



# IK-B6735T-F

## Bi-spectrum Bullet Network Camera

### Key Features

- 640 × 512 resolution, 12 μm, VOx UFPA, NETD ≤ 40 mK
- Optional thermal and visible lens configurations for versatile applications
- 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
- Supports 3 temperature measurement rule types: spot, line, and area
- Temperature monitoring & alarm: -20°C to 150°C (-4°F to 302°F), accuracy ±2°C / ±2%
- Built-in speaker and strobe lights; supports audio-visual alarm linkage
- Smart IR illumination up to 100 m
- Supports 12 VDC / 24 VAC / PoE+ power supply
- IP66-rated protection

## 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 1920×1080	2688(H) × 1520(V)
Pixel Pitch	12μm	
Spectral Range	8 to 14μm	
NETD	≤ 40mK	
Min. Illumination		Color: 0.005Lux @(F1.6, AGC ON), B/W: 0.001Lux @(F1.6, AGC ON), 0Lux with IR
Shutter Speed		1/5 to 1/20,000s
Lens Type	Fixed	Fixed
Focal Length	9 mm, 15 mm, 25 mm, 35 mm, 50 mm	4mm, 6mm, 10 to 30mm optional
Max. Aperture	F1.0	F1.6
Focus Control	Fixed focal	4 mm / 6mm: Fixed focal 10 to 30 mm: Motorized focal
Field of View (FOV)	9 mm, H: 48°, V: 38° 15 mm, H: 29°, V: 23° 25 mm, H: 17°, V: 14° 35 mm, H: 12°, V: 10° 50 mm, H: 8°, V: 7°	4 mm, H: 87°, V: 47° 6 mm, H: 55°, V: 30° 10 to 30mm, H: 43.4° to 15.5°, V: 23.8° to 8.8°
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	Supported	
Smoke and Flame Detection		Supported
Fire Spot Detection	Supported	
People Counting	Supported	Supported
Video and Audio		
Main Stream	1920×1080, 1280×1024, 1280×720, 640×512 @25fps	2688×1520, 1920×1080, 1280×720 @25/30fps
Sub Stream	D1, VGA, 640×512, CIF @25fps	D1, 640×360, CIF @25/30fps
Bit Rate Control	CBR/VBR	CBR/VBR
Bit Rate	Main Stream: 100 Kbps to 8 Mbps, Sub Stream: 100 Kbps to 6 Mbps	Main Stream: 200 Kbps to 12 Mbps Sub Stream: 100 Kbps to 6 Mbps
Smart Encode	Supported	Supported

Audio Compression	G.711 A-law, G.711 $\mu$ -law, RAW_PCM	G.711 A-law, G.711 $\mu$ -law, RAW_PCM
<b>Image</b>		
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 70 m (229.6 ft) -6 mm: Up to 80 m (262.5 ft) -10 to 30 mm: Up to 100 m (328.0 ft)
<b>Thermal Function</b>		
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	
<b>Event</b>		
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, Flashing light alarm, Audible alarm output	
<b>Network</b>		
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	
<b>Interface</b>		
Network Interface	1 × RJ-45 (10/100 Base-T Ethernet)	
Audio I/O	1 channel input, 1 channel output	
Built-in Mic	Supported	
Built-in Speaker	Supported; alarm sound transmission distance up to 150 m (492.1 ft) in wooded environment	
Alarm I/O	2 channel input, 2 channel output	
Analog Output	Supported (thermal or visible switchable)	
RS-485	1	
SD Card Slot	Built-in microSD card slot, up to 1 TB	
Reset Button	Supported	
<b>General</b>		
Web Language	English, Simplified Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean (default: English)	
Power Supply	12 VDC / 24 VAC / PoE+ (802.3at)	
Power Consumption	Max. 25W	
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	327.4 to 347.4 × 140.04 × 120.72mm, (12.89 to 13.55 × 5.59 × 4.75 in)	
Net Weight	Approx. 2.0 kg (4.41 lb) with 50 mm lens	
<b>Model Ordering Table</b>		
<b>Model</b>	<b>Thermal Lens</b>	<b>Visible Lens</b>
IK-B6735T-F9	9 mm	4 mm
IK-B6735T-F15	15 mm	6 mm
IK-B6735T-F25	25 mm	10 to 30 mm
IK-B6735T-F35	35 mm	10 to 30 mm
IK-B6735T-F50	50 mm	10 to 30 mm

**Thermal DRI Distance Table**

Focal Length	9 mm	15 mm	25 mm	35 mm	50 mm
Detection Distance (Humans: 1.8x0.5m)	375 m (1230.3 ft)	625 m (2,050.5 ft)	1,042 m (3,418.6 ft)	1,456 m (4,776.9 ft)	2,083 m (9,196.2 ft)
Detection Distance (Vehicles: 4x1.4m)	1,150 m (3,773 ft)	1,917 m (6,289.3 ft)	3,194 m (10,479 ft)	4,472 m (14,672 ft)	6,389 m (20,961 ft)
Recognition Distance (Humans: 1.8x0.5m)	94 m (308.4 ft)	156 m (511.8 ft)	260 m (853 ft)	365 m (1,197.5 ft)	521 m (1,709.3 ft)
Recognition Distance (Vehicles: 4x1.4m)	288 m (944.9 ft)	479 m (1,571.5 ft)	799 m (2,621.4 ft)	1,118 m (3,668 ft)	1,597 m (5,239.5 ft)
Identification Distance (Humans: 1.8x0.5m)	47 m (154.2 ft)	78 m (255.9 ft)	130 m (426.5 ft)	182 m (597.1 ft)	260 m (853 ft)
Identification Range (Vehicles: 4x1.4m)	144 m (472.4 ft)	240 m (787.4 ft)	399 m (1,309 ft)	559 m (1,834 ft)	799 m (2,621.4 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	9 mm	15 mm	25 mm	35 mm	50 mm
VCA Detection Distance (Human: 1.8 x 0.5 m)	47 m (154.2 ft)	84 m (275.6 ft)	145 m (475.7 ft)	188 m (616.8 ft)	280 m (918.6 ft)
VCA Detection Distance (Front/Rear of Vehicle: 4x1.5 m)	110 m (360.9 ft)	190 m (623.4 ft)	280 m (918.6 ft)	380 m (1,246.7 ft)	450 m (1,476.4 ft)
Temperature Measurement (Object: 1 x 1m)	150 m (492.1 ft)	250 m (820.2 ft)	417 m (1,368.1 ft)	583 m (1,912.7 ft)	833 m (2,732.9 ft)
Temperature Measurement (Object: 0.2 x 0.2m)	30 m (94.4 ft)	50 m (164 ft)	83 m (272.3 ft)	117 m (383.9 ft)	167 m (547.9 ft)
Fire Detection (Object: 1 x 1m)	375 m (1,230.3 ft)	625 m (2,050.5 ft)	1,042 m (3,418.6 ft)	1,458 m (4,783.5 ft)	2,083 m (9,196.2 ft)
Fire Detection (Object: 0.2 x 0.2m)	75 m (246.1 ft)	125 m (410.1 ft)	208 m (682.4 ft)	292 m (958 ft)	417 m (1,368.1 ft)

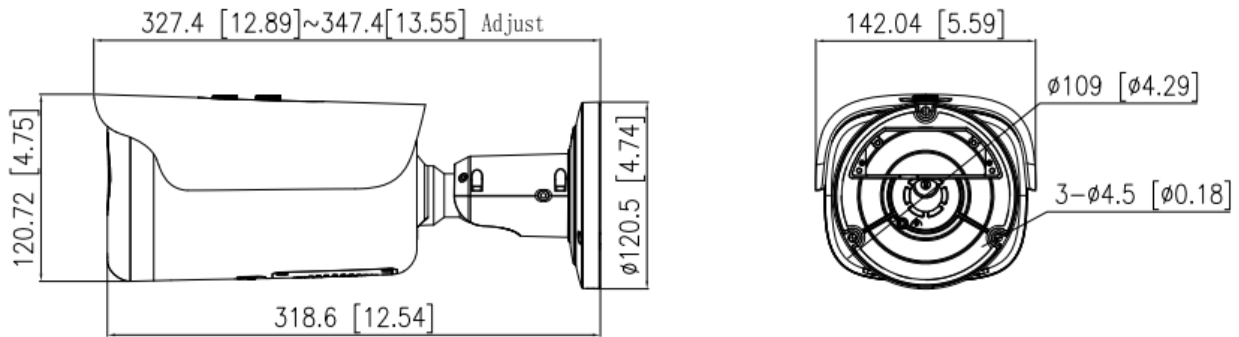
**Note:** The table is for reference only. The distances within it are subject to actual conditions including atmospheric conditions, target size, the installation site, and more.

**Visible DORI Range Table**

Lens	4 mm	6 mm	10 to 30 mm
<b>Detect</b>	67.6 m (221.8 ft)	96.6 m (316.9 ft)	150 to 400 m (492.1 to 1,312.3 ft)
<b>Observe</b>	27 m (88.6 ft)	38.6 m (126.6 ft)	60 to 160 m (196.9 ft to 524.9 ft)
<b>Recognize</b>	13.5 m (44.3 ft)	19.3 m (63.3 ft)	30 to 80 m (98.4 to 262.5 ft)
<b>Identify</b>	6.8 m (22.3 ft)	9.7 m (118.4 ft)	15 to 40 m (49.2 to 131.2 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
		

