KEGAWA

IK-P4335BT-M

Thermal & Optical Bi-spectrum Heavy Duty PTZ Camera

Key Features

- 400 × 300 resolution, 17 µm, VOx UFPA, NETD ≤ 40 mK
- Thermal: 75/100mm motorized lens optional; Visible: 32x/60x motorized lens
- Support human/vehicle detection and 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 range: -20°C to 150°C (-4°F to 302°F), Accuracy: ±2°C / ±2%
- Power off self-locking, strong wind resistance
- Anti-frozen, NDAA Compliance, IP66

Specification

Camera	Thermal	Visible
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays	1/2.8" STARVIS CMOS
Resolution	Sensor is 400×300, Image can be scaled up to 704×576	2592 (H)×1520 (V), 4MP
Pixel Pitch	17μm	
Spectral Range	8 to 14μm	
NETD	≤ 40mK	
Min. Illumination		Color: 0.001 Lux @(F1.5, AGC ON), B/W: 0.0005 Lux (F1.5, AGC ON)
Shutter Speed		1/5 to 1/20,000s
Lens Type	Fixed lens	Varifocal
Focal Length	75 mm, 100 mm optional	12.5 to 400mm (15.6 to 500mm, 12.5 to 750mm, 16.7 to 1000mm optional)
Max. Aperture	F1.0	F2.5 to F16
Focus Control	Motorized focus	Auto/Manual/Semi-automatic
Field of View (FOV)	75 mm, H: 5.1°, V: 3.8° 100 mm, H: 3.8°, V: 2.3°	12.5 to 400 mm: - H: 33° to 1.7°
IVS		
AI Multi-Target	Human / Vehicle detection (Ship detection optional)	Face / Human / Vehicle detection and capture
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)	Intrusion, Single Line Crossing, Double Line Crossing, Loitering, Wrong-Way Detection, illegal parking , Smart Motion Detection Support alarm triggering by specified target types (human and vehicle)
Fire Point Detection	Supported	
People Counting	Supported	Supported
Video and Audio		
Stream/Frame Rate	Stream1: D1 (704×576) @25/30fps Stream2: CIF @25/30fps	Stream1: 2592×1520, 2560×1440, 2304×1296, 1920×1080, 1280×720 @25/30fps Stream2: D1, VGA, CIF @25/30fps Stream3: VGA, CIF, QVGA @25/30fps
Bit Rate Control	CBR/VBR	CBR/VBR
Bit Rate	Stream1: 100 Kbps to 6 Mbps, Stream2: 10 Kbps to 1.5 Mbps	Stream1: 200 kbps to 12 Mbps Stream2: 100 kbps to 6 Mbps Stream3: 100 kbps to 3 Mbps
Smart Encoder	Supported	Supported
Region of Interest	Off/On (8 Zone, Rectangle)	Supported
Audio Compression	G.711 A-law, G.711 μ-law, RAW_PCM	G.711 A-law, G.711 μ-law, RAW_PCM

Audio Bit Rate	64 Kbps (G.711), 128 Kbps (RAW_PCM)	64 Kbps (G.711), 128 Kbps (RAW_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	
White Balance		Auto / Tungsten / Fluorescent / Daylight / Shadow / Manual
Day/Night		Auto / Day mode / Night mode / Timer
Noise Reduction	2D/3D DNR	2D/3D DNR
Image Enhancement		WDR, HLC, BLC, Defog
Wide Dynamic Range		True WDR
OSD	Up to 8 OSD	Up to 8 OSD
Privacy Masking	Supported	Supported
Thermal Function		
Temperature Range	-20°C to 150°C (-4°F to 302°F)	
Accuracy	±2°C / ±2%	
Temperature Detection	3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line).	
Temperature Alarm	Temperature difference alarm, Threshold alarm, Temperature rise alarm	
Temperature Display	Display in the lower left corner; follow the cursor display of the highest temperature, lowest temperature or average temperature	
Response Time	≤ 30ms	
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	Supported	
Preset Accuracy	± 0.1°	
Presets	400	
Scan	8 scans, up to 32 presets per scan	
Patrol	12 patrols, up to 32 presets per scan	

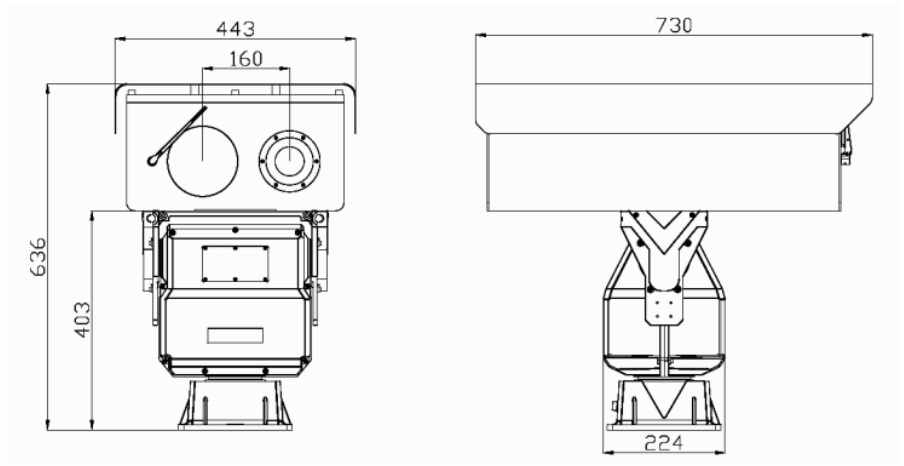
Track	6 tracks
3D Positioning	Supported
Speed Setup	Auto/Manual (0-8)
Power Off Memory	Supported
Idle Motion	The time can be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run.
Event	
Alarm Triggers	IVS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sound detection
Event Actions	Alarm out, Alarm record, SMTP, FTP upload, Audible alarm
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
Compatible Integration	ONVIF (Profile S/T/G/M), CGI, SDK
Max Concurrent Streams	10 channels
User/Host Level	32+ users, 3 levels: Administrator, Operator, Media user
Security	IP address filter, 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 Audio In, 2ch Audio Out
Alarm Interface	3ch Alarm In, 3ch Alarm Out
RS-485	1
BNC Interface	1 (CVBS output for visible)
SD Card Slot	Built-in, up to 256GB
Reset Button	Built-in
General	
Language	English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English
Power Supply	DC36V
Power Consumption	Max 150W
Operating Temperature	-40°C to 60°C (-40°F to 140°F)
Operating Humidity	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 × 636 mm (28.74×17.44×25.04 inch)
Net Weight	≤ 48 Kg (105.8 lb)

Thermal DRI Range Table		
Focal Length	75 mm	100 mm
Detection Distance (Humans: 1.8×0.5m)	2,206 m (7,237.5 ft)	2,941 m (8,172.6 ft)
Detection Distance (Vehicles: 4×1.5m)	6,765 m (22,194.9 ft)	9,020 m (29,593.2 ft)
Recognition Distance (Humans: 1.8×0.5m)	551 m (1,807.7 ft)	735 m (2,411.4 ft)
Recognition Distance (Vehicles: 4×1.5m)	1,691 m (5,547.9 ft)	2,255 m (7,398.3 ft)
Identification Distance (Humans: 1.8×0.5m)	276 m (905.5 ft)	368 m (1,207.4 ft)
Identification Range (Vehicles: 4×1.5m)	846 m (2,775.6 ft)	1,127 m (3,697.5 ft)
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.		

Thermal Smart Detection Range Table		
Focal Length	25 mm	50 mm
Temperature Measurement (Object: 0.2 × 0.2m)	176 m (577.4 ft)	235 m (771 ft)
Fire Detection (Object: 0.2 × 0.2m)	441 m (1,446.9 ft)	588 m (1,929.1 ft)
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.		

Dimensions (mm)



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