

## Thermal & Optical Dome IP Camera

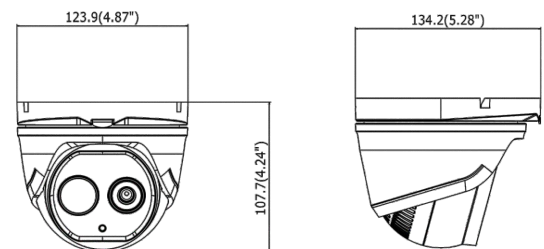
### Smart Function (Thermal Imaging)

- Leading image processing technology: Adaptive AGC, DDE, 3D DNR, NETD less than 40 mk (0.04°C), F# = 1.1
- 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

### Thermal Imaging Module Function

- 160 × 120 resolution sensor, high sensitivity sensor, support contrast adjustment
- Shutter adjustment in various modes
- 3D DNR, 15 palettes of color adjustable, image detail enhancement

### Dimensions



Unit: mm(inch)

## 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

## Technical Specifications

### Optical Module

<b>Max. Image Resolution</b>	1920 x 1080
<b>Image Sensor</b>	1/2.7" Progressive Scan CMOS
<b>Min. Illumination</b>	Color: 0.002 Lux @(F1.2,AGC ON), B/W: 0.002 Lux @( F1.2, AGC ON)
<b>Shutter Speed</b>	1s to 1/100,000s
<b>Lens (Focal Length)</b>	4 mm
<b>Field of View</b>	87° × 46.2°(H × V)
<b>WDR</b>	120 dB True WDR
<b>Day &amp; Night</b>	IR cut filter with auto switch

### Image Function

<b>Bi-spectrum Image Fusion</b>	Fusion Fusion view of thermal view and overlaid details of the optical channel
<b>Picture in Picture</b>	Combines details of thermal and optical image PIP, overlay thermal image on optical image

### Smart Function

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

### Infrared

<b>IR Distance</b>	Up to 15 m
<b>IR Intensity and Angle</b>	Automatically adjusted

### Network

<b>Main Stream</b>	Visible Light: 50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720) Visible Light: 60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720) Thermal: 25fps (160 × 120) output resolution 320 × 240
<b>Sub Stream</b>	Visible Light: 50Hz: 25fps (704 × 576, 640 × 480) Visible Light: 60Hz: 30fps (704 × 576, 640 × 480) Thermal: 25fps (160 × 120) output resolution 320 × 240
<b>Video Compression</b>	H.265/H.264/MJPEG, H.265+/H.264+ encoding with Base line/Main/High Profile
<b>Audio Compression</b>	G.711u/G.711a/G.722.1/MP2L2/G.726/PCM
<b>Protocols</b>	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE
<b>Simultaneous Live View</b>	Up to 20
<b>User/Host level</b>	Up to 32 users, 3 levels: Administrator, Operator, User
<b>Security Measures</b>	User authentication (ID and PW), MAC address binding, HTTPS encryption, IEEE 802.1x access control, IP address filtering

## Technical Specifications

### Integration

<b>Alarm Input</b>	1-ch input (0-5V DC)
<b>Alarm Output</b>	1-ch relay outputs, alarm response actions configurable
<b>Alarm Action</b>	SD recording/Relay output/Smart capture/FTP upload/Email linkage/audio alarm, white light alarm
<b>Audio Input</b>	1 3.5mm Mic in/Line in interface. Line input: 2-2.4 V[p-p], output impedance:1KΩ±10%
<b>Audio Output</b>	Linear Level; Impedance: 600Ω
<b>Reset</b>	1 Reset Button
<b>Ethernet</b>	1 RJ45 10M/100M Self-adaptive Ethernet interface, 1 RS-485 interface
<b>SD Memory Card</b>	Built-in Micro SD card slot, support Micro SD/SDHC/SDXC card (up to 256G), support manual/alarm recording
<b>Analog Video Output</b>	1.0V [p-p]/75Ω, PAL/NTSC
<b>Application Programming</b>	Open-ended API, support ISAPI, SDK and third-party management platform
<b>Web Browser</b>	IE9+, chrome31-chrome44, Firefox 30-Firefox51, Safari 5.02+(mac)

### General

<b>Menu language</b>	English
<b>Power</b>	12 VDC± 20%, two-core terminal block; PoE (802.3af, class 3)
<b>Power Consumption</b>	12 VDC± 20%: 0.7 A, max 8W PoE (802.3af, class 3): 42.5 V to 57 V, 0.14 A to 0.22 A, max. 8.5W
<b>Working Temperature/Humidity</b>	-30 °C to 60 °C, 95% or less
<b>Protection Level</b>	IP66 Standard TVS 6000V Lightning protection, surge protection, voltage transient protection
<b>Dimensions</b>	134 mm × 124 mm × 108 mm
<b>Weight</b>	Approx. 800 g

## 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