



**OMEGA TI-420Series**  
Handheld Thermal Imager



## OMEGA TI-420 Series Handheld Thermal Imager

The OMEGA TI-420 Series of thermal imaging cameras are rugged, durable, accurate and portable, and are capable of current equipment diagnostic tasks. They also pioneered the integration of thermal imaging cameras and mobile phones into thermal imaging data terminals that meet the needs of more application scenarios.

Rugged | Durable | Accurate | Portable

# **Ω OMEGA™ TI-420** **Handheld Thermal Imager**



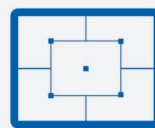
The main use of the thermal imager is to diagnose the potential defect when the device is running online. OMEGA TI-420 series professional thermal imaging cameras are suitable for equipment inspection under severe conditions.



-20~650°C Wide  
Temperature Range



Auto High/Low  
Temperature Spots



5 spots 5 boxes  
Temperature Measurement



On-site Emissivity Set  
on Smartphone



Record Radiometric Video  
on Smartphone



User-Defined  
Temperature Alert

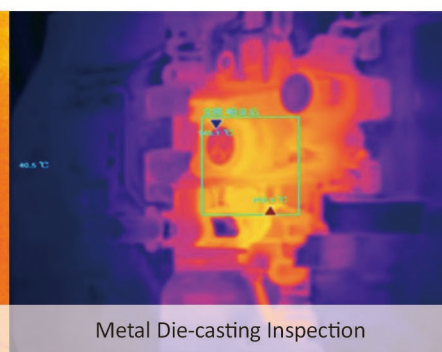
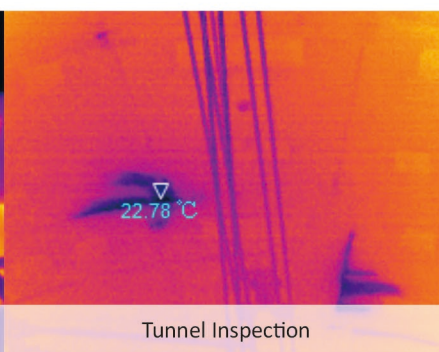
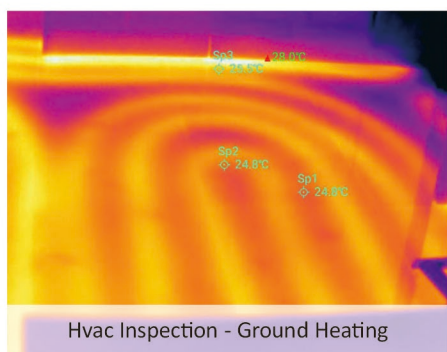
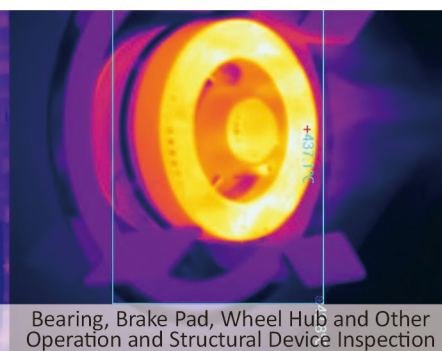
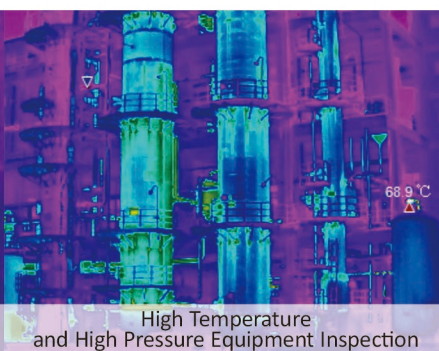
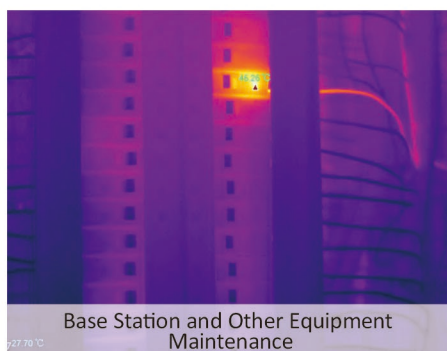
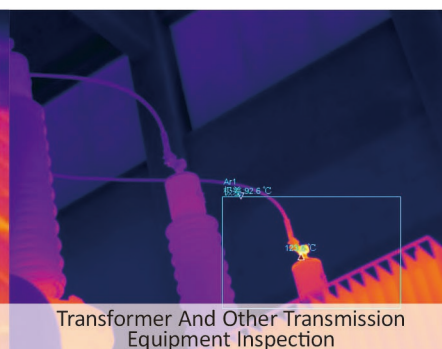
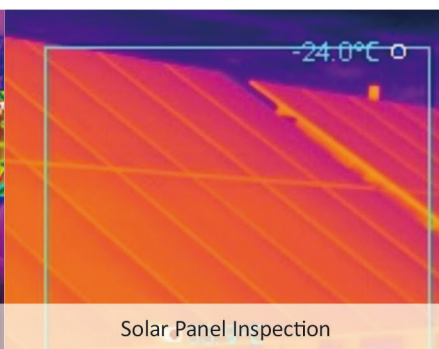
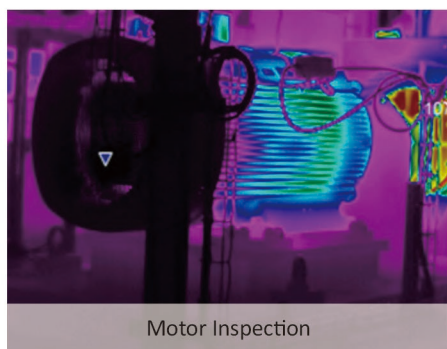
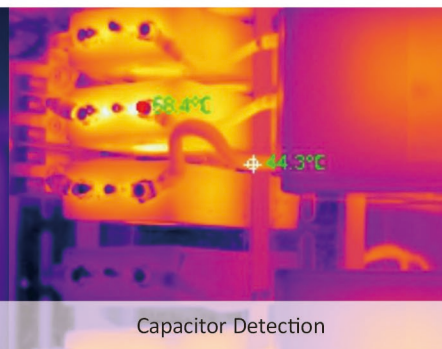
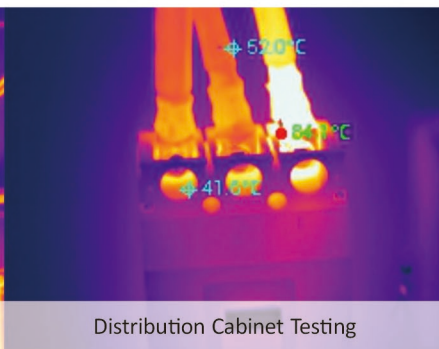


Text and Voice Annotation



Cost-Effective  
Optional Lenses

# Typical Applications



# Specifications

OMEGA TI-426	
<b>Thermal Imaging</b>	
IR Resolution	384×288
Field of View (FOV)	28°×21°
Thermal Sensitivity (NETD)	<0.06°C@30°C
Spatial Resolution (IFOV)	1.27mrad
Digital Zoom	1~8x
Detector Type	Focal Plane Array (FPA) uncooled microbolometer
Spectral Range	8~14μm
Minimum Focus Distance	0.15m
Focus	Manual
<b>Measurement and Analysis</b>	
Temperature Range	-20°C~650°C (-4°F~1,202°F)
Measurement Accuracy	± 2°C or ±2% whichever is greater @ Environment Temperature 10°C ~35°C
Automatic Capture of High and Low Temperature	Support
ROI Measurement Modes	5 moveable area boxes (min/max) 8 moveable spots 1 moveable line (min/max)
Correction Settings	Emissivity, reflected background temperature, relative humidity, ambient temperature, measuring distance, transmission
Emissivity Adjustment	0.01~1.0, or pick up from the built-in material list
<b>Image Display</b>	
Built-in Display Screen	3.5 inch
Display Mode	Thermal image, visible light image, picture-in-picture fusion
Color palette	5 color palette options
Image Consistency Optimization	Automatic noise calibration FFC / Manual noise calibration FFC
<b>Professional Features</b>	
Color Alarm (Isotherm)	Above / Below threshold
Temperature Measurement Alarm	User-defined temperature threshold, audible and visual alarm of above/below temperature threshold
Voice Annotation	60s voice annotation. Save with image.
Text Annotation	Support text annotation. Save with image.
<b>Handheld Thermal Camera with Smartphone</b>	
Take radiometric image on Smartphone	Support
Take fully radiometric Video on Smartphone	Support

OMEGA TI-426	
<b>Battery</b>	
Battery Type	Rechargeable Lithium-ion
Single Battery Use Time	2.5 hours
Auto Shut-off	Support
<b>Storage and Transfer</b>	
Image Save Mode	Single thermal image, Mixed image of thermal and visible light
SD Card	Standard 16G
Data Output	Micro-USB
Video Output	Support, PAL/NTSC composite video
Audio	Support, 3.5mm audio interface
<b>Power Supply and Environment</b>	
Power Interface	DC 12V
Operation Temperature	- 20°C~50°C (-4°F~122°F)
Storage Temperature	- 40°C~70°C (-40°F~158°F)
Relative Humidity	<90% RH
<b>Physical Parameters</b>	
Enclosure Rating	IP54
Weight	1,006g
Size	310mm×130mm×110mm
Warranty	2 Years
Standard Configuration	Thermal imaging camera with standard lens, lens cover, power adapter, battery (2x), SD card, Micro-USB OTG cable (left/right), Micro-USB to USB cable, wrist band, getting started manual (with warranty card and certificate), calibration certificate, rigid portable case

# About OMEGA™

Since its inception in 1962, OMEGA has grown from manufacturing a single product line of thermocouples to an established global leader in the technical marketplace, offering more than 100,000 state-of-the-art products for measurement and control of temperature, humidity, pressure, strain, force, flow, level, pH and conductivity. OMEGA also provides customers with a complete line of data acquisition, electric heating and custom engineered products.

For over four decades our handbooks and e-commerce site have served as valuable reference tools for engineers around the world. And though we are an established direct-marketing pioneer, our people, facilities and superior client services go well beyond the handbooks and high-value articles.

It is our commitment to quality instrumentation and exceptional customer service that has remained the cornerstone of our success. OMEGA's priority is clear. Our facilities exist to "facilitate" solutions to your needs.

Omega Engineering is part of Spectris plc, a leading supplier of productivity-enhancing instrumentation and controls. Headquartered in Egham, Surrey, United Kingdom, Spectris is listed on the London Stock Exchange (LSE: SXS) and had sales of £1,526 million in 2017. The company employs around 10,000 people located in more than 30 countries.

The Company's products, technologies and services help customers to improve product quality and performance, improve core manufacturing processes, reduce downtime and wastage and reduce time to market. Its global customer base spans a diverse range of end-user markets.

Spectris operates across four business segments which reflect the applications and industries it serves: Materials Analysis, Test and Measurement, In-line Instrumentation and Industrial Controls.

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