The World's First Portable Thermal Camera with MP-level Infrared Resolution

PT Series HD High-Performance Thermal Camera

GUIDE

Introduction

PT Series is the world's first portable thermal camera with MP-level Infrared Resolution. Equipped with the self-developed 1280×1024 IR detector, this camera has the A/M-Focus manual and auto focusing system to provide much more crisp images. Advanced hardware, software and exceptional experience ensure it is the flagship in this industry.
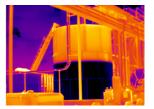
Features

- Up to 1280x1024 IR resolution
- ContFocus intelligent and continuous autofocus model
- An optional temperature range to 2500°C for more applications
- Observation of 36μm objects through a macro lens
- IR video with temperature information at 20 Hz
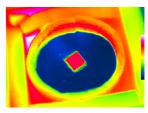- PerIRVision image stitching technology

Applications

Power

Oil and Gas Maintenance

Building Inspections

Research and Development

Specifications

Product model	PT650	PT850	PT870
Imaging and optics			
Detector type	VOx, 7.5 to 14μm		
Infrared resolution	640×512@12μm	1024×768@12μm	1280×1024@12μm
Super resolution	Yes, Upgrade to 1280×1024	Yes, Upgrade to 2048×1536	Yes, Upgrade to 2560×2048
NETD	30mK	25mK	
Frame rate	30Hz/ 9Hz		
Focal length	17mm	28mm	35mm
Field of view	25°×19°		
IFOV	0.71mrad	0.43mrad	0.34mrad
Min. object distance	0.3m		
D:S	1408:1	2325:1	2941:1
Focusing mode	Manual / Automatic / Touch autofocus / Continuous autofocus		
Digital zoom	1.1x to 40x	1.1x to 50x	
Measurement and analysis			
Measurement range	Support auto-switching: -40°C to 150°C, 0°C to 650°C, Optional 400°C to 2500°C (High temperature lens is required)	Support auto-switching: -40°C to 150°C, 0°C to 800°C, Optional 400°C to 2500°C (High temperature lens is required)	
Measurement accuracy	±1°C or ±1%, whichever is greater		
Analyzed target	30 in total (Spot/ Line/ Area)	35 in total (Spot/ Line/ Area)	
Alarm	Full screen temperature threshold alarm (image, voice and flash)		
Parameter settings	Emissivity, reflected temperature, target distance, humidity, atmospheric temperature, optical transmittance, dew point		
Others	Isothermals, Smart Stroke, Intelligently calculate the area		
Image display			
Display screen	5'', 1920×1080 pixel touchscreen LCD		
Eyepiece	1920×1, 080 OLED screen		
Image mode	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, Customized		
Image adjustment	Level span mode: Automatic, Semi-automatic, Manual		
Digital camera	Dual visible light, up to 13 MP	Dual visible light, up to 16 MP	
Functions			
Laser	Laser (Indication, Ranging 0.1m to 35m)		
Recording function	Photo (image stitching) and Video (infrared & visible light)		
Cloud Services	Available		
Others	Customized physical button, Intelligent diagnosis, NFC connection, OTA update		
Storage and transmission			
Storage media	Built-in (64 GB) and external SD card (128 GB and up to 256 GB)		
Image storage	JPG with temp info		
Video storage	MP4 format (without temp info) can be used to record audio synchronously; Irgd (with temp info), up to 20 Hz (optional) for temperature analysis		
External interface	Type-C, DC (12V) , SD card slot, Micro HDMI, UNC ¼"-20 (Tripod mounting)		
WIFI	Yes, it can be connected to the mobile terminal for image and real-time video transmission		
Cellular network	5G module (optional)		
Bluetooth	Bluetooth 5.0, support image transmission (only for Android)		
Power system			
Battery type	Lithium-ion rechargeable battery		
Operating time	4 hours		
Charging mode	The device can be charged through desktop charger after shutdown.		
Charging time	90% of full charge in 2.5 hours, revealed by the status screen		
Environmental parameters			
Working temperature	-20°C to 50°C		
IP rating	IP54		
Certification	CE, FCC, ROHS, KCC, Anatel, Damp heat test, Vibration test, Shock test, Impact test, UN38.3, MSDS		
Physical parameters			
Hardware	Illuminator, Microphone, Speaker, Electronic Compass, GPS, Status screen		
Weight	1.86kg (with battery)		
Size	191×171×118mm		
Software kit	PC: ThermoTools; Mobile: Thermography (iOS/Android)		
Standard	A device (with lens), Lens front and back cover, Lithium-ion battery (2 pcs), Desktop charger, Power adapter, Adapter plug (5 pcs) , TYPE-C USB cable, Micro HDMI cable, Type C to GE cable, SD card (128 GB) , Wrist strap, Shoulder strap, Carrying case, Safety box, Packaging list, Quick Start Guide, Data download card (analysis software & user manual), Certificate of approval, Factory certificate		
Options	Battery, optional lens (45°, 15°, 7°, high-temperature lens, macro lens), Carrying bag, Tripod, Bluetooth earphone, 5G module		