

EH30-M TIR Dual Sensor 30X Optical Zoom Camera with 3-axis Gimbal

User Manual

V1.0 2022.02



FOXTECH

Note

Disclaimer

Thank you for purchasing this product. This is a special web page for gimbal and cameras, you can enter this page for the latest product information, technical support and user manuals.

<https://www.foxtechfpv.com/industrial-drone/camera-for-drones.html>

We recommend that you download and use the latest user manual. And no further update notice will be given separately. Due to different production batches, the appearance or function parameters are slightly different, which does not affect the normal use of the product.

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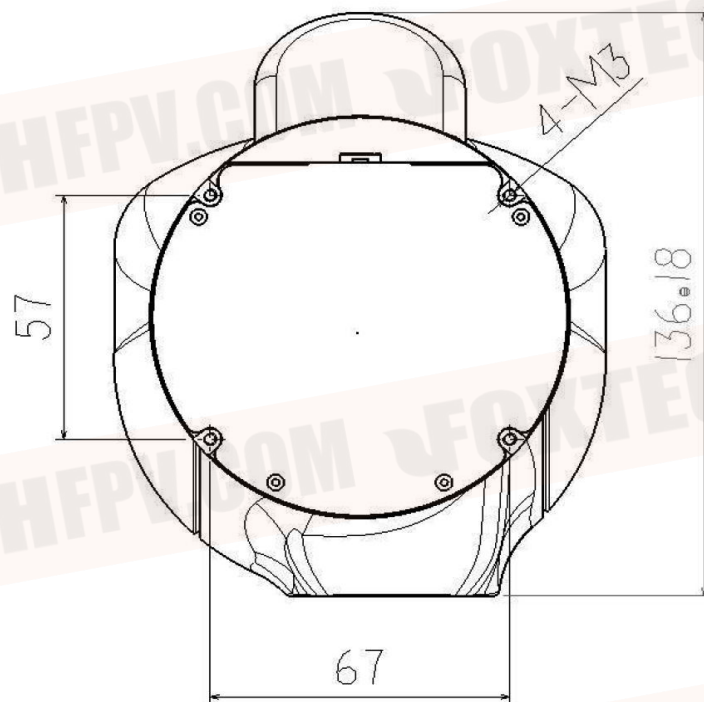
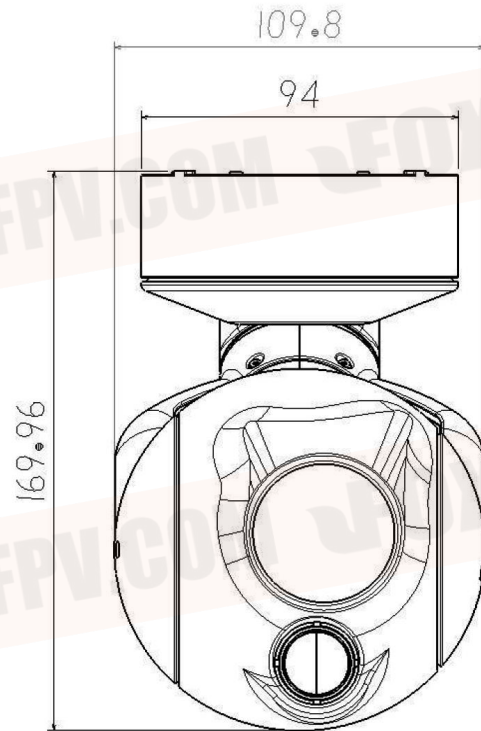
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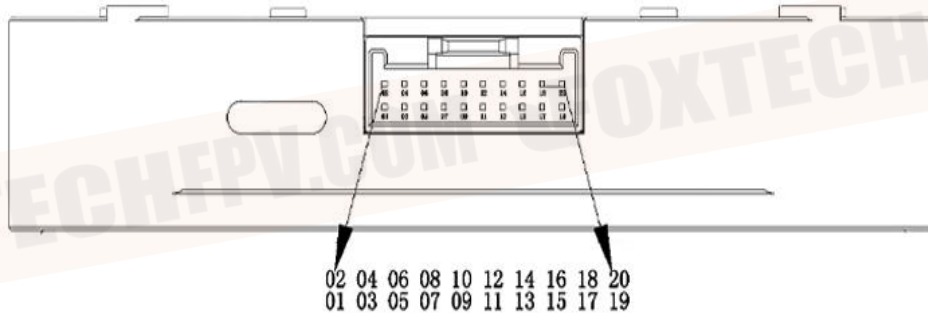
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System Composition

Product System Atlas

Product Wiring Diagram





1:Vin 2:Vin 3:GND 4:GND 5:CANL 6:CANL
7:CANH 8:CANH 9:AV 10:GND 11:GND 12:R2X 13:GND
14:T2X 15:5V 16:SBUS 17:RX+ 18:RX- 19:TX+ 20:TX-

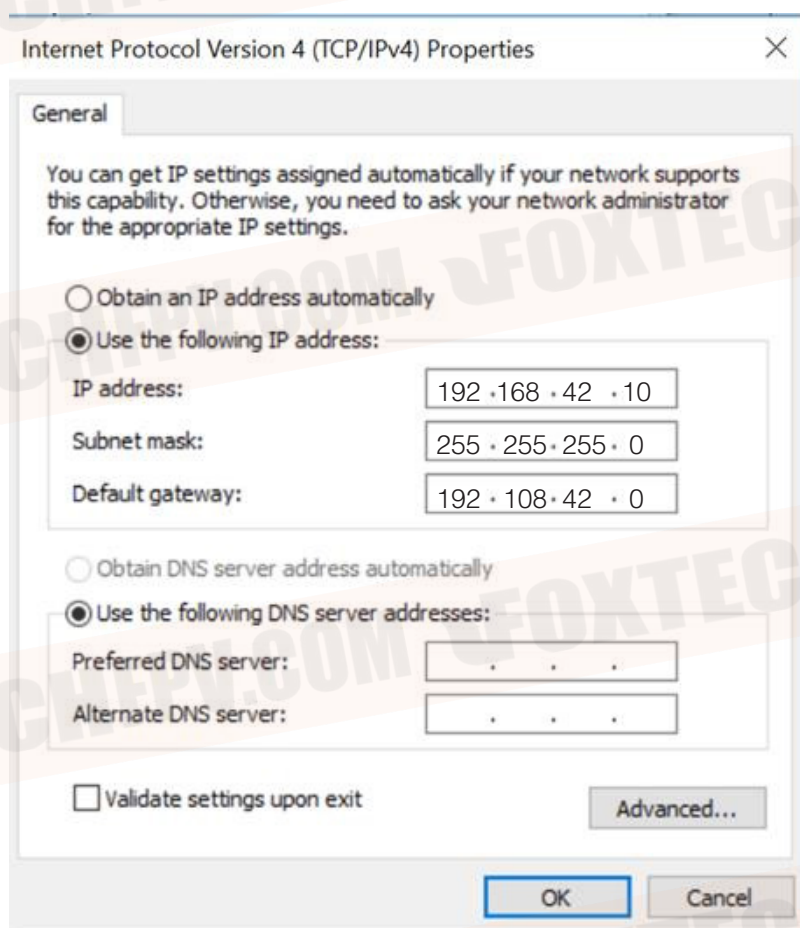
Installation and setup methods of third-party videolink

A. Modify IP of Pod and IDU (segment to meet videolink requirements)

Pod segment modification, take “change 42 segment to 1 segment” as an example:

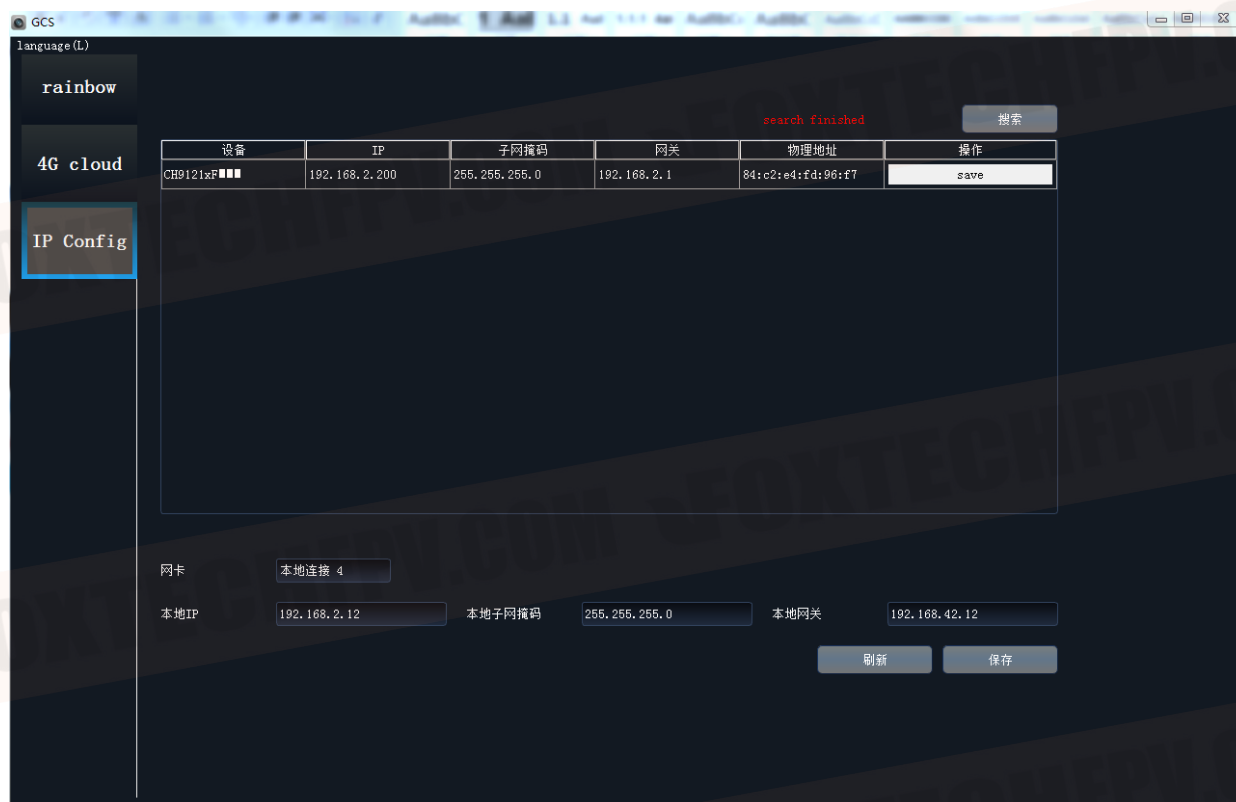
1 pod electrified, and connected the pod to the computer through the wire, the pod works normally after about 15 seconds, the computer recognizes the camera network.

2 TCP/IPV4 settings, as shown below, are saved after confirmation



3. Use GCS ground station for gateway setting

Click to search device, then double-click the pop-up IP bar, save it after modification, and restart the gimbal.



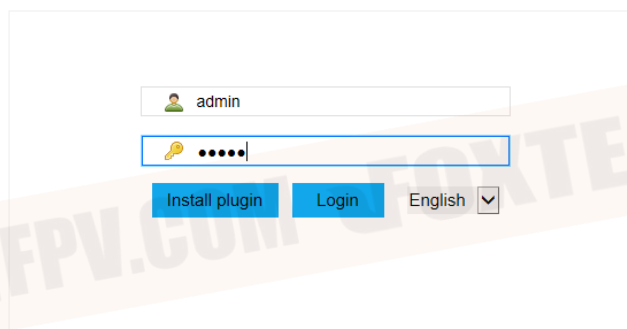
4. Camera IP modification

Open any browser, enter 192.168.42.108

After entering the following interface, username, password are admin

Confirmation

Camera

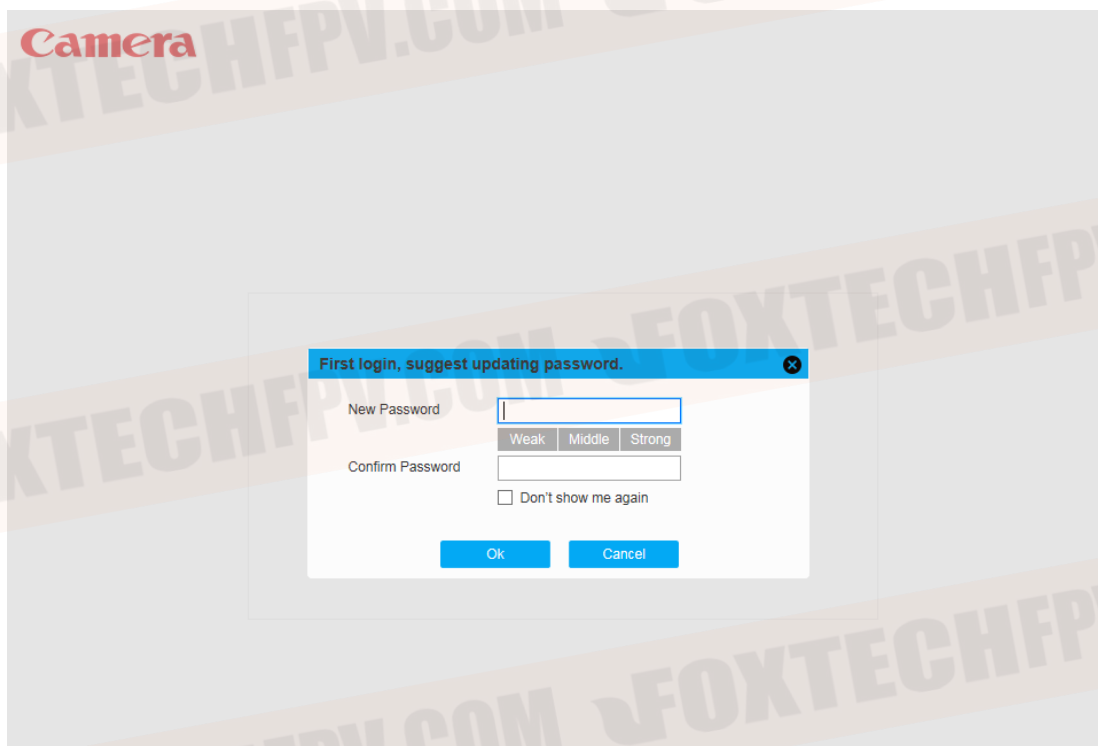




Then the following password modification interface appears, click cancel



Do not modify the password, otherwise the software will not working properly.



After entering the setup interface, click Settings Network Settings General Settings Change the IP address and default gateway "42" to "1", then click Save.

Camera

Live	Setup	Playback
Camera	TCP/IP	DDNS
Network	IP Filter	PPPoE
General	Host Name	Connection
Advance	Ethernet Card	RTSP
Platform	Mode	UPnP
PTZ Settings	MAC Address	
Event	IP Version	
Storage	IP Address	
System	Subnet mask	
	Default Gateway	
	Preferred DNS Server	
	Alternate DNS Server	
	<input checked="" type="checkbox"/> Enable ARP/Ping to set IP address service	
	Default	Refresh
	Save	



5. Pod net segment setup complete.

Change the network segment settings in the computer TCIPV4 to the normal network segment. (Different videolink requires different settings, the equipment used shall prevail.)

Pod RTSP Common Address:

Main stream rtsp ://admin: admin @< ip >:554/cam/realmonito? Channel=1& subtype=0

Secondary stream 1 rtsp ://admin: admin @< ip >:554/cam/realmonito? Channel =1& subtype =1

Secondary stream 2 rtsp ://admin: admin @< ip >:554/cam/realmonito? Channel=1& subtype=2

usually uses secondary stream 2 for preview

RTSP ://admin: admin @192.168.42.108:554/cam/realmonito? Channel=1& subtype=2



GCS Software Usage Instructions

Setting area



Interface shifting

Camera setting

Operating Pods

GCS pod software through the mouse, virtual keys, USB joystick to achieve the full operation of the pod.



Operating Pods

gcs support remote real-time download of camera side video, photos.

1. Operational steps

view → download interface (as shown below) can download video (MP4 style), photo (jpg) offline. And the photos support real-time preview.

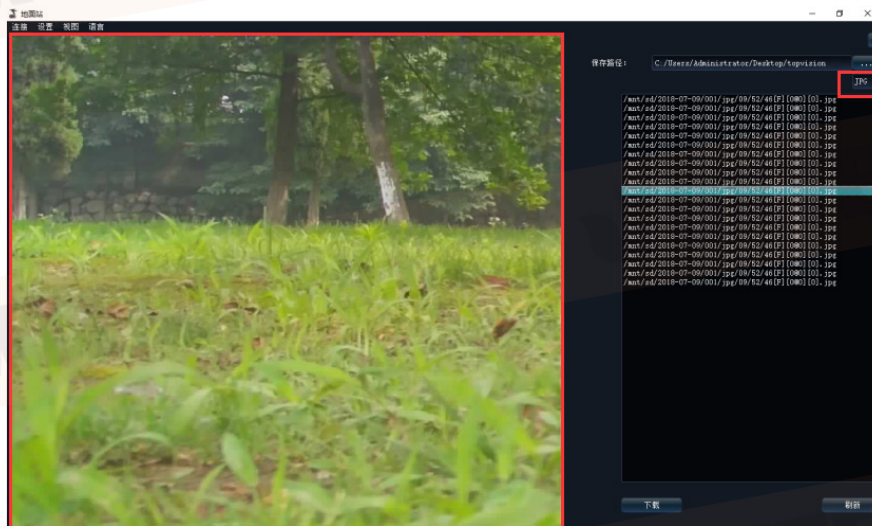


Photo preview window

Distance Measured by Thermal Camera With Lenses of Different Focal Length Used

Object		Focal Length		
		9mm	19mm	25mm
People	Identifying Distance	31m	65m	90m
	Recognizing Distance	62m	130m	180m
	Detective Distance	261m	550m	735m
Vehicle	Identifying Distance	152m	320m	422m
	Recognizing Distance	303m	640m	845m
	Detective Distance	1217m	2570m	3380m



Frequently Asked Questions

No Image

Hardware checking:

pod power supply is normal, pod and idu module are properly connected. The pod works properly.
Datalink (sky end, ground end) power supply is normal. The datalink sky end is properly connected to the IDU module, and the connection wire is not broken. The datalink ground end and the computer is connected normally, the network wire does not have the damage to break the circuit.

Software setup check:

Make sure the computer network is set correctly and the computer turns off the wifi when connecting the datalink. The computer is not connected to any network other than the data link.

Software network IP address is incorrect :(when the gimbal, camera IP address changes, need to synchronously modify this software IP)

Open GCS software → network settings

Modify the IP address.

The parameters	
Operating voltage	12V-25V
power	8.4W
weight	806g(Standard)/772g(Quick-detach)
Memory card	Built-in 128G Micro SD card
Size	136mm x110mm x170mm
Interface	The net port
Video Transmission	RTSP video stream

Environment parameters	
Operating temperature	-20°C~60°C
Store the temperature	-40°C~80°C
The gimbal	
Control accuracy	±0.008°
Rotation Range	Pitch: 70 to -90 degrees; Yaw: 360°
Mechanical range	Pitch: 75 to -100 degrees; Yaw: 360°
Smart Target tracking	Support

Camera parameters	
visible light	
sensor	CMOS:1/2.8"; Total pixels 2.16 Mega
lens	30x optical zoom lens F: 4.7 to 141mm

	<p>Minimum shooting distance: 1m to 1.5m (near-focus-far-focus)</p> <p>field-of-view angle (horizontal):</p> <p>60 to 2.3 degrees</p>
The image storage format	JPEG
Video storage format	MP4
The working mode	Video; Taking pictures;
Through the fog	Electronic fogging
Exposure mode	Auto exposure
The encoding resolution	<p>Main stream: 25fps (1920×1080, 1280×720)</p> <p>Secondary streams: 25fps (1920×1080, 1280×720, 704×576, 352×288)</p>
2D noise reduction	Support (auto-on)
3D noise reduction	Support (auto-on)
Electronic shutter	1/3 to 1/30000 seconds
exposure	Automatic mode;
Info Video Overlay (OSD)	Support
Point to zoom	Support

Point to the zoom range	1 to 30 times optical
One-click zoom to 1X image	Support
Thermal imaging	
Detector performance	
Type	VOx Uncooled infrared focal plane detector
Cell spacing	12 microns
Respond to the band	8 to 14 microns

sensitivity	≤50mk@25°C , F#1.0
The range of temperature measurements	Two-speed: -20 °C to 150 °C default , 0 °C to 550 °C
Temperature measurement accuracy	± 3°C or 3% of the ± readings (take larger) and the ambient temperature is -20 °C to 60 °C
Temperature measurement tool	Point, line, area analysis
focal length	19mm fixed focus

The encoding resolution	Main stream: 25fps (704×576) Secondary stream: 25fps (704×576, 640×512)	
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This content is subject to change.

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<https://www.foxtechfpv.com/eh30-m-tir-gimbal-camera.html>

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