

Thermal

High Frame Rate Superior Imaging

PT II Series HD High-Performance Thermal Camera

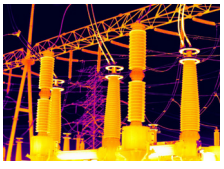
Introduction

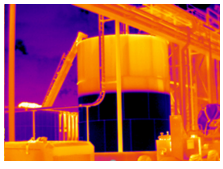
PT II series Flagship Edition Megapixel Thermal Imager incorporates a new generation of self-developed uncooled infrared focal plane detector, achieving a resolution of up to 1280×1024. Its exclusive A/M-Focus manual/automatic hybrid focusing system delivers superior image quality and enhanced operational flexibility. The PT Series has undergone comprehensive upgrades in hardware configuration, software systems, and user experience, aiming to establish a new industry benchmark.

Features

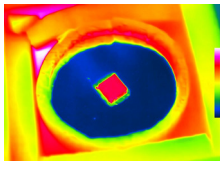
- APEXVISION for ultra-clarity & precision.
- Fast charging supported — 90% charge in just 1 hour.
- PerIRVision image stitching technology.
- Optional Dual-FOV Lens with instant wide/narrow FOV switching.
- An optional temperature range to 2500°C for more applications.
- Observation of 36μm objects through a macro lens.

Applications


Power


Oil and Gas Maintenance


Building Inspections


Research and Development

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Specifications

Model	PT450S	PT650S	PT850S	PT870S
Imaging and Optics				
Core Technology	Powered by the complete ApexVision S1 architecture—the ApexCore S1 detector, Nexus 1.0 platform, and SharpIR 2.0 algorithm.			
Detector Type	Uncooled VOx detector, 7.5 to 14 μm			
IR Resolution	480×360 @ 12 μm	640×512 @ 12 μm	1024×768 @ 12 μm	1280×1024 @ 12 μm
Super Resolution	Up to 960×720	Up to 1280×1024	Up to 2048×1536	Up to 2560×2048
NETD	≤15 mK (@30°C)			
Image Frequency	50 Hz / 9 Hz			
Focal Length	12.94 mm	17.6 mm	27.7 mm	35 mm
Field of View	25°×20°			
IFOV	0.91 mrad	0.68 mrad	0.43 mrad	0.34 mrad
Min. Focus Distance	0.3 m			
D:S	1099:1	1471:1	2326:1	2941:1
Focus Mode	Manual Focus / Autofocus / Touch Autofocus / Continuous Autofocus			
Digital Zoom	1× to 35×	1× to 40×	1× to 50×	
Measurement and Analysis				
Measurement Range	Automatic range switching: -40°C to 150°C; 0°C to 650°C; 400°C to 2500°C with the optional high-temperature lens		Automatic range switching: -40°C to 150°C; 0°C to 800°C; 400°C to 2500°C with the optional high-temperature lens	
Accuracy	±1°C or ±1%, whichever is greater			
Measurement Tools	25 Measurement Tools in Total (Spots/Lines/Areas)	30 Measurement Tools in Total (Spots/Lines/Areas)	35 Measurement Tools in Total (Spots/Lines/Areas)	
Alarm	On-Screen / Audible / Color / Flash Alarm			
Others	Isotherm, Smart Contour Detection, Area Measurement, Color Highlighting			
Image Display				
Display	5.5″ LCD touchscreen, 1920×1080			
Eyepiece	OLED screen, 1920×1080			
Image Modes	IR, VIS, MIF, PIP			
Color Palettes	15: White Hot, Iron Red, Arctic, Rainbow 2, Hot Iron, Rainbow 1, Fulgurite, Medical, Tint, Black Hot, Blue Hot, Sepia, Green Hot, Ice and Fire, Amber; Custom			
Image Adjustment	Level and Span: Auto, Semi-Auto, Manual, Local Dimming			
Digital Camera	Dual Visible Cameras, up to 13 MP		Dual Visible Cameras, up to 16 MP	
Functions				
Laser	Laser Pointer; Laser Rangefinder: 0.1–35 m			
Capture	Photo (image stitching) / Video (IR and visible-light recording)			
Cloud Services	Supported			
Others	Customizable Physical Button, NFC Connectivity, OTA Update			
Storage and Transmission				
Storage Media	Built-in storage (64 GB); External SD card (128 GB included; supports up to 256 GB)			
Image File Format	JPEG (radiometric)			
Video File Format	MP4 (non-radiometric, with audio); IRGD (radiometric)			
Interfaces	USB-C, DC (12 V), SD Card Slot, Micro HDMI, Tripod Socket			
Wi-Fi	Supports image and real-time video transmission to mobile devices			
Cellular Network	5G module (optional)			
Bluetooth	Bluetooth 5.0; supports image transfer to Android devices only			
Power System				
Battery Type	Removable rechargeable Li-ion battery			
Operating Time	4.5 hours	4 hours		3.5 hours
Environmental Parameters				
Operating Temp.	-20°C to 50°C			
IP Rating	IP54			
Physical Parameters				
Hardware	Wi-Fi, LED Light, Microphone, Speaker, Electronic Compass, GPS, Status Screen			
Weight	1.73 kg (with standard lens and battery)		1.84 kg (with standard lens and battery)	
Dimensions	191×171×118 mm			
Supported Software	PC: ThermoTools; Mobile: FocusIR (iOS/Android)			
Package Contents	Thermal Camera (with selected lens), Front and Back Lens Caps, 2 × Li-ion Batteries, Desktop Charger, Fast Charging Adapter with Plugs, USB-A to USB-C Cable, USB-C to Ethernet Adapter, Ethernet Cable, Micro HDMI to HDMI Cable, 128 GB SD Card, Hand Strap, Shoulder Strap, Carrying Bag, Hard Protective Case, Quick Start Guide, Factory Inspection Report, Calibration Certificate, Warranty Card			
Optional Accessories	Available Lenses: Standard (25°), Wide-Angle (45°), Medium-Telephoto (15°), Telephoto (7°), TwinView DFOV (25°+15° / 25°+45°), High-Temperature, Macro; Li-ion Battery, Bluetooth Earpiece, 5G Module, Tripod, Desktop Camera Stand			

* Product performance is based on testing in a controlled laboratory environment. Your test results may vary due to several external and environmental factors.
All specifications are subject to the actual product. The manufacturer reserves the right to modify technical specifications without notice or liability to you.