

Thermal & Optical Bi-spectrum Stable PTZ Camera





- VOx uncooled focal plane detector with 640×512 resolution
- NETD ≤ 40mK
- 26 to 105mm motorized thermal lens optical, 37x optical zoom module
- Support human/vehicle detection
- Support smoke & fire detection and fire point detection
- Smart events: intrusion, single line crossing, double line crossing, loitering, wrong-way, people counting, enter area, leave area
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature measurement range: -20°C to 150°C (-4°F to 302°F)
- Power off self-locking, strong wind resistance
- Anti-frozen, NDAA Compliance IP66





Thermal & Optical Bi-spectrum Stable PTZ Camera

Technical Specification

Thermal	Modul	e
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Image Sensor	Uncooled VOx Focal Plane Arrays
Resolution	Sensor is 640×512. Image can be scaled up to 1280×1024
Pixel Pitch	12µm
NETD	≤ 40mK
Spectral Range	8 to 14 um
Image Setting	Brightness, Sharpness, Contrast, Mirror, FFC control, 2D/3D DNR
Pseudo-color Setting	White-hot/Black-hot/Rainbow/Ironbow etc. up to 17 modes

Thermal Lens

Focus Control	Motorized Focus
Focal Length	26 to 105mm
Aperture	F1.6
Angle of View	H: 16.8°-4.2° V: 13.4°-3.4°
Detection Distance (Human: 1.8×0.5m)	1,082 to 4,369m (3,549.9 to 14,334ft)
Detection Distance (Vehicle: 4×1.5m)	3,322 to 13,417m (10,899 to 44,019ft)
Recognition Distance (Human: 1.8×0.5m)	270 to 1,092m (885.8 to 3,582.7ft)
Recognition Distance (Vehicle: 4×1.5m)	831 to 3,354m (2,726.4 to 11,003.9ft)
Identification Distance (Human: 1.8×0.5m)	135 to 546m (442.9 to 1,791.3ft)
Identification Distance (Vehicle: 4×1.5m)	415 to 1,677m (1361.5 to 5502ft)

 $[\]boldsymbol{^*}$ The table is only for reference and the performance may vary according to different environment.

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

Detection Range Table

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VCA Detection Distance (Human: 1.8 × 0.5m)	Up to 705m (2,313.0ft)
VCA Detection Distance (Front/Rear of Vehicle: 4 × 1.5m)	Up to 1,200m (3,937.0ft)
Temperature Measurement (Object: 1 × 1m)	433 to 1,750m (1,420.6 to 5,741.5ft)
Temperature Measurement (Object: 0.2 × 0.2m)	87 to 350m (285.4 to 1,148.3ft)
Fire Detection (Object: 1 × 1m)	1,083 to 4,375m (3,553.1 to 14,353.7ft)
Fire Detection (Object: 0.2 × 0.2m)	217 to 875m (712 to 2,870.7ft)

Note: The table is for reference only. The distances within it are subject to actual conditions including atmospheric conditions, target size, the installation site, and more.

^{*} The optimal detection, recognition, and identification distances are calculated according to Johnson's Criteria.



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Image Senor	Optical Module	
Shutter Speed 1/8 to 1/20,000. Min. Illimination Conc. 2001 List 8' (1.5, AGC ON) WOR Time WOR Footal length 6.8 to 25 Lim., 37x optical zoon Aperture F.5 In F4.8 Anglord View 15.0 F4.8 V. So.R it to 1.38* Optical 7.00m Oligital 7.00m 166 Footac Control Support Defog Support Privacy Masking Support Part Privacy Masking Support Part Till Speed Support Part Till Speed Part on 5800* endidess Till-901 to 96% Privacy Masking Support Part Till Speed Part speed 300% Privacy Masking Support Part Till Speed Support Part Speed 300% Privacy Masking Support Perest Accuracy 10.1* Privacy Masking Support Prest Accuracy 20.1* Privacy Masking Support Prest Accuracy 10.1* Privacy Masking Support Part of Marcuracy 10.2* Privacy Masking <th< td=""><td>Image Sensor</td><td>1/1.8" CMOS</td></th<>	Image Sensor	1/1.8" CMOS
Min.	Max. Resolution	2592 (H)×1520 (V), 4MP
No.	Shutter Speed	1/5 to 1/20,000s
Food Length 6.8 to 251 mm, 37x optical zoom Aperture F1.5 to F4.8 Angle of View '3.68° to 1.38° Origital Zoom 16x Focus Control Auto/Manual/Semi-automatic Mirror Support Defog Support Privary Masking Support Part III Range Part III Range Pan O' to 3.60° endiess Titl: 30° to 490° Pany Titl Range Pan speed 0.1" to 60°/s Preset Accuracy 50.90° Viper Support Preset Accuracy 6.01° Scan 8 scans Startol 1.02 partis, up to 3.2 presets per patrol Track 6 tracks 30 Post Offender Support Power Off Memory Support Illuminator Support Illuminator Lese Illuminator Distance Up to 800m (2,624 7t!) Wide Auto/Manual (2-8) Power Off Memory Support Illuminator Distance Up to 800m (2,6	Min. Illumination	
Apperture F1.5 to F4.8 Angle of View H: 60.7" to 2.33" V: 5.6 f to 1.38" Digital Zoom ISE Flocus Control Anathymaus/Semi-automatic Mirror Support Perfocus Quinter Support PT Privacy Making Support PTA Part O' to 360" endies 111; 59' to -90" Part Tilk Range Pars O' to 500" endies 111; 59' to -90" Part Jilk Speed Pars speed 0.1" to 60'/5 Press speed 300'/5 Press speed 300'/	WDR	True WDR
Right of View Fis D07 in 2.33° Vis S8' to 1.38° Digital Zoom 16x	Focal Length	6.8 to 251 mm, 37x optical zoom
Angle or Niew V. 36.8° to 1.38° Ogital Zoom 16x Focus Control Auto/Manual/Semi-automatic Mirror Support Defog Support PYRACY Masking Support PRT Pan Title Sange Pan : O't 0.860° endiess Title - O't 0.90° Pan Speed. 0.1° to 500° s Prof. I'll Espeed Pan Speed. 0.1° to 500° s Preset Accuracy 4 0.1° Preset Accuracy 4 0.1° Preset S 400 Scan 8 scans Patrol 12 patrols, up to 32 presets per patrol Track 6 tracks 3D Positioning Support Speed Setup Auto/Manual (0-8) Power Off Memory Support Idle Motion The time can be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run Illuminator Type Laser Illuminator Type Laser Illuminator Distance Up 800m (2,624.7ft) Video & Audo Video & Audo <th< td=""><td>Aperture</td><td>F1.5 to F4.8</td></th<>	Aperture	F1.5 to F4.8
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Mirror Support Defog Support Privacy Masking Support PTZ ************************************	Digital Zoom	16x
Defog Support Privacy Masking Support PTZ Pan/Tilt Range Pan: 0° to 360° endless Tilt: -90° to 490° Pan/Tilt Speed Pan: 9° to 160°/s Preset Speed: 300°/s Wiper Support Preset Accuracy ± 0.1° Preset S 400 Scan 8 scans Patrol 12 patrols, up to 32 presets per patrol Track 6 tracks 3D Positioning Support Speed Setup Auto/Manual (0-8) Power Off Memory Support Idle Motion The time can be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run Illuminator Type Laser Illuminator Type Laser Illumination Distance Up to 8000m (2,624.7ft) Video A Audio Video A Modio Substream Optical: 2592x1520, 2560x1440, 2304x1296, 1920x1080, 1280x720 @25/30fps Bit Rate Control CBR/VBR Bit Rate Control CBR/VBR Bit Rate Control CIMPon (8 Zone, Rectangle)	Focus Control	Auto/Manual/Semi-automatic
Privacy Masking Support PTZ Pan/Tilt Range Pan. 0° to 360° endless Tilt: -90° to +300° s Pan/Tilt Speed Pan speed; 0.1° to 60°/s Prest speed; 300°/s Wiper Support Preset Accuracy ± 0.1° Preset S 400 Scan 8 scans Patrol 12 patrols, up to 32 presets per patrol Track 6 tracks 3D Positioning Support Speed Setup Auto/Manual (0.8) Power Off Memory Support Idle Motion The time can be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run Illuminator Illuminator Type Illuminator Type Laser Illumination bistance Up to 800m (2,624.7ft) Video & Audo Video & Audo Sub Stream Optical: 2599.x1507, 2560x1440, 2304x1296, 1920x1080, 1280x720 @25/30fps Bit Rate Thermal: Libus stream: 100Kbps to 6Mbps Sub stream: 100Kbps to 6Mbps Sub stream: 100Kbps to 6Mbps Sub stream: 100Kbps to 6Mbps Sub stream: 100Kbps to 6Mbps Sub stream: 100Kbps to	Mirror	Support
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Sub stream: 100Kbps to 6Mbps Optical: Main stream: 100Kbps to 16Mbps Sub stream: 100Kbps to 6Mbps Region of Interest Off/On (8 Zone, Rectangle)	Bit Rate Control	
	Bit Rate	Sub stream: 100Kbps to 6Mbps Optical: Main stream: 100Kbps to 16Mbps
Audio Compression G711: 64kbps, RAW_PCM: 128kbps	Region of Interest	Off/On (8 Zone, Rectangle)
	Audio Compression	G711: 64kbps, RAW_PCM: 128kbps



Thermal & Optical Bi-spectrum Stable PTZ Camera

Thermal Focal Length: 26 to 105mm

Optical Focal Length: 6.8 to 251 mm, 37x optical zoom

RTPT6436LPZ-Z4-ZSD37

Smart Function		
Smart Alarm	Motion detection, Disk alarm, I/O alarm, IVS alarm, Temperature detection & alarm	
Smart Detection	Support human/vehicle detection, fire point detection and smoke & fire detection (ship detection optional)	
Intelligent Analysis	Intrusion, Single line crossing, Double line crossing, Loitering, Wrong-way, Enter area, Leave area (these 7 functions support accurate detection of people/vehicles), People counting	
Temperature Detection		
Temperature Detection	3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line)	
Temperature Alarm	Over temperature alarm, Temperature difference alarm	
Accuracy	±2°C/±2%	
Response Time	≤ 30ms	
Temperature Range	-20°C to 150°C (-4°F to 302°F)	
Network		
Protocols	IPv4/IPv6 ,HTTP,RTSP/RTP/RTCP, TCP/UDP, DHCP, DNS, PPPOE, SMTP, 802.1x	
Interoperability	ONVIF, SDK, CGI	
Max. User Access	10 Users	
Web Viewer	<ie11, chrome,="" edge<="" firefox,="" microsoft="" td=""></ie11,>	
Language	English, Chinese, Polish, Italian, Portuguese, Spanish. Russian, French, Czech, Hungarian	
Interface		
Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector	
Audio Interface	2ch Audio In, 2ch Audio Out	
Alarm Interface	9ch Alarm In, 4ch Alarm Out	
RS-485	Support	
BNC Output	Support	
Reset Button	Support (Built-in)	
SD Card Slot	Built-in, up to 256GB	
General	General	
Power Supply	DC36V	
Power Consumption	Max 150W	
Working Temperature	-40°C to 60°C (-40°F to 140°F)	
Operating Humidity	Less than 90% RH	
Ingress Protection	IP66	
Certifications	CE; FCC; NDAA Sec. 889	
Casing	Metal	
Dimensions	594 x 350 x 337mm (23.39 x 13.78 x 13.27")	
Net Weight	≤ 26.6Kg (58.6lb)	
Ordering Information		



Thermal & Optical Bi-spectrum Stable PTZ Camera

Dimensions (mm)





