MYK – 3A/3LG – 1IR- 640 X 512/EO 48MP-2WA/3TP- 1280 X 1024 /Ta-Tr

Gimbal camera of three axis with three light

1. Product introduction

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three-axis three-light gimbal camera consists of an uncooled infrared thermal imager, a 48-megapixel wide-angle camera, a 48-megapixel telephoto visible light camera, a three-axis servo-stabilized platform, and an image tracker. It features light weight, high stabilization accuracy, high integration, automatic target recognition, and automatic tracking, and is mainly applied to small unmanned aerial vehicles (UAVs) with a wheelbase of less than 50cm.

1. Product Functions

   a) It features automatic recognition and automatic tracking of typical targets.

   b) It has the detection capability in the long-wave uncooled infrared and visible light bands, and can output infrared images and visible

light images.

c) The infrared is equipped with electronic zoom and pseudo-color switching functions.；

d) It has the capability of movement with three degrees of freedom:

azimuth, pitch, and roll.；

e) It has the capability to isolate carrier disturbances and stabilize the optical axis.

f) It has the function of locking/unlocking targets, and after a target is locked, the image output by the pod is one with a tracking frame.；

g) It has the function of automatic target tracking, can automatically track targets, and is capable of resisting natural interference.；

h) It has the function of tracking point switching.；

i) It has the functions of network control (UDP) of the pod and video output (RTSP/UDP)；

j) It has the functions of taking photos and recording videos.；

k) It has the picture-in-picture (PiP) display function.；

2. Mounting Platform

Small rotary-wing unmanned aerial vehicles。

3. Main Technical Parameters

Thermal Imaging camera	
Detector Type	Uncooled Focal Plane Detector
Working Waveband	8μm～14μm
Resolution	640×512
Pixel	12μm
Focal Length	9.1mm
FOV	48.7°×38.6°（±5%）
Temperature measurement mode	Spot temperature measurement, area temperature measurement
Temperature measurement range	-20°C~+150°C/±2°C or ±2%（High sensitivity） 0°C~+500°C/±3°C or ±3%（Low sensitivity）
Over-temperature alarm	yes
color palette	≥10 types
Digital zoom	8X
picture	1280×1024，JPG
video	1280×1024，MP4
Telephoto camera	
Sensor size	1/2" CMOS
Effective pixels	48 MP

Lens focal length	25mm
Field of View (FOV)	14°×8°（±5%）
picture	8000×6000,JPG
video	4k@30,1080p@60,MP4
Wide-angle camera	
Sensor size	1/2" CMOS
Effective pixels	48 MP
Lens focal length	4.5mm
Field of View (FOV)	78°（±5%）
picture	8000×6000,JPG
video	4k@30,1080p@60,MP4
Servo platform	
Azimuth rotation angle	±150°
Pitch rotation angle	-135°～+45°
Roll rotation angle	-45°～+45°
Stabilization Accuracy	≤±0.007°
System indicators	
Image tracking	yes
AI Recognition	Automatically detect and identify typical targets
Storage	MicroSD，≤512G
Rated operating voltage	12VDC
Voltage range	10V～26V
weight	≤200g
Interface	
Control Interface	UART/ network （UDP）
Video Interface	100-Mbps network（RTSP/UDP）
Storage Interface	≤512G Memory card
Environmental Adaptability	
Operating Temperature	-20℃～＋55℃
Storage Temperature	-40℃～＋60℃

4. Mechanical Dimensions and Installation Interface Diagram