



IK-B2332T-F

Bi-spectrum Bullet Network Camera

Key Features

- Uncooled VOx Micro bolometer with 256×192 resolution
- Thermal: 3.5/7/10mm fixed lens optional, Visible: 4/8mm fixed lens optional
- Supports human and vehicle detection
- Supports smoking detection, smoke & flame detection, and fire spot detection
- Intelligent analysis: intrusion, single line crossing, double line crossing, loitering, wrong-way detection, enter/leave area, 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 $\pm 2^{\circ}\text{C}$ / $\pm 2\%$
- Built-in speaker and strobe lights; supports audio-visual alarm linkage
- Smart IR illumination up to 35m / 50m
- Supports alarm I/O, RS-485, and built-in microSD card slot
- Supports 12 VDC / 24 VDC / PoE power supply

Specification

Camera	Thermal	Visible
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays	1/2.7" CMOS
Resolution	256(H) × 192(V) , Image can be scaled up to 704 × 576	2880(H) × 1620(V)
Pixel Pitch	12μm	
Spectral Range	8 to 14μm	
NETD	≤ 50mK	
Min. Illumination		Color: 0.05Lux @(F1.6, AGC ON), B/W: 0.005Lux @(F1.6, AGC ON), 0Lux with IR
Shutter Speed		1/5 to 1/20,000s
Lens Type	Fixed lens	Fixed lens
Focal Length	3.5 mm, 7mm, 10mm optional	4 mm, 8 mm optional
Max. Aperture	F1.0	F1.6 / F2.0
Focus Control	Fixed focal	Fixed focal
Field of View (FOV)	3.5 mm, - H: 48°, V: 36° 7 mm, - H: 24°, V: 18° 10 mm, - H: 17°, V: 13°	4 mm, - H: 92°, V: 46° 8 mm, - H: 40°, V: 20°
IVS		
AI Multi-Target	Human and vehicle detection	Human and vehicle detection
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, Enter Area, Leave Area, Smart Motion Detection Support alarm triggering by specified target types (human and vehicle)
Smoking Detection	Support	
Smoke and Flame Detection		Support
Fire Spot Detection	Support	
People Counting	Support	Support
Video and Audio		
Main Stream	D1 (704×576) @25fps	2880×1620, 2560×1440, 2304×1296, 1920×1080, 1280×720 @25fps
Sub Stream	D1, CIF, 256×192 @25fps	D1, VGA @25fps
Bit Rate Control	CBR/VBR	CBR/VBR
Bit Rate	Main Stream: 100Kbps to 3Mbps, Sub Stream: 10Kbps to 3Mbps	Main Stream: 100Kbps to 12Mbps Sub Stream: 10Kbps to 6Mbps
Smart Encode	Support	Support

Audio Compression	G.711 A-law, G.711 μ -law, RAW_PCM	G.711 A-law, G.711 μ -law, 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	
Gain Control		Auto / Manual
White Balance		Auto / Tungsten / Fluorescent / Daylight / Shadow
Day/Night		Day mode / Night mode / Time
Noise Reduction	2D/3D DNR	2D/3D DNR
Image Enhancement		WDR, HLC, BLC
Wide Dynamic Range		True WDR 120dB
OSD	Up to 8 OSD	Up to 8 OSD
Privacy Masking	Up to 4 areas	Up to 4 areas
Illuminator		IR Range: -4 mm: Up to 35 m (114.83 ft) -8 mm: Up to 50 m (164.04 ft)
Thermal Function		
Temperature Range	-20°C to 150°C (-4°F to 302°F)	
Accuracy	$\pm 2^\circ\text{C}$ / $\pm 2\%$	
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	
Image Fusion	Fusion view of thermal view and overlaid details of the optical channel	
Event		
Alarm Triggers	IVS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sound detection	
Event Actions	Alarm out, Audio alarm, Flashing light alarm, 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 × RJ-45 (10/100 Base-T Ethernet)
Audio I/O	1 channel input, 1 channel output
Built-in Speaker	Supported
Alarm I/O	2 channel input, 2 channel output
RS-485	1
SD Card Slot	Built-in microSD card slot, up to 512 GB
Reset Button	Supported

General	
Web Language	English, Simplified Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean (default: English)
Power Supply	12 VDC / 24 VDC / PoE (802.3af)
Power Consumption	Max. 12W
Operating Temperature	-40°C to 60°C (-40°F to 140°F)
Operating Humidity	< 90% RH (non-condensing)
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	303 × 95 × 107 mm (11.93 × 3.74 × 4.21 in)
Net Weight	Approx. 1.35 kg (2.98 lb)

Model Ordering Table		
Model	Thermal Lens	Visible Lens
IK-B2332T-F3.5	3.5 mm	4 mm
IK-B2332T -F7	7 mm	8 mm
IK-B2332T-F10	10 mm	8 mm

Thermal DORI Distance			
Lens	3.5 mm	7 mm	10 mm
Detection Distance (Humans: 1.8 × 0.5 m)	146 m (479.0 ft)	292 m (958.0 ft)	417 m (1,368.1 ft)
Detection Distance (Vehicles: 1.5 × 4 m)	447 m (1,466.5 ft)	894 m (2933.1 ft)	1,278 m (4,192.9 ft)
Recognition Distance (Human: 1.8 × 0.5 m)	36 m (118.1 ft)	73 m (239.5 ft)	104 m (341.2 ft)

Recognition Distance (Vehicles: 1.5 × 4 m)	112 m (367.5 ft)	224 m (734.9 ft)	319 m (1,046.5 ft)
Identification Distance (Human: 1.8×0.5 m)	18 m (59 ft)	36 m (118.1 ft)	52 m (170.6 ft)
Identification Distance (Vehicles: 1.5 × 4 m)	56 m (183.7 ft)	112 m (367.5 ft)	160 m (524.9 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

Lens	3.5 mm	7 mm	10 mm
VCA Detection Distance (Human: 1.8 × 0.5 m)	30 m (98.4 ft)	60 m (196.9 ft)	103 m (337.9 ft)
VCA Detection Distance (Front/Rear of Vehicle: 1.5 × 4 m)	35 m (114.8 ft)	70 m (229.7 ft)	230 m (754.6 ft)
Temperature Measurement (Object: 1 × 1 m)	58.3 m (191.3 ft)	116.7 m (382.9 ft)	166.7 m (546.9 ft)
Temperature Measurement (Object: 0.2 × 0.2 m)	11.7 m (38.4 ft)	23.3 m (76.4 ft)	33.3 m (109.3 ft)
Fire Detection (Object: 0.2 × 0.2 m)	29.2 m (95.8 ft)	58.3 m (191.3 ft)	83.3 m (273.3 ft)
Smoking Detection	13 m (42.7 ft)	25 m (82 ft)	40 m (131.2 ft)

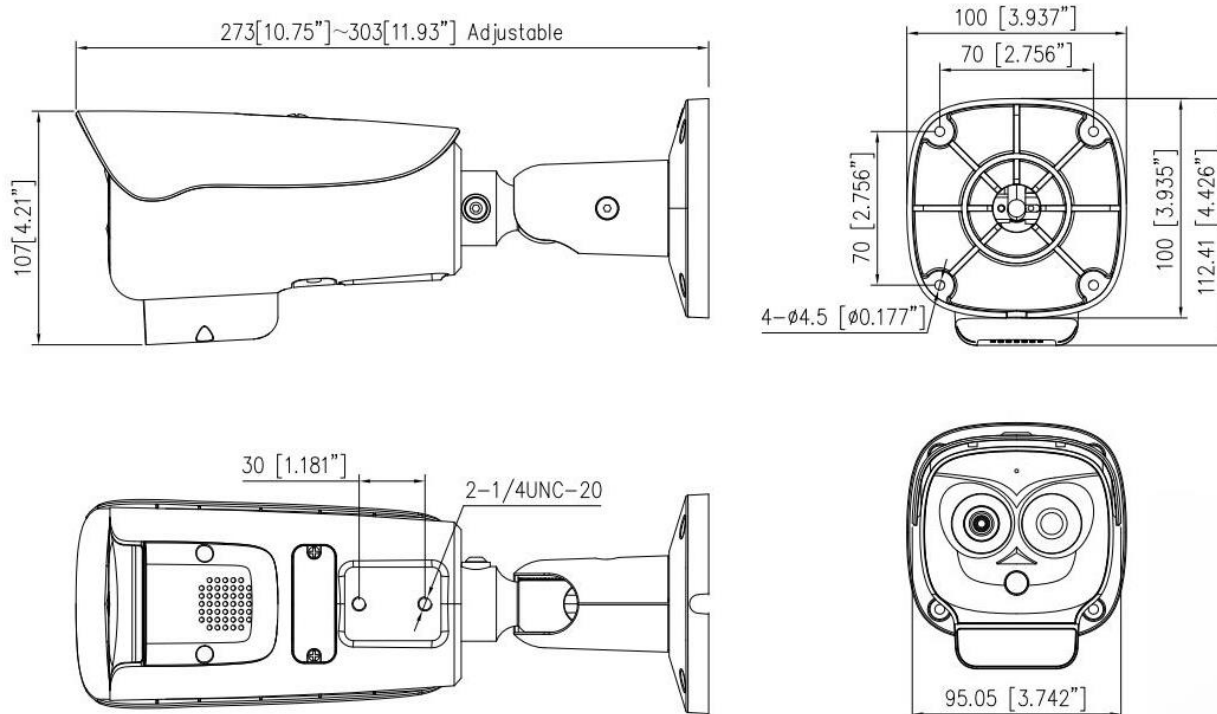
Note: The table is for reference only. The distances within it are subject to actual conditions including atmospheric conditions, target size, the installation site, and more.

Optical DORI Range Table

Lens	4 mm	8 mm
Detect	85.4 m (280.18 ft)	150.4 m (493.44 ft)
Observe	34.2 m (112.20 ft)	60.2 m (197.51 ft)
Recognize	17.1 m (56.10 ft)	30.1 m (98.75 ft)
Identify	8.5 m (27.89 ft)	15.0 m (49.21 ft)

Note: DORI (Detect, Observe, Recognize, and Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.

Dimensions (mm)



Accessories

Optional:

IK-AJ45G Junction Box	IK-AP01A Pole Mount	IK-ACR02A Corner Mount	IK-AP24D Pole Mount
