

MYK – 3A/3LG - IR 640 x 512 /10X EO 1920 X 1080/ Ta-Tr LRF Gimbal Camera

1. Product Introduction

MYK – 3A/3LG - IR 640 x 512 /10X EO 1920 X 1080/ Ta-Tr LRF gimbal camera consists of an uncooled infrared thermal imager, a 10x continuous zoom visible light camera, a laser rangefinder and a three-axis servo-stabilized platform, and an image processing component (autonomous recognition and tracking). It features ultra- small, ultra-light, high precision and low latency. It can be integrated to the small and micro unmanned aerial vehicles to finish 24-hours security and surveillance tasks in the target area.

The gimbal Camera can detect, identify, and track the ground targets for 24 hours both in daytime and nighttime. It also supports for infrared and visible light videos streaming in real time.

The gimbal camera has been adapted to a number of mainstream domestic flight control platforms, docked seamless with the flight control; and it can be accessed to the unit's ViewControlStudio display and control software platform, which can assist the overall unit complete the development of the unmanned aircraft system.

The application includes security and surveillance, search and rescue, and forest fire prevention .

2. Physical Picture



3. Product Functions

- a) Identify and track typical targets. b
-) Self-check and fault report.
- c) 10x optical zoom
- d) Output visible light images.

- e) Laser range.
- f) Optical magnification, autofocus, manual focus, fog penetration and low illumination.
- g) 1.0 ~ 4.0 times thermal infrared electronic amplification and 6 kinds of pseudo-color switching.
- h) Lead locking/manual search/servo/attitude stabilization/tracking and other working modes
- i) Isolate the disturbances of the carrier, stabilize the line of sight.
- j) Lock/unlock the target, output the image with a tracking frame after the target is locked.
- k) Auto track the target and resist interference.
- l) Memory tracking with rapid target reacquisition.
- m) Adjust size of the wave gate..
- n) Switch tracking point.
- o) The target coordinates are calculated according to laser ranging, UAV position and attitude information.
- p) Output system working status, camera working status and optical axis position through RS422 with the control station.
- q) Photo taking and video recording.
- r) 100 Megabit video interface
- s) Photo taking and vedio recording.
- t) With quick release.

4. Mounting Platforms

Hanging fixed wing UAV, rotary wing UAV, tethered UAV, etc.

5. Specification

Model	MYK – 3A/3LG - IR 640 x 512 /10X EO 1920 X 1080/ Ta-Tr LRF
Thermal Imaging camera	
Detector Type	Uncooled Focal Plane Detector
Working Waveband	8 μ m~14 μ m
Resolution	640x512
Pixel	12 μ m
Focal Length	25mm
FOV	17.5°x13.1° (±5%)
Visible Light Camera	

Resolution	1920×1080
Focal length	4.8mm~48mm
FOV	60.2°×33.9°~6.6°×3.7°
Laser Ranging Machine	
Maximum Ranging Distance	1.2km
Minimum Ranging Distance	5m
Ranging Accuracy	5m
Ranging Frequency	1 Hz
Servo platform	
Horizon	360°×n
Pitch	-100°~+45° (upward is positive)
Roll	-40°+40°
Frame Angle Accuracy	≤0.3°
Stable Accuracy	≤0.1mrad (1σ1°/2Hz、2°1Hz)
Maximum Rotating Speed	Position≥50°/s, pitch≥50°/s
Maximum Rotating Velocity	Position≥20°/s ² , pitch≥20°/s ²
Imaging processing Module	
Automatically identification	Automatically identify selected targets≥32
Target tracking	Target dimension≥16×16
Tracking frame rates	50HZ
Image output	RTSP/UDP/RTMP optional, 200kbps~6Mbps settable
System	
Voltage	12V ~ 32VDC
Consumption	Stable consumption: 30W
Weight	750g
Cube	≤108mm×123mm×172mm
Interface	
Control	RS232/TTL/RS422/100 Megabit network (optional)
Video	100 Mbps network
Storage	≤128G storage card (Mini SD card)
Image	Jpg format
Video format	Avi format
Mechanical arms	Oblique arms
Environment	
Working temperature	-20°C~+55°C (-40°C optional)
Storage temperature	-40°C~+60°C
Vibration	The acceleration is 2g; the three directions of vertical, horizontal and longitudinal are 30 minutes each.
Shocking	Max acceleration20g, lasting time 11ms
IP	Fly in the drizzle

6. Dimensions

