Raythink, sense difference

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Raythink

Industrial Thermal Camera Product Catalog

RayThink Technology Co., Ltd.

RayThink Technology Co., Ltd. is specialized in innovation and development, manufacturing and marketing of intelligent photoelectric sensing technology. We are deeply engaged in the fields of infrared night vision imaging, thermography, gas imaging and laser sensing, providing professional infrared and laser sensing components, devices, software and smart industry solutions to our global customers. We have also successfully achieved self-development and large-scale production of intelligent multi-dimensional sensing photoelectric products in diverse forms applicable to various fields.

Being a solution provider to public sectors, industries, and commercial markets, we provide a rich portfolio of intelligent photoelectric sensing products, which are widely used in the smart industry, smart robots, gas detection imaging, fire fighting and safety, green energy, carbon neutrality, environmental protection, healthcare, etc. Bearing the mission of boosting intelligent photoelectric sensing technology progress, RayThink Technology integrates photoelectricity and smart technology to continuously create incremental value for customers and contribute to building a safe, energy-saving and environmentally friendly society.

Smart Industry

Intelligent Robots

Gas Detection

Fire Fighting and Safety

Green Energy

Carbon Neutral

ECO Protection

Healthcare

Raythink, sense difference

Empower Various Industries

▶ Gas Detection

▶ Power Utilities

▶ Machine Vision

▶ Oil, Gas and Petrochemical

▶ Green Energy

▶ Metal Processing

Contents

Handheld Thermography Camera

Gas Detection Camera

Fixed Thermography Camera

IX2 AIR
Wireless Thermal Camera for Smart devices

Equipped with a high-sensitivity 256×192 resolution infrared detector, the IX2 AIR can be freely combined or separated with a smartphone according to the scenarios. It supports 8m wireless image transmission and operation. With the supporting App for functions such as real-time analysis and transmission, the device can be widely used in electrical maintenance, equipment inspection, HVAC leak detection, and other fields.

Product Highlights

Wireless Measurement, Unlocking New Scenarios

- Up to 8m* wireless image transmission.
- Image transmission delay < 300ms.
- With 2 hours of battery life, productivity is always alive.

Clear Thermal Images, Precise Temperature Measurement

- Built-in 12μm 256×192 infrared detector, featuring low power consumption and small size.
- 40mK professional-grade high thermal sensitivity, capturing smaller temperature differences; wider temperature measurement range of up to 550°C.
- Four image modes + 7 palettes, suitable for temperature observation of different targets and different scenes.

Hard-core Configuration, Easy to Use and Convenient

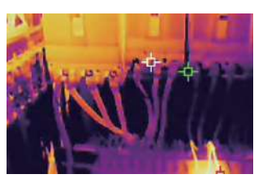
- IP54 waterproof and dustproof, 2m drop protection, light and slim design that fits your hand, weighing only 132g.
- Faster Wi-Fi connection with the assistance of Bluetooth; OTA upgrade can be easily completed through the mobile app.
- Professional app that supports full-scenario applications such as real-time analysis and offline analysis of temperature measurement images.

*The 8-meter image transmission distance is the test value taken when the space is without obstruction.

Specifications

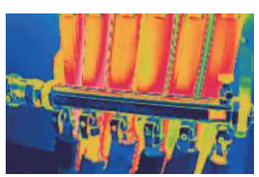
Thermal Imaging	
Detector Type	12μm uncooled infrared detector
Infrared Resolution	256×192
Spectral Band	7.5~14μm
Thermal Sensitivity (NETD)	＜40mK (25°C,F1.0)
Frame Rate	25Hz
Lens Focal Length	3.2mm
FOV	56°×42°
Spatial Resolution (IFOV)	3.75mrad
Focus Mode	Fixed focus
Minimum Imaging Distance	0.3m
Measurement Range	-20°C~+150°C, 100°C~550°C
Measurement Accuracy	±2°C or ±2% of readings,whichever is greater.
Image Display	
Visible Light Camera	2 megapixels
Palettes	7
Image Mode	Infrared, visible light, PIP, dual-spectrum fusion
Temperature Width Stretch	Auto
Measurement and Analysis	
App Analysis Function	Central temperature point/Highest temperature point/Lowest temperature point, 1 preset analysis template (support 3 custom points, 3 custom lines, and 3 custom frames)
System Functions	
Communication Protocol	Wi-Fi, USB, Bluetooth
Remote Access and Control	Connection to smart devices via WiFi, up to 8m away
Others	
OTA	Support OTA upgrade
Battery	1050mAh
Battery Life	About 2h
Charging Mode	USB Type-C
Clamp Width	Minimum 131mm/Maximum 172mm
Tripod Socket	UNC 1/4-20 interface for tripod
Operating Temperature	-10°C~+50°C
Operating Humidity	10%~90% (non-condensing)
Storage Temperature	-20°C~+60°C
Ingress Protection Rating	IP54
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Weight and Dimensions	About 132g, 135.6×41×29.1mm
Authentication	CE/RoHS/CMA, etc.
Packing List	Thermal camera×1, USB cable

Applications

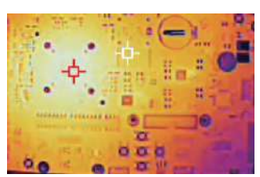


Power Maintenance

Equipment Inspection



HVAC Leak Detection



Circuit Board Repairing

CX200+
Handheld Thermal Camera

Equipped with a high-sensitivity infrared detector with a resolution of 256×192, based on an intelligent image algorithm, the CX200+ handheld thermal camera can generate clearer and sharper thermal images. The product has been completely upgraded to give users a better working experience.

Product Highlights

Image+: distinguish smaller temperature differences and more details

- Equipped with a self-developed 12μm 256×192 uncooled infrared detector.
- NETD as low as 40mK, capturing smaller temperature differences.
- Intelligent image algorithm applied, displaying clearer details of temperature measurement targets and sharper images.

Feature+: professional grade, full services based on thermal sensors, catering to all industrial control scenarios

- Shorter startup duration of 6s and smooth operation response.
- Support automatic switching of temperature measurement modes for efficient operations.
- Support built-in video taking to facilitate analysis and recording.

Performance+: rugged, easy to use, and quick to deploy

- IP54 waterproof and dustproof, and 2m drop protection.
- A battery life of 11 hours.
- Built-in 32GB memory card, expandable to 128GB.

Software+: complete software ecosystem

- Support complete secondary analysis software for PC.

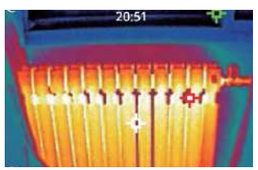
Specifications

Thermal Imaging	
Detector Type	12μm uncooled infrared detector
Infrared Resolution	256×192
Spectral Band	7.5~14μm
Thermal Sensitivity (NETD)	＜40mK (25°C,F1.0)
Frame Rate	25Hz
Lens Focal Length	3.2mm
FOV	56°×42°
Spatial Resolution (IFOV)	3.75mrad
Focus Mode	Fixed focus
Minimum Imaging Distance	0.3m
Measurement Range	-20°C~+150°C, 100°C~550°C
Measurement Accuracy	±2°C or ±2% of readings, whichever is greater.
Imaging Display	
Display	2.8 inch, 320×240
Visible Light Camera	2 megapixels
Digital Zoom	1×, 2×, 4×
Palettes	7
Image Mode	Infrared, visible light, PIP, dual-spectrum fusion
Temperature Width Stretch	Auto
Measurement and Analysis	
Analysis Functions on the Device	Central temperature point/Highest temperature point/Lowest temperature point
Supporting software	PC (Infrared Analysis Software)
Image Storage	
Storage Medium	Standard 32GB MicroSD, up to 128G
System Functions	
Alarm Type	Highest/Lowest temperature alarm in full frame; Image pop-ups, flash prompts; Auto image capture at alarm time (with temperature data).
Power Management	Auto shut-down setting
Others	
Battery	Built-in rechargeable lithium-ion battery
Charging Mode	USB Type-C
Battery Life	About 11h
Interface	USB Type-C, SD card
Tripod Socket	UNC 1/4-20 interface for tripod
Operating Temperature	-10°C~+50°C
Operating Humidity	10%~95% (non-condensing)
Storage Temperature	-20°C~+60°C
Ingress Protection Rating	IP54
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Weight and Dimensions	About 520g, 237×75×92mm
Authentication	CE/RoHS/CMA, etc.
Packing List	Infrared camera×1, USB cable, 32GB SD card, user manual, storage bag, certificate of qualification, calibration certificate

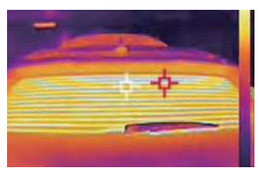
Applications

Power Maintenance

Equipment Inspection



HVAC Leak Detection



Automotive Maintenance

CX200 SE+
Handheld Thermal Camera

Equipped with a high-sensitivity infrared detector with a resolution of 256×192, based on an intelligent image algorithm, the CX200 SE+ handheld thermal camera can generate clearer and sharper thermal images. The product has been completely upgraded to give users a better experience.

Product Highlights

Image+: distinguish smaller temperature differences and more details

- Equipped with a self-developed 12μm 256×192 uncooled infrared detector.
- NETD as low as 40mK, capturing smaller temperature differences.
- Intelligent image algorithm applied, displaying clearer details of temperature measurement targets and sharper images.

Feature+: professional grade, full services based on thermal sensors, catering to all industrial control scenarios

- Shorter startup duration of 6s and smooth operation response.
- Support automatic switching of temperature measurement modes for efficient operations.
- Support built-in video taking to facilitate analysis and recording.

Performance+: rugged, easy to use, and quick to deploy

- IP54 waterproof and dustproof, and 2m drop protection
- A battery life of 9 hours.
- Built-in 32GB memory card, expandable to 128GB

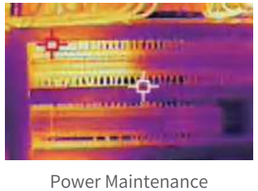
Software+: complete software ecosystem

- Support complete secondary analysis software for PC

Specifications

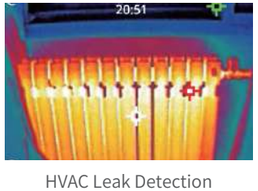
Thermal Imaging	
Detector Type	12μm uncooled infrared detector
Infrared Resolution	256×192
Spectral Band	7.5~14μm
Thermal Sensitivity (NETD)	＜40mK (25°C,F1.0)
Frame Rate	25Hz
Lens Focal Length	3.2mm
FOV	56°×42°
Spatial Resolution (IFOV)	3.75mrad
Focus Mode	Fixed focus
Minimum Imaging Distance	0.3m
Measurement Range	-20°C ~ +150°C, 100°C ~ +400°C
Measurement Accuracy	±2°C or ±2% of readings, whichever is greater.
Imaging Display	
Display	2.8 inch, 320×240
Digital Zoom	1×, 2×, 4×
Palettes	4 options
Image Mode	Infrared
Temperature Width Stretch	Auto
Measurement and Analysis	
Analysis Functions on the Device	Central temperature point/Highest temperature point/Lowest temperature point
Supporting Software	PC (Infrared Analysis Software)
Image Storage	
Storage Medium	Standard 32GB MicroSD, up to 128G
System Functions	
Alarm Type	Highest/Lowest temperature alarm in full frame; Image pop-ups, flash prompts; Auto image capture at alarm time (with temperature data).
Power Management	Auto shut-down setting
Others	
Battery	Built-in rechargeable lithium-ion battery
Charging Mode	USB Type-C
Battery Life	About 9h
Interface	USB Type-C, SD card
Tripod Socket	UNC 1/4-20 interface for tripod
Operating Temperature	-10°C~+50°C
Operating Humidity	10%~95% (non-condensing)
Storage Temperature	-20°C~+60°C
Ingress Protection Rating	IP54
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Weight and Dimensions	About 520g, 237×75×92mm
Authentication	CE/RoHS/CMA, etc.
Packing List	Infrared camera×1, USB cable, 32GB SD card, user manual, storage bag, certificate of qualification, calibration certificate

Applications

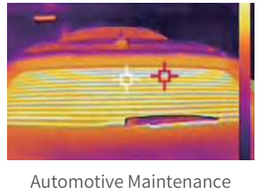


Power Maintenance

Equipment Inspection



HVAC Leak Detection



Automotive Maintenance

CX200 Pro+
Handheld Thermal Camera

Equipped with a high-sensitivity infrared detector with a resolution of 256×192, based on an intelligent image algorithm, the CX200 Pro+ handheld thermal camera can generate clearer and sharper thermal images. The product has been completely upgraded to give users a better working experience.

Product Highlights

Image+: distinguish smaller temperature differences and more details

- Equipped with a self-developed 12μm 256×192 uncooled infrared detector.
- NETD as low as 40mK, capturing smaller temperature differences.
- Intelligent image algorithm applied, displaying clearer details of temperature measurement targets and sharper images.

Feature+: professional grade, full services based on thermal sensors, catering to all industrial control scenarios

- Shorter startup duration of 6s and smooth operation response.
- Support automatic switching of temperature measurement modes for efficient operations.
- Support built-in video taking to facilitate analysis and recording.

Performance+: rugged, easy to use, and quick to deploy

- IP54 waterproof and dustproof, and 2m drop protection
- A battery life of 15 hours
- Built-in 32GB memory card, expandable to 128GB

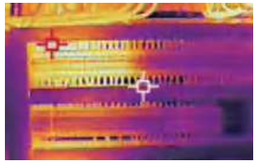
Software+: complete software PC client and app

- Support complete secondary analysis software for PC
- Support thermal image transmission & analysis applications for mobile devices

Specifications

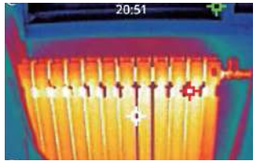
Thermal Imaging	
Detector Type	12μm uncooled infrared detector
Infrared Resolution	256×192
Spectral Band	7.5~14μm
Thermal Sensitivity (NETD)	＜40mK (25°C,F1.0)
Frame Rate	25Hz
Lens Focal Length	3.2mm
FOV	56°×42°
Spatial Resolution (IFOV)	3.75mrad
Focus Mode	Fixed focus
Minimum Imaging Distance	0.3m
Measurement Range	-20°C~+150°C, 100°C~550°C
Measurement Accuracy	±2°C or ±2% of readings, whichever is greater.
Imaging Display	
Display	2.8 inch, 320×240
Visible Light Camera	2 megapixels
Digital Zoom	1×, 2×, 4×
Palettes	7
Image Mode	Infrared, visible light, PIP, dual-spectrum fusion
Temperature Width Stretch	Auto
Measurement and Analysis	
Analysis Functions on the Device	Central temperature point/Highest temperature point/Lowest temperature point
Supporting software	PC (Infrared Analysis Software) & Mobile Device (iOS/Android APP)
Image Storage	
Storage Medium	Standard 32GB MicroSD, up to 128G
System Functions	
Alarm Type	Highest/Lowest temperature alarm in full frame; Image pop-ups, flash prompts; Auto image capture at alarm time (with temperature data).
Communication Protocol	USB, WiFi
Power Management	Auto shut-down setting
Others	
Battery	Built-in rechargeable lithium-ion battery
Charging Mode	USB Type-C
Battery Life	About 15h
Interface	USB Type-C, SD card
Tripod Socket	UNC 1/4-20 interface for tripod
Operating Temperature	-10°C~+50°C
Operating Humidity	10%~95% (non-condensing)
Storage Temperature	-20°C~+60°C
Ingress Protection Rating	IP54
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Weight and Dimensions	About 520g, 237×75×92mm
Authentication	CE/RoHS/CMA, etc.
Packing List	Infrared camera×1, USB cable, 32GB SD card, user manual, storage bag, certificate of qualification, calibration certificate

Applications

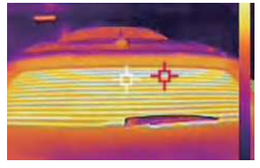


Power Maintenance

Equipment Inspection



HVAC Leak Detection



Automotive Maintenance

RM200A
Handheld Thermal Camera

RM200A is equipped with a self-developed 12μm high thermal sensitivity 256×192 infrared thermal imaging detector. Based on intelligent and precise temperature measurement algorithms and HD image algorithms, it strives to be a professional infrared thermal imaging tool with HD images, a large-screen display, and accurate temperature measurement for applications such as electrical maintenance and circuit design.

Product Highlights

Powerful Detector, Clear Imaging

- Equipped with a 256×192 self-developed uncooled infrared detector.
- 40mK thermal sensitivity, capable of distinguishing the minimum temperature difference of 0.04°C, capturing small hot and cold spots.
- -20°C~+550°C wide measurement range for monitoring more temperature targets.

Fully-Functional Software

- Manually adjusting the temperature range to meet the needs of multiple scenarios and uses.
- Support multiple image modes + multiple palettes to meet the needs of temperature measurement under different requirements.
- The PC software supports real-time image analysis.

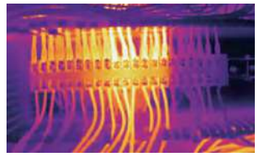
Hardcore Configuration

- Equipped with a 3.5-inch touch screen, supporting center point, hot and cold spot tracking and temperature display.
- IP54, 2m drop protection
- Standard configuration of 2 quick-removal batteries, with a battery life of up to 8h.

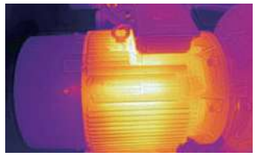
Specifications

Thermal Imaging	
Detector Type	12μm uncooled infrared detector
Infrared Resolution	256×192
Spectral Band	7.5~14μm
Thermal Sensitivity (NETD)	＜40mK (25°C,F1.0)
Frame Rate	25Hz
Lens Focal Length	3.2mm
FOV	56°×42°
Spatial Resolution (IFOV)	3.75mrad
Focus Mode	Fixed focus
Minimum Imaging Distance	0.3m
Measurement Range	-20~+150°C, 100~550°C
Measurement Accuracy	±2°C or ±2% of readings, whichever is greater.
Image Display	
Display	3.5-inch touch screen, 640×480 resolution
Visible Light Camera	2 megapixels
Digital Zoom	1×, 2×, 4×
Palettes	7
Image Mode	Infrared, visible light, PIP, dual-spectrum fusion
Temperature Width Stretch	Automatic/Manual
Measurement and Analysis	
Analysis Functions on the Device	Custom points/lines/areas; up to 10 points, 10 areas, and 10 lines;Center point/Hot and cold spot tracking and temperature display
Supporting Software	PC (Infrared Analysis Software)
Image Storage	
Storage Medium	Standard 32GB MicroSD, up to 128G
Text Notes	Support
Voice Annotation	Support
Image Naming	Auto/manual naming, naming by scanning QR code
System Functions	
Communication Protocol	Wi-Fi, USB
Laser Pointer	Support
Video Transmission	Support UVC video transmission
Others	
Battery	Rechargeable and detachable lithium-ion battery
Charging Mode	USB Type-C or desktop charger
Battery Life	About 8h (about 4h for a single battery)
Interface	USB Type-C, SD card
Tripod Socket	UNC 1/4-20 interface for tripod
Operating Temperature	-10°C~+50°C
Operating Humidity	10%~95% (non-condensing)
Storage Temperature	-20°C~+60°C
Ingress Protection Rating	IP54
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Weight and Dimensions	About 635g, 258.4×105.1×102.3mm
Authentication	CE/RoHS/CMA, etc.
Packing List	Thermal camera ×1, 5V 2A power adaptor, USB cable, SD card, battery ×2, Quick Start Guide, battery charger, calibration certificate,package list, portable cloth bag

Applications



Power Maintenance



Equipment Maintenance

Circuit Design

HVAC Maintenance

RM200F
Handheld Thermal Camera

The RM200F is equipped with a self-developed 12μm high thermal sensitivity 256×192 infrared thermal imaging detector. Based on intelligent and precise temperature measurement algorithms, HD image algorithms, and cloud services, it strives to be a professional infrared thermal imaging tool with HD images, a large-screen display, and accurate temperature measurement for applications such as electrical maintenance and circuit design.

Product Highlights

Powerful Detector, Clear Imaging

- Equipped with a 256×192 self-developed uncooled infrared detector.
- 40mK thermal sensitivity, capable of distinguishing the minimum temperature difference of 0.04°C, capturing small hot and cold spots.
- -20°C~+550°C wide measurement range for monitoring more temperature targets.

Fully-Functional Software

- Manually adjusting the temperature range to meet the needs of multiple scenarios and uses.
- Support multiple image modes + multiple palettes to meet the needs of temperature measurement under different requirements.
- The PC software supports real-time image analysis.

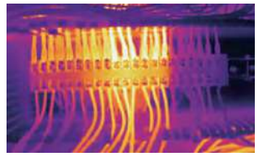
Hardcore Configuration

- Equipped with a 3.5-inch touch screen, supporting center point, hot and cold spot tracking and temperature display.
- IP54, 2m drop protection
- Standard configuration of 2 quick-removal batteries, with a battery life of up to 8h.

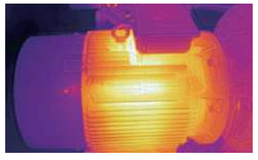
Specifications

Thermal Imaging	
Detector Type	12μm uncooled infrared detector
Infrared Resolution	256×192
Spectral Band	7.5~14μm
Thermal Sensitivity (NETD)	＜40mK (25°C,F1.0)
Frame Rate	25Hz
Lens Focal Length	7mm
FOV	24.8°×18.7°
Spatial Resolution (IFOV)	1.71mrad
Focus Mode	Manual focusing
Minimum Imaging Distance	0.2m
Measurement Range	-20~+150°C, 100~550°C
Measurement Accuracy	±2°C or ±2% of readings, whichever is greater.
Image Display	
Display	3.5-inch touch screen, 640×480 resolution
Visible Light Camera	2 megapixels
Digital Zoom	1×, 2×, 4×
Palettes	10
Image Mode	Infrared, visible light, PIP, dual-spectrum fusion
Temperature Width Stretch	Automatic/Manual
Measurement and Analysis	
Analysis Functions on the Device	Custom points/lines/areas; up to 10 points, 10 areas, and 10 lines;Center point/Hot and cold spot tracking and temperature display
Supporting Software	PC (Infrared Analysis Software)
Image Storage	
Storage Medium	Standard 32GB MicroSD, up to 128G
Text Notes	Support
Voice Annotation	Support
Image Naming	Auto/manual naming, naming by scanning QR code
System Functions	
Communication Protocol	Wi-Fi, USB
Laser Pointer	Support
Video Transmission	Support UVC video transmission
Others	
Battery	Rechargeable and detachable lithium-ion battery
Charging Mode	USB Type-C or desktop charger
Battery Life	About 8h (about 4h for a single battery)
Interface	USB Type-C, SD card
Tripod Socket	UNC 1/4-20 interface for tripod
Operating Temperature	-10°C~+50°C
Operating Humidity	10%~95% (non-condensing)
Storage Temperature	-20°C~+60°C
Ingress Protection Rating	IP54
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Weight and Dimensions	About 660g, 258.4×105.1×102.3mm
Authentication	CE/RoHS/CMA, etc.
Packing List	Thermal camera ×1, 5V 2A power adaptor, USB cable, SD card, battery ×2, Quick Start Guide, battery charger, calibration certificate,package list, portable cloth bag

Applications



Power Maintenance



Equipment Maintenance

Circuit Design

HVAC Maintenance

RM305
Handheld Thermal Camera

RM305 is a professional handheld thermal camera, featuring high resolution and manual focus for temperature measurement. It is equipped with a self-developed 384×288 infrared detector, providing a high sensitivity of 35mK.

It finds extensive applications in fields such as electric power, electrical automation, building inspection, and commercial HVAC.

Product Highlights

Clear Thermal Images, Precise Temperature Measurement

- 12μm high-performance 384×288 uncooled infrared detector.
- NETD as low as 35mK, capable of distinguishing temperature differences of 0.035°C.
- USB plug-and-play analysis, real-time full-frame transmission, and analysis of temperature information.

Professional Functions, Multi-dimensional Design

- Support full-frame high/low-temperature alarms and scheduled image capture, and record temperature rise changes.
- Capable of automatically tracking the highest temperature, the lowest temperature, and the central-point temperature within the measurement area.
- Support multiple image modes+10 palette settings to meet temperature measurement under different requirements.
- Support professional thermal imaging analysis software on the app, PC, and cloud platform.

Hard-core Configuration, High-end Experience

- IP54 and 2m drop protection, solid and durable.
- 3.5-inch touch screen, 640×480 resolution
- Built-in laser pointer module for quick target locating.

Specifications

Thermal Imaging	
Detector Type	12μm uncooled infrared detector
Infrared Resolution	384×288
Spectral Band	7.5-14μm
Thermal Sensitivity (NETD)	＜35mK (25°C,F1.0)
Frame Rate	30Hz
Lens Focal Length	6.2mm
FOV	43.7°×31.9°
Spatial Resolution (IFOV)	1.98mrad
Focus Mode	Manual focusing
Measurement Range	-20~+150°C, 100~550°C
Measurement Accuracy	±2°C or ±2% of readings, whichever is greater.
Image Display	
Display	3.5-inch touch screen, 640×480 resolution
Visible Light Camera	5 megapixels
Digital Zoom	1×, 2×, 4×, 8×
Palettes	10
Image Mode	Infrared, visible light, PIP, dual-spectrum fusion
Temperature Width Stretch	Automatic/Manual
Measurement and Analysis	
Analysis Functions on the Device	Custom points/lines/areas; up to 10 points, 10 areas, and 10 lines;Center point/Hot and cold spot tracking and temperature display
Supporting Software	PC (Infrared Analysis Software) & Mobile Device (iOS/Android APP)
Image Storage	
Storage Medium	Standard 32GB MicroSD, up to 512G
Text Notes	Support
Voice Annotation	Support
Image Naming	Auto/manual naming, naming by scanning QR code
System Functions	
Laser Pointer	Support
Video Transmission	Support UVC video transmission
Communication Protocol	Wi-Fi, USB
Others	
Battery	Rechargeable and detachable lithium-ion battery
Charging Mode	USB Type-C or desktop charger
Battery Life	About 6h (about 3h for a single battery)
Interface	USB Type-C, SD card
Tripod Socket	UNC 1/4-20 interface for tripod
Operating Temperature	-10°C~+50°C
Operating Humidity	10%~95% (non-condensing)
Storage Temperature	-20°C~+60°C
Ingress Protection Rating	IP54
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Weight and Dimensions	About 670g, 258.4×105.1×102.3mm
Authentication	CE/RoHS/CMA, etc.
Packing List	Thermal camera ×1, 5V 3A power adaptor, USB cable, SD card, battery ×2, Quick Start Guide, battery charger, calibration certificate, package list, safety box

Applications

Product R&D

Equipment Maintenance

Electric Routine Inspection

Electrical Maintenance

RM320
Handheld Thermal Camera

RM320 is equipped with a 12μm infrared detector, which brings 384×288 high-resolution infrared thermal images and a high sensitivity of 35mK to easily capture small hot spots.
With a temperature measurement range extendable to 650°C, the device is suitable for electric routine inspection, electronic circuit design, HVAC, industrial manufacturing, petrochemical industry, photovoltaic testing, and many other fields.

Product Highlights

High-definition Thermal Images, Capturing Subtle Hot Spots

- Equipped with a self-developed 384×288 high-pixel 12μm advanced-technology detector.
- Capable of distinguishing 0.035°C temperature differences, easily capturing subtle hot spots.

Smart Upgrade for You to Handle Complexity with Simplicity

- Support intelligent shooting, user customization, import and distribution of inspection task packages, simplifying the task process and improving routine inspection efficiency.
- Support temperature trend analysis, helping users observe temperature distribution and changes in real time.
- Support isotherm function to highlight the temperature segments or areas that need attention.
- Support analysis software on the PC client and secondary analysis of video files.

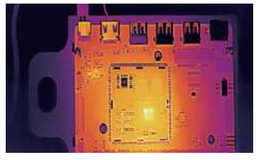
Upgraded Performance for More Application Scenarios

- -20°C~+650°C wider temperature range, suitable for more industrial temperature measurement scenarios.
- IP54 and 2m drop protection, solid and durable.
- Standard 32GB MicroSD card, expandable to 512GB, supporting temperature video recording.

Specifications

Thermal Imaging	
Detector Type	12μm uncooled infrared detector
Infrared Resolution	384×288
Spectral Band	7.5-14μm
Thermal Sensitivity (NETD)	＜35mK (25°C,F1.0)
Frame Rate	30Hz
Lens Focal Length	9.1mm
FOV	27°×20°
Spatial Resolution (IFOV)	1.31mrad
Focus Mode	Manual focus
Measurement Range	-20°C~+150°C; 100°C~650°C
Measurement Accuracy	±2°C or ±2% of readings, whichever is greater.
Image Display	
Display	3.5-inch touch screen, 640×480 resolution
Visible Light Camera	5 megapixels
Digital Zoom	1×, 2×, 4×, 8×
Palettes	10
Image Mode	Infrared, visible light, PIP, dual-spectrum fusion
Temperature Width Stretch	Automatic/Manual
Measurement and Analysis	
Analysis Functions on the Device	Custom points/lines/areas; up to 10 points, 10 areas, and 10 lines;Center point/Hot and cold spot tracking and temperature display
Supporting Software	PC (Infrared Analysis Software) & Mobile Device (iOS/Android APP)
Image Storage	
Storage Medium	Standard 32GB MicroSD, up to 512G
Text Notes	Support
Voice Notes	Support
Video Recording	
Radiation Infrared Video Recording	Support
Non-radiation Infrared or Visible Light Video Recording	Support
System Functions	
Intelligent Routine Inspection	Support
Laser Pointer	Support
Video Transmission	Support UVC video transmission
Communication Protocol	Wi-Fi, USB
Others	
Battery	Rechargeable and detachable lithium-ion battery
Charging Mode	USB Type-C or desktop charger
Battery Life	About 6h (about 3h for a single battery)
External Interface	USB Type-C, SD card
Tripod Socket	UNC 1/4-20 interface for tripod
Operating Temperature	-10°C~+50°C
Operating Humidity	10%~95% (non-condensing)
Storage Temperature	-20°C~+60°C
IP Grade	IP54
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Weight and Dimensions	About 683.5g, 258.4×105.1×102.3mm
Authentication	CE/RoHS/CMA, etc.
Packing List	Thermal camera ×1, 5V 3A power adaptor, USB cable, SD card, battery ×2, Quick Start Guide, battery charger,calibration certificate, package list, safety box

Applications


Circuit Design


Electric Routine Inspection


Industrial Manufacturing


Construction Inspection

RM620
Handheld Thermal Camera

RM620 is equipped with a 12μm infrared detector, which brings 640×512 high-resolution infrared thermal images and a high sensitivity of 35mK to easily capture small hot spots.
With a temperature measurement range extendable to 650°C, the device is suitable for electric routine inspection, electronic circuit design, HVAC, industrial manufacturing, petrochemical industry, photovoltaic testing, and many other fields.

Product Highlights

High-definition Thermal Images, Capturing Subtle Hot Spots

- Equipped with a self-developed 640×512 high-pixel 12μm advanced-technology detector.
- Capable of distinguishing 0.035°C temperature difference, IFOV as low as 0.63mrad, easily capturing subtle hot spots.

Smart Upgrade for You to Handle Complexity with Simplicity

- Support intelligent shooting, user customization, import and distribution of inspection task packages, simplifying the task process and improving routine inspection efficiency.
- Support temperature trend analysis, helping users observe temperature distribution and changes in real time.
- Support isotherm function to highlight the temperature segments or areas that need attention.
- Support analysis software on the PC client and secondary analysis of video files.

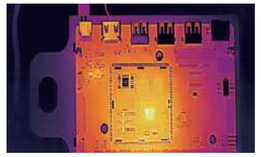
Upgraded Performance for More Application Scenarios

- -20°C~+650°C wider temperature range, suitable for more industrial temperature measurement scenarios.
- IP54 and 2m drop protection, solid and durable.
- Standard 32GB MicroSD card, expandable to 512GB, supporting temperature video recording.

Specifications

Thermal Imaging	
Detector Type	12μm uncooled infrared detector
Infrared Resolution	640x512
Spectral Band	7.5-14μm
Thermal Sensitivity (NETD)	＜35mK (25°C,F1.0)
Frame Rate	30Hz
Focal Length	19mm
FOV	23°× 18°
Spatial Resolution (IFOV)	0.63mrad
Focus Mode	Manual focus
Measurement Range	-20°C~+150°C; 100°C~650°C
Measurement Accuracy	±2°C or ±2% of readings, whichever is greater.
Image Display	
Display	3.5-inch touch screen, 640×480 resolution
Visible Light Camera	5 megapixels
Digital Zoom	1×, 2×, 4×, 8×
Palettes	10
Image Mode	Infrared, visible light, PIP, dual-spectrum fusion
Temperature Width Stretch	Automatic/Manual
Measurement and Analysis	
Analysis Functions on the Device	Custom points/lines/areas; up to 10 points, 10 areas, and 10 lines;Center point/Hot and cold spot tracking and temperature display
Supporting Software	PC (Infrared Analysis Software) & Mobile Device (iOS/Android APP)
Image Storage	
Storage Medium	Standard 32GB MicroSD, up to 512G
Text Notes	Support
Voice Notes	Support
Video Recording	
Radiation Infrared Video Recording	Support
Non-radiation Infrared or Visible Light Video Recording	Support
System Functions	
Intelligent Routine Inspection	Support
Laser Pointer	Support
Video Transmission	Support UVC video transmission
Communication Protocol	Wi-Fi, USB
Others	
Battery	Rechargeable and detachable lithium-ion battery
Charging Mode	USB Type-C or desktop charger
Battery Life	About 6h (about 3h for a single battery)
External Interface	USB Type-C, SD card
Tripod Socket	UNC 1/4-20 interface for tripod
Operating Temperature	-10°C~+50°C
Operating Humidity	10%~95% (non-condensing)
Storage Temperature	-20°C~+60°C
IP Grade	IP54
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Weight and Dimensions	About 680g, 258.4×105.1×102.3mm
Authentication	CE/RoHS/CMA, etc.
Packing List	Thermal camera ×1, 5V 3A power adaptor, USB cable, SD card, battery ×2, Quick Start Guide, battery charger,calibration certificate,package list, safety box

Applications


Circuit Design


Electric Routine Inspection


Industrial Manufacturing


Construction Inspection

RM600G
Professional Handheld Thermal Camera

RM600G is a professional handheld thermal camera, featuring high resolution and manual focus for temperature measurement. It is equipped with a self-developed 640×512 infrared detector, providing a high sensitivity of 35mK.
It finds extensive applications in fields such as electric power, electrical automation, building inspection, and commercial HVAC.

Product Highlights

Clear Thermal Images, Precise Temperature Measurement

- 12μm high-performance 640×512 uncooled infrared detector
- NETD as low as 35mK, capable of distinguishing temperature differences of 0.035°C.
- USB plug-and-play analysis, real-time full-frame transmission, and analysis of temperature information.

Professional Functions, Multi-dimensional Design

- Support full-frame high/low-temperature alarms and scheduled image capture, and record temperature rise changes.
- Capable of automatically tracking the highest temperature, the lowest temperature, and the central-point temperature within the measurement area.
- Support multiple image modes+10 palette settings to meet temperature measurement under different requirements.
- Support professional thermal imaging analysis software on the app, PC.

Hard-core Configuration, High-end Experience

- IP54 and 2m drop protection, solid and durable.
- 3.5-inch touch screen, 640×480 resolution
- Built-in laser pointer module for quick target locating.

Specifications

Thermal Imaging	
Detector Type	12μm uncooled infrared detector
Infrared Resolution	640×512
Spectral Band	7.5-14μm
Thermal Sensitivity (NETD)	＜35mK (25°C,F1.0)
Frame Rate	30Hz
Lens Focal Length	9.1mm
FOV	48°×38°
Spatial Resolution (IFOV)	1.31mrad
Focus Mode	Manual focusing
Measurement Range	-20°C~+150°C; 100°C~550°C
Measurement Accuracy	±2°C or ±2% of readings, whichever is greater.
Image Display	
Display	3.5-inch touch screen, 640×480 resolution
Visible Light Camera	5 megapixels
Digital Zoom	1×, 2×, 4×, 8×
Palettes	10
Image Mode	Infrared, visible light, PIP, dual-spectrum fusion
Temperature Width Stretch	Automatic/Manual
Measurement and Analysis	
Analysis Functions on the Device	Custom points/lines/areas; up to 10 points, 10 areas, and 10 lines;Center point/Hot and cold spot tracking and temperature display
Supporting Software	PC (Infrared Analysis Software) & Mobile Device (iOS/Android APP)
Image Storage	
Storage Medium	Standard 32GB MicroSD, up to 512G
Text Notes	Support
Voice Annotation	Support
Image Naming	Auto/manual naming, naming by scanning QR code
System Functions	
Laser Pointer	Support
Video Transmission	Support UVC video transmission
Communication Protocol	Wi-Fi, USB
Others	
Battery	Rechargeable and detachable lithium-ion battery
Charging Mode	USB Type-C or desktop charger
Battery Life	About 6h (about 3h for a single battery)
Interface	USB Type-C, SD card
Tripod Socket	UNC 1/4-20 interface for tripod
Operating Temperature	-10°C~+50°C
Operating Humidity	10%~95% (non-condensing)
Storage Temperature	-20°C~+60°C
Ingress Protection Rating	IP54
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Weight and Dimensions	About 670g, 258.4×105.1×102.3mm
Authentication	CE/RoHS/CMA, etc.
Packing List	Thermal camera ×1, 5V 3A power adaptor, USB cable, SD card, battery ×2, Quick Start Guide, battery charger,calibration certificate, package list, safety box

Applications

Product R&D

Equipment Maintenance

Electric Routine Inspection

Electrical Maintenance

RT400/630 Series
Expert Thermal Camera

Equipped with a new-generation detector with a resolution of 480×360/640×512 and a NETD as low as 35mK, the new RT400/630 series can capture more subtle hotspots, and display sharper and cleaner thermal images. The device has rich and powerful features such as Android OS, trend analysis, area measurement. It is a new strong tool for expert-level full-scene analysis.

Product Highlights

Clear Thermal Images, Precise Temperature Measurement

- Equipped with a 12μm uncooled infrared detector, with a resolution of 640×512/480×360, supporting super resolution.
- NETD as low as 35mK, and measurement accuracy of ±2℃ or ±2% of reading (whichever is greater).

Various Lenses and Fast Focusing

- Standard 25° lens, with optional wide-angle, long-focus, ultra-long-focus, and macro lenses, flexible for diverse scenarios.

Functional Upgrade to Improve Efficiency

- Android operating system, more convenient to operate.
- Support intelligent image stabilization, making temperature measurement images more stable.
- Support laser rangefinding and area measurement.

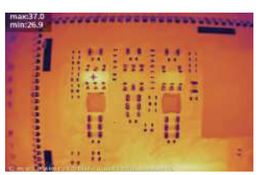
Intelligent Analysis, Efficient Temperature Measurement

- Support up to 20 points/lines/areas to analyze more temperature details in the screen.
- Support customized isotherms to highlight temperature segments or areas that need more attention.
- Support intelligent routine inspection, enabling import and editing of general task packages, etc.

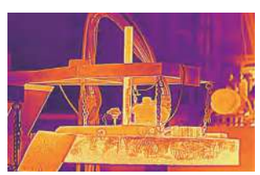
Applications

Electric Routine Inspection

Chemical Operation and Maintenance



Electronic and Electrical R&D



High Temperature Material Monitoring

Specifications	RT400	RT630
Thermal Imaging		
Detector Type	12μm uncooled infrared detector	
Infrared Resolution	480×360	640×512
Super Resolution	960×720	1280×1024
Spectral Band	7.5-14μm	
Thermal Sensitivity (NETD)	＜35mK (25℃,F1.0)	
Frame Rate	25Hz	
Focal Length	Standard lens: 17.7mm; super telephoto lens: 60.9mm; telephoto lens: 31.5mm; wide-angle lens: 9.5mm; macro lens (0.2×): 13mm; super macro lens (0.4×): 14.8mm.	
FOV	Standard lens: 25°×20°; super telephoto lens: 7°×5.6°; telephoto lens: 14°×11.2°; wide-angle lens: 45°×36°.	
Spatial Resolution (IFOV)	Standard lens: 0.92mrad; super telephoto lens: 0.27mrad; telephoto lens: 0.52mrad; wide-angle lens: 1.71mrad; Macro lens: One pixel corresponds to 60μm; super macro lens: One pixel corresponds to 30μm.	Standard lens: 0.68mrad; super telephoto lens: 0.2mrad; telephoto lens: 0.38mrad; wide-angle lens: 1.26mrad; Macro lens: One pixel corresponds to 60μm; super macro lens: One pixel corresponds to 30μm.
Focus Mode	Manual focus, one-button center focus, automatic center focus, single-touch automatic focus, laser-assisted focus, electric micro focus	
Minimum Imaging Distance	Standard lens: 0.4m; super telephoto lens: 4m; telephoto lens: 3m; wide-angle lens: 0.2m; macro lens: 39mm; super macro lens: 19mm	
Measurement Range	-20°C~+150°C, 100°C~650°C; optional: 400°C~1500°C	
Measurement Accuracy	±2°C or ±2% of readings, whichever is greater.	
Image Display		
Display	5-inch OLED touch screen, resolution 1280×720	
Visible Light Camera	13 megapixels	
Digital Zoom	1× ~ 10×	
Palettes	19 options	
Image Mode	Infrared, visible light, PIP, dual-spectrum fusion	
Temperature Width Stretch	Support	
Measurement and Analysis		
Analysis Functions on the Device	Support up to 15 movable points, lines, frames, circles and polygons,and up to 5 preset modes	Support up to 20 movable points, lines, frames, circles and polygons,and up to 5 preset modes
Laser Rangefinding	Support	
Area Measurement	Support	
Hygrothermograph	Support	
Positioning	Support	
Temperature Difference Analysis	Support	
Trend Analysis	Supports temperature trend recording and analysis.	
Image Freezing	Support	
Analysis Report	PDF format. Support editing and template importing on the PC client.	
Supporting Software	PC (Infrared Analysis Software) & Mobile Device (iOS/Android APP)	
Image Storage		
Storage Medium	Standard 64GB Micro SD, Support SD, SDHC, SDXC,up to 2TB	
Text Notes	Support	
Voice Notes	Support	
Video Functions		
Radiate Infrared Video Recording	Support compressed full radiation video recording (.irv), up to 25Hz video recording.	
Non-radiate Infrared or Visible Light Video Recording	Standard MP4 video recording	
Radiate Infrared Video Stream Transmission	Analysis at about 25Hz on PC	
Non-radiate Infrared Video Stream Transmission	RTSP H.264	
Video Resolution	1920x1080	
System Functions		
Intelligent Image Stabilization	Support	
Intelligent Panoramic Stitching	Support panoramic stitching on the PC client, and one-click synthesis.	
Intelligent Routine Inspection	Supported. General task package import and editing, standard and automatic naming of images	
Routine Inspection Record Self-inspection	Support	
Dual-Spectrum Video Recording	Simultaneous infrared video and visible light video recording, in MP7 format	
Communication Protocol	Wi-Fi, Bluetooth, USB,DP, Type-C to HDMI	
Voice Control	Voice assistant, quick command recognition	
Flashlight	Support	
Others		
Microphone/Speaker	Support	
Battery	10,000mAh lithium-ion battery, field-replaceable, support fast charging	
Charging Mode	USB Type-C or desktop charger	
Battery Life	Continuous operating time ⩾ 6 hours (depending on the actual environment and service conditions)	
External Interface	USB3.0 Type-C, SD card, SIM card, Mini HDMI	
Tripod Socket	UNC 1/4-20 interface for tripod	
Operating Temperature	-20°C~+55°C	
Operating Humidity	10%~95% (non-condensing)	
Storage Temperature	-40°C~+70°C	
IP Grade	IP54	
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)	
Weight and Dimensions	About 1.3kg (with battery), 144×129×307mm (subject to actual situations)	
Authentication	CE/RoHS/CMA, etc.	
Packing List	Thermal camera×1, standard lens, lithium-ion battery×2, charging stand, charger (with plug for use in multiple countries), charging cable, Bluetooth headset, SD card 64G, Type-C cable, lens hood, mold drawing, data download card, calibration certificate, certificate of qualification, hand strap (with buckle), safety box, lens cap (with screws).	

RS600
Flagship Thermal Camera

Equipped with a new-generation 12μm detector with a thermal sensitivity as low as 25mK, RS600 can present more delicate and clearer thermal images. Based on Android OS and integrated intelligent hardware, the device enables various professional and intelligent functions such as trend analysis, variable diaphragm lens, 25 points, lines, and areas, image freezing, intelligent electrical image stabilization (EIS), 5.5-inch touch screen.

Product Highlights

Clear Thermal Images, Precise Temperature Measurement

- Equipped with a 12μm VOx detector, resolution of 640×512, supporting super-resolution up to 1280×1024.
- Capable of distinguishing the temperature difference of 0.025°C, with high measurement accuracy and more delicate thermal images.

Various Lenses and Fast Focusing

- Standard 25° lens, with optional wide-angle, long-focus, ultra-long-focus, and macro lenses, flexible for diverse scenarios.

Functional Upgrade to Improve Efficiency

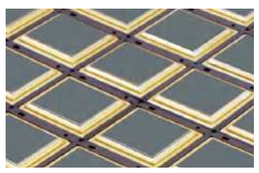
- Android operating system, more convenient to operate.
- Support intelligent image stabilization, making temperature measurement images more stable.
- Support laser rangefinding and area measurement.

Intelligent Analysis, Efficient Temperature Measurement

- Support up to 25 points/lines/areas to analyze more temperature details in the screen.
- Support customized isotherms to highlight temperature segments or areas that need more attention.
- Support intelligent routine inspection, enabling import and editing of general task packages, etc.

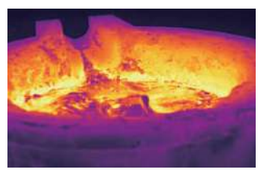
Applications

Electric Routine Inspection



High-End Scientific Research

Chemical Routine Inspection



High-Temperature Material Testing

Specifications

Thermal Imaging	
Detector Type	12μm uncooled infrared detector
Infrared Resolution	640×512
Super Resolution	1280×1024
Spectral Band	7.5~14μm
Thermal Sensitivity (NETD)	＜25mK (25°C,F1.0)
Frame Rate	25Hz
Focal Length	Standard lens: 17.7mm; super telephoto lens: 60.9mm; telephoto lens: 31.5mm; wide-angle lens: 9.5mm; macro lens (0.2×): 13mm; super macro lens (0.4×): 14.8mm.
FOV	Standard lens: 25°×20°; super telephoto lens: 7°×5.6°; telephoto lens: 14°×11.2°; wide-angle lens: 45°×36°.
Spatial Resolution (IFOV)	Standard lens: 0.68mrad; super telephoto lens: 0.2mrad; telephoto lens: 0.38mrad; wide-angle lens: 1.26mrad;Macro lens: One pixel corresponds to 60μm; super macro lens: One pixel corresponds to 30μm.
Focus Mode	Manual focus, one-button center focus, automatic center focus, single-touch automatic focus, laser-assisted focus, electric micro focus
Minimum Imaging Distance	Standard lens: 0.4m; super telephoto lens: 4m; telephoto lens: 3m; wide-angle lens: 0.2m; macro lens: 39mm; super macro lens: 19mm
Measurement Range	-20°C~+150°C, 100°C~650°C; optional: 400°C~+1500°C
Measurement Accuracy	±2°C or ±2% of readings, whichever is greater.
Image Display	
Display	5.5-inch LCD touch screen, resolution 1920×1080
Visible Light Camera	13 megapixels
Digital Zoom	1×~10×
Palettes	19 options
Image Mode	Infrared, visible light, PIP, dual-spectrum fusion
Temperature Width Stretch	Support
Measurement and Analysis	
Analysis Functions on the Device	Support up to 25 movable points, lines, frames, circles and polygons,and up to 5 preset modes
Laser Rangefinding	Support
Area Measurement	Support
Hygrothermograph	Support
Positioning	Support
Temperature Difference Analysis	Support
Trend Analysis	Support temperature trend recording and analysis
Image Freezing	Support
Analysis Report	PDF format. Support template editing and importing on the PC client
Supporting Software	PC (infrared analysis software) & Mobile Device (iOS/Android app)
Image Storage	
Storage Medium	Standard 64GB Micro SD. Support SD, SDHC, and SDXC, up to 2TB
Text Notes	Support
Voice Notes	Support
Video Functions	
Radiate Infrared Video Recording	Support compressed full radiation video recording (.irv), up to 25Hz video recording.
Non-radiate Infrared or Visible Light Video Recording	Standard MP4 video recording
Radiate Infrared Video Stream Transmission	TYPE-C/WLAN connection to PC, for real-time transmission of radiation infrared video streams
Non-radiate Infrared Video Stream Transmission	RTSP H.264
Video Resolution	1920x1080
System Functions	
Intelligent Image Stabilization	Support
Intelligent Panoramic Stitching	Support
Intelligent Routine Inspection	Supported. General task package import and editing, standard and automatic naming of images
Non-radiate Infrared Video Stream Transmission	Support
Dual-Spectrum Video Recording	Simultaneous infrared video and visible light video recording, in MP4 format.
Communication Protocol	Wi-Fi, Bluetooth, USB
Voice Control	Voice assistant, quick command recognition
Flashlight	Support
Others	
Microphone/Speaker	Support
Battery	9000mAh lithium-ion battery, field-replaceable, fast charging
Charging Mode	USB Type-C or desktop charger
Battery Life	Continuous operating time ⩾ 3 hours (depending on the actual environment and service conditions)
External Interface	USB3.0 Type-C, SD card, SIM card, Mini HDMI
Tripod Socket	UNC 1/4-20 interface for tripod
Operating Temperature	-15°C~+50°C
Operating Humidity	10%~95% (non-condensing)
Storage Temperature	-40°C~+70°C
IP Grade	IP54
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Weight and Dimensions	About 1.3kg (with battery), 278×116×113mm
Authentication	CE/RoHS/CMA, etc.
Packing List	Thermal camera×1, manual, calibration certificate, quick operation guide, data download card, certificate of qualification, multi-country adapter, USB data cable×1, lithium-ion battery×3, portable bag, charging cradle×1, HDMI cable×1, hand strap, backpack strap, SD card, charging stand, standard lens.

RS1280
Flagship Thermal Camera

RS1280 is RayThink's first 1280×1024 high-performance, high-pixel thermal camera especially for scientific research. Equipped with a self-developed new-generation VOx infrared detector with a thermal sensitivity as low as 25mK, this device uses intelligent image algorithms and precise temperature measurement algorithms to provide clearer infrared images and higher measurement accuracy. Android operating system, intelligent applications & miscellaneous functions, and a 5.5-inch angle-adjustable display and rotatable handle bring a better experience meeting the ergonomics requirements.

Product Highlights

Clear Thermal Images, Precise Temperature Measurement

- 1280×1024 ultra-high infrared resolution, providing up to 2560×2048 high-definition super-resolution infrared thermal images.
- With a high thermal sensitivity, capable of distinguishing the temperature difference of 0.025°C, with high measurement accuracy and more delicate thermal images.

Various Lenses and Fast Focusing

- Full coverage of lens focal lengths: 45°, 25°, 12° and 50μm, 25μm macro lenses to match more business applications.
- Support multiple focusing methods such as manual focus, auto focus, laser focus, auto focus, and continuous auto-focusing.

AI Empowerment for Efficient Work

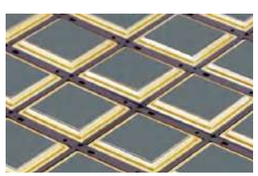
- Android system, more in line with users' habits and more convenient to operate.
- Support up to 35 analysis area settings to analyze more temperature details.
- 30Hz frame rate supports lossless compression of 16bit, meeting the needs of users for high frame rate and full-function secondary video analysis.

High-end Configuration, Easy to Work

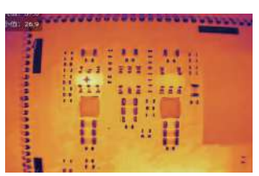
- The classic shape of the SLR camera and the design of the fixed lens offer a better operational experience.
- 5.5-inch flippable touch screen + OLED viewfinder of 1920×1080 for clearer field observation for users.
- Support OTA upgrade, QC3.0/PD fast charging protocol.
- Support Wi-Fi wireless screen mirroring and radiation video streaming and FTP/HTTP coverage of PCs and mobile devices.

Applications

Electric Routine Inspection



Scientific Research



Microelectronics

Nondestructive Testing

Specifications

Thermal Imaging	
Detector Type	12μm uncooled infrared detector
Infrared Resolution	1280×1024
Super Resolution	2560×2048
Spectral Band	7.5~14μm
Thermal Sensitivity (NETD)	＜25mK (25°C,F1.0)
Frame Rate	30Hz
Focal Length	Standard lens: 34.9mm; wide-angle lens: 19.8mm; telephoto lens: 72.9mm; macro lens (0.2×): 17.8mm; super macro lens (0.4×): 15.2mm
FOV	Standard lens: 25°×20°; telephoto lens: 12°×9.6°; wide-angle lens: 45°×36°
Spatial Resolution (IFOV)	Standard lens: 0.34mrad; telephoto lens: 0.17mrad; wide-angle lens: 0.6mrad; macro lens: One pixel corresponds to 50μm; super macro lens: One pixel corresponds to 25μm.
Focus Mode	Manual focus, electric micro focus, one-button center focus, automatic center focus,single-touch automatic focus, laser-assisted focus
Minimum Imaging Distance	Standard lens: 0.5m; telephoto lens: 2.3m; wide-angle lens: 0.2m; macro lens: 46mm; super macro lens: 13mm
Measurement Range	Standard: -20°C~+150°C (low temperature range), 150°C~800°C (medium temperature range). Optional: 400°C~1500°C, other ranges (high temperature range)
Measurement Accuracy	At 25°C normal temperature, the temperature measurement range is between 5°C~150°C, and the accuracy is ±1°C or ±1% of the reading (whichever is greater).At 25°C normal temperature, the temperature measurement range is below 1500°C, and the accuracy is ±2°C or ±2% of the reading.
Measurement and Analysis	
Display	5.5-inch LCD touch screen, resolution 1920×1080
Visible Light Camera	13 megapixels
Digital Zoom	1×~ 10×
Palettes	19 options
Image Mode	Infrared, visible light, PIP, dual-spectrum fusion
Temperature Width Stretch	Support
Measurement and Analysis	
Analysis Functions on the Device	Support up to 35 movable points, lines, frames, and polygonal areas (maximum and minimum temperature capture, average temperature measurement,environment variables, area alarm switch), and up to 5 preset modes
Laser Rangefinding	Support
Area Measurement	Support
Positioning	Support
Temperature Difference Analysis	Support
Trend Analysis	Supports temperature trend recording and analysis.
Image Freezing	Support
Analysis Report	PDF format. Support editing and template importing on the PC client.
Supporting Software	PC (Infrared Analysis Software) & Mobile Device (iOS/Android APP)
Image Storage	
Storage Medium	Standard 64GB Micro SD. Support SD, SDHC, and SDXC, up to 2TB
Text Notes	Support
Voice Notes	Support
Video Functions	
Radiate Infrared Video Recording	Support compressed full radiation video recording (.irv), up to 25Hz video recording.
Non-radiate Infrared or Visible Light Video Recording	Standard MP4 video recording
Radiate Infrared Video Stream Transmission	Analysis at about 25Hz on PC
Non-radiate Infrared Video Stream Transmission	RTSP H.264
Video Resolution	1920x1080
System Functions	
Intelligent Image Stabilization	Support
Intelligent Panoramic Stitching	Support
Intelligent Routine Inspection	Supported. General task package import and editing, standard and automatic naming of images
Non-radiate Infrared Video Stream Transmission	Support
Dual-Spectrum Video Recording	Simultaneous infrared video and visible light video recording, in MP7 format
Communication Protocol	Wi-Fi, Bluetooth, USB
Voice Control	Voice assistant, quick command recognition
Flashlight	Support
Others	
Microphone/Speaker	Support
Battery	9000mAh lithium-ion battery, field-replaceable, fast charging
Charging Mode	USB Type-C or desktop charger
Battery Life	Continuous operating time ⩾ 3 hours (depending on the actual environment and service conditions)
External Interface	USB3.0 Type-C, SD card, SIM card, Mini HDMI
Tripod Socket	UNC 1/4-20 interface for tripod
Operating Temperature	-15°C~+50°C
Operating Humidity	10%~95% (non-condensing)
Storage Temperature	-40°C~+70°C
IP Grade	IP54
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Weight and Dimensions	<1.7kg (with battery), 140×210×115mm
Authentication	CE/RoHS/CMA, etc.
Packing List	Thermal camera×1, manual, calibration certificate, quick operation guide, data download card, certificate of qualification, multi-country adapter, USB data cable×1, lithium-ion battery×3, portable bag, charging cradle×1, HDMI cable×1, hand strap, backpack strap, SD card, charging stand, standard lens.

RG600C
OGI Handheld Camera

Using an uncooled VOx detector featuring high spatial resolution and high sensitivity, powered by infrared thermal imaging technology, RG600C enables non-contact, visual leak location for dozens of gases such as natural gas (CH_4) and Freon, in addition to daily temperature measurement needs. This series are ideal for gas security, emission management, and equipment maintenance in industries such as oil and gas, petrochemical, environmental protection and emergency response.

Product Highlights

Customized Filter Detector for Clearer Images

- Equipped with a 640×512 customized band-pass filter detector to eliminate stray light interference; capable of distinguishing a temperature difference of 0.023°C, capturing gas microleakage.
- Spatial resolution as low as 0.63mrad, providing wider working distances or better gas details.

Versatile, Which is the Best Helper for Routine Inspections

- Simultaneous observation of thermal imaging and visible light to easily locate gas leaks.
- High accuracy of temperature measurement, easy to meet the dual tasks of gas leakage detection and temperature measurement.
- 3.5-inch touch screen+ complete analysis functions, easy to facilitate routine inspection tasks.

IIC T4 Explosive-Proof, Safe and Reliable

- Ex ic IIC T4 explosive-proof rated, suitable for security applications in explosive-proof application such as oil and natural gas routine inspections.

Specifications

Thermal Imaging Parameters	
Detector Type	Uncooled infrared detector
Infrared Resolution	640×512
Spectral Band	7.0~8.5μm
Gases Detectable	Methane, nitrous oxide, sulfur dioxide, phenol, ethyl acrylate, 2-ethylhexyl acrylate, freon (R13, R13B1, R123, R125, R134A, R417A, R422A, R508A)
Pixel Size	12μm
Thermal Sensitivity (NETD)	23mK
Spatial Resolution (IFOV)	0.63mrad
Frame Rate	30Hz
Focal Length	19mm
FOV	23°×18°
Focus Mode	Manual
Measurement Range	-20°C~+120°C
Measurement Accuracy	±2% or ±2°C
Overall Device	
Measurement Mode	Center point/Hot and cold spot tracking and temperature display
Customized measurement on points, lines, and areas	Movable points/lines/areas; up to 10 points, 10 areas, and 10 lines
Measurement Unit	Celsius, Fahrenheit, Kelvin
Emissivity	0.01~1.00, step size 0.01
Ambient Temperature	-10°C~+50°C, step size 1°C
Distance Settings	1~20m, step size 1m
Image Mode	Infrared, visible light, dual-spectrum fusion, PIP
Palettes	10
Temperature Alarm	Available
Alarm Type	Image Alarm
Temperature Width Stretch	Manual/Auto temperature range
Laser Pointer	Available
Visible Light Camera	5 megapixels
Video/Photo Storage	XX-IR.jpg (Infrared image with temperature data) and XX-DC.jpg (visible-light image); videos without data.
Voice Note	Available
Language	English, Japanese, Poland, Russian, Korean, Hungarian, Bap, German, French, Spain, Italy, Turkey, and Traditional Chinese
Display Size	3.5-inch touch screen (480×640)
Image Naming	Auto/manual naming, naming by scanning QR code
Memory Card	Standard 32GB Micro SD card
Battery Type	Rechargeable and detachable lithium-ion battery
Power Interface	USB TypeC
Connecting Method	USB, SD card, Wi-Fi (AP mode or networking mode)
Charging Time	About 3h
Battery Life	About 3h
Power Management	Automatic shutdown: 5 minutes, 10 minutes, 20 minutes, never
Others	
Analysis Software	PC & App
Tripod Support	Available
Operating Temperature	-10°C~+50°C
Storage Temperature	-20°C~+60°C
Relative Humidity	10%~95%, non-condensing
Drop Protection	2m
IP Grade	IP54(IEC 60529)
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Dimensions	256.4×105.1×105.3(mm)
Weight	About 670g
Authentication	CE/ROHS, etc.
Packing List	5V 3A power adaptor, USB cable, SD card, battery ×2, Quick Start Guide, battery charger, calibration certificate, package list

Applications

Petrochemical

Emergency Response and Environmental Protection

Cold-Chain and Cold Storage

Oil Exploitation

RG600F
OGI Handheld Camera

Using an uncooled VOx detector featuring high spatial resolution and high sensitivity, powered by infrared thermal imaging technology, RG600F enables non-contact, visual leak location for dozens of gases such as ammonia (NH_3) and sulfur hexafluoride (SF_6), in addition to daily temperature measurement needs. This series are ideal for gas security, emission management, and equipment maintenance in industries such as oil and gas, petrochemical, environmental protection, emergency response and electric utilities.

Product Highlights

Customized Filter Detector for Clearer Images

- Equipped with a 640×512 customized band-pass filter detector to eliminate stray light interference; capable of distinguishing a temperature difference of 0.023°C, capturing gas microleakage.
- Spatial resolution as low as 0.63mrad, providing wider working distances or better gas details

Versatile, Which is the Best Helper for Routine Inspections

- 1.Simultaneous observation of thermal imaging and visible light to easily locate gas leaks.
- High accuracy of temperature measurement, easy to meet the dual tasks of gas leakage detection and temperature measurement.
- 3.5-inch touch screen+ complete analysis functions, easy to facilitate routine inspection tasks.

IIC T4 Explosive-Proof, Safe and Reliable

- Ex ic IIC T4 explosive-proof rated, suitable for security applications in explosive-proof application such as oil and natural gas routine inspections.

Specifications

Thermal Imaging Parameters	
Detector Type	Uncooled infrared detector
Infrared Resolution	640×512
Spectral Band	Central wavelength 10.55μm
Gases Detectable	Sulfur hexafluoride, ammonia, ethylene, vinyl ether, vinyl chloride, trichloroethylene, methyl vinyl ketone, propylene,acrolein, acrylonitrile, ethyl cyanoacrylate, allyl fluoride, allyl chloride, allyl bromide, furan, etc.
Pixel Size	12μm
Thermal Sensitivity (NETD)	23mK
Spatial Resolution (IFOV)	0.63mrad
Frame Rate	30Hz
Focal Length	19mm
FOV	23°×18°
Focus Mode	Manual
Measurement Range	-20°C~+120°C
Measurement Accuracy	±2% or ±2°C
Overall Device	
Measurement Mode	Center point/Hot and cold spot tracking and temperature display
Customized measurement on points, lines, and areas	Movable points/lines/areas; up to 10 points, 10 areas, and 10 lines
Measurement Unit	Celsius, Fahrenheit, Kelvin
Emissivity	0.01~1.00, step size 0.01
Ambient Temperature	-10°C~+50°C, step size 1°C
Distance Settings	1~20m, step size 1m
Image Mode	Infrared, visible light, dual-spectrum fusion, PIP
Palettes	10
Temperature Alarm	Available
Alarm Type	Image Alarm
Temperature Width Stretch	Manual/Auto temperature range
Laser Pointer	Available
Visible Light Camera	5 megapixels
Video/Photo Storage	XX-IR.jpg (Infrared image with temperature data) and XX-DC.jpg (visible-light image); videos without data.
Voice Note	Available
Language	English, Japanese, Poland, Russian, Korean, Hungarian, Bap, German, French, Spain, Italy, Turkey, and Traditional Chinese
Display Size	3.5-inch touch screen (480×640)
Image Naming	Auto/manual naming, naming by scanning QR code
Memory Card	Standard 32GB Micro SD card
Battery Type	Rechargeable and detachable lithium-ion battery
Power Interface	USB TypeC
Connecting Method	USB, SD card, Wi-Fi (AP mode or networking mode)
Charging Time	About 3h
Battery Life	About 3h
Power Management	Automatic shutdown: 5 minutes, 10 minutes, 20 minutes, never
Others	
Analysis Software	PC & App
Tripod Support	Available
Operating Temperature	-10°C~+50°C
Storage Temperature	-20°C~+60°C
Relative Humidity	10%~95%, non-condensing
Drop Protection	2m
IP Grade	IP54(IEC 60529)
Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
Dimensions	256.4×105.1×105.3(mm)
Weight	About 670g
Authentication	CE/ROHS, etc.
Packing List	5V 3A power adaptor, USB cable, SD card, battery ×2, Quick Start Guide, battery charger, calibration certificate, package list

Applications

Petrochemical

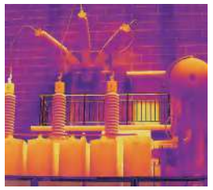
Emergency Response and Environmental Protection

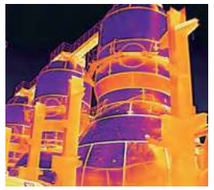
Electric Power and Energy

Oil Exploitation

ATR31
Motorized Focusing Thermal Camera

ATR31 is a high-performance and high-accuracy electric-focusing thermal camera with an uncooled infrared FPA detector and multiple lenses choose. The device supports multiple protocols such as RTSP, ONVIF, and GB28181 .Equipping with professional temperature measurement analysis software and SDK that facilitating system integration. Be suitable for temperature monitoring and imaging in electronic circuits, scientific research, industrial automation and other application fields.





Product Highlights

384×288 infrared resolution
Clear images

A frame rate of 50Hz
High-speed data acquisition

-20°C~+550°C Wide measurement range
Suitable for application in multiple scenarios

Gigabit network interface
Real-time transmission of temperature status

Electric focusing
Clear and accurate

Lens Parameters

Model	ATR31				
Focal Length	7.8mm	13mm	15mm	19mm	25mm
FOV	47°×35.6°	29.6°×22°	25°× 18.7°	19.6°×14.7	14.8°×11.1°
Spatial Resolution (IFOV)	2.17mrad	1.3mrad	1.1mrad	0.89mrad	0.68mrad

Specifications

Thermal Imaging Parameters	
Detector	Uncooled VOx detector
Infrared Resolution	384×288
Pixel Pitch	17μm
Spectral Band	8μm~14μm
Thermal Sensitivity (NETD)	<50mK
Temperature Measurement	
Measurement Range	-20°C~+150°C,0°C~550°C
Measurement Accuracy	±2°C or ±2% of readings
Temperature Measurement Correction	Reflected temperature, ambient temperature, atmospheric transmissivity, object emissivity, distance
Measurement Tool	Settings of measurement rules for a total of 12 points, lines and areas, supporting isotherm setting
Temperature Width Stretch	Support temperature width stretch
Image and Video	
Frame Rate	50Hz
Palettes	18 color palettes including black-hot, white-hot, iron red, rainbow, etc.
Video Standards	H.264, H.265
Thermal Image Capture	Support thermal image capture and secondary analysis
Mirroring	Horizontal/Vertical/Diagonal
Digital Zoom	1.0~8.0 continuous zoom (step size: 0.1)
System Interface	
Communication Interface	RJ45, supporting Gigabit network and customized RS485 for Pecol-D protocol
Video Interface	1-channel analog video
Alarm Interface	1-channel alarm output (optional)
Network protocol	TCP, UDP, ICMP, DHCP, RTSP
Interface Protocol	ONVIF, GB28181
Device Specifications	
Operating Temperature	-20°C~+60°C
Power Supply Mode	10~36V DC, POE
Typical Power Consumption	3W
Dimensions	55mm×55mm×110mm
Weight	About 430g

Applications

Electric Device Routine Inspection

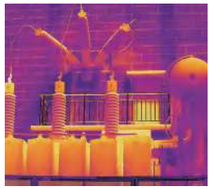
Petrochemical Equipment Monitoring

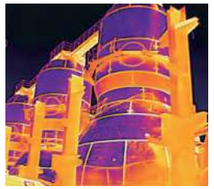
Automatic Control

Scientific Research and Testing & Evaluation

ATR61
Motorized Focusing Thermal Camera

ATR61 is a high-performance and high-accuracy electric-focusing thermal camera with an uncooled infrared FPA detector and multiple lenses choose. The device supports multiple protocols such as RTSP, ONVIF, and GB28181 .Equipping with professional temperature measurement analysis software and SDK that facilitating system integration. Be suitable for temperature monitoring and imaging in electronic circuits, scientific research, industrial automation and other application fields.





Product Highlights

640×512 infrared resolution
Clear images

-20°C to +550°C Wide measurement range
Suitable for application in multiple scenarios

Gigabit network interface
Real-time transmission of temperature status

Multiple protocols such as RTSP and ONVIF
Easy for back-end integration

Electric focusing
Clear and accurate

Lens Parameters

Model	ATR61					
Focal Length	7.8mm	13mm	15mm	19mm	25mm	25mm
FOV	54.3°×44°	33.7°×27°	29.4°×23.5°	25.2°×20.3°	22.8°×18.4°	17.6°×14.1°
Spatial Resolution (IFOV)	1.54mrad	0.92mrad	0.80mrad	0.706mrad	0.63mrad	0.48mrad

Specifications

Thermal Imaging Parameters	
Detector	Uncooled VOx detector
Infrared Resolution	640×512
Pixel Pitch	12μm
Spectral Band	8μm~14μm
Thermal Sensitivity (NETD)	<50mK
Temperature Measurement	
Measurement Range	-20°C~+150°C,0°C~550°C
Measurement Accuracy	±2°C or ±2% of readings
Temperature Measurement Correction	Reflected temperature, ambient temperature, atmospheric transmissivity, object emissivity, distance
Measurement Tool	Settings of measurement rules for a total of 12 points, lines and areas, supporting isotherm setting
Temperature Width Stretch	Support temperature width stretch
Image and Video	
Frame Rate	25Hz
Palettes	18 color palettes including black-hot, white-hot, iron red, rainbow, etc.
Video Standards	H.264, H.265
Thermal Image Capture	Support thermal image capture and secondary analysis
Mirroring	Horizontal/Vertical/Diagonal
Digital Zoom	1.0~8.0 continuous zoom (step size: 0.1)
System Interface	
Communication Interface	RJ45, supporting Gigabit network and customized RS485 for Pecol-D protocol
Video Interface	1-channel analog video
Alarm Interface	1-channel alarm output (optional)
Network protocol	TCP, UDP, ICMP, DHCP, RTSP
Interface Protocol	ONVIF, GB28181
Device Specifications	
Operating Temperature	-20°C~+60°C
Power Supply Mode	10~36V DC, POE
Typical Power Consumption	3.3W
Dimensions	55mm×55mm×110mm
Weight	About 430g

Applications


Electric Device Routine Inspection

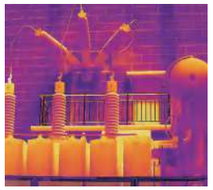

Electronic Circuit

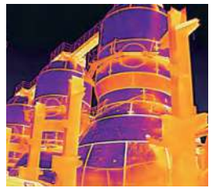

Automatic Control


Scientific Research and Testing & Evaluation

ATR1280
HD Online Thermal Camera

ATR1280 is a high-definition, high-performance electric-focusing temperature measurement thermal camera equipped with a 1280×1024 high-resolution infrared detector and an electric focusing lens, ensuring clear images and precise temperature measurements. It supports the GigE protocol and outputs high-speed video streams. With professional thermographic analysis software, the device can meet the application requirements of high-definition images and accurate temperature measurement in education and scientific research, industrial automation, and other fields.





Product Highlights

1280×1024 infrared resolution
Clear images

GigE image stream
High-speed data transmission

-20°C to +550°C Wide measurement range
Suitable for application in multiple scenarios

NETD＜50mK
Distinguish minute temperature differences

Electric focusing
Clear and accurate

Lens Parameters

Model	ATR1280	
Focal Length	19mm	35mm
FOV	44°×35.8°	25°×20°
Spatial Resolution (IFOV)	0.63mrad	0.34mrad

Specifications

Thermal Imaging Parameters	
Detector	Uncooled VOx detector
Infrared Resolution	1280×1024
Pixel Pitch	12μm
Spectral Band	8μm~14μm
Thermal Sensitivity (NETD)	<50mK
Temperature Measurement	
Measurement Range	-20°C~+150°C,0°C~550°C
Measurement Accuracy	±2°C or ±2% of readings,
Temperature Measurement Correction	Reflected temperature, ambient temperature, atmospheric transmissivity, object emissivity, distance
Measurement Tool	Settings of measurement rules for a total of 12 points, lines and areas, supporting isotherm setting
Temperature Width Stretch	Support temperature width stretch
Image and Video	
Frame Rate	15Hz
Palettes	18 color palettes including black-hot, white-hot, iron red, rainbow, etc.
Thermal Image Capture	Support thermal image capture and secondary analysis
Mirroring	Horizontal/Vertical/Diagonal
Digital Zoom	1.0~8.0 continuous zoom (step size: 0.1)
System Interface	
Communication Interface	RJ45, supporting Gigabit network; 1-channel RS485, supporting Pelco-D protocol expansion (optional)
Network protocol	TCP, UDP, ICMP, DHCP
Interface Protocol	GigE Vision
Device Specifications	
Operating Temperature	-20°C~+60°C
Power Supply Mode	6~16V DC
Typical Power Consumption	4.5W
Dimensions	70mm×63mm×143mm (with 19mm lens)
Weight	About 725g (with 19mm lens)

Applications


Electronic Circuit

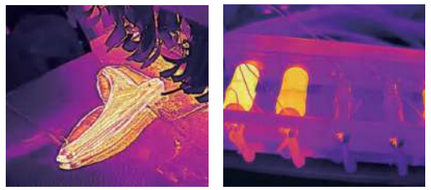

Automation


Electric Power


Machine Vision

TN430
Online Temperature Measurement Thermal Camera

TN430 is a high-performance and high-accuracy thermal camera with an uncooled infrared FPA detector. It can provide clear infrared images and accurate temperature measurement. TN460 supports multiple communication protocols such as Modbus TCP ,Onvif and GB28181. Featuring compact dimension and low power consumption,is easy for system integrations in machine vision, electric power, new energy, industrial automation, and other scenarios.



Product Highlights

384×288 infrared resolution

Clear images

A frame rate of 50Hz

Synchronous transmission of temperature data and image data

-20°C to +650°C Wide measurement range

Suitable for application in multiple scenarios

Compact size and multiple lenses option

Convenient for integrated design

Multiple protocols and interfaces

Easy for back-end integration

Lens Parameters

Model	TN430			
Focal Length	4.1mm	9.1mm	13mm	25mm
FOV	62.1°×47.2°	29.1°×21.7°	19.7°×14.9°	10.4°×7.8°
Spatial Resolution (IFOV)	2.93mrad	1.32mrad	0.92mrad	0.48mrad

Specifications

Thermal Imaging Parameters	
Detector	Uncooled VOx detector
Infrared Resolution	384×288
Pixel Pitch	12μm
Spectral Band	7.5μm~14μm
Thermal Sensitivity (NETD)	⩽40mK
Temperature Measurement	
Measurement Range	-20°C~+150°C, 0~650°C
Measurement Accuracy	±2°C or ±2% of readings
Temperature Measurement Correction	Reflected temperature, ambient temperature, atmospheric transmissivity, object emissivity, distance
Measurement Tool	Settings of measurement rules for a total of 12 points, 12 lines, and 12 areas,support isotherm setting
Temperature Width Stretch	Support temperature width stretch
Image and Video	
Frame Rate	50Hz
Palettes	20 color palettes including black-hot, white-hot, iron red, rainbow, etc.
Video Standards	H.264, H.265
Thermal Image Capture	Support thermal image capture and secondary analysis
Mirroring	Horizontal/Vertical/Diagonal
Digital Zoom	1.0~8.0 continuous zoom (step size: 0.1)
System Interface	
Communication Interface	RJ45, supporting Gigabit network; 1-channel RS485, supporting Pelco-D protocol expansion (optional)
Audio Interface	1-channel audio input, 1-channel audio output
Video Interface	1-channel analog video
Alarm Interface	1-channel alarm input, 1-channel alarm output
Storage Interface	Support TF card
Network Protocol	IPv4, HTTP, HTTPS, SMTP, FTP, UPnP, DNS, DDNS, NTP, RTCP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP
Interface Protocol	Modbus TCP, ONVIF, GB28181, MQTT
Device Specifications	
Operating Temperature	-40°C~+70°C
Power Supply Mode	9V-15V DC, optional POE power supply
Typical Power Consumption	2.4W
Dimensions	45mm×44mm×60mm (without lens)
Weight	About 110g (without lens)

Applications

Machine Vision

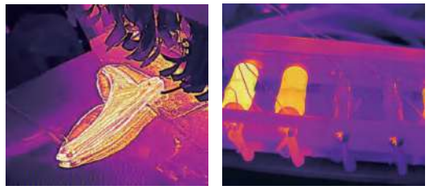
Industrial Automation

Electric Routine Inspection

Rail Transportation

TN460
Fixed-mount Thermal Camera

TN460 is a high-performance and high-accuracy thermal camera with an uncooled infrared FPA detector. It can provide clear infrared images and accurate temperature measurement. TN460 supports multiple communication protocols such as Modbus TCP ,Onvif and GB28181. Featuring compact dimension and low power consumption,is easy for system integrations in machine vision, electric power, new energy, industrial automation, and other scenarios.



Product Highlights

640×512 infrared resolution

Clear images

A frame rate of 50Hz

Synchronous transmission of temperature data and image data

-20°C to +650°C Wide measurement range

Suitable for application in multiple scenarios

Compact size and multiple lenses option

Convenient for integrated design

Multiple protocols and interfaces

Easy for back-end integration

Lens Parameters

Model	TN460			
Focal Length	4.1mm	9.1mm	13mm	25mm
FOV	100°×81°	48.6°×38.6°	32.9°×26.6°	17°×14°
Spatial Resolution (IFOV)	2.93mrad	1.32mrad	0.92mrad	0.48mrad

Specifications

Thermal Imaging Parameters	
Detector	Uncooled VOx detector
Infrared Resolution	640×512
Pixel Pitch	12μm
Spectral Band	7.5μm~14μm
Thermal Sensitivity (NETD)	⩽40mK
Temperature Measurement	
Measurement Range	-20°C~+150°C, 0~650°C
Measurement Accuracy	±2°C or ±2% of readings
Temperature Measurement Correction	Reflected temperature, ambient temperature, atmospheric transmissivity, object emissivity, distance
Measurement Tool	Settings of measurement rules for a total of 12 points, 12 lines, and 12 areas,support isotherm setting
Temperature Width Stretch	Support temperature width stretch
Image and Video	
Frame Rate	25Hz
Palettes	20 color palettes including black-hot, white-hot, iron red, rainbow, etc.
Video Standards	H.264, H.265
Thermal Image Capture	Support thermal image capture and secondary analysis
Mirroring	Horizontal/Vertical/Diagonal
Digital Zoom	1.0~8.0 continuous zoom (step size: 0.1)
System Interface	
Communication Interface	RJ45, supporting Gigabit network; 1-channel RS485, supporting Pelco-D protocol expansion (optional)
Audio Interface	1-channel audio input, 1-channel audio output
Video Interface	1-channel analog video
Alarm Interface	1-channel alarm input, 1-channel alarm output
Storage Interface	Support TF card
Network Protocol	IPv4, HTTP, HTTPS, SMTP, FTP, UPnP, DNS, DDNS, NTP, RTCP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP
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Applications

Machine Vision

Industrial Automation

Electric Routine Inspection

Rail Transportation

Sales Network

Exported to **100+** countries and regions

Asia Europe North America South America Oceania Africa