ZS20-TRC6307-2132WZ Ship Mounted Thermal Camera

ZS20 Ship Mounted Multi-Sensor Camera integrates HD visible light camera, uncooled thermal camera, laser ranging finder, automatic tracking, gyro stabilization, intelligent analysis, and precise electronic control. It is designed for ship /boat video acquisition, target warning, radar linkage and other applications designed, which can adapt to all-weather, all-time, full-dimensional discovery. The smallest distance to small ships and islands can be up to 8 km.

The shell is made of super strong aluminum alloy material, with strong wind resistance, low agitation. The protection grade of the whole machine reaches IP66. With special salt-spray protection design, the protection grade reaches C5-M level, which effectively ensures the long-term stable operation of the equipment in the harsh ring mirror of the sea.

Product's Highlights:

- 120°/s fast rotation speed and 0.02° accuracy can track land/air/sea target
- Front-end auto-tracking functions for high accuracy target tracking
- Function of life index recording for thermal camera
- WZ Non-uniform image correction technology, good image uniformity and dynamic range.
- 2-axis gyro image stabilizer for stable image during wave and strong wind, accuracy≤2mrad
- Special IP67 design enable camera can work in salty/strong light/water spray/ 33m/s wind environment
- One IP address optional: Visible, thermal camera can view, set and control by one IP address
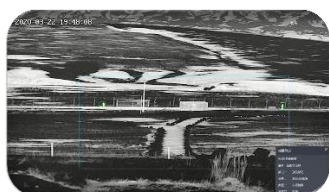
Auto Track	**Intrusion Detection**	**High Resolution**	**Ranging Scale**

Model		HP-TRC6307-2132WZ
Effective Distance (DRI)	Vehicle (2.3*2.3m)	Detection: 6.3km; Recognition: 1.8km; Identification: 0.9km
	Human (1.8*0.6m)	Detection: 2.5km; Recognition: 0.7km; Identification: 0.35km
	Drone (DJ4 Size)	Detection: 500m(thermal), 2km (HD)/ Tracking: 1km (laser night vision), 1km (HD)
	IVS Range	3km for Vehicle; 1.1km for Human
Thermal Sensor	Sensor	5th generation uncooled FPA sensor
	Effective Pixels	384x288 (640x512 Optional) 50Hz
	Pixel Size	17μm
	NETD	≤45mK
	Spectral Range	7.5～14μm, MWIR
Thermal Lens	Focal length	25~75mm Zoom
	FOV (640*512)	24°×18°～8°×6°
	Angular radian	0.68～0.22mrad
	Digital Zoom	1~8X Continuous Zoom (Step 0.1)
Visible Camera	Sensor	1/2.8'' Star Level CMOS, Integrated ICR Dual Filter D/N Switch
	Resolution	1920(H)x1080(V)
	Frame Rate	32Kbps～16Mbps，60Hz
	Min. Illumination	0.0005Lux (Color), 0.0001Lux (B/W)
	SD Card	Support
Visible Lens	Lens Size	8~320mm 40X
	Image Stabilization	Support
	Defog	Support (Exclude 1930)
	Focus Control	Manual/Auto
	Digital Zoom	16X
Image	Image Stabilization	Support Electronic Image Stabilization
	Enhance	Stable operational temperature without TEC, starting time less than 4 seconds
	SDE/AGC	Support
	Pseudo Color	16 pseudo color and B/W, B/W inverse
	Ranging Ruler	Support
Laser	Wave Length	808nm
	Power	5W
	Lens	2°-30° (DSS digital step lighting angle control technology, auto zoom with HD lens)
	Min Distance	1km
Enhance	Strong Light Protect	Support
	Temp Correction	Thermal imaging clarity is not affected by temperature.
	Scene mode	Support multi-configuration scenarios, adapt to different environment
	Lens Servo	Support lens preset, focal length return and focal length location.
	Azimuth Information	support angle real-time return and positioning; azimuth video overlay real-time display.
	Diagnostic Functions	Disconnection alarm, support IP conflict alarm, support illegal access alarm (illegal access times, lock time can be set), support SD card abnormal alarm (insufficient Space, error, no SD card), video masking alarm, anti-sun damage (threshold, masking time can be set).
	Life Index Recording	Working time, shutter times, ambient temperature, core device temperature
	Power off memory	Support, can restore power off state
Intelligent	Fire Detection	Threshold 255 levels, targets 1-16 can be set, hot spot tracking
	AI Analysis	Support intrusion, boundary crossing, entering/leaving area, motion, wandering, people gathering, fast moving, target tracking, items left behind and items taken detection;

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		people/vehicle target detection, face detection; and support 16 area settings; support intrusion detection people, vehicle filtering function; support target temperature filtering
	Auto-tracking	Single/multi scene tracking; panoramic tracking; alarm linkage tracking
	AR Fusion	512 AR intelligent information fusion
	Distance Measure	Support passive distance measurement
	Image fusion	Support 18 kinds of double light fusion mode, support picture-in-picture function
PTZ	Accuracy	0.02°, pulse precision motor drive, digital angle measurement sensor servo
	Rotation	Pan: 0～360°, tilt: -45～+90°
	Speed	Pan: 0.01~120°/S, Tilt: 0.01~120°/S
	Preset	3000
	Patrol	16*Patrol Route, 256 Preset for each route
	Enhance	Fan/Wiper/Heater attached
	Split	Upper and lower split design, can be packaged and transported, combined quickly
	Zero Setting	support the setting of pan and pitch zero
	Gyro-Image Stabilizer	Stability accuracy-2mrad (RMS), two-axis gyro stable, shake≤±10°
	Position Time	less than 4s
	Angle Feedback	support real-time / query return and positioning functions of horizontal and pitch angles
Video Audio (Single IP)	Thermal Resolution	1920×1080；1280×1024；1280×960；1024×768；1280×720；704×576；640×512；640×480；400×300；384×288；352×288；352×240
	Visible Resolution	2592×1520；2560×1440；1920×1080；1280×1024；1280×960；1024×768；1280×720；704×576；640×512；640×480；400×300；384×288；352×288；352×240
	Record Rate	32Kbps～16Mbps
	Audio encoding	G.711A/ G.711U/G726
	OSD settings	Support OSD display settings for channel name, time, gimbal orientation, field of view, focal length, and preset bit name settings
Interface	Ethernet	RS-485（PELCO D protocol, baud rate 2400bps）,RS-232（option）,RJ45
	Protocol	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE, ONVIF
	Video Output	PAL/NTSC
	Power	AC12V /DC24V
	Compression	H.265 / H.264 / MJPEG
Environmental	Operate Temp	-25℃～+55℃（-40℃ optional）
	Storage Temp	-35℃～+75℃
	Humidity	<90%
	Ingress Protect	IP67
	Housing	PTA three-resistance coating, Seawater corrosion resistance, Aviation waterproof plug
	Wind resistance	spherical, anti-shake, anti-33m/s strong wind
	Anti-fog/salty	PH 6.5～7.2 (No less than 700 hours)
	Power	250W (Peak)/ 50W (Stable)
	Weight	18kg
Software Function (DF3000)	3D Zoom	Automatically adjust the size and orientation camera image for selected target
	Radar Linkage	Support radar manage and display;
	Electronic Map	Support multi-camera display; Support distance and area size measurement
	Auto-tacking	Support auto/manual tracking; Support panorama view, radar linkage tracking
	AI Server (Option)	Vehicle/Animal/Human/Ship/Drone/Helicopter/Airplane/Trunk/Fire/Smoke Identification

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