

KX-F1307TN2-EB

Thermal Network Bullet Camera

Design and specifications are subject to change without notice.
Pictures in the document are for reference only, and the actual product shall prevail.



- Vanadium oxide uncooled focal plane detector.
- AI functions: heat detection, tripwire, intrusion, and human/vehicle classification.
- Wide input voltage 12 VDC \pm 20%, and PoE.
- Supports 50 fps.
- IP67 rated.

Thermal	
Detector Type	Vanadium oxide uncooled focal plane detector
Effective Pixels	640 (H) \times 512 (V)
Pixel Pitch	12 μ m
Spectral Range	8 μ m–14 μ m
Sensitivity (NETD)	\leq 35 mK (@f/1.0)
Focus Control	Fixed-focal
Aperture	F1.0
Focal Length	5 mm; 9 mm; 13 mm; 19 mm; 25 mm; 35 mm
Field of View	5 mm: H: 81°; V: 66° 9 mm: H: 48.6°; V: 38.6° 13 mm: H: 32.1°; V: 25.8° 19 mm: H: 22.8°; V: 18.4° 25 mm: H: 17.6°; V: 14.1° 35 mm: H: 12.5°; V: 10°
Detection Distance ^①	5 mm: Vehicle: 641 m (2,103.02 ft); Human: 208 m (682.41 ft) 9 mm: Vehicle: 1,153 m (3,782.81 ft); Human: 375 m (1,230.31 ft) 13 mm: Vehicle: 2,435 m (7,988.85 ft); Human: 791 m (2,595.14 ft) 19 mm: Vehicle: 2,435 m (7,988.85 ft); Human: 791 m (2,595.14 ft) 25 mm: Vehicle: 3,205 m (10,515.09 ft); Human: 1,041 m (3,415.35 ft) 35 mm: Vehicle: 4,487 m (14,721.13 ft); Human: 1,458 m (4,783.46 ft)
Recognition Distance ^②	5 mm: Vehicle: 157 m (515.09 ft); Human: 56 m (183.73 ft) 9 mm: Vehicle: 283 m (928.48 ft); Human: 96 m (314.96 ft) 13 mm: Vehicle: 301 m (987.53 ft); Human: 101 m (331.36 ft) 19 mm: Vehicle: 301 m (987.53 ft); Human: 101 m (331.36 ft) 25 mm: Vehicle: 786 m (2,578.74 ft); Human: 267 m (875.98 ft) 35 mm: Vehicle: 1,100 m (3,608.92 ft); Human: 375 m (1,230.31 ft)
Identification Distance ^③	5 mm: Vehicle: 79 m (259.19 ft); Human: 26 m (85.30 ft) 9 mm: Vehicle: 142 m (465.88 ft); Human: 48 m (157.48 ft) 13 mm: Vehicle: 597 m (1,958.66 ft); Human: 791 m (2,595.14 ft) 19 mm: Vehicle: 597 m (1,958.66 ft); Human: 791 m (2,595.14 ft) 25 mm: Vehicle: 396 m (1,299.21 ft)

	Human: 133 m (436.35 ft) 35 mm: Vehicle: 555 m (1,820.87 ft) Human: 187 m (613.52 ft)
Note: ① Detection Distance: Detects objects, but cannot recognize their characteristics (objects must cover more than 3.6 pixels of the image). ② Recognition Distance: Classifies objects into general categories, such as human, vehicle (the object must cover more than 14 pixels of the image). ③ Identification Distance: Classifies objects into specific categories based on their characteristics, such as engineering truck, car (the object must cover more than 28 pixels of the image).	
Digital Detail Enhancement (DDE)	Yes
Thermal Image Stabilization	Electronic Image Stabilization (EIS)
Thermal AGC	Auto/Manual
Thermal Noise Reduction	2D NR/3D NR
Image Flip	180°
Color Palettes	18 (white hot/black hot/fusion/rainbow/golden autumn/midday/iron red/amber/jade/sunset/icefire/painting/pomegranate/emerald/spring/summer/autumn/winter)
Audio and Video	
Video Compression	H.265; H.264; H.264H; H.264B; MJPEG
Resolution	Thermal: Main stream: 1280 \times 1024; 1280 \times 720; 640 \times 512; 1280 \times 1024 (default) Sub stream: 640 \times 512; 320 \times 256; 640 \times 512 (default)
Video Frame Rate	Thermal (50 Hz): Main stream: 1 fps–50 fps, 25 fps by default Sub stream: 1 fps–50 fps, 15 fps by default Thermal (60 Hz): Main stream: 1 fps–30 fps, 30 fps by default Sub stream: 1 fps–30 fps, 15 fps by default
Audio Compression	G.711a; G.711mu; AAC; PCM
Image Encoding Format	JPEG
Function	
Network Protocol	HTTP; HTTPS; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; SNMP; QoS; UPnP; NTP
Storage	FTP; Micro SD card (optional)
Interoperability	CGI; SDK
Browser	IE; Firefox; Chrome
User/Host	Up to 20 (total bandwidth: 64 MB)

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Security	Authorized username and password; attached MAC address; encrypted HTTPS; IEEE 802.1x; controlled network access
User Management	Up to 20 users; supports multi-level user permissions (2 levels): management group and user group
Malfunction Detection	Network disconnection detection; IP conflict detection; memory card state detection; memory space detection
Micro SD Card (Max.)	512 GB
Intelligence	
Heat Detection	Yes
Cold/Hot Spot Trace	Yes
Perimeter Protection	Yes. Supports tripwire and intrusion.
Target Distinction	Human/Vehicle Classification
Port	
Analog Output	1 × CVBS output; BNC port
Network Port	1 × RJ-45 (10/100 Base-T)
Alarm Input	2
Alarm Output	2
Audio Input	1
Audio Output	1
RS-485	1
Power	
Power Supply	12 VDC ± 20%, PoE (802.3af), ePoE
Power Consumption	Basic: 5.0 W (12 VDC); 5.5 W (PoE) Max.: 13 W (heater on, 12 VDC); 14 W (heater on, PoE)
ePoE	Yes
Environment	
Operating Temperature	−30 °C to +70 °C (−22 °F to +158 °F)
Operating Humidity	≤95%
Storage Temperature	−30 °C to +70 °C (−40 °F to +158 °F)
Physical Characteristics	
Protection	IP67
Reliability	Surge protection: 6 kV Air discharge: 15 kV Contact discharge: 8 kV
Structure	
Product Dimensions	291 mm × 103 mm × 97 mm (11.46" × 4.06" × 3.82") (L × W × H)
Packaging Dimensions	Package: 365 mm × 175 mm × 176 mm (14.37" × 6.89" × 6.93") (L × W × H) Protection box: 902 mm × 380 mm × 380 mm (35.51" × 14.96" × 14.96") (L × W × H)
Net Weight	≤1.4 kg (3.09 lb)
Gross Weight	≤1.9 kg (4.19 lb)
Bracket	Included

Heat Detection Distance		
Focal Length	Max. Distance	
5 mm	294 m (964.57 ft)	
9 mm	529 m (1,735.56 ft)	
13 mm	764 m (2,506.56ft)	
19 mm	1,117 m (3,664.70 ft)	
25 mm	1,500 m (4,921.26ft)	
35 mm	2,100 m (6,889.76 ft)	
Note: The table displays the measured distances obtained from using the target size 2 m × 2 m for testing in an environment where the temperature is 23 °C and the relative humidity is below 60%. 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.		
Perimeter Protection Distance		
Focal Length	Distance (Human)	Distance (Vehicle)
5 mm	35 m (114.83ft)	105 m (344.49 ft)
9 mm	63 m (206.69 ft)	189 m (620.08 ft)
13 mm	91 m (298.56 ft)	273 m (895.67ft)
19 mm	133 m (436.35 ft)	399 m (1,309.06 ft)
25 mm	175 m (574.15 ft)	525 m (1,722.44 ft)
35 mm	245 m (803.81 ft)	735 m (2,411.42 ft)
Note: The table displays the measured distances obtained from using the target sizes 1.8 m × 0.5 m (human) and 1.4 m × 4 m (vehicle) for testing in an environment where the temperature is 23 °C and the relative humidity is below 60%. 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[inch])		

