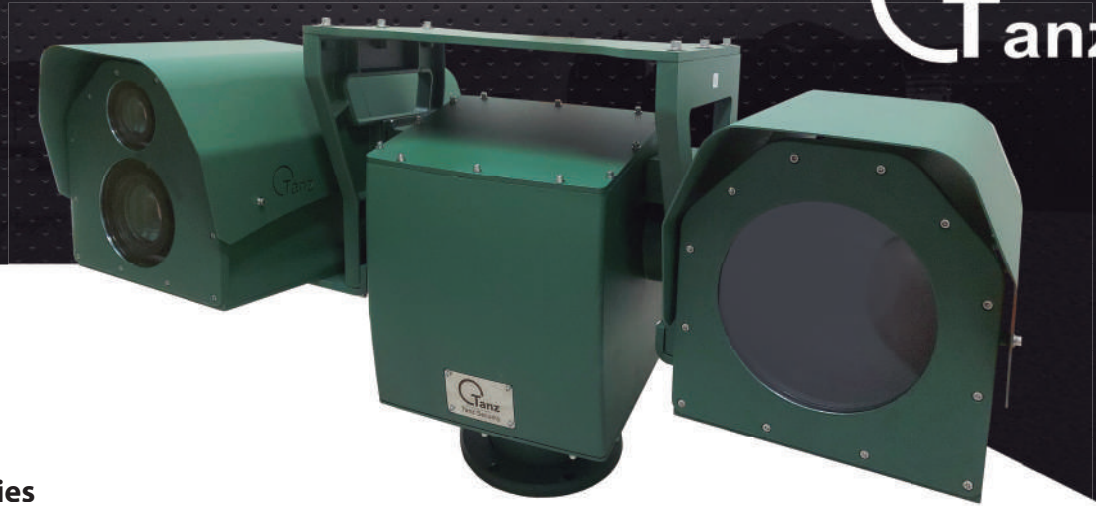


# Dual sensor thermal PTZ camera

## LWIR



### TCID9 Multisensor PTZ Series

TCID9 series PTZ is a dual-sensor system including a powerful thermal and HD day/night zoom camera. High performance imagers for true 24/7 work duty. Integrating two sensors provides unparalleled performance resulting in accurate detection, recognition and identification of intruders and threats.

Integrated into an IP66 housing constructed of anti-corrosive aluminum alloy and high performance pan/tilt system. TCID9 includes internal heater/blower, this allows TCID9 series to withstand the harshest climates and making it ideal military and critical security applications, homeland defense, and coastal security.

### Extreme Long Range Detection

TCID9 includes advanced Long-Wave Infrared (LWIR) HD thermal sensors in 640x512 or 1280x1024 capable of detecting vehicles at over 30km. distance and humans at over 15Km. distance.

### Extreme PT performance

TCID9 includes a heavy duty high precision and high repeatability pan/tilt unit. All worm gears (no transmission belt) and encoders to ensure best performance and low maintenance.

### Key features:

- HD Thermal resolution in 640x512 or 1280x1024 pixels
- High performance NETD thermal Vox sensors with 12µm. pixel
- Long range zoom or fixed thermal lens up to 350mm.
- 2mp. - 8mp. day/night cameras, up to 1200mm zoom lens
- Starvis super low lux sensor
- 30/60fps. video
- EIS/OIS video stabilization for perfect image video stability
- On-board or advanced video analytics
- High precision motor technology, accurate pan/tilt 0,01°
- Worm drive engine with long lasting / high repeatability
- High speed azimuth with -90/90° elevation
- 48v. DC power
- IP66 waterproof housing
- High / Low temperature ready
- Heater, fan, encoders
- Military connectors
- Onvif 2.5 and Profile S

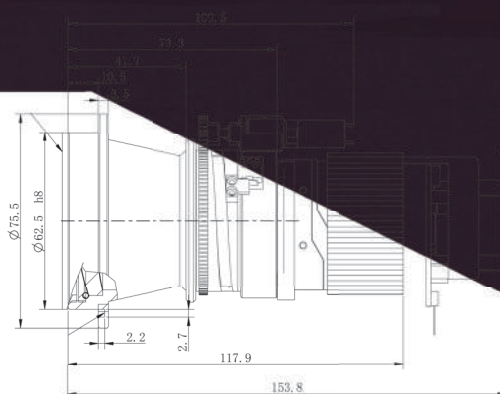


## Specifications:

Model	TCID9 Series			
THERMAL CAMERA	Type	Dual sensor PTZ camera		
	Sensor	LWIR, uncooled Vox micro-bolometer		
	Wavelength	8-14 $\mu$ m.		
	NETD	<35mK@f/1,0 50Hz., 300K		
	Pixel pitch	12 $\mu$ m.		
	Resolutions	640x512 / 1280x1024		
	Display resolution	Up to 1280x1024 or 1920x1080		
	Color palette	10 colors		
	Image enhancement	Yes		
	Frames/second	30fps.		
	Focal length	Up to 350mm.		
	F. number	From f.1 depending in the lens		
	HFOV	Up to 0,4° depending in the lens/resolution		
	Focus	Autofocus, motorized remote focus		
	Video compression	H.265, H.264, Mjpeg		
	Streams	Triple stream		
	Bitrate	256-6,144Kbps. / 1536-7,424Kbps. , VBR/CBR		
	Image settings	Contrast, Brightness, Mirror, Flip, sharpness, Image Enhancement, NR 2/3D		
Analogue video	Optional			
Motion detection/ROI	Yes			
Advanced video analysis	Tripwire, Cross Fence detection, Intrusion, Loitering detection			
Fire detection	Yes			
DAY/NIGHT CAMERA	Sensor	Low lux CMOS sensor, base in module selection		
		Resolution	Zoom	Focal length
		2 megapixel	35X	6-210mm.
		2 megapixel	50X	6-300mm.
		2 megapixel	90X	6-540mm.
		2 megapixel	57X OIS	15-850mm.
		2 megapixel	80X	15-1200mm.
		5 megapixel	30X	6-180mm.
		8 megapixel	50X	6-300mm.
		8 megapixel	88X	11,3-1000mm.
				HFOV
				61,9°-1,9°
				58,4°-1,4°
				59°-0,8°
			29,1°-0,5°	
			23°-0,3°	
			61°-2,3°	
			65,2°-1,4°	
			37,5°-0,44°	
	Video compression	H.265, H.264, Mjpeg		
	Streams	Triple stream		
	Bitrate	1024-8,384Kbps., VBR/CBR		
	Image settings	Contrast, Brightness, Mirror, Flip, sharpness, Enhancement, 2/3DNR, AWB, BLC, HLC, WDR, Near Infrared		
	Day/Night	Day, night, auto		
	Frames/second	30fps. / 60fps.		
	Focus type	Autofocus, remote motorized		
	Defogging	Optical or digital, base in selection		



Super low lux / Long range DN zoom modules



Long range thermal modules

DAY/NIGHT CAMERA	Video output	Digital
	Video analysis (D/N)	Tripwire, Cross fence, Intrusion, Abandoned-missing object, Fast moving, Parking detection, Crowd gathering estimation, Loitering Detection
	EIS	In D/N camera
	Local storage	Up to 256Gb. for each camera
GENERAL	Web browser	IE8 or above, Chrome, Edge, Firefox
	Pan/tilt movement	Pan 360° endless, tilt -90/90°
	Pan/tilt speed	0,01°-60°/Sec. - 0,01°-40°/Sec.*
	Accuracy	±0,01°
	Presets	256
	Tours	8
	Auto scan / Auto pan	Yes
	Patterns	5 (10min.)
	Groups	4
	Idle action / Start up	Yes
	Protocols	Pelco D
	Digital alarms	Motion detection, IVS alarms, memory full
	Alarm I/O	D/N 1/1 - IR 1/1
	RS485	Yes
	Serial baudrate	2400-115200Kbps.
	Audio	2 way (Optional)
	Connector	Military type
	Network	RJ45 1x Giga Ethernet
	Network protocols	IPv4/v6, RTSP/RTP/RTCP, TCP/UDP, HTTP, HTTPS, DHCP, DNS, FTP, DDNS, PPPoE, SMTP, SNMP V1/V2, IEEE802.X, Bonjour, IP filter, QoS, ICMP, IGMP, NTP
	Fan/Heater	Yes
	Platform	Onvif 2.5, Profile S
	Environmental	-40°/65°C. - 0/95% RH not condensing
	Power	48v.DC (43-53v.)
Laser illuminator	Fiber Coupling EEL type 1000 or 2000m. with zoom collimator	
Waterproof	IP66	
Weight	>50Kg. without cameras	
Size	800x535x520mm.	
Options	LRF, DMC, GPS, Marine coating	

## Coastal and Ground Radars Ready

Tanz Security multisensors are ready to be used with omnidirectional and directional radars for multiple applications, designed for coastal security, border control and other critical facility installations and for very long distances and covering very large areas.



## Visible/NIR Optical Camera

TCID9 Series are designed and optimized for long-range surveillance. Using large size progressive scan CMOS sensors to capture more light and perform better in low lux scenarios, able to perform perfectly under 0,001 Lux. Including the latest technology in real-time image processing such as BLC, HLC, WDR, EIS, 2-3D DNR.

## EIS and OIS optics

Select from available lens options, all Tanz Security advanced zoom lenses include several zoom motor speeds and moving object tracking, available zoom options in 30X, 35X, 50X, x86, 90X providing narrow FOV as small as 0,3°.

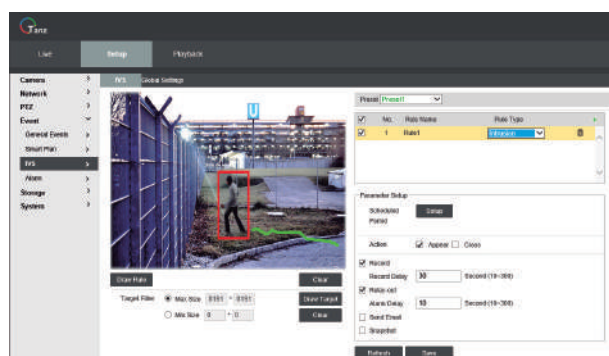
Select optical defogging providing 60fps. video or digital defogging to get rich details in long distance zoom lenses.

## Video Analysis

TCID9 Series include advanced video analysis and digital video stabilization taking security cameras to a next level.

Tanz Security cameras are now including advanced video analytics to make the cameras smartest than ever, set the cameras to help in different risk auto-detection:

- Tripwire
- Fence detection
- Intrusion
- Abandoned-Missing object
- Fast moving
- Parking detection
- Crowd gathering estimation
- Loitering detection.





### Long Range Zoom Lenses

High flexibility lens for long distance surveillance applications such as border control or coastal surveillance applications. Capable to provide wide angle HFOV with 25mm. and very long distances and close HFOV with 350mm. narrow angle, including high speed autofocus and remote/motorized focusing.

### Advanced Video Analysis and AI

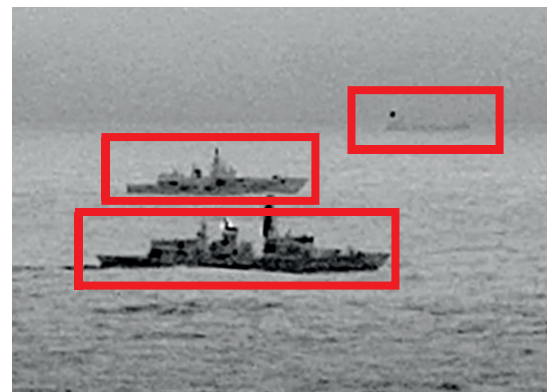
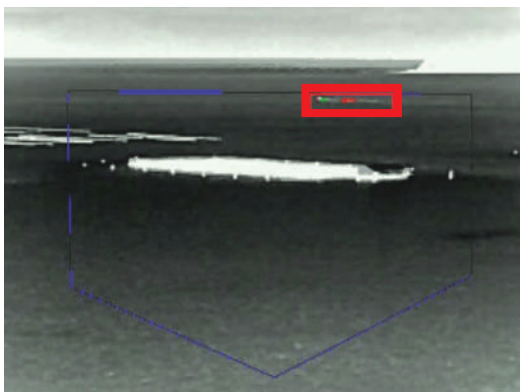
Advanced video analytics are designed to protect critical facilities, large protected areas, border control or military facilities from possible threats. Tanz Security video analytics are advanced algorithms capable to detect intrusions in very long distances and with very low false alarms.

Avoid false alarms caused by white-listed objects into a controlled scenario. Tanz video analytics are able to determine and follow complex rules to avoid the usual analytics false alarms.




Tanz analytics are dedicated to specific type of video images. Differentiating color video and thermal video differences with specific algorithms for each type. This provides Tanz analytics a superior performance.




Thanks to the advance design of the software, we can protect areas located in far distances, and once a threat is detected make slew to cue tracking of the moving object.




The advanced analytics can implement AI (Artificial Intelligence) to classify and detect military vehicles, vessels and other specific targets. The system includes a deep learning engine to teach the system tailored object detection.






### Thermal - DRI Distances





Human target 1,8x0,5m.	Johnson´s criteria - NATO standard - 225mm. focal length	
Detection		9.375m.
Recognition		2.344m.
Identification		1.172m.





Vehicle target 2,3x2,3m.	Johnson´s criteria - NATO standard - 225mm. focal length	
Detection		19.167m.
Recognition		4.792m.
Identification		2.396m.

Human target 1,8x0,5m.	Johnson´s criteria - NATO standard - 350mm. focal length	
Detection		14.583m.
Recognition		3.646m.
Identification		1.823m.

Vehicle target 2,3x2,3m.	Johnson´s criteria - NATO standard - 350mm. focal length	
Detection		44.722m.
Recognition		11.181m.
Identification		5.590m.

### Day and Night - DORI Distances

Human target 1,8x0,5m.	DORI distances for 1200mm.	
Detection		11.000m.
Observation		4.365m.
Recognition		2.200m.
Identification		1.100m.

Human target 1,8x0,5m.	DORI distances for 1200mm.	
Detection		20.000m.
Observation		7.937m.
Recognition		4.000m.
Identification		2.000m.

\* Different weather conditions and temperature changes may affect to final distances, the stated distances are references.

\* GE window, fire detection/analytcs, GPS, DMC, LRF and laser illuminators are optional.

\* STANAG4347 / Thermal Imager- 2<sup>nd</sup> temp difference &  $\sigma=0.2 \text{ km}^{-1}$  atmospheric attenuation factor / Day Imager- 1000 lux illumination and target contrast of 20%. Probability 50%.

\* Infrared CVBS video available only for 640x512, higher resolution HDSDI, analog video for day/night cameras not available.

\* Pan/tilt speed would be adjusted to different speeds depending the payload weight.

\* Tanz Security reserves the right to change products or specifications without notice.

\* Tanz Security brand and logo are registered trade marks.



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