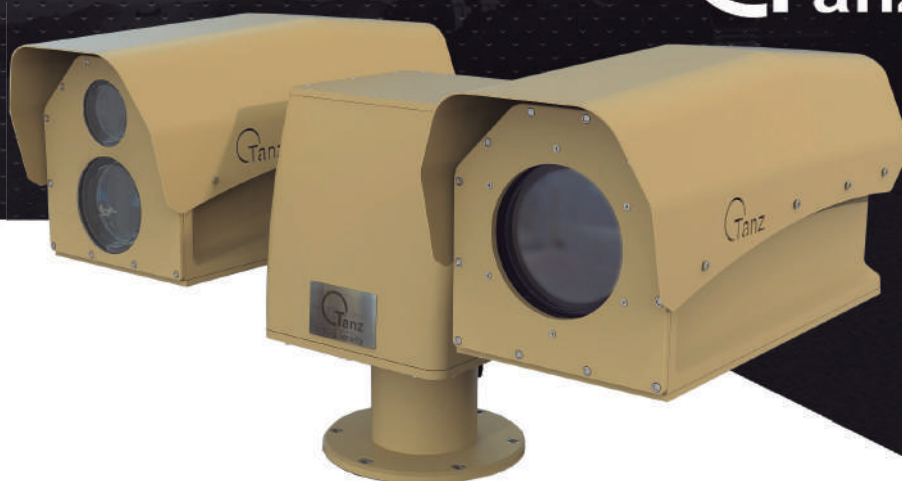


LWIR

Multisensor pan/tilt laser camera



TCIDH multisensor PTZ Series

TCIDH series is an advanced long range PTZ security system. Mounted in a high precision worm gear pan/tilt unit, the special design of the positioning system has zero maintenance. All transmission gears are worm type ensuring a long lasting system.

TCIDH cameras are rugged and compact, ready to work in extreme weather conditions and including features like internal heaters and fan to keep the cameras working in any weather condition. Designed to work in most extreme and harsh weather, in the perfect solution for sea ports, or critical infrastructure security, such as border control, airport security or power plants.

TCIDH camera series are designed to work in several scenarios and they are military proven. Including advanced day and night super low lux sensors and long range zoom lenses. Get the best image quality 24/7.

TCIDH Series include advanced 640x512 or 1280x1024 LWIR thermal resolution sensors with latest 12um pixel array, able to deliver best IR image quality and high speed thermal video in 30fps.

The rugged IP66 housing and pan/tilt constructed of strengthened aluminum alloy with anti-corrosive coating, allows to TCIDH Series withstand the harshest climates and conditions, making it ideal for perimeter security, homeland security, coastal protection and boarder security.

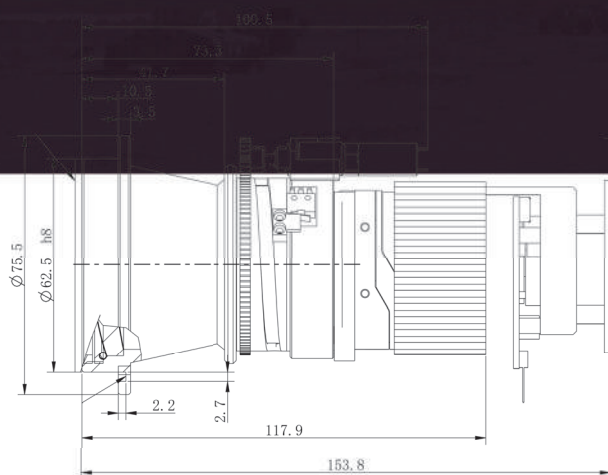
Key features:

- Thermal resolution in 640x512 or 1280x1024
- LWIR Vox thermal sensors with 12um. pixel pitch
- 2-5-8mp. resolution day/night zoom modules
- Up to 540mm. day/night optical zoom
- Advanced super low lux Starvis back illuminated CMOS
- Laser illuminator 1 or 2 Km. with collimator
- Defogging
- EIS/OIS video stabilization for perfect image video stability
- On-board video analytics
- Fire detection
- Giga Ethernet
- High precision stepper motor, accurate pan/tilt 0,01°
- Worm drive engine, long lasting drive system (no belt)
- HELIOS C2 compatible
- 24v. DC power
- IP66 waterproof and ruggedized aluminum housing
- Military connector
- Fan, heater
- Onvif 2.5 and Profile S



Specifications:

Model	TCIDH Series			
THERMAL CAMERA	Type	Dual sensor PTZ camera		
	Sensor	LWIR, uncooled Vox micro-bolometer		
	Wavelength	8-14µm.		
	NETD	<35mK@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	25/30fps.		
	Focal length	Available lenses from 25mm. to 100mm.		
	Lens types	Athermal, fixed focal length or zoom		
	Focus	Focus free or autofocus		
	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, Enhancement, 3/2NR		
	Advanced video analysis	Tripwire, Cross fence, Intrusion, Abandoned-missing object, Fast moving, Parking detection, Crowd gathering estimation, Loitering Detection		
	Fire detection	Yes		
	Analogue video	Optional		
	Motion detection/ROI	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	58X OIS	6-365mm.
		2 megapixel	90X	6-540mm.
		8 megapixel	3,5X	3,8-13,4mm.
		8 megapixel	50X	6-300mm.
	Dual video	Selected models		
	Video compression	H.265, H.264, Mjpeg		
	Streams	Triple stream		
	S/N.	≥55dB.		
	Bitrate	1,792-8,192Kbps., customizable up to 16,384 in MJPEG		
	Image settings	Contrast, Brightness, Mirror, Flip, sharpness, Enhancement, 3/2NR, AWB BLC, HLC, WDR		
	Day/Night	Day, night, auto		
	Frames/second	30fps.		
	Focus type	Auto, remote motorized		
Defogging	Optical or digital, base in selection			



Long range optical zoom modules

DAY/NIGHT CAMERA	Video output	Digital, analog optional*
	Video analysis (D/N)	Tripwire, Cross fence, Intrusion, Abandoned-missing object, Fast moving, Parking detection, Crowd gathering estimation, Loitering Detection
	EIS/OIS	Depending in lens options
	Local storage	Up to 256Gb.
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.)
	Idle action	Yes
	Startup action	Yes
	Protocols	Pelco D
	Digital alarms	Motion detection, IVS, fire
	Alarm I/O	D/N 1/1 - IR 1/1
	RS485	Yes
	Laser illuminator	1000m. / 2000m. with collimator
	Connector	Military type
	Network	RJ45 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	-32°/65°C. / 0/95% RH not condensing
	Gear	Worm gear, high repeatability
	Power	24v.DC (24-36v.)
	Electric protection	Protective circuit for surge and noise
	Waterproof	IP66
	Weight	15Kq. without cameras / Max. weight payload per side 10Kq.
	Size	730x490x370mm.
	Certifications	CE, RoHS compliant

- 30fps. high definition IR video
- Day/night back illuminated sensors
- Long range day/night lenses
- Built-in video analytics
- Long distance laser illuminator

- Built-in video stabilization
- Defogging
- Wide working temperature range
- Heavy duty PTU gears and engines

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

TCIDH 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, x58, providing narrow FOV as small as 0,3°.

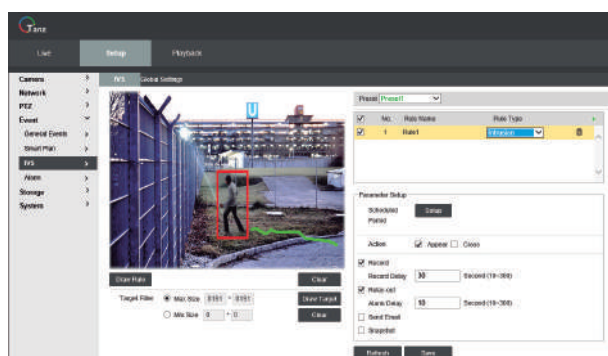
Select optical defogging providing up to 60fps. video or digital defogging to get rich details in long distance zoom lenses.

Video Analysis

TCIDH 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 100mm. narrow angle, including high speed autofocus and remote/motorized focusing.

Advanced Video Analysis and AI

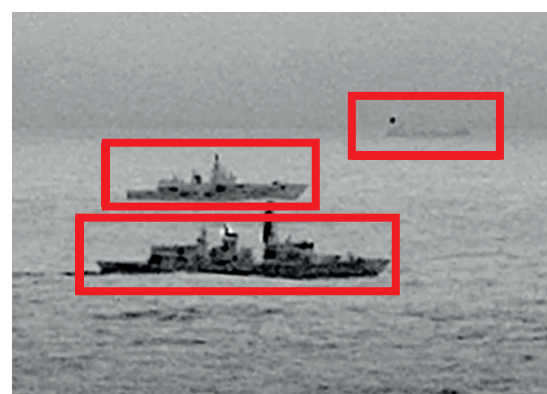
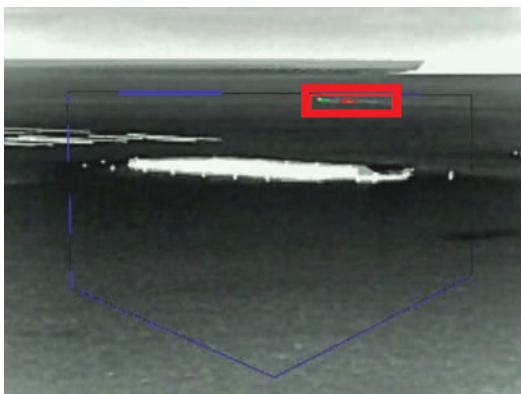
Advanced video analytics are designed to protect critical facilities, large protected areas, border control or military facilities from possible threats. Tanz Security video analytics are advanced algorithms capable to detect intrusions in very long distances and with very low false alarms.

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 slow 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.



Day and Night - DORI Distances

Human target 1,8x0,5m.	DORI distances for 300mm. / 2mp.	
Detection		3.384m.
Observation		1.343m.
Recognition		677m.
Identification		338m.

Human target 1,8x0,5m.	DORI distances for 540mm. / 2mp.	
Detection		4.889m.
Observation		1.940m.
Recognition		977m.
Identification		488m.

Thermal - Johnson's Criteria

Human target 1,8x0,5m.	DRI Johnson's criteria - NATO standard - 100mm. focal length	
Detection		5.270m.
Recognition		1.318m.
Identification		659m.

NATO target 2,3x2,3m.	DRI Johnson's criteria - NATO standard - 100mm. focal length	
Detection		12.778m.
Recognition		3.194m.
Identification		1.597m.

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

* Johnson's Criteria/ Thermal Imager- 2° temp difference & $\sigma=0.2 \text{ km}^{-1}$ atmospheric attenuation factor / Day Imager- 1000 lux illumination and target contrast of 20%. Probability 50%.

* GE window included in all lenses under/and 55mm., optional in 100mm. and above.

* Check lenses, sensors and options to define the proper configuration

* AI/Deep learning/Object classification and advanced features with HELIOS C2

* Infrared CVBS video available only for 640x512, for 1280x1024 HDSDI available, analog video for day/night cameras not available.

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

* Tanz Security brand and logo are registered trade marks.

