RTPC6406KT-F

Thermal Imaging Network Bullet Camera

- VOx uncooled focal plane detector with 640×512 resolution
- NETD ≤ 40mK
- 9/15/25/35/50mm fixed lens optional
- Supports human and vehicle detection, as well as smoking and fire point detection.
- Intelligent Analytics: intrusion, single line crossing, double line crossing, loitering, wrong-way detection, enter area, leave area, and people counting
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature measurement range: -20°C to 150°C (-4°F to 302°F)
- Accuracy: ±2°C / ±2%
- Support 12VDC/24VAC/PoE power supply
- NDAA Compliance, IP66

Onvif

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Technical Specification

Thermal Module

Image Sensor	Vanadium Oxide Uncooled 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 14μm
Focus Control	Fixed lens (Focus-Free)
Focal Length	9 mm, 15 mm, 25 mm, 35 mm, 50 mm
Aperture	F1.0
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°

Intelligent Analytics

Smart Detection	Human and Vehicle detection, Fire point detection, and Smoking detection
Intelligent Analysis	Intrusion, Single line crossing, Double line crossing, Loitering, Wrong-way detection, Enter area, and Leave area (these functions support accurate detection of human / vehicles)
People Counting	Support

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

Video & Audio

Main Stream	1280×1024, 1280×720, 640×512 @25fps
Sub Stream	D1, CIF @25fps
Bit Rate Control	CBR/VBR
Bit Rate	Main stream: 100 Kbps to 8 Mbps Sub stream: 100 Kbps to 6 Mbps
Region of Interest	Off/On (8 Zone, Rectangle)
Audio Compression	G.711 A-law, G.711 μ-law, PCM
Audio Bit Rate	64Kbps (G.711), 128 Kbps (PCM)

Image

Image Setting	Brightness, Contrast, Sharpness
Mirror	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
Noise Reduction	2D/3D DNR
OSD	Up to 8 OSD
Privacy Masking	Up to 4 areas

Event

Alarm Triggers	IVS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sound detection
Alarm Events	Alarm record, Alarm output, FTP upload, SMTP upload, Audible alarm output

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Network

Protocols	IPv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPoE, RTSP/ RTCP/RTP, TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, QoS, ICMP, IGMP, SMTP, 802.1x, SNMP, Multicast
Interoperability	ONVIF (Profile S/T/G/M), SDK, CGI
User/Host Level	Up to 10 users, 3 levels: Administrator, Operator, Media user
Security	IP address filter, encrypted 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	1ch Audio In, 1ch Audio Out
Alarm Interface	2ch Alarm In, 2ch Alarm Out
BNC Interface	1ch (CVBS output)
Control Interface	1ch RS-485
SD Card Slot	Built-in, up to 512GB
Reset Button	Support

General

Language	English, Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian. Default: English
Power Supply	12VDC/24VAC/PoE (802.3af)
Power Consumption	Max 5W
Working Temperature/Humidity	-40°C to 60°C (-40°F to 140°F), Humidity: ≤90% RH (non-condensing)
Operating Humidity	0 to 90% RH
Certifications	CE-EMC (EN 55032:2015+A1:2020, EN 55035:2017+A11:2020, EN 50130-4:2011+A1:2014, EN IEC 61000-6-3:2021, EN IEC 61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A2:2021) FCC (FCC 47 CFR 15, Subpart B, ANSI C63.4-2014) NDAA 889
Ingress Protection	IP66
Material	Metal
Dimensions	φ120.5 × 315.9 ~ 352.6 mm (φ4.74" × 12.44" ~ 13.88")
Net Weight	1.7kg (3.75lb) with 9mm lens

Ordering Information

Model	Description
RTPC6406KT-F09	Focal Length: 9mm
RTPC6406KT-F15	Focal Length: 15mm
RTPC6406KT-F25	Focal Length: 25mm
RTPC6406KT-F35	Focal Length: 35mm
RTPC6406KT-F50	Focal Length: 50mm

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Thermal DRI Range Table

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.

Focal Length	9mm	15mm	25mm	35mm	50mm
Detection Distance (Humans: 1.8×0.5m)	375m (1,230.3ft)	625m (2,050.5ft)	1,042m (3,418.6ft)	1,458m (4,783.5ft)	2,083m (9,196.2ft)
Detection Distance (Vehicles: 4×1.5m)	1,150m (3,773ft)	1,917m (6,289.3ft)	3,194m (10,479ft)	4,472m (14,672ft)	6,389m (20,961ft)
Recognition Distance (Humans: 1.8×0.5m)	94m (308.4ft)	156m (511.8ft)	260m (853ft)	365m (1,197.5ft)	521m (1,709.3ft)
Recognition Distance (Vehicles: 4×1.5m)	288m (944.9ft)	479m (1,571.5ft)	799m (2,621.4ft)	1,118m (3,668ft)	1,597m (5,239.5ft)
Identification Distance (Humans: 1.8×0.5m)	47m (154.2ft)	78m (255.9ft)	130m (426.5ft)	182m (597.1ft)	260m (853ft)
Identification Range (Vehicles: 4×1.5m)	144m (472.4ft)	240m (787.4ft)	399m (1,309ft)	559m (1,834ft)	799m (2,621.4ft)

Thermal Smart Detection Distance Range Table

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.

Focal Length	9mm	15mm	25mm	35mm	50mm
VCA Detection Distance (Human: 1.8×0.5m)	40m (131.2ft)	65m (213.3ft)	101m (331.4ft)	160m (524.9ft)	235m (771ft)
VCA Detection Distance (Front/Rear of Vehicle: 4×1.5m)	65m (213.3ft)	130m (426.5ft)	230m (754.6ft)	320m (1,049.9ft)	400m (1,312.3ft)
Temperature Measurement (Object: 1× 1m)	150m (492.1ft)	250m (820.2ft)	417m (1,368.1ft)	583m (1,912.7ft)	833m (2,732.9ft)
Temperature Measurement (Object: 0.2×0.2m)	30m (94.4ft)	50m (164ft)	83m (272.3ft)	117m (383.9ft)	167m (547.9ft)
Fire Detection (Object: 1×1m)	375m (1,230.3ft)	625m (2,050.5ft)	1,042m (3,418.6ft)	1,458m (4,783.5ft)	2,083m (9,196.2ft)
Fire Detection (Object: 0.2×0.2m)	75m (246.1ft)	125m (410.1ft)	208m (682.4ft)	292m (958ft)	417m (1,368.1ft)

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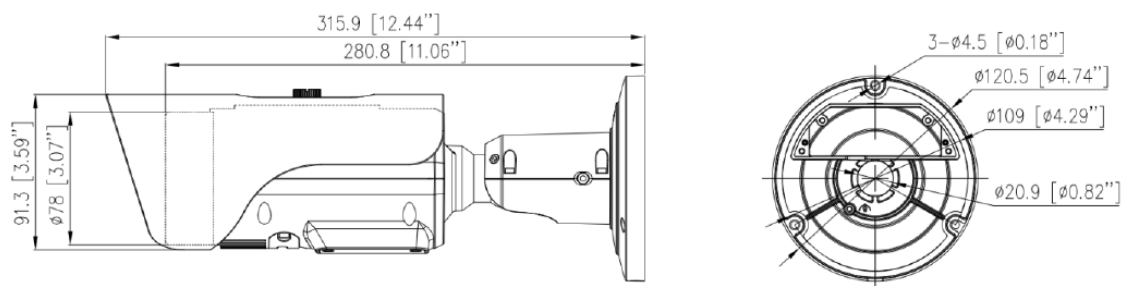
Accessories

Optional:

RCBK645G
Junction Box

RCBK101A
Pole Mount

RCBK102A
Corner Mount

Dimensions (mm)

F9/F15 mm Lens

315.9 [12.44"]
280.8 [11.06"]

91.3 [3.59"]
Ø78 [3.07"]

3-Ø4.5 [Ø0.18"]
Ø120.5 [Ø4.74"]
Ø109 [Ø4.29"]
Ø20.9 [Ø0.82"]

F25/F35/F50 mm Lens

352.6 [13.88"]
L

91.3 [3.59"]
Ø78 [3.07"]

3-Ø4.5 [Ø0.18"]
Ø120.5 [Ø4.74"]
Ø109 [Ø4.29"]
Ø20.9 [Ø0.82"]

f50 L=316.5mm[12.46"]
f35 L=305.3mm[12.02"]
f25 L=296.8mm[11.69"]