

640*512 Thermal imager 90-1000

Lens +4MP 100X Zoom PTZ Camera

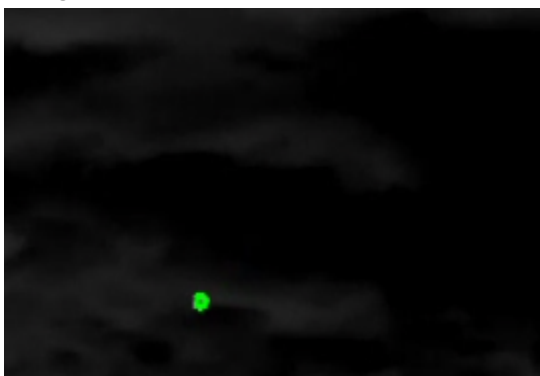


Key Features

- Mid-wave thermal imaging with cooling 640*512 with 90-1000mm lens + 4MP 100X Optical Zoom HD Camera.
- Visible Camera: 1/1.8" 4MP Progressive scan CMOS, 100x (12.5-1250) optical Zoom.
- Thermal imaging detector 640(H) ×512(V), spectral range 3.7~4.8μm.
- Thermal camera optional 90-1000mm lens.
- Support man, car, boat, drone tracking.
- Support wiper function.
- Horizontal 360° continuous rotation, positioning accuracy up to ±0.1°
- platform adopts worm gear drive, power off self-locking protection function, strong wind resistance, stable and reliable operation.
- All-weather environment design, protection level up to IP67, DC36V power supply

Identify tracking characteristics:

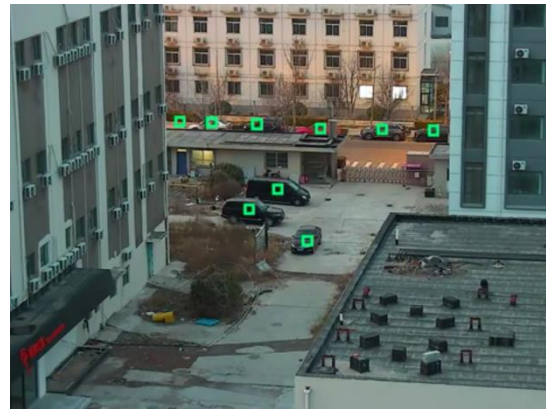
- The multi band video object recognition and tracking module supports input of visible light video and infrared video, and supports functions such as multi type object detection, recognition, and tracking under video;
- The product supports video encoding, device management, object detection, deep learning recognition, tracking and other functions, and provides multi machine and touch based management software;
- Support secondary development SDK interfaces and open-source client application software; Item;
- Fully autonomous completion of precise control of pan tilt speed and lens zoom control during the tracking process, resulting in a fully closed-loop tracking process;
- Support multiple working modes such as recognition, fully autonomous mode, point and track, manual tracking, etc.



small object detection



Dynamic Region Update



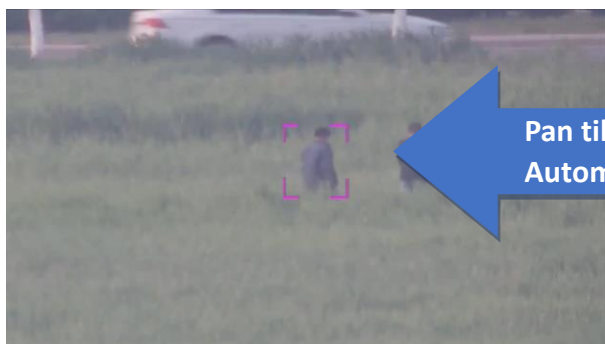
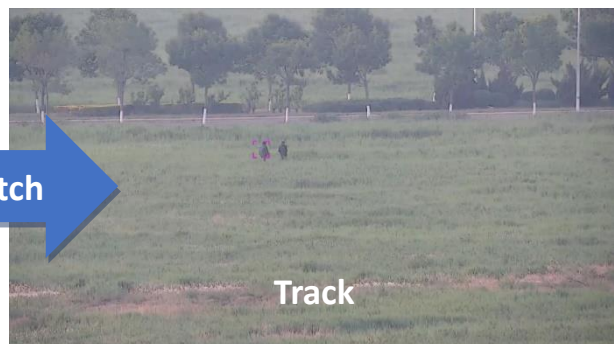
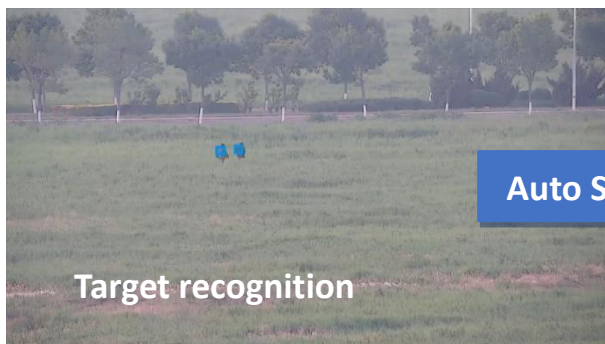
Dual band imaging and target recognition using thermal infrared and visible light

Algorithm Pattern

- Support functions such as target recognition, moving target detection, multiple pattern tracking algorithms, and dynamic updating of regions.
- Support deep learning recognition of objects such as airplanes, people, cars, ships, etc. in thermal infrared videos, visible light videos, and low light videos.

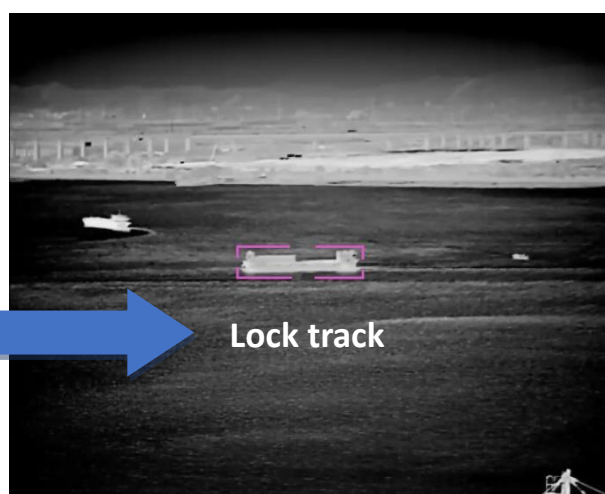
Target tracking mode

- Support multiple tracking modes such as fully automatic tracking, point-to-point tracking, moving target detection tracking, manual frame selection tracking, and wave gate tracking, and provide closed-loop gimbal and pod motion control and adaptive zoom function during the tracking process.
- Provide multiple modes of solutions for tracking situations such as target occlusion and loss.
- In automatic tracking mode, it avoids the trouble of traditional box selection and the inability to adapt to target size in wave gate tracking. After accurately identifying the target type, it automatically selects targets for tracking.

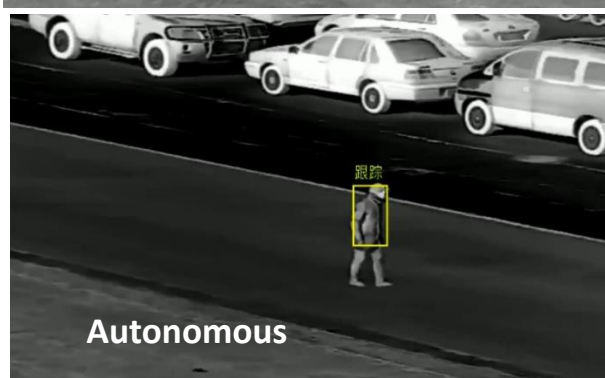
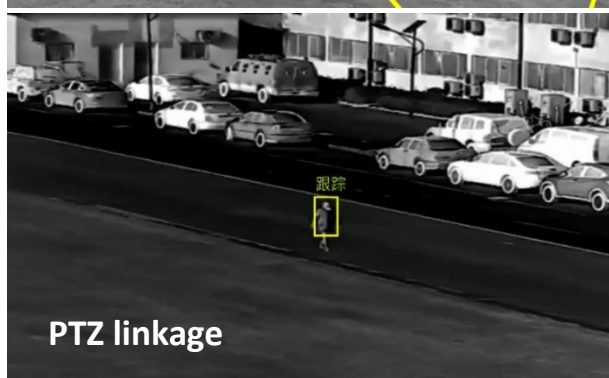


The image is target recognition and tracking at a distance of 2Km

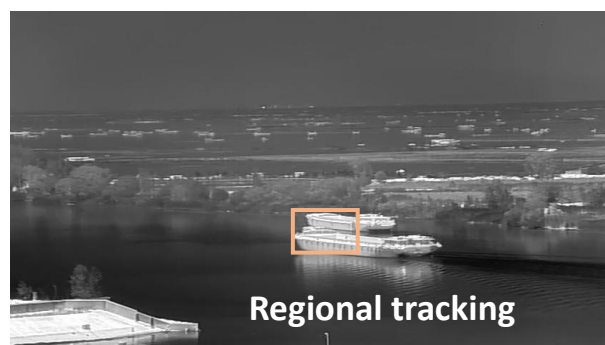
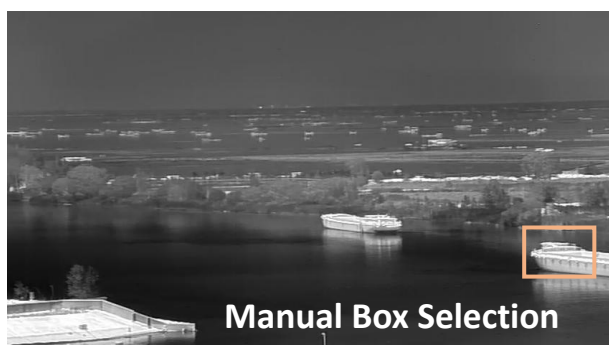
When there are multiple recognized targets in the screen, you can choose the point-to-point tracking mode separately. Click on the target to be tracked on the screen, and the module will lock the target for tracking. Draw the area to be detected in the screen, and automatically lock and track moving objects entering the area. The area supports irregular shapes.



Draw the area to be detected in the screen, and automatically lock and track moving objects entering the area. The area supports irregular shapes.



Manual box selection tracking: You can draw any box in the screen for tracking.



Gate tracking: Click on the screen to track directly according to the set gate size.



Dynamic Area: Supports irregular boundary area management, and automatically updates the position of the area in real-time during pan tilt and lens zoom processes.



Application

Suitable for forest fire prevention, border defense, environmental protection, petrochemical, power and other industries, as well as long-distance area inspections

Technical parameters

Model	SVN-TCPZ3081/Z640-1000MM/100X
Medium wave cooling thermal imager	
Detector type	Refrigerated focal plane detector
Cooling method	Stirling cycle refrigeration
Cooling time	≤8min@20°C; ≤10min@60°C;
spectral range	3.7μm~4.8μm;
Array size	640(H) ×512(V)
Pixel spacing	15μm×15μm
Noise equivalent temperature difference NETD	≤30mK@25°C;
Thermal camera lens	
Lens type	Continuous zoom
Focusing mode	Electrofocuss
Focal length	90-1000mm
F-value	F4.0
FOV	6.0° x 4.83°-0.55° x 0.44°
Detection distance (human body: 1.8x0.4m)	Detect 28300m, Identify 9450m, Recognize 4700m
Detection distance (Vehicle: 4.0x1.4m)	Detect 79000m, Identify 26300m, Recognize 13150m
Fire point detection distance (2mx2m)	66500m
Visible Camera	
Image Sensor	1/1.8" Cmos CMOS
Resolution	2560(H)×1440(V)
Focal length	12.5-1250mm, 100X Optical Zoom
FOV	29.1-0.5° (wide angle - telephoto)
Aperture	F2.8-F8.2
Shutters	1/5-1/20,000s
Minimum illumination	Color: 0.001 Lux @ (F1.5); B/W: 0.0001 Lux (F1.5,)
SNR	55dB
Focusing method	Auto/manual/semi-auto/one-touch focusing
PTZ control	
Angle of rotation	Horizontal: 0° ~ 360° continuous rotation, Vertical: +60° ~ -60°

Rotation speed	Horizontal: 0.01° ~45° /s; Vertical: 0.1° ~30° /s
wiper function	support
Preset	256
Preset Accuracy	±0.1°
Cruises	8 groups
Trajectory	support
Scan	horizontal scan
Audio and Video	
video streaming	Visible Camera Main stream 2560×1440/1920×1080 @25/30fps Sub stream D1/VGA/CIF/QCIF/QVGA @25/30fps Thermal Imaging Main Stream D1 @25/30fps Sub stream CIF @25/30fps
Stream Control	CBR/VBR
Stream Range	Thermal Imaging Main Stream 100Kbps~6000Kbps. Sub-stream 10Kbps~1500Kbps Visible Camera Main Stream 500Kbps~12Mbps. Sub-stream: 100Kbps~6Kbps
Audio encoding	G711_A,G711_U,RAW_PCM,NONE
Audio streaming	64kbps(G711),128kbps(RAW_PCM)
video format	PAL/NTSC
AI functionality	
Identification and Tracking	People, cars, boats, drones, etc
Algorithm Pattern	Support functions such as target recognition, moving target detection, multiple pattern tracking algorithms, and dynamic updating of regions.
Target tracking mode	Support multiple tracking modes such as fully automatic tracking, point-to-point tracking, moving target detection tracking, manual frame selection tracking, and wave gate tracking
Network service	
Network protocol	IPv4/IPv6 ,HTTP, HTTPS,RTSP/RTP/RTCP, TCP/UDP, DHCP, DNS, PPPOE, SMTP, SIP, 802.1x, DDNS, PPPoE, FTP, SNMP, QOS
Access protocol	ONVIF, CGI, SDK
Concurrent Users	10CH
storage	NAS, Micro SD Card, supports up to 128GB
user permissions	Administrator, Operator
WEB Access	≤IE11, Chrome, Firefox
Interfaces	
Network	RJ45 10/100Base-T
PTZ control	RS485
audio interface	Customization Supported
Reset	Built-in camera
SD card interface	Built-in camera, supports up to 128GB Micro SD card
PTZ control	
Power supply	DC48V (AC24V Optional)
Power consumption	Peak value <160W
Horizontal rotation	0~360 ° continuous rotation
Vertical rotation	-60°~+60°
Horizontal rotation speed	0.01°~45°/S
Vertical rotation speed	0.01°~30°/S

Lens control	PTZ configuration lens preset interface
Positioning accuracy	0.005°
Communication protocol	Industry V0.0, Industry V1.0, Pelco-P, Pelco-D, LPP infinite speed protocol
Baud rate	2,400/4,800/9,600/19,200 bps
Communication methods	RS-485/RS-422
Preset position	256
Auto-scan	5 for Industry V0.0 protocol, 8 for V1.0 protocol, and 1 for other protocols
Automatic Cruise	8 for Industry V0.0/V1.0 protocols and 1 for other protocols
Watch countdown display	Support
Watch	1 preset position/1 automatic cruise route/1 automatic scanning route can be set. Note: This function is only available for industry V0.0/V1.0 protocols
Protection level	IP66
Installation environment	Outdoors
Operating Temperature	-40℃~+65℃
Environmental Humidity	<90% RH (without condenser or heater)
Overall dimensions	550mm x 425mmx 662mm
Weight	55KG
Maximum load capacity	Top load 50Kg
Material	The body is made of aluminum alloy material, and the shell is made of aluminum alloy material

Size(mm)

