

RTPT6436HZ-Z9-ZSD60

Thermal & Optical Bi-spectrum Heavy Duty Network PTZ Camera



- 640 × 512 resolution, 12 μ m, VOx UFPA, NETD \leq 40 mK
- Thermal: 25 to 225mm motorized lens; Visible: 60x optical zoom module
- Detection capabilities: Human/vehicle, smoker, smoke & flame, fire point detection
- Intelligent analytics: Intrusion, single/double line crossing, loitering, wrong-way, enter/leave area detection, smart motion detection, and people counting
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature monitoring & alarm: -20°C to 150°C (-4°F to 302°F), Accuracy: \pm 8°C
- Power off self-locking, strong wind resistance
- Anti-frozen, IP66

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Technical Specification

Camera	Thermal	Visible
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays	1/1.8” CMOS
Resolution	Sensor is 640×512, Image can be scaled up to 1280×1024	2688 (H)×1520 (V), 4MP
Pixel Pitch	12μm	
Spectral Range	8 to 14μm	
NETD	≤ 40mK	
Min. Illumination		Color: 0.0005 Lux @(F1.35, AGC ON), B/W: 0.0001 Lux @(F1.35, AGC ON)
Shutter Speed		1/25 to 1/100,000s
Lens Type	Motorized lens	60x optical zoom
Focal Length	25 to 225mm	6.6 to 396 mm
Max Aperture	F0.95 to F1.5	F1.61 to F5.19
Focus Control	Motorized focal	Auto/Manual/Semi-automatic
Field of View (FoV)	H: 17 to 1.9°, V: 14° to 1.5°	H: 59.2° to 1.29°
IVS		
AI multi-target	Human and vehicle detection (ship detection optional)	
Intelligent Analysis	Intrusion, Single Line Crossing, Double Line Crossing, Loitering, Wrong-Way Detection, Enter Area, Leave Area, Smart Motion Detection Support alarm triggering by specified target types (human and vehicle)	
Smoke & Flame Detection		
Smoke and Flame Detection	Support	
People Counting	Support	
Video & Audio		
Main Stream	1280×1024, 1280×720, 640×512 @25fps	2688×1520, 1920×1080, 1280×960, 1280×720 @25/30fps
Sub Stream	D1, CIF @25/30fps	704×576, 640×480, 352×288 @25/30fps
Bit Rate Control	CBR/VBR	CBR/VBR
Bit Rate	Main Stream: 100Kbps to 8Mbps Sub Stream: 10Kbps to 6Mbps	32 Kbps to 16 Mbps
Smart Encode	Support	Support
Audio Compression	G.711 A-law, G.711 μ-law, RAM PCM	G.711 A-law, G.711 μ-law, RAM PCM
Image		
Image Setting	Brightness, Contrast, Sharpness	Brightness, Saturation, Contrast, Sharpness
Mirror	Horizontal / Vertical / Horizontal + Vertical	Horizontal / Vertical / Horizontal + Vertical
Pseudo-color Setting	Up to 17 colors (White-hot / Black-hot / Rainbow / Iron red / HSV / Bone / Cool / Copper / Fire-hot / Pink / Spring / Summer / Autumn / Winter / Jet / Flame / Rose -Bengal)	
FFC Control	Auto / Manual	
Exposure Mode		Auto Exposure / Aperture Priority / Shutter Priority / Manual Exposure
Defog		Optical Defog
Day/Night		Auto / Manual / Time / Alarm
Noise Reduction	2D/3D DNR	3D DNR
Privacy Masking	Up to 4 areas	
Thermal Function		
Temperature Range	-20°C to 150°C (-4°F to 302°F)	
Accuracy	±8°C	
Temperature Detection	3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line)	
Temperature Display	Display in the lower left corner; follow the cursor display of the highest temperature, lowest temperature or average temperature	
Image Fusion	Fusion view of thermal view and overlaid details of the optical channel	

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Event

Alarm Triggers	IVS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm
Alarm Events	Alarm out, Audio alarm, Alarm record, SMTP, FTP upload

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless, Tilt: +45° to -45°
Pan/Tilt Speed	Pan: 0.01° to 30°/s, Tilt: 0.01° to 15°/s
Wiper	Support
Preset Accuracy	± 0.1°
Presets	400
Scan	8 scans, up to 32 presets per scan
Patrol	12 patrols, up to 32 presets per scan
Track	6 tracks
3D Positioning	Support
Speed Setup	Auto/Manual (0-8)
Power Off Memory	Support
Idle Motion	It can activate Preset/ Scan/Tour/Pattern if there is no command in the specified period

Network

Protocols	IPv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPOE, RTSP/RTP/RTCP, TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, QoS, 802.1x, SNMP, Multicast
Interoperability	ONVIF (Profile S/T/G/M), SDK, CGI
User/Host Level	32+ users, 3 levels: Administrator, Operator, Media user
Security	IP address filter, encrypted HTTPS, Illegal login lock, IEEE 802.1x
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge

Interface

Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector
Audio Interface	2ch input, 2ch output
Alarm Interface	2ch input, 2ch output
RS-485	Support
SD Card Slot	Built-in, up to 256GB
Reset Button	Built-in

General

Power Supply	DC36V
Power Consumption	Max 150W
Working Temperature & Humidity	-40°C to 60°C (-40°F to 140°F) Less than 90% RH
Certifications	CE-EMC - EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B
Ingress Protection	IP66
Material	Metal
Dimensions	730 × 443 × 636mm (28.74×17.44×25.04")
Net Weight	≤ 48Kg (105.8lb)

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Thermal DRI Range Table

Note: The table is only for reference and the performance may vary according to different environment.

Note: The optimal detection, recognition, and identification distances are calculated according to Johnson's Criteria.

Detection Range: In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels.

Recognition Range: In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels.

Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.

Focal Length	30mm to 150mm
Detection Distance (Humans: 1.8×0.5m)	1,040 to 9,363m (3,412.1 to 30,718.5ft)
Detection Distance (Vehicles: 4×1.5m)	3,194 to 28,750m (10,479 to 94,324.1ft)
Recognition Distance (Humans: 1.8×0.5m)	260 to 2,341m (853 to 7,680.4ft)
Recognition Distance (Vehicles: 4×1.5m)	799 to 7,188m (2,621.4 to 23,582.7ft)
Identification Distance (Humans: 1.8×0.5m)	130 to 1,170m (426.5 to 3,838.6ft)
Identification Distance (Vehicles: 4×1.5m)	399 to 3,594m (1,309 to 11,791.3ft)

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Dimensions (mm)

