ITEC™

Advanced Sensor

Powered by GPU

Deep Learning

Image Fusion

Intelligent Awareness
Any Moment, Any Condition

Hikvision Thermal Products

HIKVISION®

ABOUT HIKVISION

Industry Pioneer

Since 2001, Hikvision has grown from being a single-product supplier to the world's leading provider of security products and solutions. From the early digital age to today's intelligence era, we have seized every opportunity to advance the industry with our innovative technologies. And venturing into new areas of inspiring technology – such as Artificial Intelligence, cloud computing, and the fusion of deep learning and multi-dimensional perception technologies, to name a few – Hikvision leads the security industry as an IoT provider with video as the core competency.

Global Operations

Hikvision has established one of the most extensive marketing networks in the industry, comprising 44 international subsidiaries and branch offices to ensure quick responses to the needs of customers, users and partners.
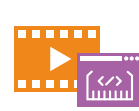
Core Technologies

|							
Visual Perception	Cloud Storage	Big Data	Video Codec	Audio and Video Data Storage	Cross-Media Perception and Reasoning	Streaming Media Networking and Management	Embedded Systems Development

BASIC PRINCIPLES OF THERMAL CAMERAS

Each type of radiation has a unique wavelength. Any object with a temperature above absolute zero can emit a detectable amount of infrared radiation. The higher an object's temperature, the more infrared radiation is emitted.
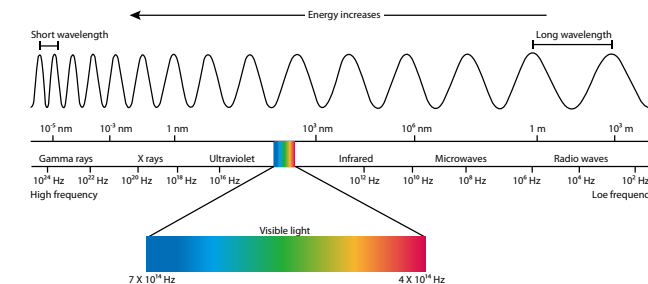
While invisible to human eyes, thermal cameras detect this kind of radiation (from wavelength 8 to 14 μm, or 8,000 – 14,000 nm) and produce images using temperature differences, making it possible to see the environment without visible light.

An infrared camera's effective range is what is meant by "seeing an object". Defined thresholds, known as Johnson's Criteria, refer to the minimum number of pixels necessary to either detect, recognize, or identify targets captured by scene imagers. The lower limits of detection, recognition, and identification (DRI), according to Johnson criteria are:

Detection: In order to distinguish an object from the background, the image must be covered by 1.5 or more pixels.
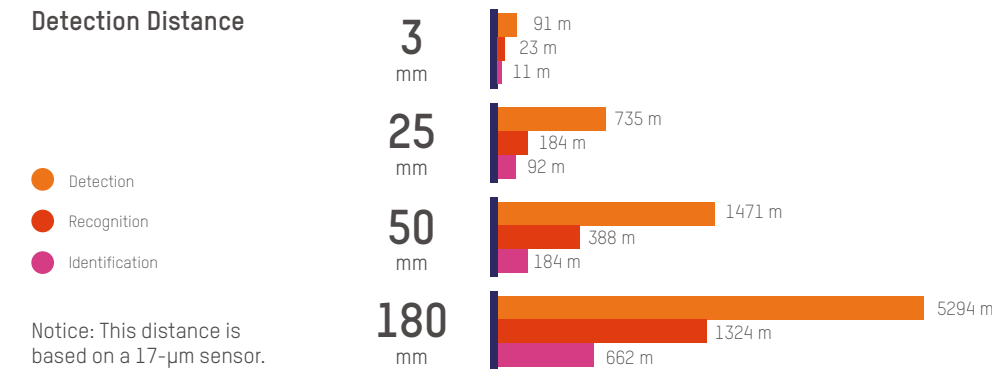
Recognition: In order to classify the object (animal, human, vehicle, boat, etc.), the image must have at least 6 pixels across its critical dimension.

Identification: In order to identify the object and describe it in details, the critical dimension must have be least 12 pixels across.
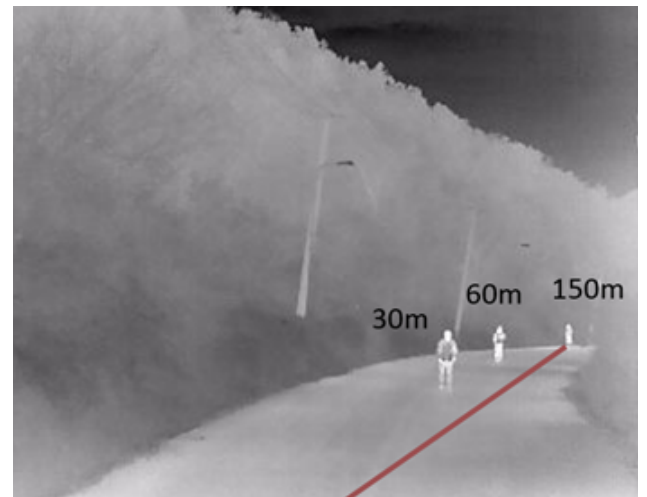
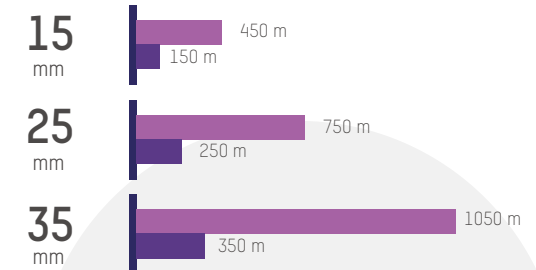Detection, recognition and identification distances (with 8 mm lens)

Detection Distance

- Detection
- Recognition
- Identification

3 mm	91 m / 23 m / 11 m
25 mm	735 m / 184 m / 92 m
50 mm	1471 m / 388 m / 184 m
180 mm	5294 m / 1324 m / 662 m

Notice: This distance is based on a 17-μm sensor.

VCA Distance

VCA rules: line crossing, intrusion, region entrance, region exit

- Vehicle
- Human

15 mm	450 m / 150 m
25 mm	750 m / 250 m
35 mm	1050 m / 350 m

Notice: This distance is based on a 17-μm sensor.

Hikvision Thermal Products

OVERVIEW

2008 Research and development of thermal technology began

2010 The first thermal network camera was released

2014 Comprehensive development in thermal imaging, algorithms, intelligence, and products

2016 A complete series of thermal products, with fully optimized imaging, algorithms, and intelligence launched

2017 Commercial Vision Products and Handheld Thermography Cameras were released to expand the application range of our thermal technology.

2018 With advanced detector and algorithms, 160 x 120 series products meet needs of niche markets, such as short-range perimeter defense and indoor fire prevention.

Security Group Products

Integrating technology from Hikvision's image processing and intelligent applications, the security group's thermal products meet the rigorous demands of sophisticated security. These cameras provide superb solutions for fire protection and perimeter defense by combining the advantages thermal imaging and visible image processing.

Thermography Group Products

Hikvision is devoted to providing easy-to-use, high quality products to the public security market. These temperature measurement products utilize the world's leading imaging technology and intelligent analysis algorithms to create efficient thermometric solutions – solutions that improve industry safety and efficiency.

Commercial Vision Group Products

Hikvision is devoted to bringing advanced thermal technology to more people – both professional and personal users. With the commercial vision products, we help you to see clearer and to build better.


ADVANTAGES

1 Clear Imaging

With advanced features such as automatic gain control, digital detail enhancement, and 3D digital noise reduction, Hikvision thermal cameras offer crystal clear thermal imaging unparalleled in the industry.

AGC 2.0

AGC 4.0

DDE off

DDE on

Auto Gain Control (AGC)

Based on the experience of AGC 2.0 development, AGC 4.0 improves detail of object with low temperature differences, and the abrupt change of image brightness when there comes a high temperature object.
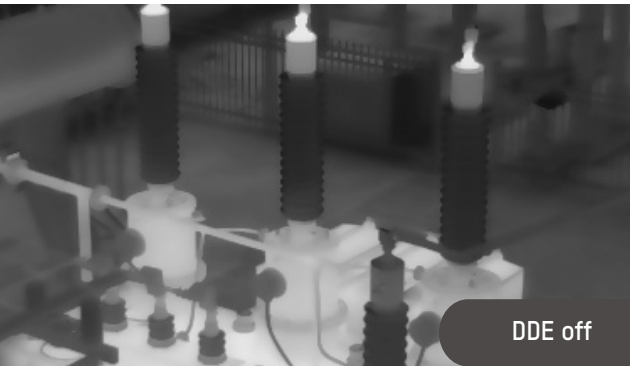
Digital Detail Enhancement (DDE)

DDE is an advanced technology based on enhanced algorithms. This feature renders details more sharply in low contrast in any given region of interest.

3D Digital Noise Reduction (3D DNR)

3D DNR effectively removes the grainy or fuzzy quality in images under low light, rendering much clearer and finer images compared with 2D DNR.


3D DNR off
3D DNR on
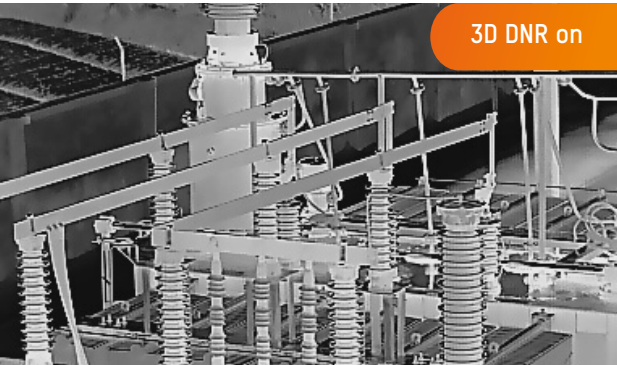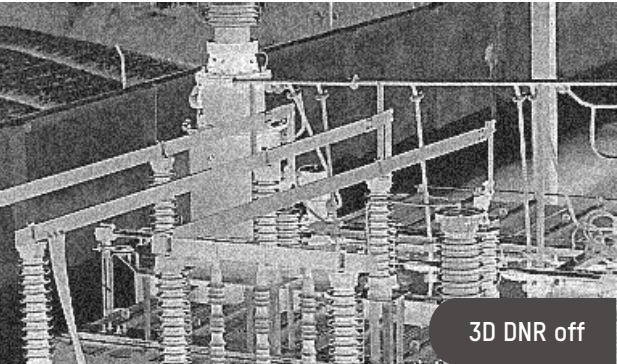
Region of Interest (ROI)

ROI enhances the image quality of a specified area dramatically.

ROI off
ROI on

Bi-Spectrum Image Fusion

Hikvision's signature thermal technology – bi-spectrum image fusion – combines features from both thermal and optical images, and creates a unique hybrid that provides extra details for more precise detection and decision-making.


Thermal only
Image fusion
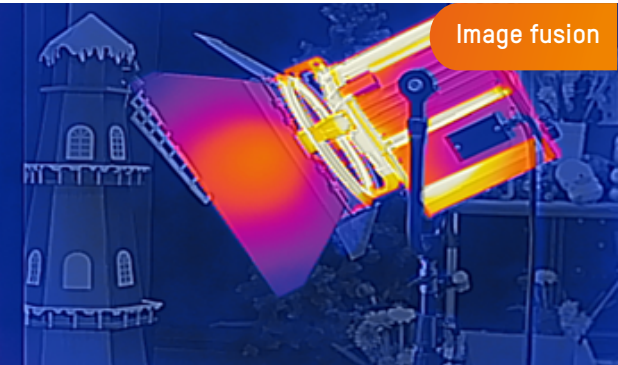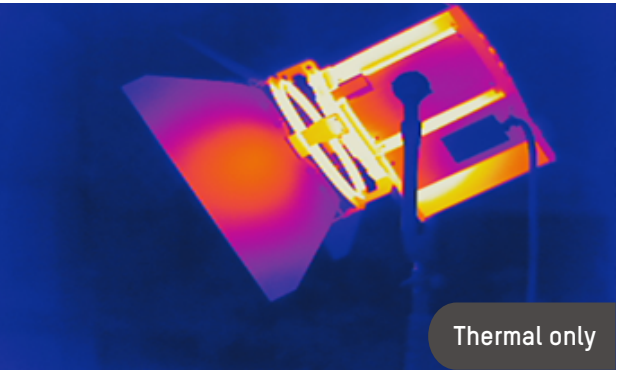
2

Accurate Temperature Measurement

Through strict calibration and standardized testing procedures, Hikvision has established a temperature measurement model that offers great stability and high accuracy – up to ±2° C or ±2% (whichever is greater).

In addition, Hikvision thermal products support multiple temperature measurementrules including point, line, and frame measurements. Users can select rules for various scenarios to reach maximum accuracy.


ID:1
34.9℃
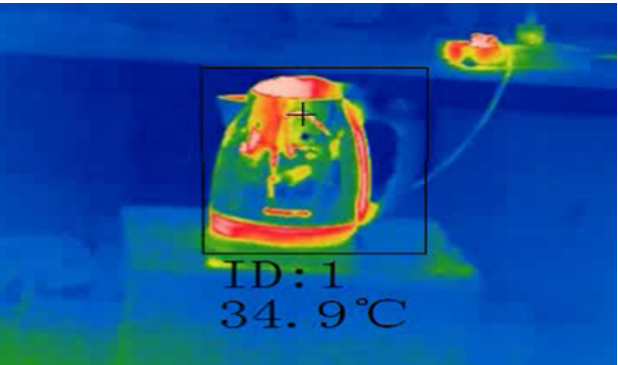
3

Advanced Intelligence

Based on deep learning algorithms, Hikvision's thermal products deliver powerful and accurate behavior analyses, including detections such as line crossing, intrusion, region entrance and exit, and more. The intelligent human/vehicle detection feature helps reduce false alarms caused by animals, camera shake, falling leaves, or other irrelevant objects, significantly improving alarm accuracy.

Deep-learning-based dynamic fire source detection takes advantage of Hikvision's security big data, containing over 100,000 samples of global climate information to provide the highest possible detection accuracy. This front-end device can detect fire based on raw, frame-by-frame data, ensuring firsthand image analysis and rapid alarm triggering.

Region Exit
Region Entrance

![HIKVISION]
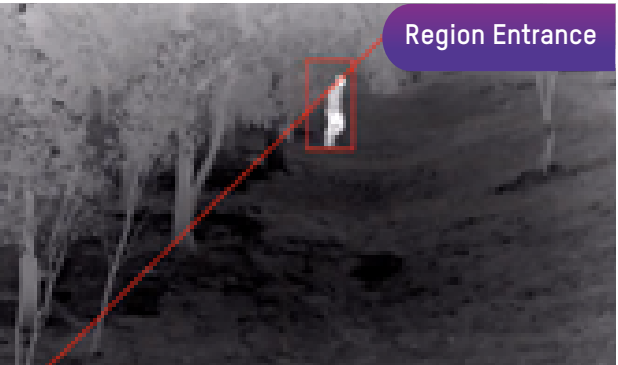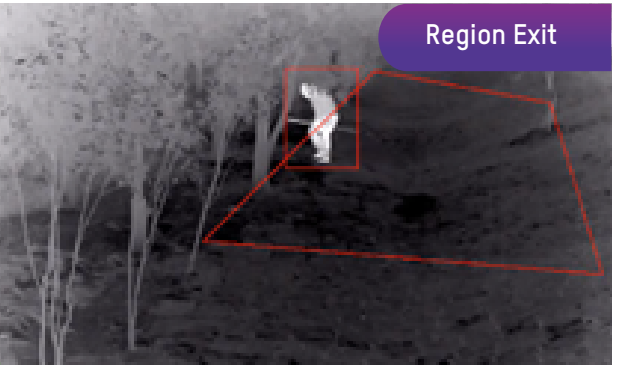
APPLICATION SCENARIOS

Robust Design

Self-protection mechanism for harsh environments:
Proven capability to work under extreme environments (-40° C to 60° C); self-protective temperature control with intelligent heating/cooling adjustment to prevent freezing and fog; non-stop year-round operation.

Stable long-distance transmission:
Normal cameras can only withstand ±10% voltage fluctuation. Hikvision thermal products are specially designed to adapt to as much as ±20% voltage fluctuation and 5% packet loss.

Easy positioning for visible-light module:
For most bi-spectrum products, the visible-light module cannot be accurately positioned, requiring constant manual adjustment.
Hikvision's optical & thermal PTZ products are equipped with an axis adjustment technology that ensures both thermal and visible imaging maintain precisely the same view. When the thermal module detects anomalies, the visible module can automatically locate and track relevant details.

Stable imaging:
The integrated design improves device stability and reduces false alarms caused by shaking.

Perimeter Defense

Short range (20-70 m)	Medium range (70-350 m)	Long range (over 350 m)
Recommended product models: DS-2TD2117/V1, DS-2TD2617/V1	Recommended product models: DS-2TD2137/V1, DS-2TD2166/V1, DS-2TX3636/V1	Recommended product models: DS-2TD2366, DS-2TD6266/V2, DS-2TD8166/V2

| Residential | Car Dealerships | Parking Lots | Farms | Solar Power Plants | Mines | Borders | Railways | Airports |

Advantages

Superior environmental adaptability:
Thermal products are capable of capturing images all day and night, regardless of environmental factors such as darkness, bright light, backlight, fog, and haze.

More accurate alarms:
Powerful behavior analyses (line crossing, intrusion, region entrance and exit) are based on a deep learning algorithm, which provides higher alarm accuracy and reduces false alarms.

Extended distances:
Compared to optical cameras, thermal detection covers much longer distances and requires fewer devices to install.

Better visuals:
With thermal cameras, you can easily discover objects and potential risks otherwise invisible to normal cameras. In addition to thermal images, the built-in visible-light module can provide supplementary recorded evidence – lowering costs for installation.

Success stories

Farming in South Africa
The end user used Hikvision thermal cameras to stop rhinoceros poaching. These cameras can detect heat over long distances, lowering costs and providing high-accuracy perimeter defense.

BMW Auto Dealership in Europe
The end user used Hikvision thermal cameras to prevent theft of auto parts. These cameras use line-crossing and intrusion detections to protect the BMW dealership, 24/7.

Solar Plant in Italy
The end user used more than 200 thermal cameras to protect the entire area of the solar plant to protect valuable equipment and prevent theft.
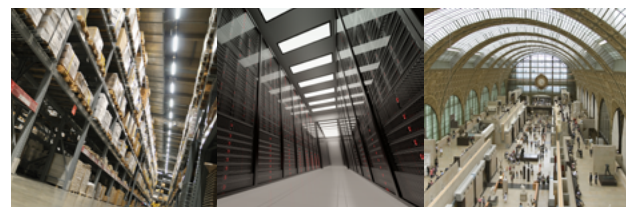
MORE SUCCESS STORIES ...

Fire Prevention

Temperature Measurement

Indoor Fire Prevention

Recommended product models:
DS-2TD1217/V1

Warehouses   Data Centers   Museums

Outdoor Fire Prevention

Recommended product models:
DS-2TD2136, DS-2TD4136, DS-2TD6236

Refuse Areas   Gas Stations   Metallurgy

Recommended product models:
DS-2TD2166T, DS-2TD4166T, DS-2TP23, DS-2TP31

Substations   Charging Stations   Chemical Plants   Industrial Laundries

Success stories

Gas Station in France
The end user used Hikvision thermal cameras to detect temperature exceptions of gas tanks in the gas station.

MORE SUCCESS STORIES
...

Advantages

Temperature anomaly detection:
Detects and reports abnormal temperature in key areas to prevent fires.

Dynamic fire detection:
For areas where temperatures are undetectable, the dynamic fire detection function can detect fire at early stages.

Temperature Exception alarm

Vigilant smoking detection

Video Content Analytics

Picture-in-picture preview

Success stories

Substation in Eastern Europe
The end user used Hikvision thermal PTZ cameras to detect the temperature of equipment in the substation with high accuracy to ensure secure daily operations.

MORE SUCCESS STORIES
...

Advantages

Accurate temperature measurement:
Wide measurement range (-20 to 550° C or -4 to 1,022° F) with high accuracy (up to ± 2° C or ± 2%, whichever is greater).

Easy to operate:
Full screen temperature difference comparison, flexible rule settings (point, line, and frame-based), less manual calibration.

Fast alarm:
Online, 24-hour, real-time alarm.

Long Measurement Distance

Ergonomic and Compact

Rapid Location Detection

Extremely Cost-efficient

Hikvision Thermal Products

Commercial Vision

Handheld Products

Advantages

High quality:
IP67 protection, -30 to 55° C or -22 to 131° F working temperature range, extreme heat and cold resistance, suitable for harsh environments.
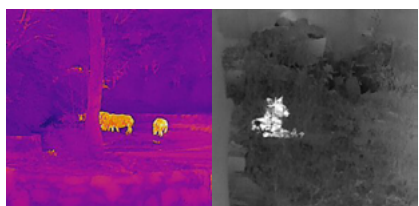
Advanced detector:
All products adopt advanced detector where NETD is smaller than 40 mK.

Target tracking:
Quick detection and tracking of target objects.

Great user experience:
High resolution OLED display and ocular design provides larger field of view, finer images, and better user experience.

Criminal Seizing   Security Patrolling

Wildlife Protection   Hunting

Thermal Modules

Advantages

Great image effect:
Hikvision has 16 years accumulation in imaging technologies. Self-developed AGC, DDE , 3D DNR bring great advantages on image effects.

Shutter-less technology:
DS-2TM13/16 Series adopts shutter-less technology, which avoids the risks of losing targets and revealing user's position.

Low power consumption:
DS-2TM03/06 Series power consumption < 1.3 / 1.8 W
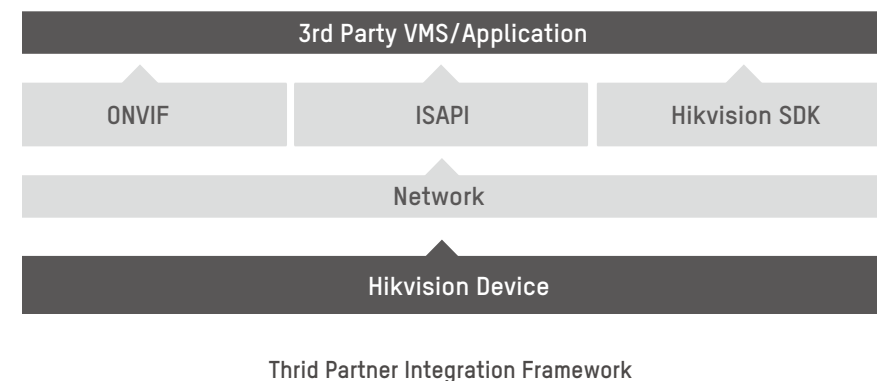DS-2TM13/16 Series power consumption < 0.8 / 1 W

Security

Handheld observation

Thermal module with shutter

UAV

Thermal scope

Shutter-less thermal module

Integration

Hikvision is dedicated to encouraging third-party integration with existing products. We are continually developing third-party collaboration by offering a range of integrated solutions, providing multiple options for customers and delivering quality integrated service to our partners and customers.

A full-fledged member of ONVIF, Hikvision not only fully supports open standard protocols, but also created a dedicated team to focus on building the integration protocol and related development tools. With Hikvision Private SDKs, we provide comprehensive programming sources to help customers developing their own uniquely successful solutions.

Additionally, we have released the ISAPI, an open standard protocol that suits any Hikvision Partner, providing even more possibilities for customers.

3rd Party VMS/Application

| ONVIF | ISAPI | Hikvision SDK |

Network

Hikvision Device

Thrid Partner Integration Framework

Open Standard – ONVIF

ONVIF is a leading international standardization initiative for IP-based physical security products. Hikvision closely works with all the ONVIF members across the physical security industry to develop an open standard Eco-System that works effortlessly with third-party manufacturers, delivering fully integrated solutions that propel your business forward.

Hikvision Open Standard – ISAPI

The ISAPI is an Application Layer Protocol designed by Hikvision. It uses standard format –Http + XML – to allow easy access and control to Hikvision devices. It's an open protocol that suits all Hikvision Partners and offers strong capabilities for development with various software architecture from 3rd-party systems, and it's easy to implement. Additionally, the ISAPI protocol contains Hikvision Smart Events metadata, and allows metadata extraction using standard RTSP.

Hikvision SDK

The Hikvision SDK is designed for the remote connection and configuration of embedded DVRs, Encoders, IPCs and the other IP devices, Access Control, Alarm products, Video intercom products, and much more. The SDK Hikvision device features on most Hikvision products with comprehensive development programming tools

Hikvision Thermal Products

Security

DS-2TD2137V1

Thermal Network
Bullet Camera

384 × 288, 17 µm
Lens: 7 /10 /15 / 25 / 35 mm
VCA: Line crossing / Intrusion / Region entrance / Region exiting
Fire detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD2166V1

Thermal Network
Bullet Camera

640 × 512, 17 µm
Lens: 7 / 15 / 25 / 35 mm
VCA: Line crossing / Intrusion detection / Region entrance / Region exiting
Fire detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD2137VP

Thermal Network
Bullet Camera

384 × 288, 17 µm
Lens: 10 / 15 / 25 / 35 mm
Support HEOP, integrate with the 3rd party behavioral analysis
Fire detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD1217V1

Thermal & Optical
Bi-spectrum Turret Camera

Thermal: 160 × 120, 17 µm; Optical: 1920 × 1080
Thermal: 2 / 3 / 6 mm; Optical: 2 / 4 / 6 mm
VCA: Line crossing / Intrusion detection / Region entrance / Region exit
Bi-spectrum image fusion, picture in picture preview
Fire detection
Smoking detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD1217PA

Thermal & Optical
Bi-spectrum Turret Camera

Thermal: 160 × 120, 17 µm; Optical: 2688 × 1520
Thermal: 2 / 3 / 6 mm; Optical: 2 / 4 / 6 mm
VCA: Line crossing / Intrusion detection / Region entrance / Region exit
Strobe light & Audio alarm
Bi-spectrum image fusion, picture in picture preview
Fire detection
Smoking detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature: -40 °C to 60 °C (-40 °F to 140 °F)
IP66

DS-2TD2617V1

Thermal & Optical
Bi-spectrum Bullet Camera

Thermal: 160 × 120, 17 µm; Optical: 1920 × 1080
Thermal: 3 / 6 mm; Optical: 4 / 6 mm
VCA: Line crossing / Intrusion detection / Region entrance / Region exit
Bi-spectrum image fusion, picture in picture preview
Fire detection
Smoking detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD2617PA

Thermal & Optical
Bi-spectrum Bullet Camera

Thermal: 160 × 120, 17 µm; Optical: 2688 × 1520
Thermal: 3 / 6 / 6 / 10 mm; Optical: 4 / 6 / 8 mm
VCA: Line crossing / Intrusion detection / Region entrance / Region exit
Strobe Light & Audio Alarm
Bi-spectrum image fusion, picture in picture preview
Fire detection
Smoking detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD2117V1

Thermal Network
Bullet Camera

160 × 120, 17 µm
Lens: 3 / 6 mm
VCA: Line crossing / Intrusion detection / Region entrance / Region exit
Fire detection
Smoking detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65° C (-40° F to 149° F)
IP66

DS-2TD2117PA

Thermal Network
Bullet Camera

160 × 120, 17 µm
Lens: 3 / 6 / 10 mm
VCA: Line crossing / Intrusion detection / Region entrance / Region exit
Strobe light & Audio alarm
Fire detection
Smoking detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD1117PA

Thermal Network
Turret Camera

160 × 120, 17 µm
Lens: 2 / 3 / 6 mm
VCA: Line crossing / Intrusion detection / Region entrance / Region exit
Strobe light & Audio alarm
Fire detection
Smoking detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD2636

Thermal & Optical Bi-spectrum
Bullet Camera

Thermal: 384 × 288, 17 µm; Optical: 1920 × 1080
Thermal: 10 / 15 mm; Optical: 6 / 8 mm
VCA: Line crossing / Intrusion detection / Region entrance / Region exiting
Fire detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Bi-spectrum image fusion, picture in picture preview
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD2836V1

Thermal & Optical
Bi-spectrum
Bullet Camera

Thermal: 384 × 288, 17 µm; Optical: 1920 × 1080
Thermal: 25 / 50 mm; Optical: 13 / 25 mm
VCA: Line crossing / Intrusion detection / Region entrance / Region exit
Fire detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Bi-spectrum image fusion, picture in picture preview
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD2866V1

Thermal & Optical
Bi-spectrum
Bullet Camera

Thermal: 640 × 512, 17 µm; Optical: 1920 × 1080
Thermal: 25 / 50 mm; Optical: 13 / 25 mm
VCA: Line crossing / Intrusion detection / Region entrance / Region exit
Fire detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Bi-spectrum image fusion, picture in picture preview
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TX3636V1

Thermal Smart
Linkage Tracking
System

Thermal: 384 × 288, 17 µm
Optical: 1920 × 1080
Thermal: 15 / 25 / 35 mm; Optical: 5.7~205.2 mm
VCA: Line crossing / Intrusion detection / Smart Linkage Tracking System (Thermal + Optical)
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

Thermography

DS-2TD2466

Anti-corrosion Thermal Network Bullet Camera

640 × 512, 17 μm
Lens: 25 / 50 mm
VCA: Line crossing / Intrusion detection /
Region entrance / Region exit
Fire detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66
316L Stainless Steel material

DS-2TD4136V2

Thermal & Optical Bi-spectrum Speed Dome

Thermal: 384 × 288, 17 μm
Optical: 1920 × 1080
Thermal: 25 / 50 mm; Optical: 5.7–205.2 mm
VCA: Line crossing / Intrusion detection /
Region entrance / Region exit /
Fire detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD4166V2

Thermal & Optical Bi-spectrum Speed Dome

Thermal: 640 × 512, 17 μm
Optical: 1920 × 1080
Thermal: 25 / 50 mm; Optical: 5.7–205.2 mm
VCA: Line crossing / Intrusion detection /
Region entrance / Region exit /
Smart Tracking Linkage (Thermal + Optical)
Fire detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD4237V2

Thermal & Optical Bi-spectrum Speed Dome

Thermal: 384 × 288 17 μm
Optical: 1920 × 1080
Thermal: 10 / 25 mm; Optical: 4.8-153 mm
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
VCA: Line crossing / Intrusion detection /
Region entrance / Region exit /
Smart Tracking Linkage (Thermal + Optical)
Fire detection
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD2136T

Thermal Network Bullet Camera

384 × 288, 17 μm
Lens: 10 / 15 / 25 mm
VCA: Line crossing / Intrusion detection /
Region entrance / Region exit
Fire detection
Temperature measurement range: -20 to 550° C
Temperature accuracy: max (±2° C, ±2%)
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD4136T / DS-2TD4166T

Thermal & Optical Bi-spectrum Speed Dome

Thermal: 384 × 288 / 640 × 512, 17 μm
Optical: 1920 × 1080
Thermal: 9 / 25 mm; Optical: 5.7–205.2 mm
Fire detection
VCA: Line crossing / Intrusion detection /
Region entrance / Region exit /
Smart Tracking Linkage (Thermal + Optical)
Temperature measurement range: -20 to 550° C
Temperature accuracy: max (±2° C, ±2%)
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD6236T / DS-2TD6266T

Thermal & Optical Bi-spectrum Positioning System

Thermal: 384 × 288 / 640 × 512, 17 μm
Optical: 1920 × 1080
Thermal: 25 / 50 mm, Optical: H (5.6–208 mm)
VCA: Line crossing / Intrusion detection /
Region entrance / Region exit /
Smart Tracking Linkage (Thermal + Optical)
Fire detection
Temperature measurement range: -20 to 550° C
Temperature accuracy: max (±2° C, ±2%)
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
Ingress protection: IP66

DS-2TP31

Handheld Thermographic Camera

160 × 120, 17 μm
Lens: 3 mm
320 × 160 @ 25 fps
320 × 240 resolution 2.4'' LCD display
Temperature measurement range: -20 to 550° C
Temperature accuracy: max (±2° C, ±2%)
8 GB by default, supports up to 128 GB storage
Up to 8 hours continuous running
IP54

DS-2TD6236V2

Thermal & Optical Bi-spectrum Positioning System

Thermal: 384 × 288, 17 μm
Optical: 1920 × 1080
Thermal: 50 / 75 mm
Optical: H (5.6–208 mm) / C (6.7–330 mm)
VCA: Line crossing / Intrusion detection /
Region entrance / Region exit /
Smart Tracking Linkage (Thermal + Optical)
Fire detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD6266V2

Thermal & Optical Bi-spectrum Positioning System

Thermal: 640 × 512, 17 μm
Optical: 1920 × 1080
Thermal: 50 / 75 / 100 mm
Optical: H (5.6–208 mm) / C (6.7–330 mm)
VCA: Line crossing / Intrusion detection /
Region entrance / Region exit /
Smart Tracking Linkage (Thermal + Optical)
Fire detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP64

DS-2TD8166V2

Thermal & Optical Bi-spectrum Stable PTZ Camera

Thermal: 640 × 512, 17 μm; Optical: 1920 × 1080
Thermal: 75 / 100 / 30–150 / 45–180 mm
Optical: H (5.6–208 mm) / C (6.7–330 mm) / E (12.5–775 mm)
VCA: Line crossing / Intrusion detection /
Region entrance / Region exit /
Smart Tracking Linkage (Thermal + Optical)
Fire detection
Temperature measurement range: -20 to 150° C
Temperature accuracy: ±8° C
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD2166T

Thermal Network Bullet Camera

640 × 512 17 μm
Lens: 15 / 25 mm
VCA: Line crossing / Intrusion detection /
Region entrance / Region exit
Fire detection
Temperature measurement range: -20 to 550° C
Temperature accuracy: max (±2° C, ±2%)
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP66

DS-2TD2466T

Explosion-Proof Thermal Network Bullet Camera

640 × 512, 17μm
Lens: 25 mm
VCA: Line crossing / Intrusion detection /
Region entrance / Region exit
Fire detection
Temperature measurement range: -20 to 550° C
Temperature accuracy: max (±2° C, ±2%)
Working temperature:
-40 °C to 65 °C (-40 °F to 149 °F)
IP68
316L stainless steel material

DS-2TA03 /06

Thermographic Automation Thermal Camera

384 × 288, 17 μm
Lens: 7 / 15 mm
384 × 288 @ 50 fps
640 × 480 resolution 3.5'' LCD touch display
Temperature measurement range: -20 to 550° C
Temperature accuracy: max (±2° C, ±2%)
Dimension Size: 120 × 60 × 60 mm
Ethernet: Gigabit Ethernet
Working temperature:
-20 °C to 50 °C (-4 °F to 122°F)

DS-2TP23

Handheld Thermographic Camera

Thermal: 384 × 288, 17 μm; Optical: 1920 × 1080
Thermal: 10 mm, Optical: 4.9 mm
384 × 288 @ 25 fps
640 × 480 resolution 3.5'' LCD touch display
Temperature measurement range: -20 to 550° C
Temperature accuracy: max (±2° C, ±2%)
Bi-spectrum image fusion, picture in picture preview
64 GB SD card
Up to 4 hours continuous running
Wi-Fi
IP54

Hikvision Thermal Products

Commercial Vision

HIKVISION

DS-2TS03XF

Handheld Thermal Monocula

384 × 288, 17 µm
Lens: 15 mm
0.39-inch LCOS display @ 720 × 540
Hot track, Wi-Fi, Ranging, GPS
16 GB SD card
Up to 5 hours continuous running
(with GPS and Wi-Fi hot spot off)
Working temperature:
-30 to 55° C (-22 to 131° F)
IP67

DS-2TS03UF

Handheld Thermal Monocular

384 × 288, 17 µm
Lens: 15 / 25 / 35 mm
0.39-inch OLED display @ 1024 × 768
Hot track, Wi-Fi, Ranging, GPS
16 GB SD card
Up to 5 hours continuous running
(with GPS and Wi-Fi hot spot off)
Working temperature:
-30 to 55° C (-22 to 131° F)
IP67

DS-2TS06XF

Handheld Thermal Monocular

640 × 512, 17 µm
Lens: 35 mm
0.39-inch OLED display @ 1024 × 768
Hot track, Wi-Fi, Ranging, GPS
16 GB SD card
Up to 8 hours continuous running
Working temperature:
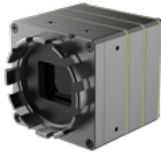-30 to 55° C (-22 to 131° F)
IP67

DS-2TR03

Thermal Scope

384 × 288, 17 µm
Lens: 35 / 50 mm
0.39-inch OLED display @ 1024 × 768
Hot track, Wi-Fi, Ranging, GPS
16 GB SD card
Up to 8 hours continuous running
Working temperature:
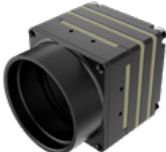-30 to 55° C (-22 to 131° F)
IP67

DS-2TM03/06

Thermal Module

384 × 288 / 640 × 512, 17 µm
NETD < 35 mk @ F1.0, 30°C
Power consumption: ≤ 1.3 W / 1.6 W (TYP)
Size: 40 x 41 x 49 mm
Support lens size M34*0.75
Support CVBS & BT.656
Working temperature:
-40°C to 65°C (-40 °F to 149 °F)

DS-2TM13/16

Thermal Module

384 × 288 / 640 × 512, 17 µm
NETD < 35 mk @ F1.0, 30°C
Power consumption: ≤ 0.8 W / 1.0 W (TYP)
Size: 28 x 28 x 34.6 mm
Support lens size M25*0.5
Support CVBS & BT.656
Working temperature:
-40°C to 65°C (-40 °F to 149 °F)
Shutterless non-uniformity calibrating technology

DS-2TS16

Handheld Thermal &
Optical Bi-spectrum
Binocular

Thermal: 640 × 512, 17 µm, Optical: 1280 × 960
Thermal lens: 35 / 50 mm, Optical lens: 12 mm
0.39-inch OLED display @ 1024 × 768
Wi-Fi, GPS, video recording, picture snapshot, image
fusion, object highlight
32 GB SD card
Up to 7 hours continuous running
Working temperature: -30 to 55° C (-22 to 131° F)
IP67

DS-2TS36

Handheld Bi-spectrum
Multi-function Binocular

Thermal: 640 × 512, 17 µm; Optical: 1280 × 960
Thermal lens: 50 / 75 / 100 mm, Optical lens: 22 mm
0.39-inch OLED display @ 1024 × 768
Wi-Fi, GPS, Laser rangefinder, video recording, picture
snapshot, image fusion, object highlight
32 GB SD card
Up to 7 hours continuous running
Working temperature: -30 to 55° C (-22 to 131° F)
IP67

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Hikvision Thermal Products

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Intelligent Awareness, Any Moment, Any Condition

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