Key Features

- 640*512 Thermal 25mm Camera + 1080P 25x HD Starlight Camera, Dual Optical Network PTZ Camera;
- 1/2.8" Image CMOS, 1920(H) x 1080(V), 25x optical zoom, 16x digital zoom
- Thermal imaging detector 640(H) × 512(V), 25mm IR thermal imaging lens
- Support AI Track
- 360° horizontal rotation, ±90° vertical.
- Preset position accuracy to 0.1°, fastest speed 90° per sec.
- Built-in 3 IR LED, up to 50 M (optional LED white light)
- The whole machine adopts super strong aluminum alloy shell, excellent heat dissipation performance, IP67 protection, anti-rain and anti-dust..

Application

Suitable for forest fire prevention, border and sea defense, environmental protection, petrochemical, electric power and other industries and medium and long-distance area inspection.

Technical parameters

Model	
Model No.	AJ-SH05-640-25mm-25X-AI
Type	640*512 Thermal 25mm Lens Camera + 1080P 25x Zoom PTZ Camera
Thermal imaging camera	
Detector type	Uncooled infrared focal plane sensor
Material type	vanadium oxide
Original pixel	640(H) ×512(V)
Video resolution	1280*1080
Pixel pitch	12μm
Thermal Sensitivity (NETD)	≦40mK@25℃
Response band	8~14μm
Frame rate output	25/30Hz
Thermal imaging Lens	
Lens Type	Fixed focal length
Focal length	25 mm
F-value	F1.0
FOV	17.5° × 14°

Detection distance (Human: 1.8x0.5m)	Detection: 520m, Recognize: 86m
Detection distance (Vehicle: 4.0x1.5m)	Detection: 1560m, Recognize 260m
Fire point Detection distance (1.0mx1.0m)	Detection: 208m
Digital video	H.264
Master stream image	1280*1024, 1280*720, 640*480, 25Hz
Boot time	10s
Image processing	Non-uniformity correction, intelligent gain control, digital detail blending enhancement, 3D noise reduction
palette	Supports 15 color palettes including black hot, white hot, iron red, rainbow, etc./Customizable
Thermal imaging for temperature measurement	
Abnormal temperature alarm	support
Full screen high Temperature positioning	support
Full Screen Minimum Temperature Positioning	support
Area temperature measurement	Supports 1 line, 7 boxes, and 10 points temperature measurement mode
Temperature range	Temperature range: -20~150℃, 0~550℃ expansion
Temperature measurement accuracy	Temperature measurement accuracy: ±2℃ or ±2% (the larger value) without black body
Temperature measuring function	Support reflection temperature, atmospheric temperature setting, target distance correction, support emissivity correction
Visible Camera	
Image sensors	1/2.8 "Progressive scan CMOS sensor
Total pixel	2MP
Lens focal length	4.8~120mm
Optical zoom	25x
HOV	57.6 ~ 2.5°
Aperture	F1.6 ~ F3.5
Close-up range	0.1m ~ 1.5m (near focus ~ far focus)
Zoom speed	Approx. 5.5s (optical, wide Angle ~ field of view)
Video compression mode	H.265/H.264/H.264H/MJPEG
Resolution	Main stream: H264/H265 1920*1080@25fps
Video compression bit rate	32kbps~16384kbps
Video frame rate	25fps
Storage function	Supports TF card storage with a maximum capacity of 1TB
Network protocol	Onvif, GB28181, HTTP, RTSP, RTP, TCP, UDP
Intelligent alarm	Motion detection, occlusion alarm, storage full
Behavior analysis	Fence crossing, trip wire intrusion, area intrusion, items left behind, fast movement, parking detection, people gathering, items moving, wandering detection
Firmware upgrade	Support
Minimum illumination	Color: 0.005Lux/F1.5; Black and white: 0.0005Lux/F1.5
shutter	1/3 to 1/30000 second
Digital noise reduction	2D / 3D
Image setting	Brightness, contrast, saturation, sharpness, gamma
Image inversion	Support

Exposure mode	Auto/manual/aperture priority/shutter priority
Exposure compensation	Support
Wide dynamic	Support
Backlight compensation	Support
Strong light suppression	Support
Signal-to-noise ratio	≥ 55dB (AGC Off,Weight ON)
Automatic gain control	Support
White balance	Automatic/manual/tracking/Outdoor/Indoor/outdoor automatic/sodium lamp automatic/sodium lamp
Day-night switching mode	ICR infrared filter type
Digital Zoom	16x
Focusing mode	Semi-automatic/automatic/manual/one-time autofocus
Electronic anti-shake	On/off
Communication interface	TTL level (3.3V), compatible with SONY VISCA protocol
Video output	Network
Baud rate	9600
Pan/Tilt	
Rotation angle	Horizontal: 0° ~ 360° continuous rotation, Vertical: +90° ~ -90
Rotation speed	Horizontal: 0.01° ~60° /s; Vertical: 0.01° ~60° /s
wiper function	optional
Preset Accuracy	±0.1°
Scan	8 groups (each group can add 32 preset points)
cruise	12 groups (each group can add 32 preset points)
trajectory	6 paths (each path takes longer than 5 minutes)
AI Track	Support
guardian position	Support
3D positioning	Support
Power Failure Memory	Support
angular return	Horizontal and tilt angle support is returned at the same time.
Scan	Horizontal: 0° ~ 360° continuous rotation, Vertical: +90° ~ -90
Video and Audio	
Main stream	60fps(2688*1520)
sub stream	60fps(1280X720)
Stream control	CBR/VBR
Stream range	Thermal imaging, main stream 100Kbps~6MKbps,
Audio compression standard	G711: 8kbps, RAW_PCM：16kbps
Video format	H.264/H.265
Functional characteristics	
Intelligent alarm	Motion detection alarm, I/O alarm, disk alarm, temperature warning, intelligent analysis alarm, network anomaly alarm
Intelligent detection	Supports humanoid and vehicle detection
Intelligent analysis	Trip wire, fence crossing, area intrusion, item left behind, fast movement, parking detection, people gathering, item moving, wandering detection
Privacy masking	nonsupport
Character display	Temperature, time, date, channel name, Custom
Network service	
Network protocol	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, UPnP, SNMP, FTP, 802.1x, QoS, HTTPS, GB28181, Onvif

Concurrent user	10 CH
user rights	Maximum 20
Support SDK development	Linux C /windows
Device autodiscovery	Support
Front End Access Protocol	ONVIF
web language	Detection support only, shipments are not fully supported
interfaces	
Network	1 RJ45 10/100Base-T adaptive Ethernet interface
Audio interface	1 channel Intercom capable
Alarm Interface	Supports customization (conventional 1 input and 1 output)
Analog Video	unsupported
PTZ control	RS485
Reset	Camera built-in
SD card slot	Support up to 1Tb
General	
Power supply	DC9-36V (AC24V optional)
Power wastage	≤30W
Work environment	Temperature -40°C~60°C, Humidity 0~90% RH
Shell material	aluminum
Protection class	IP67
Installation method	vertical installation
Dimension	353 x 220 x 278.5mm (L x W x H) (side outlet)
	353 x 220 x 296mm (L x W x H) (bottom outlet)
weights	7.5KG

Dimension(Unit: mm)