Specifications

Models	M620
Thermal Module	
Detector Type	Uncooled VOx IRFPA
Detector Resolution	640x512
Spectral range	8-14μm
Pixel pitch	12μm
Thermal sensitivity/NETD	35mK
IFOV	0.63mrad
Frame rate	30Hz*
Focal length	19mm
FOV	23°× 18°
Focus mode	Manual focus
Temperature measurement range	-20 ℃～150 ℃ , 100 ℃～650 ℃
Measurement accuracy	±2% or ±2℃
The Min. measurable temperture difference	0.1℃
Camera Functions	
Measurement mode	Center spot/hot and cold spot tracking and temperature display
Custom temperature measurement tools	Movable spot/line/area temperature measurement, up to 10 spots, 10 areas,10 lines.Temperature trend can be viewed via temperature measurement line.
Temperature measurement unit	Celsius, Fahrenheit, Kelvin
Emissivity settings	0.01-1.00, step length 0.01
Ambient temperature settings	-10~50℃, setp length 1℃
Distance settings	1-20m, setp length 1m
Digital zoom	1×, 2×, 4×, 8×
Image mode	Thermal, dual-spectrum fusion, visible light, PIP
Color palettes	10 kinds
Temperature alarm	Support
Alarm type	Image alarm
Temperature Scale	Auto/Manual
Isotherm	Support custom color palettes settings within a certain temperature range
Temperature video recording	Yes, support frame rate settings between 0.05s and 100s
Smart patrol	Yes, support custom general mode
Laser Pointer	Yes
Digital camera	5MP
Image/video Storage	Jpg images with temperature data in thermal and visible light modes； H.264 videos without temperature data and IRV video with temperature data"
Voice annotation	Yes
Language	English, Polish, Russian, Korean, Hungarian, Brazilian Portuguese, German, French, Spanish, Italian, Turkish, Traditional Chinese
Screen	3.5-inch touch screen (480x640)
Image naming	Auto/manual input, QR code scanning
Memory card	standard 32GB MicroSD card, expandable to 512 GB
Battery type	Rechargeable and detachable Lithium battery
Power interface	USB Type-C
Data Communication Interfaces	USB, WiFi
Charging time	about 3h
Battery operating time	about 4h
Power Management Interfaces	Auto shutdown: 5 minutes, 10 minutes, 20 minutes, off
Image/video Storage	
Analysis software	PC (Infrared analysis software) or mobile (IOS/Android APP)
Tripod mounting interface	1/4"-20-UNC
Operating temperature range	-10~+50℃
Storage temperature range	-20~+60℃
RH	10% ~95%, no condensation
Drop	2m
Encapsulation	IP54(IEC 60529)
Shock &Vibration	Shock 25g(IEC 60068-2-27)；Vibration 2.5g(IEC60068-2-6)
Camera Dimension (LxWxH)	258.4×105.1×102.3mm
Weight	about 683.5g
Standard accessories	5V 3A power adapter(with various plugs to fit global regions), USB cable, SD card, battery×2, QSG, battery charger, calibration certificate, packaging list,hard transport case

*Detector Frame Rate

Authorized InfiRay Distributor:

InfiRay

Tianxuan Series

Handheld Thermal Camera M620

Upgraded 640 core for intelligent display of tiny targets

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·The manual is for illustrative purposes only. The pictures and technical specifications are subject to change without notice.
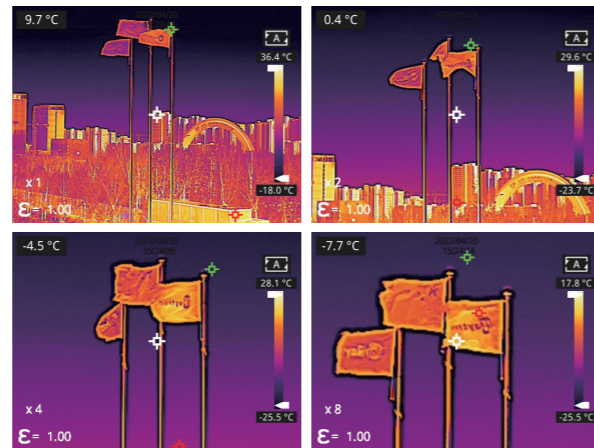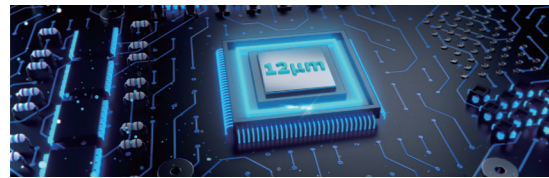
InfiRay® Tianxuan M620 Handheld Thermal Camera is another upgraded work of Tianxuan M family! The self-developed 12μm infrared detector, with advanced manufacturing process and guaranteed process, offers 640 high-resolution thermal images with high sensitivity of 35mK. The tiny hotspots are easy to be captured. It also provides a 23° narrow FOV, which is equivalent to a 56° wide viewing angle of about 2.4 times the optical zoom, more conducive to medium and long-distance measurement. The temperature measuring range is expanded to 650℃, which is applicable to more industrial fields such as electric routine inspection, electronic circuit design, HVAC, industrial manufacturing, petrochemical engineering, new energy battery, photovoltaic, and other industrial fields.
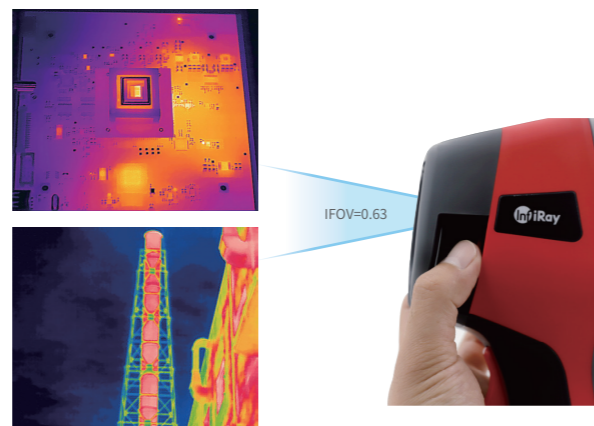
InfiRay

1
Upgraded 640 core for intelligent display of tiny targets

- InfiRay® self-developed 12μm infrared detector, with advanced manufacturing process and guaranteed process, offers 640 high-resolution thermal images with high sensitivity of 35mK. The tiny hotspots and dangers are easy to be captured. With digital zoom up to 8×, it improves the efficiency without missing the temperature details.

- Compared with the conventional 17μm process, the 12μm advanced process brings low power consumption and overall miniaturization of the thermal module ——The physical focal length of the lens can be reduced by 1.4 times at the same resolution/measurement distance. Thus, it brings the advantages of light weight and long endurance for the finished machine.
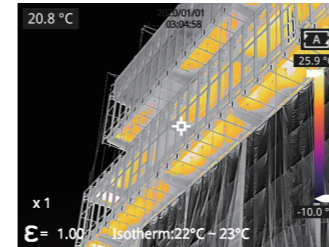
2
Capture Farther and More Tiny Hotspots with Lower Spatial Resolution

- With spatial resolution as low as 0.63mrad, it's easy to capture tiny targets and explore the distance without missing temperature details.
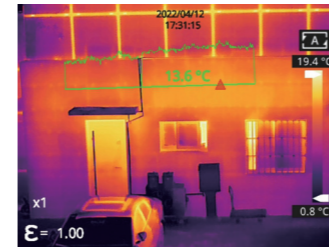
IFOV=0.63

3
Upgrade Intelligently and Handle Complexity Easily

- **Isotherm Function:**
  Set the upper and lower limits of isotherm temperature by yourself, and the area distribution of the temperature sections concerned is clear at a glance.
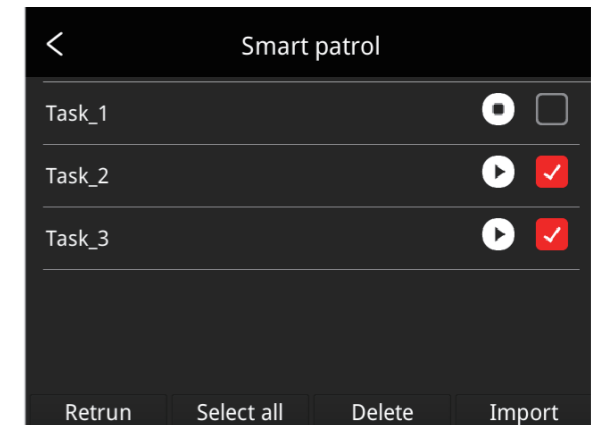
- **Temperature Trend Analysis Function of Line Temperature Measurement:**
  Above the line temperature measurement tool, the relative temperature trend of each point on the line is displayed in real time, which helps users to observe the distribution and change of temperature in real time.

- **Intelligent Temperature Video Function:**
  The video file is embedded with temperature data, which supports the secondary analysis of video files by PC software to improve the flexibility of later data analysis and research.

- **Smart Patrol:**
  It supports the user to define, import, and distribute the routine inspection task package, which not only improves the routine inspection efficiency for engineers, but also simplifies the task distribution process to promote the team management efficiency without missing any routine inspection details.

Smart patrol
Task_1
Task_2
Task_3

Retrun | Select all | Delete | Import

4
Performance Upgrades for More Scenarios

- -20℃~650℃ wider temperature range for more scenarios, e.g. die steel temperature monitoring.

- Standard 32GB Micro SD card, extendable to 512GB, supporting long-time video recording and outfield troubleshooting, with sufficient memory to help you work confidently.

- Travelling light truly! Benefiting from the overall design miniaturization brought by the 12μm detector, the weight is as light as 68% of that of similar thermal cameras!

- Use carefree. The equipment supports 2m drop protection, IP54 protection rating, and 2-year warranty.

2m drop protection | Waterproof & dustproof | 2-year warranty

-20℃ | +650℃

Application Fields

Circuit design | Electric routine inspection | Industrial manufacturing | Construction monitoring | Petrochemical