

# EXPEC 1810 series

AI SMART INFRARED THERMAL IMAGING  
HUMAN BODY TEMPERATURE RAPID SCREENING SYSTEM



## Product introduction

EXPEC 1810 series AI intelligent infrared thermal imaging human body temperature rapid screening system is based on high-precision (384x288 or 640x480) infrared thermal imaging detector combined with red spectrum technology AI intelligent human body.

The core algorithm of temperature screening can efficiently and accurately realize rapid screening and detection of human body temperature in various public places. Through temperature and emissivity compensation and automatic temperature calibration, the measurement accuracy can reach 0.3 degrees Celsius. It can meet various mobile-intensive units such as airports, stations, terminals, ports, hospitals, schools, office buildings, etc., and quickly and effectively detect suspected fever with non-contact monitoring to avoid crossinfection.

## System Features



- Imported 8-14 $\mu$ m vanadium oxide (VOX) long-wave infrared staring non-cold focal plane array detector (384x288 or 640x480), the highest thermal sensitivity (NETO) can reach  $\leq 0.05^{\circ}\text{C}$  @30 $^{\circ}\text{C}$  or  $\leq 0.03^{\circ}\text{C}$  @30 $^{\circ}\text{C}$  is more suitable for medical humanbody

Precise screening to ensure the true, fast and accurate test results;

- The core algorithm of AI intelligent body temperature rapid screening and the built-in temperature compensation function independently developed

Investigations become more efficient and convenient;

- Wide field angle of view (FOV 24 $^{\circ}$  X 18 $^{\circ}$ ), ensuring a wider coverage of body temperature screening;

- 4.3-inch high-resolution touch-screen display, without the need to connect a computer and monitor can obtain clear and intuitive monitoring images;

- Built-in industrial-grade WIFI wireless video transmission module, which can establish a data link with the computer, realize human-machine separation monitoring, and ensure the current Monitor the safety of personnel at the field to avoid crossinfection;

- Built-in replaceable high-efficiency hammer battery, the use time of a single battery is up to 4 hours, which can meet emergency mobile monitoring;

- Equipped with an external dedicated power supply, connected to the city power can meet the online charging real-time monitoring;

- The client software platform is simple and convenient to operate, and can realize remote alarm and video recording functions;



## System Configuration

- 1810A / B main unit \* 1 set (24 ° × 18 ° lens)
- Tripod and mounting kit \* 1set
- External powersupply\*1set,dedicatedhigh-efficiencylithiumbattery\*1,lithiumbattery Charging kit \* 1set
- USB data cable \* 1, AV video link cable \*1
- 16G high-speed TF memory card \* 1, card reader \*1
- Client software for human body temperature screening \* 1set
- Dedicated anti-fall, waterproof safety protection suitcase \* 1only
- Notebook or desktop computer \* 1 set(optional)

Type	S 300	S 600
Detector type	Vanadium oxide (VOX) long-wave infrared gaze type non-cold focal plane array detector	Vanadium oxide (VOX) long-wave infrared gaze type non-cold focal plane array detector
Resolution	384x288	640x480
Working spectrum	8~14μm	8~14μm
Image frame rate	50Hz	50Hz
Thermal sensitivity (NETD)	≤0.05°C@30°C	≤0.03°C@30°C
Field of view (FOV) / minimum imaging distance	24°×18°/0.2	24°×18°/0.3m
Spatial Resolution (IFOV)	1.13mrad	0.65mrad
focal length	15mm	25mm
Focusing method	Manual	Manual
	Image display	
Built-in visible light digital camera	5 million visible light pixels with LED fill light	
Display	4.3 "TFT touch screen	
Picture mode	Infrared image, visible light image, picture-in-picture image fusion, multi-band fusion imaging MFI	
Image control	Color palette (not less than 12 types), image adjustment (auto / manual)	
Digital zoom	1 ~ 8x continuous digital zoom	
	Measurement and analysis	
Temperature measurement range	Human body temperature screening temperature range + 20 °C ~ + 50 °C	
Temperature measurement accuracy	Screening of human body temperature ± 0.3 °C (with black body)	
Temperature measurement mode	20 points, lines, areas, highest temperature, lowest temperature capture, average temperature measurement, isothermal analysis, temperature difference measurement, temperature alarm (sound, color); the number of points, lines, and areas can be customized and expanded	
Emissivity correction	0.01 to 1.0 emissivity adjustable, or correct emissivity through predefined material emissivity meter	
Background temperature compensation	Automatically based on entered background temperature	

Atmospheric transmittance correction	Automatic, based on distance entered Relative humidity Ambient temperature
Temperature alarm	High / low temperature color alarm
	Image manipulation and storage
Storage capacity	Standard 16G Micro SD card, expandable
Image storage mode	Save both infrared and visible images
Infrared image format	JPEG format with infrared raw measurement data image; radiant infrared video recording and H.264 non-radiative infrared video recording
Visible light image format	JPEG format; H.264 format visible light video recording
Voice / text annotation	Voice recording of not less than 60 seconds, stored with the image, can also enter preset text or directly enter text
Transmission interface	USB2.0、VIDEO、SD card
	Power system
Battery type / working time	Replaceable, rechargeable lithium battery, support direct charging, seat charging or car charging / continuous working time of not less than 4 hours
Physical characteristics	
Shock / Vibration	25g,IEC68-2-29 / 25g,IEC68-2-6
size (length * width * height) / weight	245 x 125 x 120mm/≤0.9kg
Working environment temperature	-20°C~50°C
Protection class	IP54
Tripod mounting	UNC 1/4"-20

## ■ Application

EXPEC 1810 is having excellent performance while adopting in high traffic area.



Passway



Public Entrance



Industry Entrance



Train Station & Airport