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## Tianxuan M200A Handheld Thermal Camera

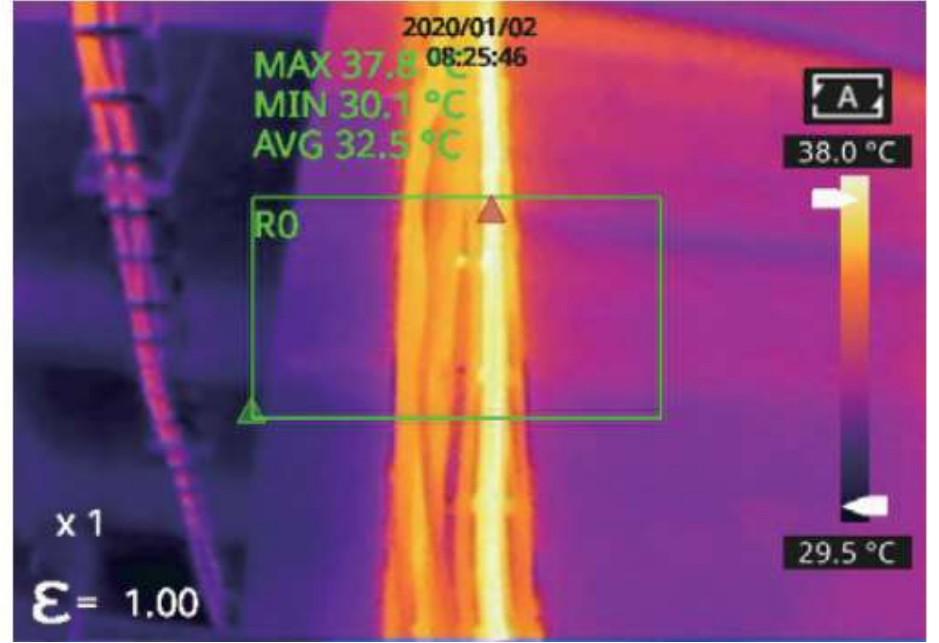
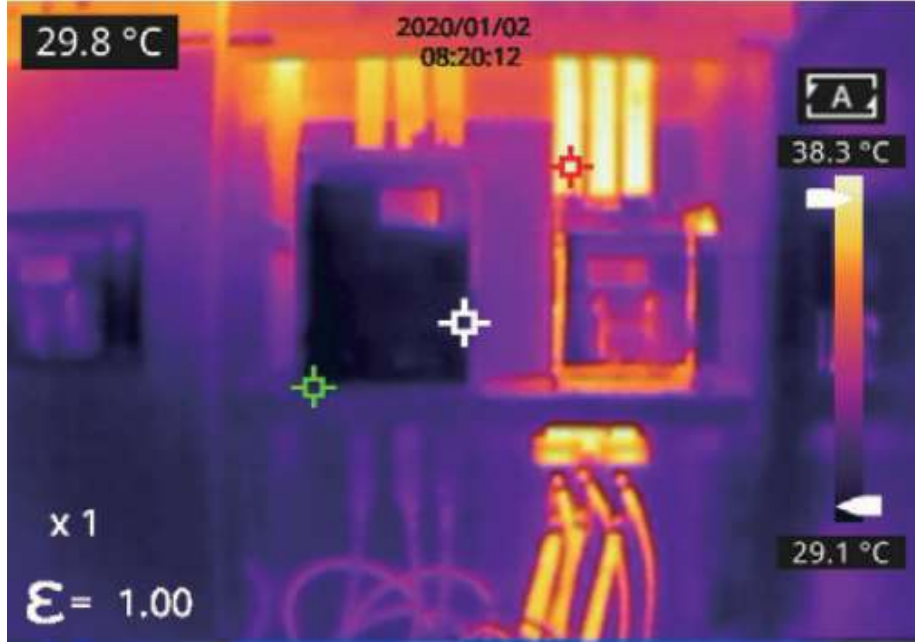


InfiRay® Tianxuan M200A is an focus-free handheld thermal camera equipped with a 3.5-inch large touch screen. It inherits the advantage of "Check Clearly, Solve Quickly" from the Tianxuan M series, and is installed with the self-developed 12μm high-sensitive 256×192 infrared detector and 2,000,000-pixel visible light camera for clear locating. It features the 40mK thermal sensitivity and 25Hz high frame rate, focus-free design, and USB plug-and-play analysis, to provide accurate data and clear images satisfying the requirements of process monitoring and R&D analysis.

### 01. Large screen shows clear data

#### Clear view, accurate measurement, and broad range

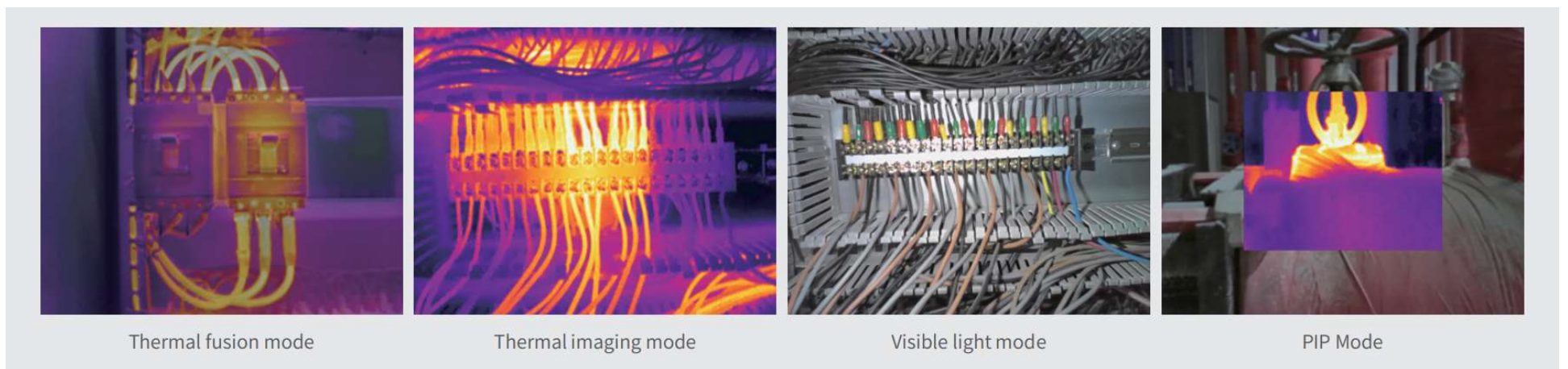
M200A is equipped with a 3.5-inch 480×640 touch screen, lifting the fineness and details of infrared images to a completely new level. 256×192 self-developed infrared detector, 25Hz frame rate, and 49152 temperature measurement points on a frame. Clear view, missing no temperature details and improving inspection efficiency. 40mK high-sensitive detector chip + professional temperature measurement algorithm. Accurate temperature measurement provides more detailed temperature resolution and dual vision: infrared for measurement and visible light for location. 56° wide FOV + focus-free design provides a larger inspection range at the same distance. Broad inspection range covers a whole cabinet in 1m and achieves high-efficiency inspection in narrow spaces. Two levels of temperature measurement: -20°C to +150°C, 100°C to 550°C; ±2°C measurement accuracy, satisfying temperature requirements in different scenarios.



## 02. See temperature difference with intelligent software

### Support UVC, settable thresholds, and alarms

M200A is connected to the InfiRay® software ecosystem. With the USB real-time image analysis function, you can measure and analyze temperature at one time. It supports dual-platform analysis on both PC software and App, with rich software functions, curve generation for temperature rise by a click, settable alarm threshold, and multi-area flexible alarm. It is equipped 3.5-inch touch screen and supports the highest temperature, central spot, and cold/hot spot tracing as well as temperature display. Temperature measurement can be directly conducted on points, lines, and areas to facilitate partial area measurement and partition measurement. 4 modes+7 color palettes are suitable for more measurement modes. Wide temperature range for you to adjust manually, size and position settable for PIP mode. In dual-vision fusion mode, the infrared image can be adjusted on the touch screen to implement dual-vision registration. 4× digital zoom is supported for infrared images. One device can satisfy multi-scenario and multi-purpose requirements of users.



## 03. Strong, durable, and rigid

### IP54, 2m drop protection, and 8h long battery life

Well made with fine materials, M200A supports IP54 and 2m drop protection. With the perfectly curved camera trigger, you can short press it for photographing or long press it for recording. The internal 32G memory is sufficient for use! M200A is equipped with two quick removal batteries, rechargeable on a portable 5V mobile power supply, to achieve ultra-long battery life for you to use at will. This prevents process delays due to insufficient power for users.



Model	M200A
Detector	
Focal plane array	Uncooled FPA microbolometer (VOx)



/Spectral range	/8-14 $\mu$ m
Pixel pitch	12 $\mu$ m
Imaging and optical data	
Infrared resolution	256x192 pixels
NETD	$\leq 0.04^{\circ}\text{C}@30^{\circ}\text{C}$ ( $\leq 40\text{mk}$ )
FOV	$56^{\circ} \times 42^{\circ}$
Focal length	3.2mm
Spatial resolution/IFOV	3.75mrad
Focus	Focus-free
f number	1.1
Image frequency	25Hz
Digital zoom	2x, 4x
Image presentation	
Resolution	1920x1080 pixels, CMOS
Visual camera	2 Megapixels
Screen	3.5 inch touch screen, 640x480
Color palette Temperature Range of Color Code	7 color palettes (white hot black hot iron lava rainbow rainbowHC RdGy) Manual/Automatic temperature range
Image mode	IR/Visual/PIP/Fusion
Laser pointer	Available, class 2, <1mW/650nm, eye-safe
Measurement analysis	
Temperature Range	-20 $^{\circ}\text{C}$ - +550 $^{\circ}\text{C}$
Accuracy	$\pm 2^{\circ}\text{C}$ or $\pm 2\%$ (of reading, whichever is greater )
Measurement mode	Central spot (for full frame), hot spot, cold spot
Spotmeter	10 in live mode
Line	10 in live mode
Area	10 in live mode
Automatic hot/ cold detection	Automatic maximum/ minimum markers within area
Temperature alarm	Full frame high/low temperature alarm
Alarm mode	Image alarm
Auto/timed photograph	Support auto photograph when trigger alarm and timed photograph, photo numbers and time interval can be set
Video streaming	Real-time radiometric infrared-video streaming over UVC
	Data/time, $^{\circ}\text{C}/^{\circ}\text{F}/\text{K}$ , language (12, English/Russian/Polish/German/



Settings	French/Korean/Portuguese/Spanish/ Hungarian/Italian/Turkish/ Traditional_Chinese)
Emissivity correction	Variable from 0.01 to 1.0 (increment: 0.01)
Atmospheric transmissivity adjustment	Object distance setting (0.5-4m, step size 0.25m); Ambient temperature (adjustable, -10°C~+50°C, step size 1°C)
Storage	
Memory card	32G Micro SD card
File format - thermal	JPG, with original temperature data
File format - visual	JPG, without temperature data
Non-radiometric infrared-video recording	H.264 to memory card
Image naming	Support automatic naming/text input/ naming through QR code scanning
Voice annotation	voice recording (unlimited time), stored with images (microphone built-in)
Text annotation	available
Power supply	
Interface	USB Type C
Battery	Rechargeable li-ion battery
Battery Operation time	About 8 hours continuous operation
Charging time	About 3 hours
Power management	Auto shut-down (5 min, 10 min, 20 min, off)
Environment	
Working temp.	-10°C-+50°C
Storage temp.	-20°C~+60°C
Humidity	10%-95% (Non-condensing)
Encapsulation	IP54(IEC 60529)
Impact and Vibration	Impact 25g (IEC 60068-2-27); vibration 2.5g (IEC 60068-2-6)
Drop resistance	2m
Wifi	available
Certificate	CE/FCC/RoHS2.0
Dimension & weight	
Weight	635g
Dimension	258mm×105mm×102mm
Tripod	1/4"-20-UNC
Interface	

Power input	DC 5V
Accessories	5V 2A power adapter, USB cable, SD card, documentation, battery charger

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[\(/contact.html\)](/contact.html)

Marketing Dept.Email:sales@infiray.com

HR Email:hr01@infiray.com

Sales Hotline:+86-400-998-3088 (tel:+86-400-998-3088)

After sales hotline:+86-400-883-0800 (tel:+86-535-3410669)

Address:11th Guiyang Street, YEDA,Yantai 264006,P.R.China

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## MODULES

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