



- Seaport & Airport safety and security monitoring;
- River & lake monitoring;
- Key material monitoring,
- Military base security monitoring;
- Oilfield and oil depot security;



Hadeous Long Range Zoom Thermal Imaging Camera

Model: GSM1654H

Model	GSM1654H	GSM1656H
General Specification		
Detection	Vehicle:13000m Human:4800m	
Identification	Vehicle:3400m Human:1300m	
Sensor	5th generation uncooled focal plane array VOx Detector	
Resolution	384 × 288 pixel	640 × 512 pixel
Spectral range	7.5~14μm	
NETD	50mK (@25°C F1.0)	
Focal length	31 - 155mm, 0.56 - 0.11mrad	
Field of view(horizontal)	12.4° × 9.3° - 2.5° × 1.8°	20°×15° - 4°× 3°
Len 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.		
6. Hot-points analysis: support multiple hot-points box show alarm function.		
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. Lens Servo: Support the functions of lens preset, focal length return and focal length location.
5. Azimuth Information: support angle query/real-time return and positioning, support azimuth video overlay real-time display.
6. Remote Maintenance: Support remote upgrade of embedded programs, convenient for after-sales maintenance.
7. Parameter Settings: OSD Menu Remote Call Operations.

Intelligence Function (Optional)

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)

Interface

1. RS-485 (PELCO D protocol, Baud rate 2400bps) 、RS-232 (optional) ;
2. Remote OSD setting;
3. PAL/NTSC video output;
4. AC24V/DC12V;
5. Waterproof aviation connector

Environment Parameter

1. One integral aluminum alloy housing;
2. Operating temperature: -25 ~55 (-40 Optional);
3. Storage temperature: -35°~70°;
4. Humidity: <90%
5. Seismic resistance: 0.2g (in accordance with GB/T15211-2013's 5.4 Harsh grade 2);
6. Impact resistance: 15g (in accordance with GB/T15211-2013's 5.3 Harsh grade 3);
7. Lightning protection: interface circuit with built-in surge protection, 4000V power supply, 2000V signal;
8. Salt spray proof: continuous spray for 48 hours at pH 6.5 to 7.2, no change in surface.
9. Protection Level: IP66

PTZ (Optional)

1. Load: 30kg (optional 50kg)
2. Rotation: pan: 0~360°, tilt: -45°~+45°
3. Rotation speed: Pan: 0.01° ~ 30°/S, tilt: 0.01°/S ~ 15°/S
4. 200 presets
5. Accuracy: ±0.1°

6. Cruise line: Support multiple cruise-line scanning.
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. Azimuth information: support angle query, real time return, positioning; support azimuth video overlay real time display.
10. Null-point Correction: support north null-point remote correction function.
11. Power consumption: about 100W

Housing

1. Material : aluminum alloy housing, waterproof, to avoid mold and moisture;
2. Structure : Integral single window design;
3. Surface : PTA coating, anti sea water corrosion;
4. Sealing rate : IP66 (IP67 Optional)
5. Built-in temperature controller, thermal balance design;
6. Interface : aviation waterproof connector

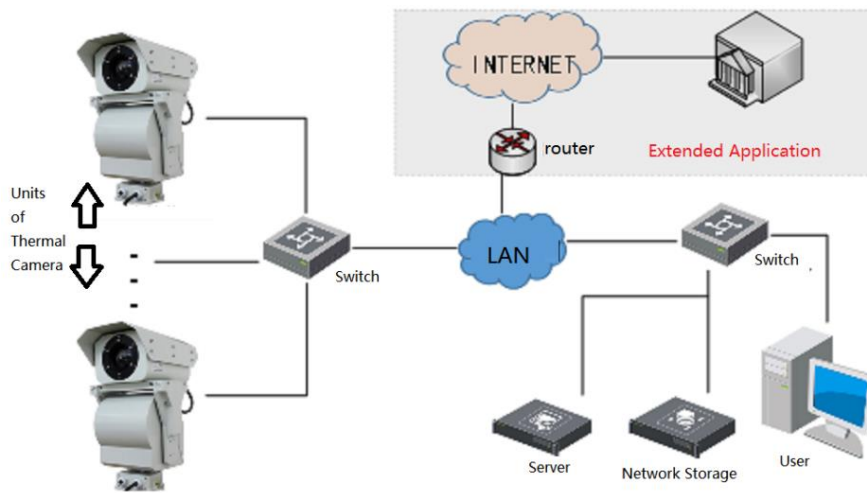
Network Module (Optional)

1. IP Connection : RJ45,10/100 Base-T Adaptor (Integrated Video Output and RS485 Control)
2. Network Protocol: Support TCP/IP, UDP, IPv4/v; Support HTTP, RTP, RTSP, NFS, DHCP, NTP, SMTP, SNMPv1/v2c/v3, UPNP, PPPoE, DNS, FTP; Support PSIA、ONVIF, etc.. (optional)
3. Encoding: H.264,Mpeg-4,Mpeg-2,MJPEG
4. Resolution: D1/4CIF/2CIF/CIF/QCIF
5. Frame rate: 25PAL/30NTSC Frame@D1
6. Local storage: support one 32G microSD card
7. Power consumption: about 6W

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Networked Intelligent Application

