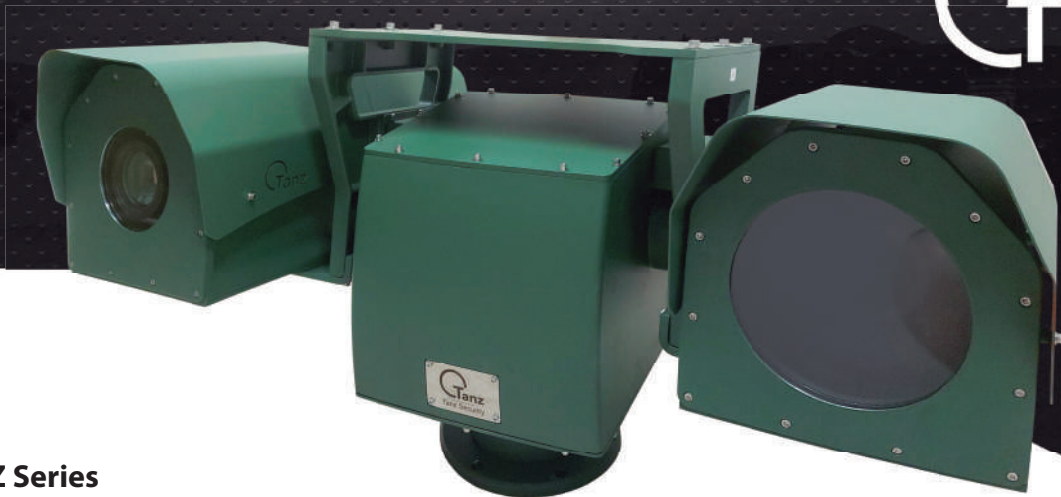# Dual sensor thermal PTZ camera LWIR

Tanz™

TCID8 Multisensor PTZ Series

TCID8 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. TCID8 includes internal heater/blower, this allows TCID8 series to withstand the harshest climates and making it ideal military and critical security applications, homeland defense, and coastal security.

Extreme Long Range Detection

TCID8 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

TCID8 includes a heavy duty high precision and high repeatability pan/tilt unit. All worm gears (no transmission belt) and 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 225mm.
• 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 precission motor technology, accurate pan/tilt 0,001º
• Worm drive engine with long lasting / high repeatability
• High speed azimuth with -90/90º elevation
• 48v. DC power
• IP66 waterproof housing
• High / Low temperature ready
• HELIOS C2 compatible
• Heater, fan
• Military connectors
• Onvif 2.5 and Profile S

640x512 1280x1024	LWIR	12um.
1920x1080 3840x2160	Day/night	PTZ 360º
Worm gear	Tilt -90º/90º	HD video
Cold start	Military	Long range
I/O alarms	Turbulence	Giga Ethernet 10/100/1000
IP66	RS485	Defogging
Encoder	NIR	Sharp edge	Zoom
Radar ready	Storage	Stabilization OIS	Stabilization EIS
Range finder 972m.	48v.DC	Onvif S	Laser
HELIOS C2	Digi.compass	GPS	IVS	Laser collimator

Specifications:

Model		TCID8 Series			
	Type	Dual sensor PTZ camera			
THERMAL CAMERA	Sensor	LWIR, uncooled Vox micro-bolometer			
	Wavelength	8-14µm.			
	NETD	<40mK@f/1,0 50Hz., 300K			
	Pixel pitch	12µm.			
	Resolutions	640x512 / 1280x1024			
	Display resolution	Up to 1280x1024 or 1920x1080			
	Color palette	10 colors			
	Image enhancement	Yes			
	Frames/second	25fps.			
	Focal length	Up to 225mm.			
	F. number	From f.1 depending in the lens			
	HFOV	Up to 1º depending in the lens/resolution			
	Focus	Autofocus, motorized remote focus			
	Video compression	H.265, H.264, Mjpeg			
	Streams	Triple stream			
	Bitrate	256-6144Kbps. / 1536-7424Kbps. , 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	HFOV
		2 megapixel	35X	6-210mm.	61,9º-1,9º
		2 megapixel	50X	6-300mm.	58,4º-1,4º
		2 megapixel	90X	6-540mm.	59º-0,8º
		2 megapixel	57X OIS	15-850mm.	29,1°-0,5°
		2 megapixel	80X	15-1200mm.	23°-0,3°
		5 megapixel	30X	6-180mm.	61º-2,3º
		8 megapixel	50X	6-300mm.	65,2º-1,4º
		8 megapixel	88X	11,3-1000mm.	37,5º-0,44º
	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 360º endless, tilt -90/90º
	Pan/tilt speed	0,001- 100º /Sec. - 0,001-60º/Sec.
	Accuracy	±0,006º
	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
	Envirnonmental	-40º/65ºC. - 0/95% RH not condensing
	Power	48v.DC (43-53v.)
	Electric protection	Protective circuit for surge and noise
	Waterproof	IP66
	Weight	40Kg. without cameras / Max. payload per side 20Kg.
	Size	800x535x520mm.
	Options	LRF, DMC, GPS, encoder, 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

TCID8 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 scernarios, 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 availble 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 0,3º.

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

Video Analysis

TCID8 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.**
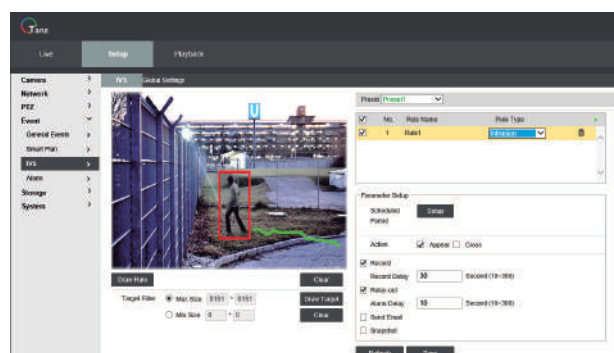
Long Range Zoom Lenses

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 225mm. 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.
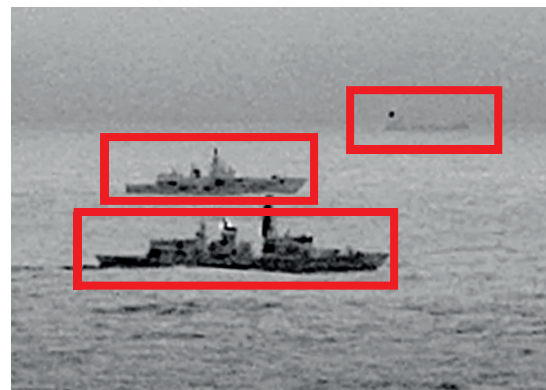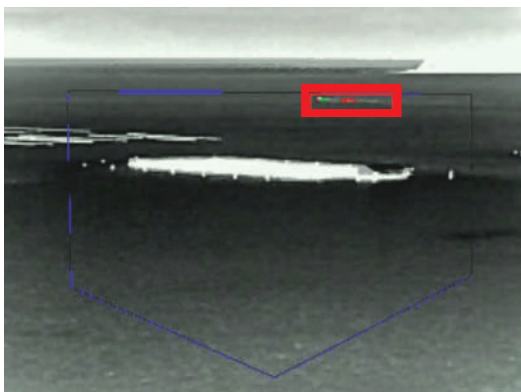
Thermal - DRI Distances

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.

Day and Night - DORI Distances

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/analytics, GPS, DMC, LRF, encoders and laser illuminators are optional.
* Johnson´s Criteria / Thermal Imager- 2° temp difference & $\sigma=0.2$ 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 speed depending the payload weight.
* Check lenses, sensors and options to define the proper configuration
* AI/Deep learning/Object classification and advanced features with HELIOS C2
* Tanz Security reserves the right to change products or specifications without notice.
* Tanz Security brand and logo are registered trade marks.

NATO / OTAN

NATO/OTAN NCAGE: SHCT4