Capture the Invisible at a Glance

Hikvision Thermography Cameras

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.
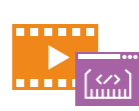
Core Technologies

Visual Perception

Cloud Storage

Big Data

Video Codec

Audio and Video Data Storage
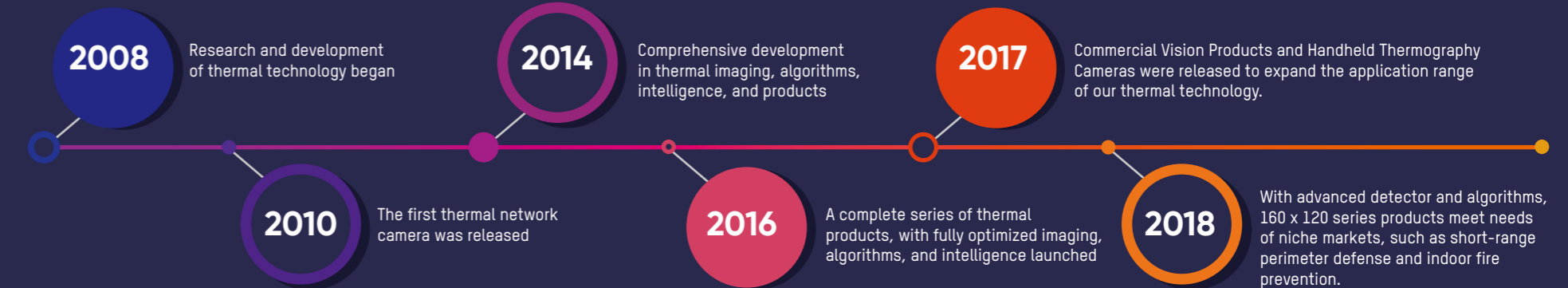
Cross-Media Perception and Reasoning

Streaming Media Networking and Management

Embedded Systems Development

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Thermal Product Development Timeline

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.
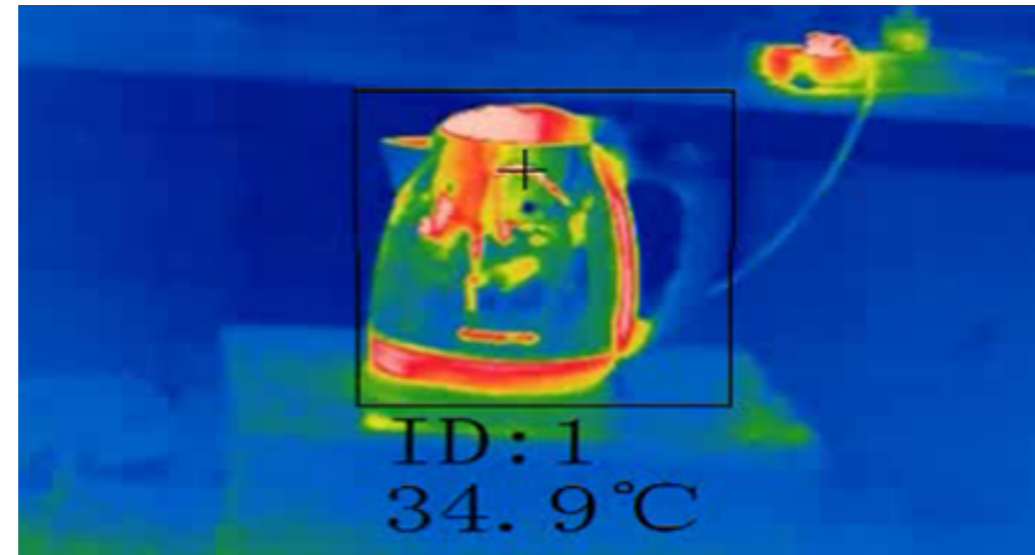
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Thermography Cameras

Hikvision's thermography cameras have been used widely in detecting temperature anomalies before a fire starts, finding hot spots and invisible defects on machinery or electrical systems that could indicate a potential problem. They are also used for surveying areas that are hard to reach with conventional measurement tools.

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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.

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.

Auto Gain Control (AGC)

Based on AGC 2.0 technology, AGC 4.0 improves details in images with low temperature differences, highlighting brightness differences with high temperature objects.
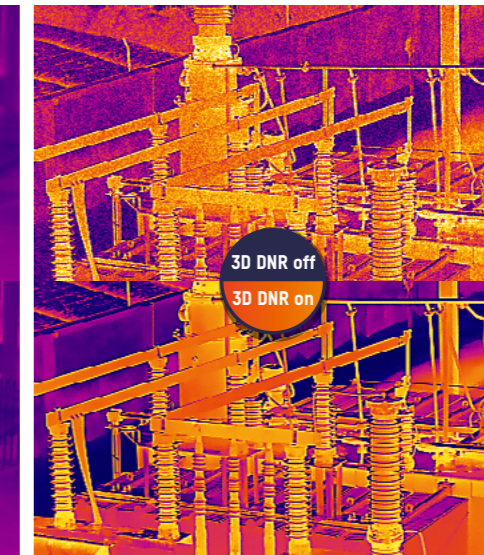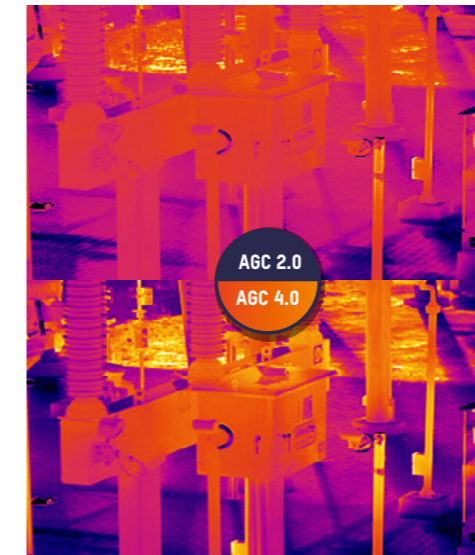
Digital Detail Enhancement (DDE)

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.

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.

Accurate Temperature Measurement

Clear Imaging

Intuitive User Interface

Hikvision Thermography Cameras

Intuitive User Interface

Temperature Measurement software:
iVMS-4800
Hik-Thermal APP

Powerful and professional software for temperature analysis online and offline. It allows users to set up measurement rules, displays results visually, and provides test reports.

Hik-Thermal app

Download on the
App Store

GET IT ON
Google Play

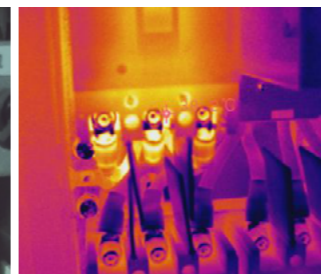Online & offline temperature analysis Measurements based on preset points, lines, and frames
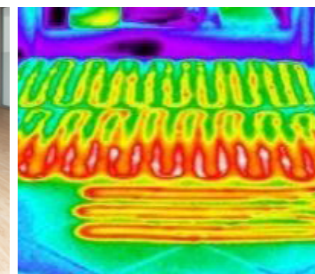
Exporting reports

Electrical

Temperature anomalies in electrical switches, contacts, and transformers due to oxidation, corrosion, or loosening can be detected before a hazard.
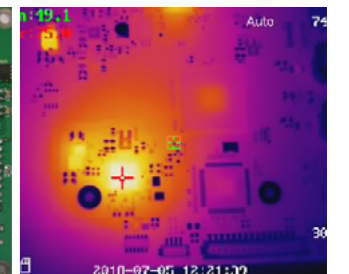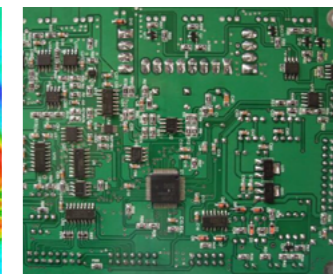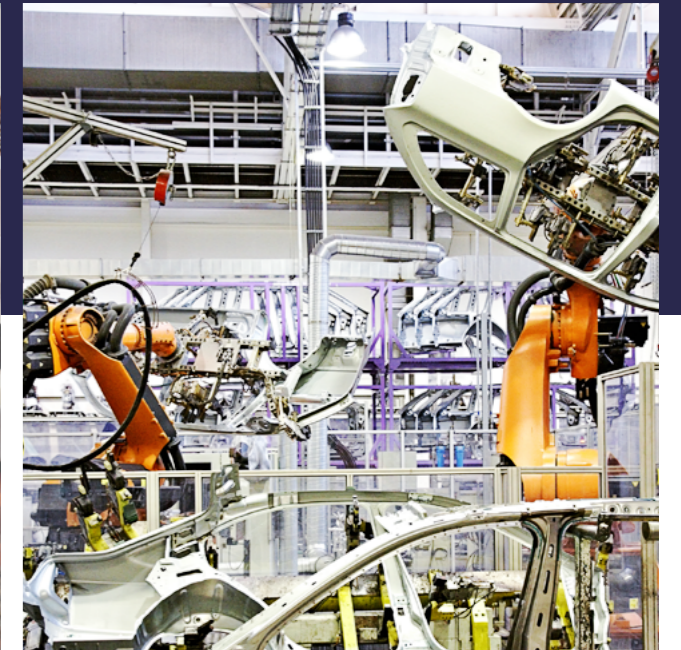
Building

Invisible design defects, leaking pipes, and other related issues can be intelligently revealed with a thermography camera.

Manufacturing

Use a handheld thermography camera to check heat distribution in a circuit and optimize the arrangement of electronic components.

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Handheld Thermography Cameras

DS-2TP31-3AUF

Thermal Module	Image Sensor	Uncooled Focal Plane Arrays, VOx
	Max. Resolution	160 x 120
	Pixel Pitch	17 μm
	NETD	< 40 mK (@ 25 °C, F#=1.0)
	Field of View	37.2° × 50 °
	Focal Length	3.1 mm
	IFOV	5.48 mrad
	Min. Focal Length	≥ 150 mm
	Aperture	F 1.1
Image Display	Monitor	320 x 240 resolution 2.4'' LCD display
	Palettes	Black hot, White hot, Rainbow, Ironbow
Thermography	Rules	3 Thermography points: max. temperature; min. temperature; center temperature
	Range	-20 °C to 550 °C (-4 °F to 1022 °F)
	Accuracy	Max (±2 °C, ±2%)
Battery	Battery Type	Rechargeable lithium battery
	Operating Time	Max 8h
Functions	Laser	For pointing to the target
	Photo	Supported
General	Hardware Interface	micro USB
	Operating Temperature	-10 °C to 50 °C (14 °F to 122 °F)
	Protection level	IP54
	Dimension	196 mm x 117 mm x 59 mm (7.7'' x 4.6'' x 2.3'')
	Weight	350 g (0.77 lb)
	Accessories	Power adaptor, USB cable, 8 GB memory card, user manual, wrist strap

DS-2TP21-6AVF/W

Thermal Module	Image Sensor	Uncooled Focal Plane Arrays, VOx
	Max. Resolution	160 × 120 @ 25 Hz
	Pixel Pitch	17 μm
	NETD	< 40 mK (@ 25 °C, F#=1.0)
	Field of View	25° × 18.7 °
	Focal Length	6.2 mm (manual focus)
	IFOV	2.74 mrad
	Aperture	F 1.1
Optical Module	Max. Resolution	Max 8MP
Image Display	Monitor	640 x 480 resolution 3.5'' LCD touch display
	Palettes	Black hot, White hot, Red hot, Rainbow, Ironbow, Fusion, Rain
	Digital Zoom	Thermal: 1×, 2×, 4×
	Thermal / Optical	Thermal / Optical / Image Fusion / Picture in picture
	Video Recording	Supports on-board video recording
Thermography	Rules	Max. temperature; min. temperature; center temperature Custom point, line and frame Thermography
	Range	-20 °C to 550 °C (-4 °F to 1022 °F)
	Accuracy	Max (±2 °C, ±2%)
Battery	Battery Type	Replaceable and rechargeable lithium battery
	Operating Time	4 hours continuous running
Functions	Laser	For pointing to the target
	Photo	Supported
	Lighting	Supported
	Wi-Fi	Supported
General	Operating Temperature	-10 °C to 50 °C (-4 °F to 122 °F)
	Protection level	IP54
	Dimension	244 mm x 100 mm x 104 mm (9.6'' x 3.9'' x 4.1'')
	Weight	660 g (1.46 lb)
	Accessories	Power adapter/USB cable/16G Memory card /User manual/wrist strap/Pouch

Hikvision Thermography Cameras

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Thermal Module	Image Sensor	Uncooled Focal Plane Arrays, VOx
	Max. Resolution	384 x 288 @ 25 Hz
	Pixel Pitch	17 µm
	NETD	< 40 mK (@ 25 °C, F#=1.0)
	Field of View	37.5° × 28.5 °
	Focal Length	10 mm (manual focus)
	IFOV	1.7 mrad
	Aperture	F 1.0
Optical Module	Max. Resolution	1920 x 1080
Image Display	Monitor	640 x 480 resolution 3.5'' LCD touch display
	Palettes	Black hot, White hot, Red hot, Rainbow, Ironbow, Fusion, Rain
	Digital Zoom	Thermal: 1×, 2×, 4×
	Thermal / Optical	Thermal / Optical / Image Fusion / Picture in picture
	Video Recording	Supports on-board video recording
Thermography	Rules	Max. temperature; min. temperature; center temperature Custom point, line and frame Thermography
	Range	-20 °C to 550 °C (-4 °F to 1022 °F)
	Accuracy	Max (±2 °C, ±2%)
Battery	Battery Type	Replaceable and rechargeable lithium battery
	Operating Time	Max 4h
Functions	Laser	Pinpoints targets for accuracy
	Photo	Supported
	Lighting	Supported
	Wi-Fi	Supported
General	Operating Temperature	-10 °C to 50 °C (14 °F to 122 °F)
	Protection level	IP54
	Dimension	244 mm x 100 mm x 104 mm (9.6" x 3.9" x 4.1")
	Weight	660 g (1.46 lb)
	Accessories	Charger/power adapter/USB cable/64G memory card/User manual/ wrist strap/ box

DS-2TP23-10VF/W

Online Thermography Cameras

Thermographic Cube Camera

Thermal Module	Image Sensor	Uncooled Focal Plane Arrays, VOx
	Max. Resolution	160 × 120 @ 25 Hz
	Pixel Pitch	17 µm
	NETD	< 40 mK (@ 25 °C, F#=1.0)
	Focal Length	2/3mm
	IFOV	2.74 mrad
	Aperture	F 1.1
	Field of View	90° × 66.4° / 50° × 37.2°
	Min. Focusing Distance	0.1 or 0.15 m
Optical Module	Max. Resolution	1600 × 1200
	Focal Length	2 mm
	Field of View	92.6° × 75.8°
Smart Feature	Temperature Range	-20 °C to 350 °C (-4 °F to 662 °F)
	Temperature Accuracy	Max (±2 °C, ±2%)
	Temperature Measurement Type	10 Custom Points / 1 Line / 10 Area
Interface	Communication Interface	1 RJ45 Ethernet port, 1 RS-485 interface
	Alarm	1 input, 1 output
	Metadata Output	Max. 25 fps (16bit 160 × 120)
General	Power Supply	10-30 VDC, Max. 4 W PoE (802.3af, class 2)
	Operating Temperature and Humidity	-20 °C to 50 °C (-4 °F to 122 °F), humidity less than 95%
	Protection Level	IP67
	Dimensions	56 mm × 38.8 mm × 110 mm (2.20" × 1.53" × 4.33")
	Weight	335 g (0.74 lb)

DS-2TA21 Series

Hikvision Thermography Cameras

Thermographic Automation Thermal Camera

Thermal Module	Image Sensor	Uncooled Focal Plane Arrays, VOx
	Pixel Pitch	17 µm
	Focal Length	7/15 mm, 384 × 288; 25mm, 640 × 512
	NETD	< 40 mK (@25 °C, F# = 1.0)
	Focus Mode	Auto, Manual, Semi-auto Supports Regional Focus
Smart Features	Temperature Range	-20 °C to 150 °C (-4 °F to 302 °F) 0 °C to 550 °C (32 °F to 1022 °F)
	Temperature Accuracy	±2 °C (±3.6 °F) or ±2% (max)
	Temperature measurement Type	Display max. and min. temperatures in live view
General	Power Consumption and Current	12 VDC, 0.5 A, max. 6 W
	Operating Temperature and Humidity	-20 °C to 50 °C (-4 °F to 122 °F), humidity less than 95%
	Protection Level	IP40
	Dimensions	Camera: 60 mm × 60 mm × 120 mm (2.4" × 2.4" × 4.7") With package: 251 mm × 215 mm × 189 mm (9.9" × 8.5" × 7.4")
	Weight	With lens: 600 g (1.32 lb) Without lens: 350 g (0.77 lb)

DS-2TA03 Series
DS-2TA06 Series

Bi-Spectrum Network Speed Dome

Thermal Module	Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
	Detector Pitch	17 µm
	Focal Length	9/25/50 mm, 384 × 288; 9/25/50 mm, 640 × 512
	FOV	41°/15°/7.5°; 72°/ 25°/12.5°IP67
	Aperture	F1.0
	NETD	< 40 mK (@25°C, F# = 1.0)
Optical Camera	Min. Illumination	Color: 0.002 lux @ (F1.5, AGC on) B/W : 0.0002 lux @ (F1.5, AGC on)
	Temperature Measurement	Support 3 temperature measurement rule types, over 256 presets as scene, 21 rules of each scene (10 points, 10 frames, and 1 line)
	Temperature Range	-20 °C to 550 °C (-4 °F to 1022 °F)
	Temperature Accuracy	Max (±2 °C, ±2%)
	Fire Detection	Supports 10 fire detection points
PTZ	Movement Range	Pan: 360° (continuous rotate); Tilt: From -15° to + 90° (auto flip)
	Patrol Scan	8; Up to 32 presets per patrol
	Pattern Scan	4; More than 10 minutes per pattern
Infrared	IR Distance	Up to 200 m
Integration	RS485	Half-Duplex; HIKVISION, PELCO-P and PELCO-D self-adaptive
General	Power	24 VAC, 60 W
	Operating Temperature and Humidity	From -40 °C to 60 °C (-40 °F to 140 °F); Humidity: 90% or less
	Protection Level	IP66 standard; TVS 6000V lightning protection, surge protection and voltage transient protection
	Weight	8 kg (17.64 lb)

DS-2TD4136T Series
DS-2TD4166T Series

Bi-Spectrum Network Positioning System

Thermal Module	Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
	Detector Pitch	17 μm
	Focal Length	25/50 mm, 384 × 288; 25/50 mm, 640 × 512
	FOV	15°/7.5°; 25°/12.5°
	Aperture	F1.0
	NETD	< 40 mK (@ 25 °C, F#=1.0)
Optical Camera	Min. Illumination	Color: 0.002 lux @ (F1.5 , AGC on) B/W: 0.0002 lux @ (F1.5 , AGC on)
Smart Functions	Temperature Measurement	Supports 3 temperature measurement rule types, over 256 presets as scene, 21 rules of each scene (10 points, 10 frames, and 1 line)
	Temperature Range	-20 °C to 550 °C (-4 °F to 1022 °F)
	Temperature Accuracy	Max (±2 °C, ±2%)
	Fire Detection	Supports 10 fire detection points
PTZ	Movement Range	Pan: 360° (continuous rotate); Tilt: From -90° to + 40° (auto flip)
	Patrol Scan	8; Up to 32 presets per patrol
	Pattern Scan	4; More than 10 minutes per pattern
Integration	IR Distance	Up to 200 m
	Alarm Input	Up to 7-ch relay input (0-5 VDC)
	Alarm Output	Up to 2-ch; supports alarm linkage
	RS485	Half-Duplex; HIKVISION, PELCO-P and PELCO-D self-adaptive24
General	Power	VAC, 120 W
	Operating Temperature and Humidity	From -40 °C to 60 °C (-40 °F to 140 °F); Humidity: 90% or less
	Protection Level	IP66 standard; TVS 6000V lightning protection, surge protection and voltage transient protection
	Weight	19 kg (41.89 lb)

DS-2TD6236T Series
DS-2TD6266T Series

Thermal Network Bullet Camera

Thermal Module	Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
	Pixel Interval	17 μm
	Focal Length	10/15/25 mm, 384 × 288; 15/25 mm, 640 × 512
	FOV	37°/25°/15°; 40°/25°
	Aperture	F1.0
	NETD	Less than 40 mK (@25 °C, F#=1.0)
Smart Function	Video Content Analysis (VCA)	4 VCA rule types (Line Crossing, Intrusion, Region Entrance, and Region Exiting), up to 8 VCA rules
	Temperature Measurement	21 temperature measurement rules in 3 types (10 points, 10 frames, and 1 line)
	Temperature Range	-20 °C to 550 °C (-4 °F to 1022 °F)
	Temperature Accuracy	Max (±2 °C, ±2%)
	Fire Detection	Dynamic fire point detection, up to 10 fire points detectable
General	Operating Temperature and Humidity	-40 °C to 65 °C (-40 °F to 149 °F), 90% or less
	Protection Level	IP66 standard TVS 6000V lightning protection, surge protection, voltage transient protection
	Dimensions	352.4 mm × 113.5 mm × 113 mm (13.9" × 4.45" × 4.45")
	Weight	2 kg (4.41 lb)

DS-2TD2136T Series
DS-2TD2166T Series

Hikvision Thermography Cameras

Capturing the Invisible at a Glance

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