SP SERIES
PRODUCTS INTRODUCTION

NEW

SP40, SP40H, SP60, SP60H,SP120H

BATTERY 2 YEARS

FULL PRODUCT 3 YEARS

DETECTOR 10 YEARS

CONTENTS

HIKMICRO

01.

Product Overview

Naming Rules

HIKMICRO

SP 4 0 H - L19

Product Series

G: G Series
SP: SP Series

Resolution

4: 480×360
6: 640×512
12： 1280×1024

Generation

Default/0: 1st Gen.
1: 2nd Gen.

Extended Features

H: High Temp. Series
W: Wide FOV
L: Thermal only

Interchangeable lens

L50: 50 Degree Lens
L25: 25 Degree Lens
L12: 12 Degree Lens
L8: 8 Degree Lens
L37: 50 Degree Lens
L19: 37 Degree Lens
L9: 12 Degree Lens
L6: 8 Degree Lens

SP40/SP40H

SP60/SP60H/SP120H

Product Overview

HIKMICRO

Basic Parameters	SP40	SP40H	SP60	SP60H	SP120H
IR Resolution	480 × 360 (172,800 pixels)	480 × 360 (172,800 pixels)	640 × 480 (307,200 pixels)	640 × 480 (307,200 pixels)	1280 x 1024 (1 310 720 pixels)
SuperIR	960 x 720 (691,200 pixels)	960 x 720 (691,200 pixels)	1280 x 960 (1,228,800 pixels)	1280 x 960 (1,228,800 pixels)	2560 × 2048 (5,242,880 pixels)
NETD	< 30 mK (@ 25 °C, F#=1.0)				< 20mK (@ 25 °C, F#=1.0)
Image Frequency	25 Hz				30Hz
Focal Length	25 mm	25 mm	25 mm	25 mm	35 mm
Field of View (FOV)	18.7° × 14°	18.7° × 14°	24.8° × 18.7°	24.8° × 18.7°	25° × 20°
Spatial Resolution (IFOV)	1.13 mrad	0.68 mrad	0.68 mrad	0.68 mrad	0.34 mrad
Focus Mode	Laser Assisted AF/Continuous AF/AF/Manual Focus/Touch AF				
Focus Speed	Approx. 1 second				
Visual Camera	3264 × 2448 (8 MP)				4208 × 3120 (13 MP)
Digital Zoom	1.x to 12.x continuous				
Object Temperature Rang	-20 °C to 650 °C (-4 °F to 1202 °F)	-40°C to 2200°C (-4°F to 3992°F)	-20 °C to 650 °C (-4 °F to 1202 °F)	-40°C to 2200°C (-4°F to 3992°F)	-40°C to 2200°C (-40°F to 3992°F)
Accuracy	Max. (± 2°C/3.6°F, ± 2%)	±1°C (±1.8°F): 0 to 100°C (32 to 212°F); ±1%: 100 to 150°C (212 to 302°F); ±2° C (±3.6°F): -40 to 0°C (-40 to 32°F); ±2%: 150 to 220 0°C (302 to 3992°F)	Max. (± 2°C/3.6°F, ± 2%)	±1°C (±1.8°F): 0 to 100°C (32 to 212°F); ±1%: 100 t o 150°C (212 to 302°F); ± 2°C (±3.6°F): -40 to 0°C (- 40 to 32°F); ±2%: 150 to 2200°C (302 to 3992°F)	Max. (± 2°C/3.6°F, ± 2%)
Viewfinder	N/A	N/A	Yes	Yes	Yes
HDMI Interface	Yes				
GPS & Compass	Yes				

SP40/SP40H

SP60/SP60H

SP120H

SP Series - Callouts

SP Series - Packing Lists

- Thermal Imager
- Hand Strap
- Neck Strap
- Rubber Viewfinder Cap (SP60/60H Only)
- Camera Lens Caps
- Dismountable and Rechargeable Li-ion Batteries (x2)
- Power Supply for Battery Charger
- Two-bay Battery Charger
- International Use Plugs (US/EU/UK/AU) for Power Supply
- USB 2.0 A to USB Type-C Cable
- Mini HDMI to HDMI Cable
- USB Type-C Cable to USB Type-C Cable
- Hard Carrying Case
- Calibration Certificate
- Quick Start Guide
- 64GB Micro SD card

SP Series - Optional

Lenses

HM-SP650-MACRO

SP40/SP40H: 9.9 mm x 7.48 mm
SP60/SP60H: 13.02mm x 9.9mm

HM-SP605-LENS

SP40/SP40H: 37.3°(H) x 27.8°(V)
SP60/SP60H: 50°(H) x 37.3°(V)

HM-SP620-MACRO

SP40/SP40H: 23.4 mm x 17.44 mm
SP60/SP60H: 31.54mm x 23.4mm

HM-SP610-LENS

SP40/SP40H: 18.7°(H) x 14°(V)
SP60/SP60H: 24.8°(H) x 18.7°(V)

HM-SP620-LENS

SP40/SP40H: 9°(H) x 6.8°(V)
SP60/SP60H: 12°(H) x 9°(V)

HM-SP630-LENS

SP40/SP40H: 6°(H) x 4.5°(V)
SP60/SP60H: 8°(H) x 6°(V)

Accessories

Pouch

(HM-SP01-POUCH)

- 100% Polyester
- 27.5 cm c 13 cm × 21 cm (10.8” × 5.1” × 8.3”)

Replacement Battery

(HM-7250DC(O-STD))

- 4800 mAh, 7.2 V

Replacement 2-Bay Battery Charger

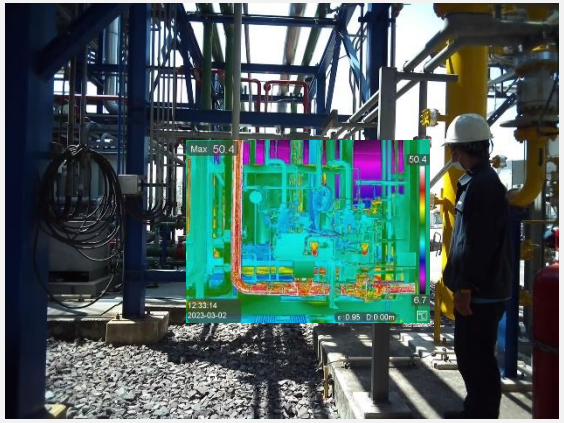
(HM-20322ZC)

- Input 100~240 V / 1.6 A
- Output 20 V / 3.25 A

The SP series comes with two batteries in the box, and optional batteries are also available

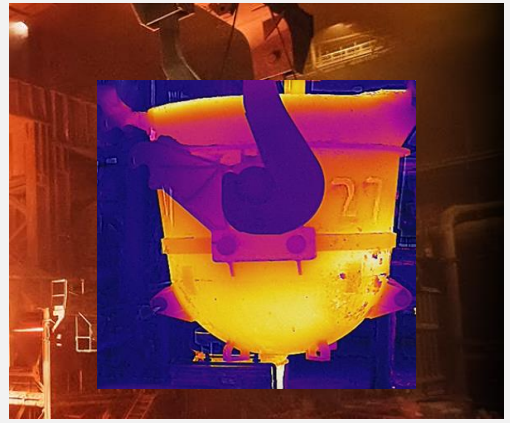
SP Series - Application Scenarios

Electric Utilities



Facility Maintenance

Manufacturing



Kilns

- Building Professionals/ Inspectors/ Engineers/ Researchers/ Facility Maintenance Personnel

02.

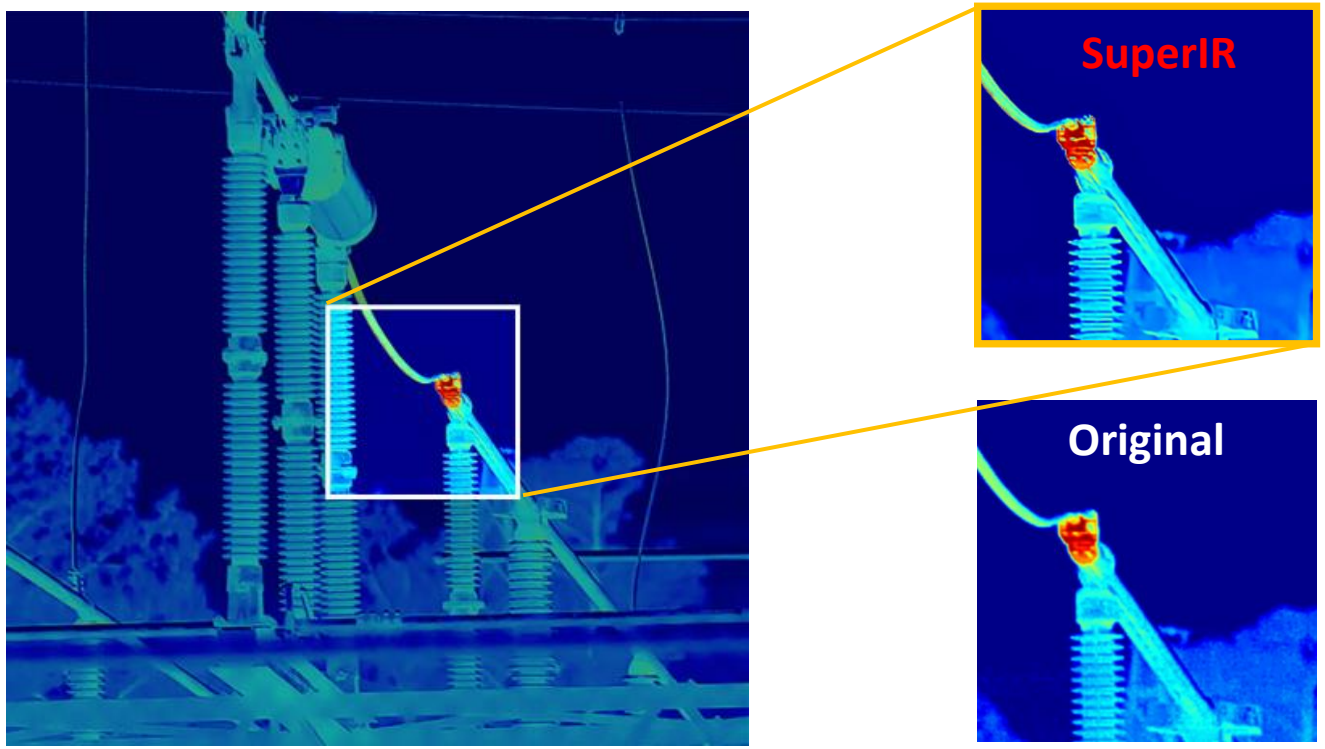
Key Features

SP Series - Ultra-high performance

SuperIR

Powered by HIKMICRO SuperIR image enhancement technology, it upscales thermal images from 640 × 480 (307,200 pixels) to 1280 x 960 (1,228,800 pixels)resolution when viewing live with 25 Hz fast image frequency and capturing photos.

High-quality image quality to enhance user experience. Clear images allow users to find equipment faults more accurately, increased resolution and sharper images for better inspections.



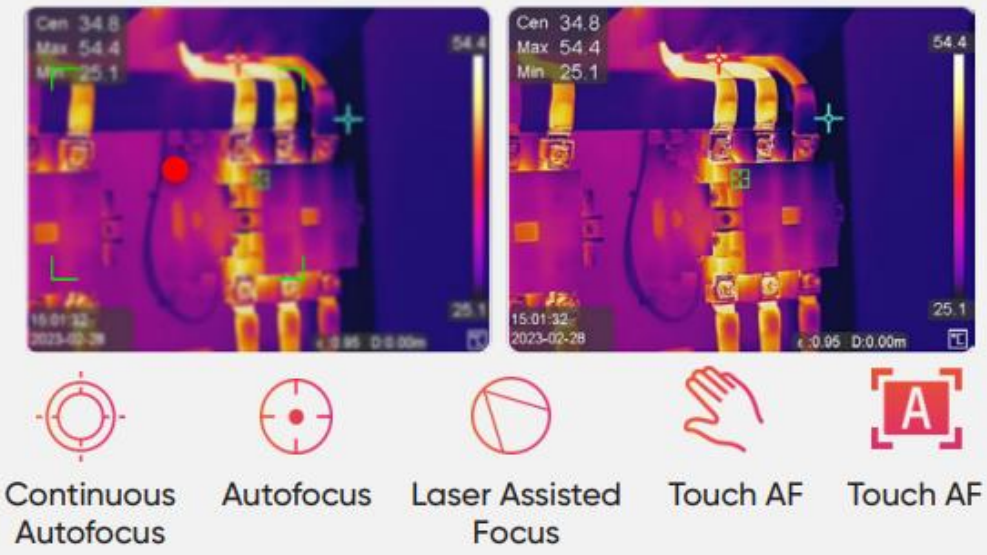
* Above images captured by SP60

SP Series - Ultra-high performance

One-second fast focusing

Support for 5 focus modes (Laser-Assisted AF, Continuous AF, AF, Manual Focus, Touch AF) with a fast focus speed of 1 second to match your workflow, optimize image clarity, and ensure measurement accuracy.

One-second fast focusing allow users won't be limited by the scene, no matter whether large area scanning or complex machinery system, can quickly complete the inspection work.



- **Laser Assisted AF**: For complex devices, the laser will accurately select the measurement area for you.
- **Continuous AF**: Quickly scan the area to improve efficiency.
- **AF**: New upgrade of fast focus, faster to find the location of the problem.
- **Manual Focus**: Not limited by distance.
- **Touch AF**: Supports focusing in five different areas of the screen for more accurate focus on the target.

SP Series - Maximum Flexibility

Flexible Rotating Lens and Screen

The 90° rotating screen and the 180° rotating lens design help to easily view the area around, between, above, or below the target. Keeping a safe distance allows for equally flexible inspections.

SP Series - Maximum Flexibility

Designed for Outdoors

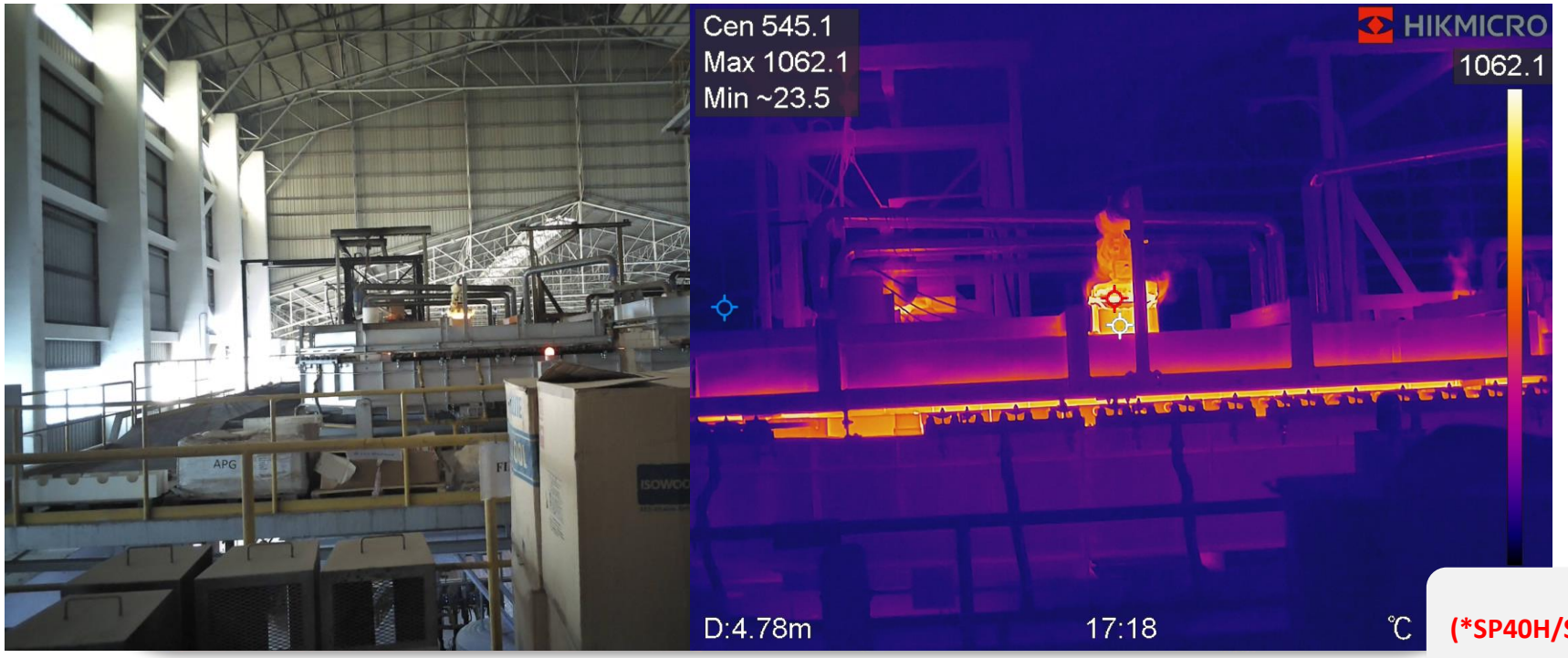
Features IP54 rugged housing, 1024 x 768 OLED electronic viewfinder, and auto-brightness 5“ color LCD touch display make it easy to conduct outdoor inspections under bright, challenging light and tough conditions. (*SP60/SP60H)

- **SP60/SP60H only**

SP Series – Ultra High Temperature

Up to 2200°C Temperature Range

With a measurement range of up to 2200°C (3992°F), it can handle industrial furnace applications, refractory, and inspecting tools/fixtures in metal smelting at these extreme temperatures. The higher temperature range makes it perform well in high-temperature, and can be detected in harsh industrial environments to help work smoothly.



(*SP40H/SP60H only)

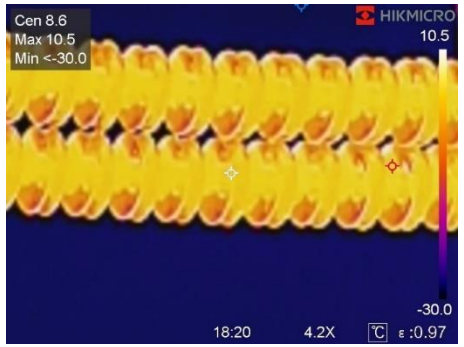
SP Series – Extensive Range of Interchangeable Lenses

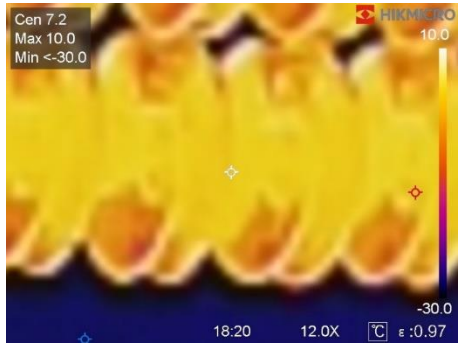
Interchangeable lenses allow you to pick the field of view for your inspections. Different lenses have different fields of view, giving you more options for different scenarios to see and capture more detailed images and to measure small problems more accurately

	HM-SP630-LENS	HM-SP620-LENS	HM-SP610-LENS	HM-SP605-LENS	HM-SP620-MACRO	HM-SP650-MACRO
Focal Length	77.4 mm（0.25 ft）	51.4 mm（0.16 ft）	25 mm（0.08 ft）	12.6 mm（0.04 ft）	31.6 mm（0.11 ft）	18.8 mm（0.06 ft）
FOV (Field of View)	SP40/SP40H: 6°(H) x 4.5°(V) SP60/SP60H: 8°(H) x 6°(V)	SP40/SP40H: 9°(H) x 6.8°(V) SP60/SP60H: 12°(H) x 9°(V)	SP40/SP40H: 18.7°(H) x 14°(V) SP60/SP60H: 24.8°(H) x 18.7°(V)	SP40/SP40H: 37.3°(H) x 27.8°(V) SP60/SP60H: 50°(H) x 37.3°(V)	SP40/SP40H: 9.9 mm x 7.48 mm SP60/SP60H: 13.02mm x 9.9mm	SP40/SP40H: 23.4 mm x 17.44 mm SP60/SP60H: 31.54mm x 23.4mm
IFOV	0.22 mrad	0.33 mrad	0.68 mrad	1.35 mrad	20 μm/pixel	50 μm/pixel
Min. Target Size for Imaging	N/A	N/A	N/A	N/A	20 μm	50 μm

SP Series – Continuous Digital Zoom

1.0x to 12.0x continuous digital zoom provides more image details.

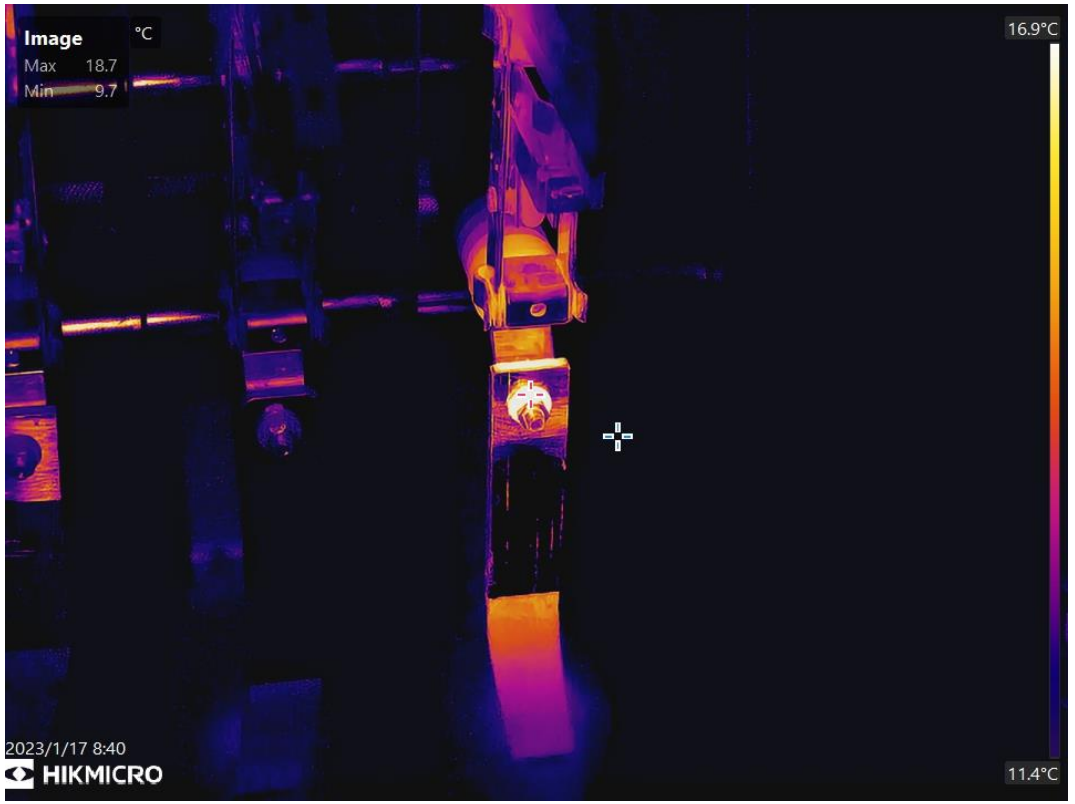




SP Series – 1-Tap Level & Span

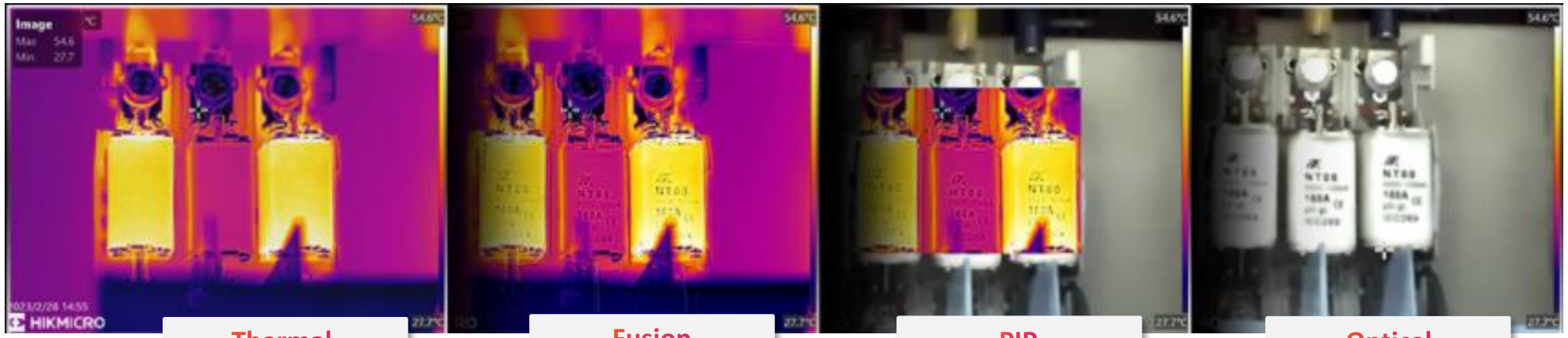
Supports 3-level/span modes (manual, automatic, and 1-Tap) to help to instantly improve image contrast and highlight potential problems.

1-Tap



SP Series – 5 Image Mode

Thermal, Fusion, PIP, Blending and Optical modes to suit your preferred.



NEW

Blending

SP Series – Key Features

Complete Image Annotations

In addition to supporting voice, text and QR Code Scan annotations, GPS and compass functions automatically add location and direction information to the image, helping to improve inspection efficiency and productivity.

Embedded Laser Distance Meter

An integrated laser distance meter provides accurate distance and area measurement from long distances, more convenient in setting parameters and generating the report.

SP Series – Key Features

Interchangeable Battery System

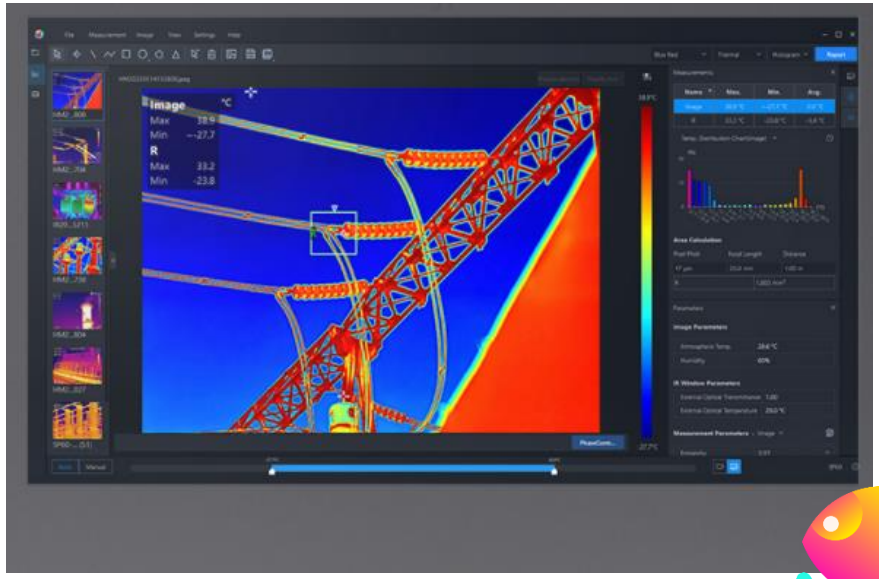
Includes 2 interchangeable Li-ion batteries and a dual bay charger to provide you with up to 8 hours of operation. You can stay powered up for even the longest inspections.

8 Hours
(4 hours x 2)

4 International Use Plugs
(US/EU/UK/AU) for Power Supply

Radiometric Video Analysis

Supports recording of radiometric video in-camera SD card storage, including all temperature data, for post analysis on PC software. Works seamlessly with HIKMICRO Analyzer software for intuitive viewing, advanced analysis, and processing of thermal data.



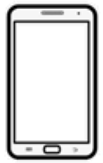
HIKMICRO

03.

Software and Applications

HIKMICRO Analyzer

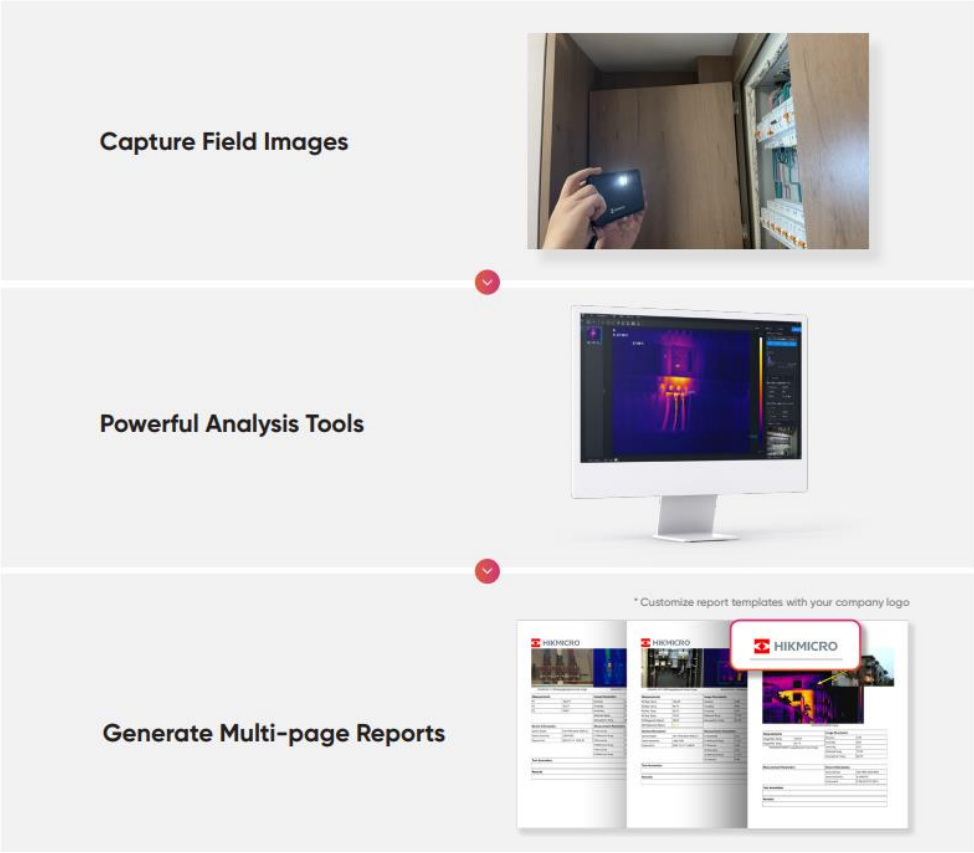
HIKMICRO Viewer



Software - HIKMICRO Analyzer

EFFICIENT, POWERFUL THERMAL ANALYSIS AND REPORTING

HIKMICRO Analyzer is a powerful and free licensed PC software designed to help users manage and analyze thousands of thermal images and videos and quickly create professional reports. Compatible with files from HIKMICRO handheld thermal cameras, providing the features you need to simplify your workflow and increase your productivity.

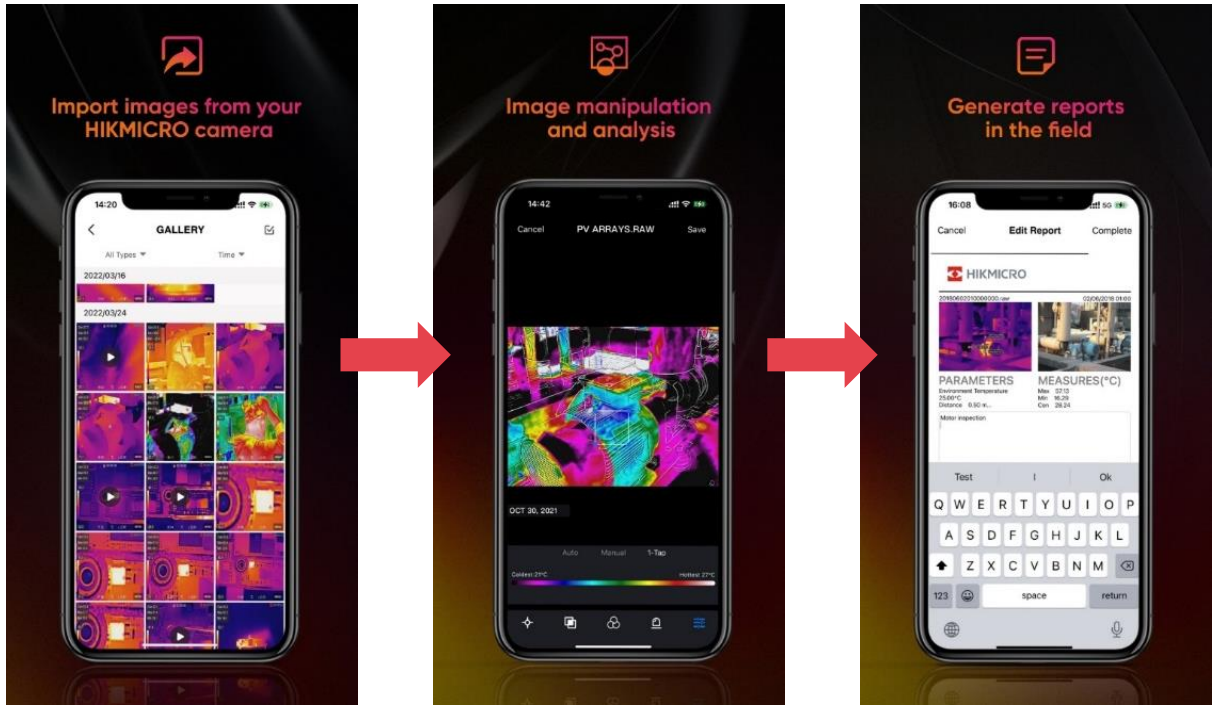


- Free license
- Import, edit and manage files
- View, edit and analysis radiometric images and videos
- Advanced measurement and image analysis
- Batch processing with all image and measurement controls
- Quick reporting with pre-defined or customized templates

Applications - HIKMICRO Viewer

WIRELESS ANALYSIS, REPORTING AND SHARING

The HIKMICRO Viewer is a powerful and intuitive mobile application designed to help users wirelessly stream video, analyze thermal images and video, quickly create reports and share with customers and coworkers in the field. It allows you to import stored files from the camera to the mobile device. Use the app to thermally adjust levels and spans with one touch, change color palettes, adjust parameters, and more.



- Free license
- Screen Stream Mirroring
- Import images and videos from camera
- Advanced measurement and image analysis
- Quick reporting and sharing
- After-sales contacts and online support services

GET IT ON Google Play

Download on the App Store

Download at:
https://www.hikmicrotech.com/en/product-c-detail/19

04.

Competition

SP40/SP40H Comparison (Internal Use Only)

HIKMICRO

Contrast Item	HIKMICRO SP40/40H	Flir T530	Flir T540
Image			
IR Resolution	480 × 360 (172,800 pixels)	320 × 240	464 × 348
SuperIR	960 x 720 (691,200 pixels)	Quadruples pixel count; activated in menu and processed in FLIR Tools	Quadruples pixel count; activated in menu and processed in FLIR Tools
Object Temperature Range	SP40:-20 °C to 650 °C SP40H:-40°C to 2200°C	-20°C to 650°C Optional Calibration: 300°C to 1200°C	–20 to 1500°C
Accuracy	SP40: Max (±2 °C, ±2%) SP40H: ±1°C (±1.8°F): 0 to 100°C (32 to 212°F); ±1%: 100 to 150°C (212 to 302°F); ±2°C (±3.6°F): -40 to 0°C (-40 to 32°F); ±2%: 150 to 2200°C (302 to 3992°F)	±2°C or ±2% of reading	±2°C or ±2% of reading
Field of View	L6: 6° H x 4.5° V L9: 9° H x 6.8° V L19: 18.7° H x 14° V L37: 37.3° H x 27.8° V	42° × 32° 24° × 18° 14° × 10°	42° × 32° 24° × 18° 14° × 10°
Focus Speed	Approx. 1 second	N/A	N/A
Focus Mode	Laser Assisted AF/Continuous AF/AF/Manual Focus/Touch AF	Continuous LDM, one- shot LDM, one-shot contrast, manual	Continuous LDM, one- shot LDM, one-shot contrast, manual
NETD	< 30 mK (@ 25 °C, F#=1.0)	<30 mK, 42° @ 30°C (86°F) <40 mK, 24° @ 30°C (86°F) <50 mK, 14° @ 30°C (86°F)	<30 mK, 42° @ 30°C (86°F) <40 mK, 24° @ 30°C (86°F) <50 mK, 14° @ 30°C (86°F)
Digital Zoom	1–12× continuous	1-4x continuous	1–8× continuous
Lens Rotation	180°	180°	180°
Tilting Screen	90°	N/A	N/A
Display	1280 × 720 resolution 5'' LCD Touch Screen	4", 640 x 480 pixel touchscreen LCD with auto-rotation	4", 640 × 480 pixel touchscreen LCD with auto-rotation
Visual Camera	Max 8MP	5 MP	5 MP
Battery Operating Time	Approx. 4 hours	Approx. 4 hours	Approx. 4 hours
HIKMICRO Advantage	1. SuperIR up to 960 x 720 pixel 2. Fast focus speed of 1 seconds 3. Flexible Rotating Lens and Screen (90° tilting screen and 180° rotating lens) 4. Higher temperature measurement range 5. 5 Focus Mode 6. Wider digital zoom range (1–12× continuous) 7. 3-year coverage on the camera and 10-year coverage for the detector 8. Better Price		

SP60/SP60H Comparison (Internal Use Only)

HIKMICRO

Contrast Item	HIKMICRO SP60	Flir T560	Flir T865	Fluke Tix580
Image				
IR Resolution	640 × 480 (307,200 pixels)	640 × 480	640 × 480	640 x 480
Super IR	1280 x 960 (1,228,800 pixels)	Quadruples pixel count; activated in menu and processed in FLIR Tools	Quadruples pixel count; activated in menu and processed in FLIR reporting software	Captures and combines 4x the data to create a 1280 x 960 image
Object Temperature Range	SP60: -20 °C to 650 °C SP60H: -40°C to 2200°C (-40°F to 3992°F	–20 to 1500°C	-40°C to 2000°C	-20 °C to 1000 °C
Accuracy	SP60: Max (±2 °C, ±2%) SP60H: ±1°C (±1.8°F): 0 to 100°C (32 to 212°F) ±1%: 100 to 150°C (212 to 302°F); ±2°C (±3.6°F): -40 to 0°C (-40 to 32°F) ±2%: 150 to 2200°C (302 to 3992°F)	±2°C or ±2% of reading	±1°C (±1.8°F): 5 to 100°C (41 to 212°F) ±1%: 100 to 120°C (212 to 248°F); ±2°C (±3.6°F): -40 to 100°C (-40 to 212°F) ±2%: 100 to 650°C (212 to 1202°F) 300 to 2000°C (572 to 3632°F)	±2 °C or 2%
viewfinder	1024 x 768 OLED electronic viewfinder	N/A	Yes	N/A
Field of View	L8: 8° H x 6° V L12: 12° H x 9° V L25: 24.8° H x 18.7° V L50: 50.0° H x 37.3° V	42° × 32° 24° × 18° 14° × 10°	42° × 32° 24° × 18° 14° × 10° 6° × 4.5°	Standard: 34 °H x 24 °V 2x: 12 °H x 8.5 °V wide-angle: 48 °H x 34 °V
Focus Speed	Approx. 1 second	N/A	N/A	N/A
Focus Mode	Laser Assisted AF/Continuous AF/AF/Manual Focus/Touch AF	Continuous LDM, One-shot LDM, One-shot contrast, Manual	Continuous LDM, One-shot LDM, One-shot contrast, Manual	LaserSharp Auto Focus; Advanced manual focus
Image Frequency	25 Hz	30 Hz	30 Hz	60 Hz or 9 Hz versions
NETD	30 mK	<30 mK, 42° @ 30°C (86°F) <40 mK, 24° @ 30°C (86°F) <50 mK, 14° @ 30°C (86°F)	<30 mK, 42° <40 mK, 24° <50 mK, 14° & 6°	50 mK
Digital Zoom	1–12× continuous	1–8× continuous	1–8× continuous	2x, 4x, and 8x
Lens Rotation	180°	180°	180°	240 °
Tilting Screen	90°	N/A	N/A	N/A
Display	1280 × 720 resolution 5'' LCD Touch Screen	4", 640 × 480 pixel touchscreen LCD with auto-rotation	4", 640 × 480 pixel touchscreen LCD with auto-rotation	5.7 inch (14.4 cm) landscape 640 x 480 LCD
Visual Camera	Max 8MP	5 Mpixels	5 Mpixels	5 MP
Battery Operating Time	Approx. 4 hours	Approx. 4 hours	Approx. 4 hours	2-3 hours per battery
HIKMICRO Advantage	1. SuperIR up to 1280 x 960 pixel 2. fast focus speed of 1 second 3. Flexible Rotating Lens and Screen (90° tilting screen and 180° rotating lens) 4. viewfinder 5. Higher temperature measurement range 6. 5 Focus Mode 7. Wider digital zoom range (1–12× continuous) 8. 3-year coverage on the camera and 10-year coverage for the detector 9. Better Price			

SP120H Comparison

Contrast Item	HIKMICRO SP120H	Flir T1020	Fotric P9	Guide PT870
Image				
IR Resolution	1280 × 1024 (1,310,720 pixels)	1024 × 768	1280 × 1024	1280 × 1024
Super IR	2560 × 2048 (5,242,880 pixels)	2048 x 1536 (3.1 MP) with UltraMax	Super Resolution：2560 × 2048	Super resolution: 2560 × 2048
Object Temperature Range	-40°C to 2200°C (-40°F to 3992°F)	–40 to 2000°C (–40 to 3632°F)	-20°C to 2000°C	-40 °C to 2500 °C
Accuracy	Max. (± 2°C/3.6°F, ± 2%)	Max(±1°C ,±1%): 5 to 150°C, Max. (± 2°C/3.6°F, ± 2%)others	Max(±1°C ,±1%):0 to 100°C, Max(±2°C (±3.6°F): others	±1°C or ±1%, whichever is greater
viewfinder	1024 × 768 pixels OLED	800 × 480 pixels	800 × 600pixels	1920 × 1080 pixels
Field of View	L8: 7.9° × 6.3° L12: 12° × 9.6° L25: 25° × 20° (standard) L50: 50° × 40°	7° × 5.3° 12° × 9° 28° × 21° (standard) 45° × 34° 52° × 40°	46° x 37° 25° x 20°(standard) 12° x 10° 7° x 6	25°×19°
Focus Speed	Approx. 1 second	N/A	N/A	N/A
Focus Mode	Laser Assisted AF/Continuous AF/AF/Manual Focus/Touch AF	One shot or manual	Continuous/laser distance/graphic contrast/manual	Manual / Automatic / Touch autofocus / Continuous autofocus
Image Frequency	30 Hz	30 Hz	30 Hz	30Hz
NETD	<20 mK @ 30°C (86°F)	<20 mK @ 30°C (86°F)	30mk	25mK
Digital Zoom	1–12× continuous	1–8× continuous	1-32x	1.1x~50x
Lens Rotation	180°	120°	180°	N/A
Tilting Screen	90°	N/A	N/A	N/A
Display	1920 × 1080 Resolution, 5.1" OLED Touch Screen	800 × 480 pixels	1280 x 720 pixels	1920×1080 pixels
Visual Camera	4208 × 3120 (13 MP)	5 Mpixels	5 Mpixels	16MP
Battery Operating Time	Approx. 4 hours	Approx. 2.5 hours	Approx. 2.5 hours	4 hours per battery
1 Level & Span	YES	YES	N/A	N/A
minimal IR focus distance & minimal IR–visual alignment distance	0.3m & 0.4m	0.4m & 0.4m	0.4m & N/A	0.3m & N/A
HIKMICRO Advantage	1. SuperIR up to 2560 × 2048 pixel 2.Higher temperature measurement range 3.viewfinder 4.Fast focus speed of 1 second 5. 5 Focus Mode 6. NETD 7. Flexible Rotating Lens and Screen (90° tilting screen and 180° rotating lens) 8. Larger screen 9.Visual Camera 10. Longer operating Time 11.minimal IR focus distance & minimal IR–visual alignment distance 12. 3-year coverage on the camera and 10-year coverage for the detector 13. Better Price			