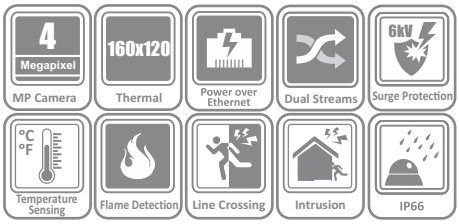
PIXELab

Thermal & Optical Network Bullet Camera

ITW0304-40

ONVIF



Thermal & Optical Weatherproof IP Camera

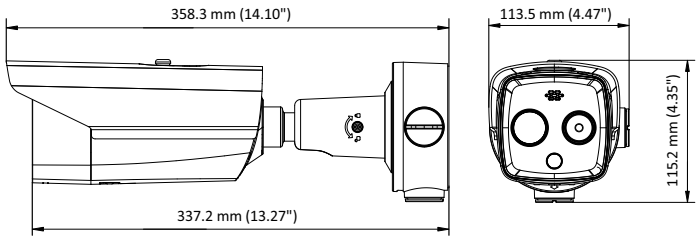
Smart Function (Thermal Imaging)

- Leading image processing technology: Adaptive AGC, DDE, 3D DNR, NETD less than 40 mk (0.04°C), F#=1.0
- Powerful behavior analysis function, based on deep learning algorithm: Line crossing, Intrusion, Region Entrance & Exit
- Temperature exception alarm
- Advanced fire detection algorithm
- Bi-spectrum image fusion, picture in picture preview
- Strobe light and audio alarm

Thermal Imaging Module Function

- 160 × 120 resolution sensor, high sensitivity sensor, support contrast adjustment
- Shu!er adjustment in various modes
- 3D DNR, 15 palettes of color adjustable, image detail enhancement
- Mirror image, digital zoom ×2, ×4, ×8

Dimensions



Technical Specifications

Thermal Module

Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Max. Resolution	160 x 120 (output resolution 320 x 240)
Pixel Interval	17 µm
Response Waveband	8 µm to 14 µm
NETD	less than 40 mk (@25°C,F#=1.1)
Lens (Focal Length)	3.1 mm
MRAD	5.48 mrad
Field of View	50°× 37.2° (H × V)
Min. Focusing Distance	0.2 m
Aperture	F 1.1

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Technical Specifications

Optical Module

Max. Image Resolution	2688 x 1520
Image Sensor	1/2.7" Progressive Scan CMOS
Min. Illumination	Color: 0.0089 Lux @(F1.6,AGC ON), B/W: 0.0018 Lux @(F1.6, AGC ON)
Shutter Speed	1s to 1/100,000s
Lens (Focal Length)	4 mm
Field of View	84° × 44.8°(H × V)
WDR	120 dB True WDR
Day & Night	IR cut filter with auto switch

Image Function

Bi-spectrum Image Fusion	Fusion Fusion view of thermal view and overlaid det ails of the op!cal channel
Picture in Picture	Combines details of thermal and op!cal image PIP, ov erlay thermal image on optical image

Smart Function

VCA (Video Content Analysis)	4 VCA rule types (Line Crossing, Intrusion, Region Entrance, and Region Exiting), up to 8 VCA rules.
Temperature Measurement	3 temperature measurement rule types, 21 rules (10 points, 10 regions, and 1 line).
Temperature Range	-20°C to +150°C
Temperature Accuracy	±8°C
Fire detection	Dynamic fire point detection, up to 10 fire points det ectable.

Infrared

IR Distance	Up to 40 m
IR Intensity and Angle	Automatically adjusted

Network

Main Stream	Visible Light: 50Hz: 25fps (2688 × 1520, 1920 × 1080, 1280 × 720) Visible Light: 60Hz: 30fps (2688 × 1520, 1920 × 1080, 1280 × 720) Thermal: 1280 x 720, 704 x 576, 640 x 4802, 352 x 288, 320 x 240
Sub Stream	Visible Light: 50Hz: 25fps (704 × 576, 352 × 288, 176 × 144) Visible Light: 60Hz: 30fps (704 × 576, 352 × 288, 176 × 144) Thermal: 704 x 576, 352 x 288, 320 x 240
Video Compression	H.265/H.264/MJPEG, H.265+/H.264+ encoding with Base line/Main/High Profile
Audio Compression	G .711u/G.711a/G.722.1/MP2L2/G.726/PCM
Protocols	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS,NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE
Simultaneous Live View	Up to 20
User/Host level	Up to 32 users, 3 levels: Administrator, Operator, User
Security Measures	User authentication (ID and PW), MAC address binding, HTTPS encryption, IEEE 802.1x access control, IP address filtering

Technical Specifications

Integration

Alarm Input	2-ch inputs (0-5V DC)
Alarm Output	2-ch relay outputs, alarm response actions configurable
Alarm Action	SD recording/Relay output/Smart capture/FTP upload/Email linkage/audio alarm, white light alarm
Audio Input	1 3.5mm Mic in/Line in interface. Line input: 2-2.4 V[p-p], output impedance:1KΩ±10%
Audio Output	Linear Level; Impedance: 600Ω
Reset	1 Reset Button
Ethernet	1 RJ45 10M/100M Self-adaptive Ethernet interface, 1 RS-485 interface
SD Memory Card	Built-in Micro SD card slot, support Micro SD/SDHC/ SDXC card (up to 128G), support manual/alarm recording
Analog Video Output	1.0V [p-p]/75Ω, PAL/NTSC
Application Programming	Open-ended API, support ISAPI, SDK and third-party management platform
Web Browser	IE9+, chrome31-chrome44, Firefox 30-Firefox51, Safari 5.02+(mac)

General

Menu language	32 Languages
Power	12 VDC± 20%, two-core terminal block; PoE (802.3af, class 3)
Power Consumption	12 VDC± 20%: 0.65 A, max. 7.5W PoE (802.3af, class 3): 42.5 V to 57 V, 0.14 A to 0.22 A, max. 8W
Working Temperature/Humidity	-40 °C to 65 °C (-40 °F to 149 °F), 95% or less
Protection Level	IP66 Standard TVS 6000V Lightning protection, surge protection, voltage transient protection
Dimensions	358 mm × 114 mm × 115 mm
Weight	Approx. 1.76 kg

Detection Range Table

** The table is only for reference, the performance may vary from camera to camera*

Smart functions Range

Different targets trigger the VCA events within different range limits.

VCA Range (Vehicles: 1.4×4.0m)	VCA Range (Humans: 1.4×4.0m)	Temperature Measurement (Object:2×2 m)	Temperature measurement (Object:1×1 m)	Fire Detection (Object:2×2 m)	Fire Detection (Object:1×1 m)
63 m	21 m	66 m	33 m	180 m	90 m

Wide Range Coverage

There is range limit for detecting, recognizing, and identifying human/vehicle targets.

Detection Range (Vehicles: 1.4×4.0m)	Detection Range (Humans: 1.8×0.5m)	Recognition Range (Vehicles: 1.4×4.0m)	Recognition Range (Humans: 1.8×0.5m)	Identification Range (Vehicles: 1.4×4.0m)	Identification Range (Humans: 1.8×0.5m)
280 m	91 m	70 m	23 m	35 m	11 m

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* Technical specifications and images are subject to changes

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