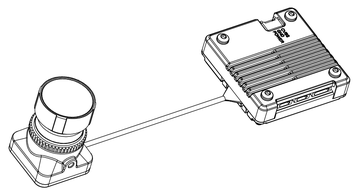
Caddx Gazer

Quick Start Guide

V1.0



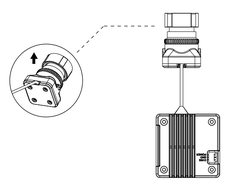
■ Product Introduction

The main features of the Caddx Gazer full-color night vision analog camera are as follows:

- **Ultra-Low Light Full-Color Night Vision:**
  Still provides color images in extremely dark environments, breaking through the limitations of nighttime.
- **Detachable Filter:**
  The filter can be freely removed or attached, preserving image quality during the day and enhancing brightness at night, suitable for all-weather use.
- **AI Image Enhancement:**
  Clear details during the day, AI enhancement at night, maintaining clarity and high color reproduction.
- **Adjustable Zoom Function:**
  Supports 3x magnification with stable image quality.

■ Installation Direction

*During installation, please ensure this side is facing upwards to prevent the image from being upside down.



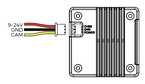
Caddx Gazer Camera

■ Control Mode

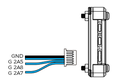
Zoom Function:
Set one FC solder pad to output a PWM signal for control (use a knob switch for control). The FC outputs a PWM signal to perform zoom operations.
For example: when the PWM signal duty cycle is 100%, the image effect is 1x zoom; when the PWM signal duty cycle is 200%, the image effect is 2x zoom.
Reset Function:
Set one FC solder pad with a TX-defined IO to trigger the switch. This allows direct switching from high magnification to 1x, and restores the zoom focus when turned off.
Reset Function (Day/Night Mode Switch):
Set one FC solder pad with a TX-defined IO to trigger the day/night mode switch each time.
(Day mode requires the use of a filter, while night mode does not require a filter.)

■ Connection

Power / CVBS Connection:
1.POWER: FC solder pad, 9-24V
2.GND: Connect to the GND
3.CVBS: Connect to the FC CAM interface



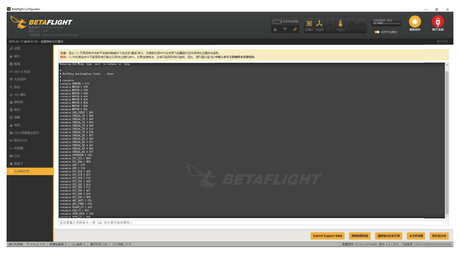
Control Line Connection:
1. GND: Connect to the GND
2. 2A5: Zoom reset switch
3. 2A8: Input PWM signal for zoom control
4. 2A7: Input IO signal for controlling the day/night mode switch



■ Debugging Procedure

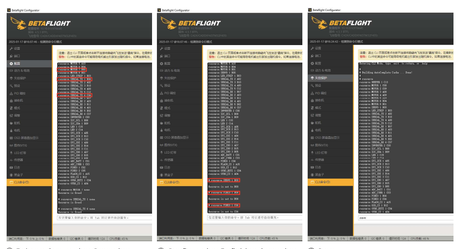
*The following is an example; other solder pad definitions can be configured as needed.
The control lines are soldered as follows:
1.2A7: Connect to flight controller TX1
2.2A8: Connect to flight controller M7
3.2A5: Connect to flight controller TX6
4.GND: Connect to the GND

In the Betaflight program, select the "CLI" option from the menu bar. In the text box, enter the command "resource" to load and view the pin definitions, as shown in the image below:



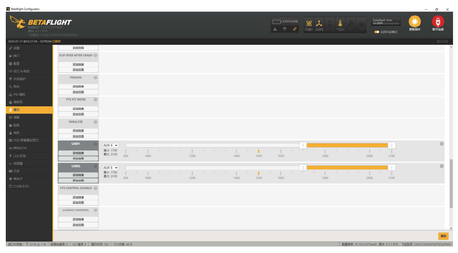
"

1.Release Occupation Operation: IIn the text box, input the following commands one by one and press Enter after each:
"resource MOTOR 7 none" and press Enter
"resource SERIAL_TX 1 none" and press Enter
"resource SERIAL_TX 6 none" and press Enter to unassign.
2.Configuration Definition Operation: In the text box, input the following commands one by one and press Enter after each:
"resource SERVO 1 B00" and press Enter
"resource PINIO 1 B06" and press Enter
"resource PINIO 2 C06" and press Enter to configure.
After completing the configuration, input "Save" in the text box and press Enter to save, as shown in the image below:

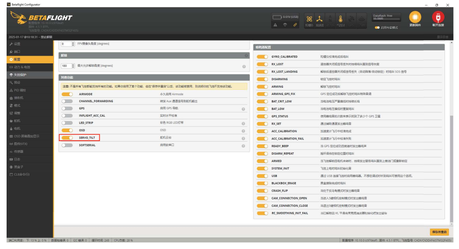


① Release Occupation Operation ② Configuration Definition Operation ③ Save

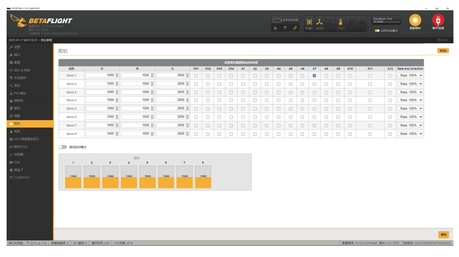
RC Channel Configuration:
In the Betaflight program, select the "Modes" option from the menu bar. Find "USER1" and click to start debugging. If Channel 4 is set to a 2-position switch, select the "AUX 4" channel. Then find "USER2" and click to start debugging. If Channel 5 is set to a 2-position switch, select the "AUX 5" channel, as shown in the image below:



2.In the Betaflight program, select the "Configuration" option from the menu bar. In the "Other Features" section, check the box to enable "SERVO_TILT", as shown in the image below:



3.In the Betaflight program, select the "Servos" option from the menu bar. If the remote control channel A7 is set to a rotary switch, check the box for "Servo 1" and enable the "A7" remote control channel to complete the setup, as shown in the image below:



■ Specifications

Model	Caddx Gazer
Image sensor	1/1.8 inch
Resolution	1920x1080 (2MP)
Horizontal resolution	1500TVL
Focal length	2.8mm
Aperture	F1.0
FOV	131.6°
Filter	Manually removable
Output format	PAL
Frame rate	50fps
Magnification	3x (zoomed in by FC)
Image quality	D/N (switched by FC) It is recommended to install the filter and use D mode during the day, and remove the filter and use N mode at night
Aspect ratio	4:3
Video interface	1xPAL
Supply Voltage	9-24V
Typical Power Consumption	<2W
Operating temperature	-20℃~60℃
Dimensions	Camera: 20x20x28.54mm AI Box: 34x34x8.65mm

CADDXFPV Support
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