- *Border Defense;*
- *Coastal Line Monitoring;*
- *Airport & Harbour Monitoring;*
- *Space Field Monitoring;*
- *Vessel/Ship Monitoring;*

CE

Gaias Intelligent Dual Sensor Thermal Imaging Camera

Model: GSM0734G

Model	GSM0734G	GSM0736G
Detection	Vehicle: 6500m	
	Human: 2500m	
Fire-Point	3000m (@2 x 2m)	
Identification	Vehicle: 1800m	
	Human: 700m	
Thermal Camera		
Sensor	5th generation FPA VOx Detector	
Resolution	384 × 288 pixel	640 × 512 pixel
Spectral range	7.5～14μm	
NETD	50mK (@25℃F1.0)	
Focal length	25 - 75mm	
Field of view(horizontal)	14.8° × 11° - 4.9° × 3.7°	24°×18° - 8°× 6°
Lens Control	1. Zooming: Electrical Zoom. 2. Focusing: Manual/Auto Focus (3A adaptive active focusing algorithm, supports multiple trigger modes with high precision and speed). 3. Optical machine: 3CAM mode and AS+DOE optical structure, high infrared over transmission, zoom process without virtual focus, smaller axis.	
Image Processing	1. Image enhancement: SDE digital image processing. 2. Pseudo colour polarity: 16 pseudo color and B/W, B/W conversion. 3. Image parameter: AGC automatic gain control, brightness and contrast. 4. Digital zoom: 2X, 4X digital amplification. 5. NUC Correction: Auto/Manual correction, background correction.	

Thermal Point Detection & Alert	1. Alarm threshold: 255 level can be set. 2. Target size: target range can be set to identify targets of different sizes automatically. 3. Number of alert targets: 1-16 can be set, automatically select the most prominent target display. 4. Alarm mode: Video overlay alarm frame + switch volume (or data return) multiple alarm mode, intuitive and easy to read. 5. Front-end algorithm: Optimized fast front-end processing algorithm, based on the analysis of the original heat map data per frame, alarm response 0.1S, no delay, no information loss. 6. Remote Parameter Adjustment: All alarm parameters and instructions can be set remotely through the video OSD menu, with strong versatility. 7. Secondary development: providing free SDK, easy to use or convenient for secondary development. 8. Dedicated platform: (Select of dedicated fire prevention pre-warning platform, with automatic scanning, warning, GIS positioning, fire dynamic evolution, fire rescue strategy and other functions, to form a professional system)
Visible Camera	
Camera	1. Surface: 1/2.8" Star Level CMOS, Integrated ICR Dual Filter D/N Switch; 2. Resolution: 2 million pixels, 1920 x 1080 3. Illumination: 0.05Lux high sensitive colour, 0.01Lux black and white; 4. Encoding: H.265/H.264 video format, supporting multi-stream; 5. Video Bit Rate: 32Kbps-16Mbps, 60Hz 30 frames/second 6. Support SD card local storage, support regional invasion, cross-border invasion, face detection, audio anomaly detection, alarm linkage; 7. Supports AFR fog penetration, electronic anti-shake, strong light suppression, 3D digital noise reduction, anti-infrared overexposure, ABF automatic rear focus adjustment function
Lens	1. Focal Length: 8 - 320mm, 210 mil electrical focus; 2. HD infrared correction: Optical IR correction design, diurnal focus; 3. Auto aperture: support; 4. Night-day wide spectrum: 0.4-0.75um visible broad spectrum window and 0.8-0.95um NIR narrow spectrum window with day-night independent double-pass window to improve the signal-to-noise ratio of imaging light and stray light. 5. Preset position: precision potentiometer, DC5V, zoom focusing feedback.
Laser Illumination (Optional)	
1. Power: 8W. **2. Wavelength: 810nm Military graded infrared laser.** **3. Illumination Angle: 1 ~20, DSS Digital Step Illumination Angle Control Technology.** **4. Homogenization: GHT-II HD lens group super homogenization patented technology, full focus spot brightness equilibrium > 92%.** **5. Laser Safety: ZQB safety laser beam processing patented technology, in line with the international IEC60825 safety standard.**	
Housing	

1. Material：aluminum alloy housing，waterproof;

2. Structure：Integral Dual windows design;

3. 4mm microcrytalline infrared high-effective anti-reflection HLIN optical glass, transmittance >98%;

4. Surface：PTA coating, anti sea water corrosion;

5. Sealing rate：IP66 (IP67 Optional)

6. Temperature control: whole system adopt with thermal balance design + wide temperature electronic and optoelectronic devices, with built-in heating and heat dissipation isothermal control elements, which can work in low and high temperature environment;

7. Interface：aviation waterproof connector

PTZ

1. Duty: 30kg CN PT

2. Rotation: pan: 0～360°, tilt: -45°～+45°

3. Rotation speed: Pan: 0.01° ~ 30°/S, tilt: 0.01°/S ~ 15°/S

4. 255 presets, support lens zooming and focusing preset.

5. Accuracy: ±0.1°

6. Support 6 cruising line, 1 apple-skin scanning, 1 line-cruising.

7. Keep Watching: Preset/Auto-Patrol/Auto-Scanning.

8. Power Off Memory: Support(Can restore the position before power off, patrol status, line-scanning status)

9. Null-point Correction: support north null-point remote correction function.

10. Power consumption: about 100W

11. Weight: 15kg.

Interface

1. Network interface: 1-channel RJ45.10, 10/100 Base-T adaptive (integrated video output RS422/485 communication control);

2. Network Protocol: TCP/IP, UDP, IPv4/v6; support HTTP, RTP, RTSP, NFS, DHCP, NTP, SMTP, SNMPv1/v2c/v3, UPNP, PPPoE, DNS, FTP; support PSIA, ONVIF2.0, GB28181 and other network protocol.

3. Power supply: AC/DC24V, anti-reverse connection protection;

4. Physical interface: water-proof aviation connector

Enhancement

1. Strong Light Protection: Support anti sunburn function.

2. Temperature correction: no thermal imagery design, thermal imaging clarity is not affected by temperature.

3. Scene mode: support multi-configuration scenarios, adapt to different environment applications.

4. Day and night cruise: D/N group-cruising for different preset groups, day cruise 1-40 preset, night cruise 41-80 preset, according to the light-sensitive state automatically switch to day or night mode, adapt to different space-time scenarios.

5. Lens Servo: Support the functions of lens preset, focal length return and focal length location.

6. Azimuth Information: support angle query/real-time return and positioning, support azimuth video overlay real-time display.

7. Remote Maintenance: Support remote upgrade of embedded programs, convenient for after-sales maintenance.

8. Parameter Settings: OSD Menu Remote Call Operations.

Environment Parameter

1. Operating temperature: -25° ~+60°;

2. Storage temperature: -35°～70°;

3. Humidity: <90%

4. Seismic resistance: 0.2g (in accordance with GB/T15211-2013's 5.4 Harsh grade 2);

5. Impact resistance: 15g (in accordance with GB/T15211-2013's 5.3 Harsh grade 3);

6. Lightning protection: interface circuit with built-in surge protection, 4000V power supply, 2000V signal;

7. Salt spray proof: continuous spray for 96 hours at pH 6.5 to 7.2, no change in surface.

8. Protection Level: IP66

Add-On Function

1. Wiper: (or build-in wiper);

2. Window Cleaner: (small external sprinkle, self-storage water, freezing with no harm, will not affect function of the host);

3. Extension module: (Beidou/GPS, laser rangefinder and other functions can be selected);

4. Optical network: (built-in fiber module, single mode fiber output, improve anti-jamming).

Intelligence Functions (Optional Add-On)

1. **Auto-tracking system;**
2. **Anti-drone tracking system;**
3. **Panoramic stitching;**
4. **Radar linkage;**
5. **Hot-point alert;**
6. **Patrol detection;**
7. **3D zooming/positioning selection;**
8. **Analysis: Invasion, leaving, straggling, retention, lingering, target trajectory.**

(The above functions need to be implemented in conjunction with general software and network modules)

Other Specifications

Total Consumption	150W
Weight	≤35kg (include PTZ)

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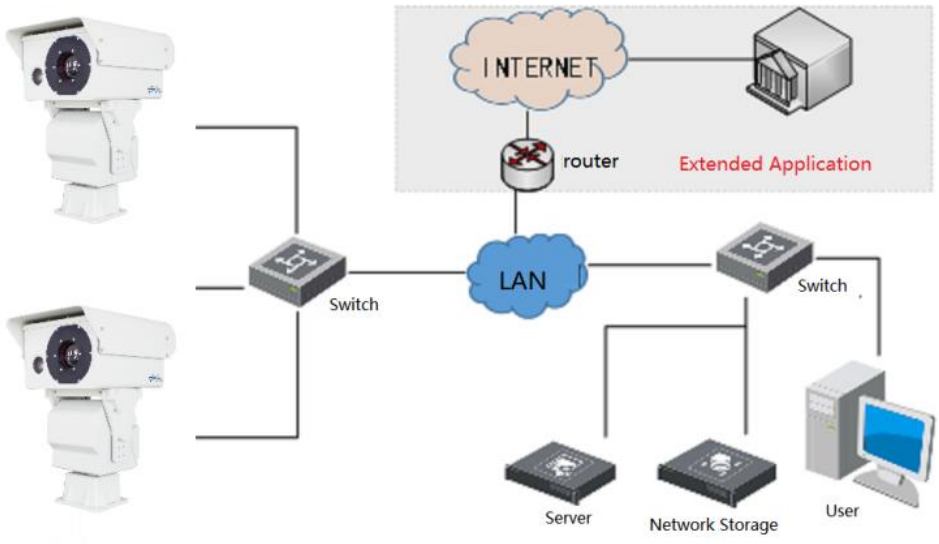
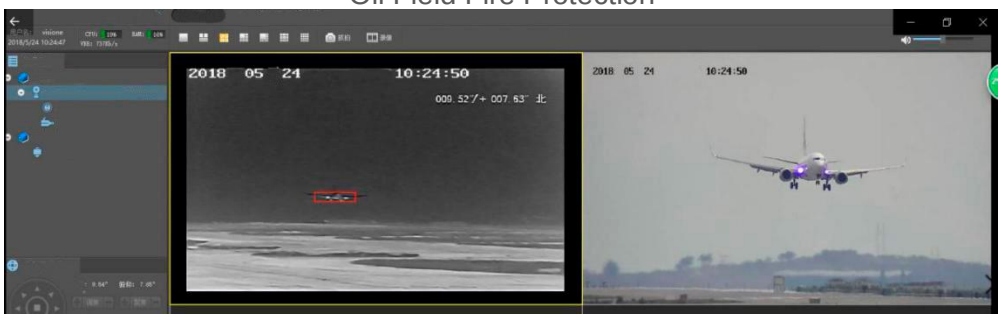


Networked Intelligent Application

Imaging & Intelligent Functional Effects:

Oil Field Fire Protection



Airport Protection