LT50

Intelligent Photoelectric Pod

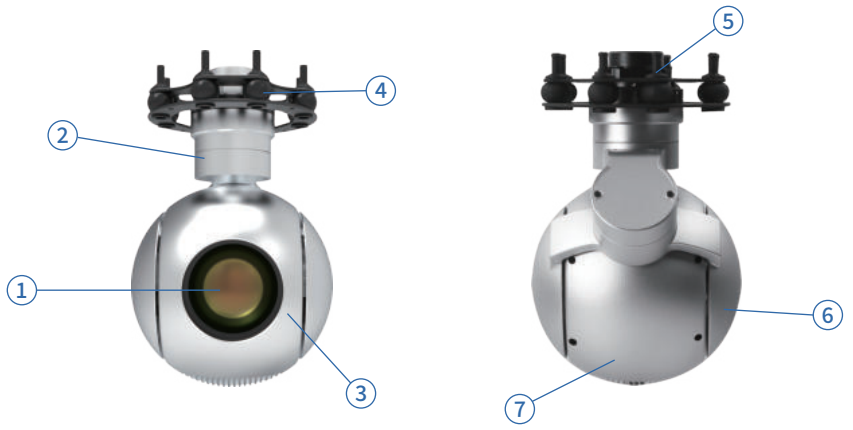
Product Usage Instructions

Directory

Product overview

The LT50 intelligent electro-optical pod adopts a three-axis servo stabilization platform and achieves stable imaging under complex on-board motion postures through a high-precision co-service control system. It integrates a 1280x1024 uncooled infrared imaging component. This product is compatible with various small and medium-sized rotorcraft/fixed-wing unmanned aerial vehicles and special operation platforms, and is suitable for fields such as security, emergency response, inspection, and ecological monitoring. It has the capabilities of all-weather target search, situation awareness, image tracking, target recognition, etc.

Get to know the LT50



1. Thermal imaging
2. Azimuth axis
3. Shock absorber
4. Front cover
5. Remove the ring quickly
6. Ear cups
7. Rear hood

- After using the pod, please store the equipment in a dry environment
- Infrared thermal imaging lenses must not be aimed at strong energy sources such as the sun, laser beams, lava, etc., otherwise it will cause irreparable damage to the thermal imaging module
- Be sure to wipe the dirt on the surface of the lens with a soft and dry cleaning cloth
- Do not touch the surface coating of the infrared lens directly with your hands or scratch it with hard objects
- The external pin port of the pod serial port must not be connected to the power supply

Functional features

- Integrated visible light imaging component
- It is equipped with mechanical stability for three-axis gyroscopes and electronic image stabilization functions
- It includes working modes such as manual control, intelligent tracking, scanning, following and returning, and supports quick mode switching and parameter presetting
- Support OSD information display
- It has a video storage function and supports Settings for storage format and duration
- Based on trajectory prediction, it supports real-time locking and tracking of moving targets
- It supports the recognition of typical targets such as people, vehicles, aircraft and ships, and can automatically track and identify targets within a certain range
- Supports the numbering marking of up to 20 typical targets and supports numbered target locking
- Real-time monitoring and display of the working status of sensor components
- Support web-based parameter configuration and firmware upgrade
- Support keyboard control of the pod

Application scenarios

Low-latency network output

The real-time transmission rate is stable, with strong anti-interference ability, ensuring efficient synchronization of high-definition data and instructions, and meeting the requirements of high real-time scenarios.

Thermal imaging

Infrared color plates are abundant and can be applied in forest fire fighting, river sewage discharge, photovoltaic inspection, emergency rescue, military and police reconnaissance, wildlife protection, etc.

Technical parameters

Single-target tracking

Target type	General objective
Tracking rate	⩾32 pixels per frame
Update frame rate	⩾50FPS

Multi-object tracking

Target type	People, vehicles, ships, planes
Recall rate	⩾90%
Precision rate	⩾80%
Target size	Minimum 32x32 @1080P
The number of tracking targets	⩾20
Track the jump rate	⩽15%
Update frame rate	⩾20FPS

Servo control

Course range	Nx360°
Pitch range	-120°~ 40°
Roll range	-45°~45°

Environmental parameters

Working temperature	-20°C~60°C
Storage temperature	-40°C~ 70°C

Thermal imaging

Working band	8μm~14μm
Resolution	640x512
Focal length	50mm
Field of view	23°x18.4°
Detection distance	People2.6km, car 6.3km
Recognition distance	People0.25km, car0.61km

Interface size

Size	⩽Φ125mmx157mm×200mm
Weight	⩽1.5kg
Power supply	12~ 28VDC
Power consumption	15w(average) 30w(peak)
Interface	Serial port 100-megabit network, SBUS
Video interface	100-megabit Network

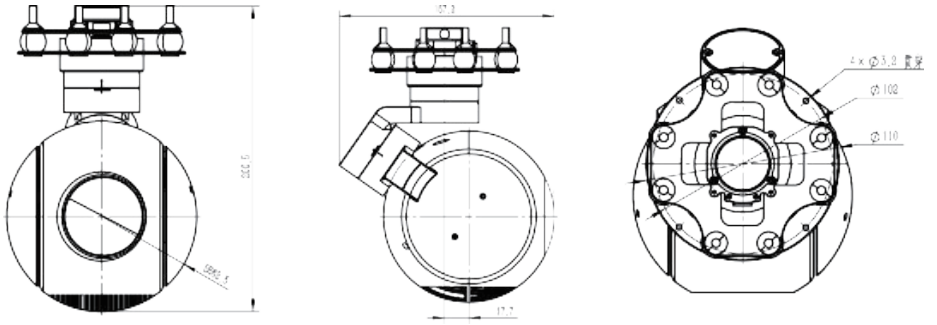
Video and Storage

Photo format	JPEG
Video format	MP4、TS
Encoding format	H.264、H.265
Video Protocol	RTSP, UDP, etc
Storage	Maximum 2T

Competitive product comparison

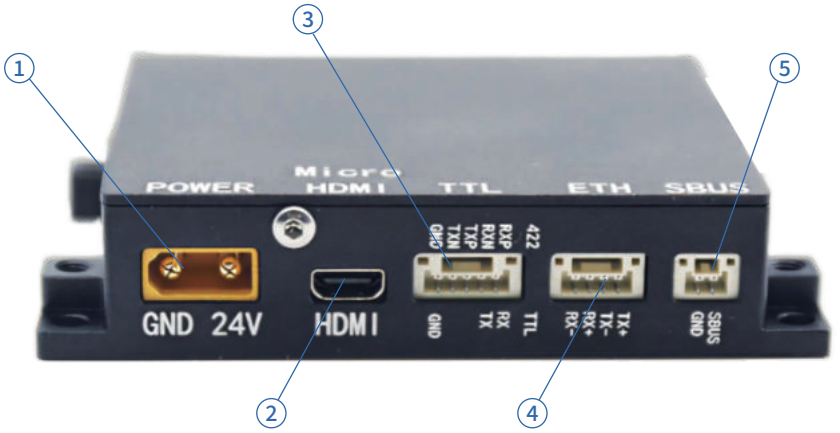
LT50		Other brands
Multi-object tracking Incorporate multiple AI algorithms	VS	**Single-target tracking** Without the support of AI algorithms
The built-in storage is up to 2T Far exceeding the low storage of peers		**256/512G** It fails to meet the users' demands
No need to remove the card It can be browsed downloaded and deleted on the web		**The card needs to be removed.** Please remove the card to preview, download and delete
Strong wind resistance Fear not the fierce wind		**Weak wind resistance** Poor performance

Dimensional structure



*The protection grade can be selected as IP66, and the standard is IP54

Interface description



① POWER interface ② HDMI interface ③ TTL interface

④ ETH interface ⑤ SBUS interface

Shipment list

Serial number	Product Name	Model specification	Unit	Quantity	Example	Remarks
1	Pod products	LT50	units	1	1	
2	TTL line	3P-18CM	Root	1	1	
3	SBUS line	2P-18CM	Root	1	1	
4	Power cord	XT-30	Root	1	1	
5	Network cable	General	Root	1	1	
6	Card reader	General	individual	1	1	
7	Shock absorber	/	individual	1	1	
8	Packaging box	/	individual	1	1	
9	Quick disassembly	LQ-V10	individual	1	1	

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THANKS