TPTZ02S

AI PTZ Camera

The TPTZ02S PTZ imaging AI all-in-one product is a complete product that combines infrared thermal imaging, visible camera and edge computing.

The product also supports dual-band imaging and can fully autonomously complete multiple functions such as target detection, recognition, and tracking.

The product can be applied to scenarios with intelligent day and night monitoring needs in various types and scenarios.

The product supports video encoding, device management, target detection, deep learning recognition, tracking and other functions, provides multi-machine version and touch version management software, and provides rich SDK interfaces and open source client application software for secondary development.

It can support target recognition and tracking under thermal infrared and visible light video at kilometer-level distances.

During the tracking process, the pan/tilt speed and lens zoom control are fully completed autonomously, making the tracking process fully closed-loop. It supports multiple working modes such as recognition, fully autonomous mode, point-and-click tracking, and manual tracking.

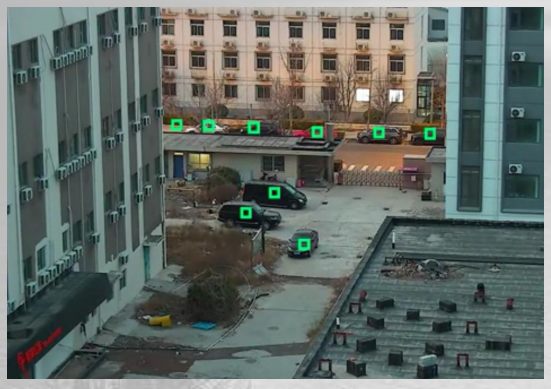
Key Features

Identify target type

Tracking mode

Extended functionality

Algorithms



Function Introduction

It supports target recognition, moving target detection, multiple mode tracking algorithms, regional dynamic update, adaptive laser fill light and other functions.

Target Identification

It supports deep learning recognition of objects such as people, cars, and ships in thermal infrared videos, visible light videos, and low-light videos. Other types of object recognition algorithms can be customized to provide complete solution services.

Target Tracking

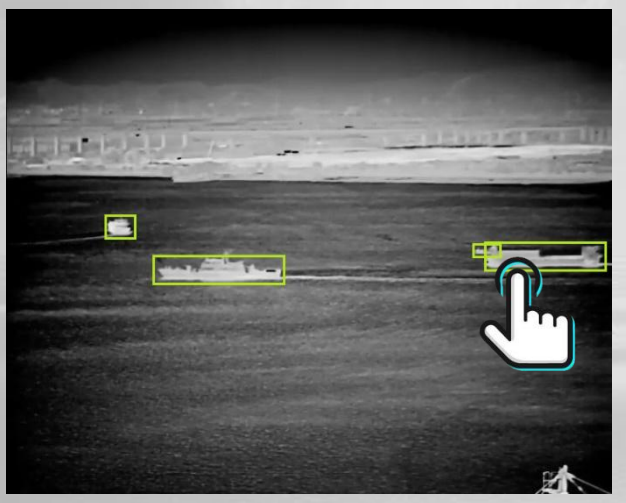
It supports multiple tracking modes, including fully automatic tracking, point-and-click tracking, moving target detection tracking, manual frame selection tracking, wave gate tracking, etc. It also provides closed-loop PTZ and pod motion control and adaptive zoom functions during the tracking process. It provides multiple modes of solutions for situations such as target occlusion and target loss during the tracking process.

Automatic tracking

The automatic tracking mode avoids the trouble of traditional frame selection and the problem of the inability to adapt to the target size in wave gate tracking. After accurately identifying the target type, it automatically selects the target for tracking.

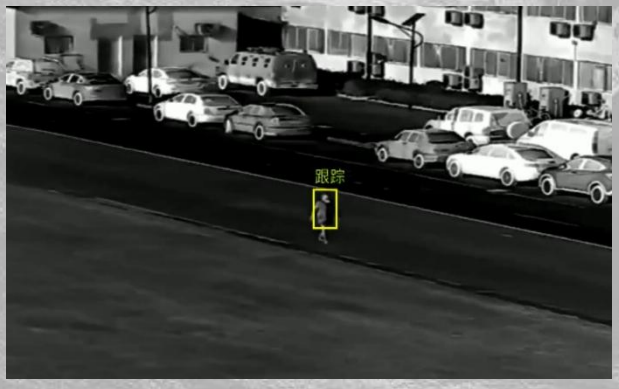
Click and track

When there are multiple identified targets in the picture, you can also select the click-to-track mode. Click the target to be tracked on the screen and the module will lock on the target for tracking.



Moving target detection and tracking

Draw the area to be detected in the picture, and when a moving object enters the area, automatically lock tracking, regions support irregular shapes.

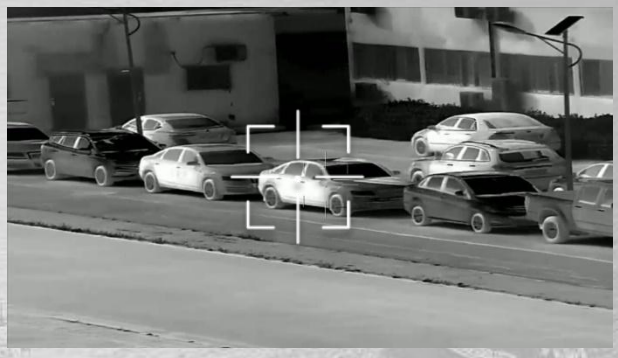


Manual frame tracking

You can draw any box on the screen for tracking.

Wave Gate Tracking

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



Dynamic Region

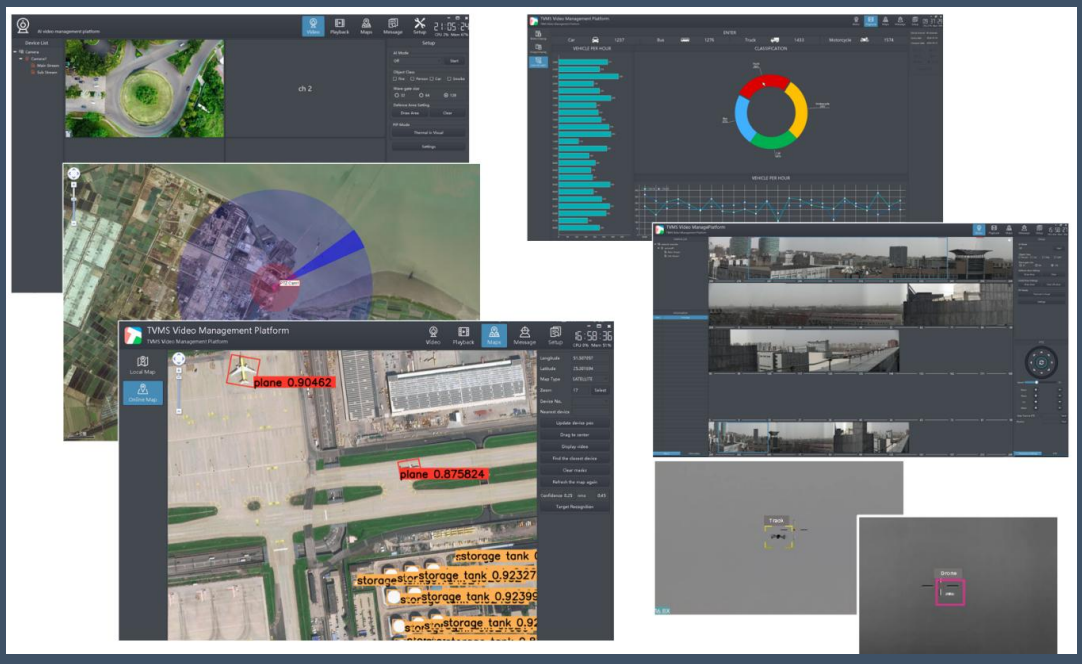
Supports irregular boundary area management during pan/tilt rotation and lens zoom
The location of the area is automatically updated in real time.

Specifications

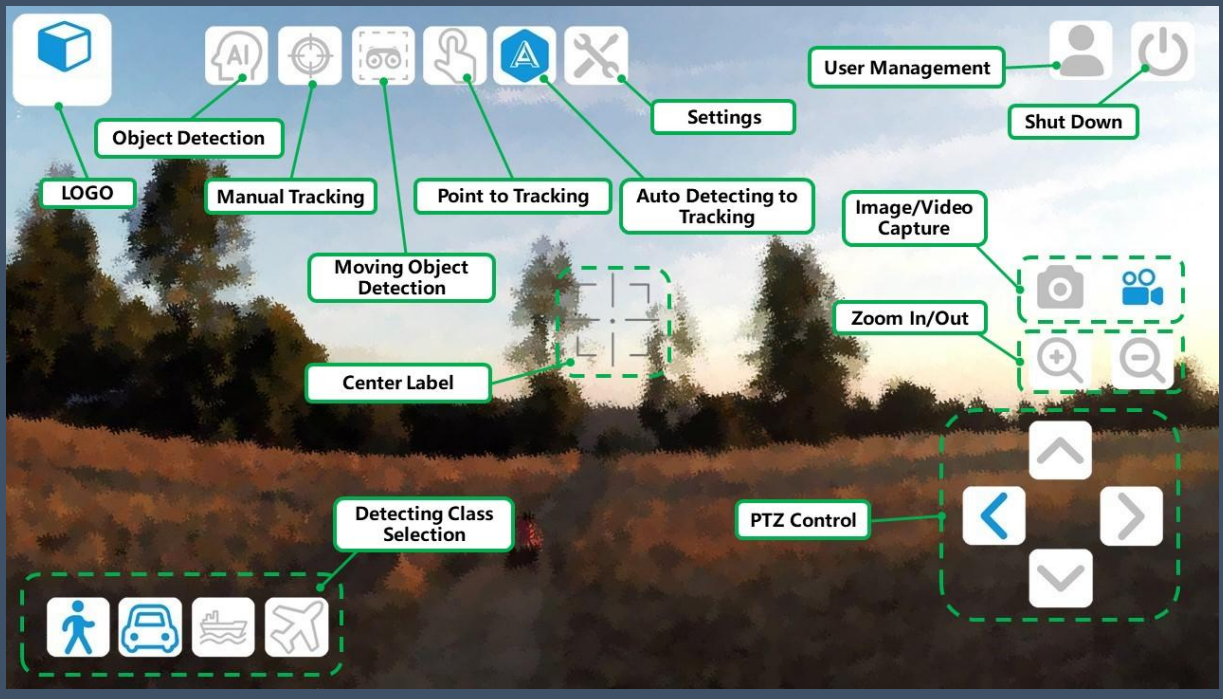
Visible camera	Sensor Type	1/1.8" Progressive Scan CMOS
	Resolution	2560 × 1440
	Low light	Color :0.001 Lux Black and white : 0.0001Lux
	Lens focal length	12.5-1250mm
	Optical zoom	100X
	Day and night mode	ICR infrared filter
	Day and night switching mode	Automatic , timing , alarm trigger
	Mist penetration	Optics + Electronics
	Wide dynamic range	120dB
	Digital noise reduction	3D Digital Noise Reduction
	Focus	Automatic / Manual
	Video compression	H.265 / H.264 / MJPEG
	Video stream	Support 3 -stream output, frame rate and resolution can be set
	Main stream resolution and frame rate	50Hz: 25fps (1920 × 1080,1280 × 960,1280 × 720) 60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720)
	Image Settings	Corridor mode , saturation , brightness , contrast , sharpness Adjustable via client or browser
	Image Enhancement	Backlight compensation , strong light suppression , optical image stabilization, electronic image stabilization , 3D noise reduction
	Image Overlay	Support time, channel name, picture overlay, Abnormal OSD overlay and latitude and longitude overlay
	Interface Protocol	ONVIF(PROFILE S,PROFILE G),ISAPI,GB28181
	User Permissions	Administrator, operator, support multiple users to access at the same time
Thermal imaging	Detector Type	MCT Cooled Focal Plane
	Number of pixels	640*512
	Pixel spacing	15 μm
	Sensitivity	≤ 20mk
	Frame rate	25Hz
	Response band	3.7-4.8 μm
	Lens focal length	22.5 mm -700 mm
	Optical zoom	31X
	Focusing method	Automatic / Manual
	False Color Mode	Black hot / white hot etc. 14 types
Top load PTZ	Load	60Kg max
	Horizontal Angle	0° ~ 360° continuous rotation
	Vertical Angle	-60°~+60°
	Horizontal rotation speed	0.001 ° ~ 45 ° /s
	Vertical rotation speed	0.001 ° ~ 30 ° /s
	Speed Rating	255×10 (LPP support)
	Positioning accuracy	0.005 °
	Preset position	256 , support power-off memory function
	Select route	8
Protective housing		Integrated spherical fully sealed design

Identification and tracking distance

Platform management software



SiDev touch screen software



Structural dimensions