

## PROVIDES CONTINUOUS TEMPERATURE MONITORING OF REMOTE LOCATIONS

ICI's APEX-200 is the ultimate cost effective thermal solution, with a display resolution of over 2 million visible light pixels at a fraction of the cost of other thermal imaging devices. Designed to be compact, yet robust, the APEX-200 is ideal for tough-to-reach applications such as vents, man-holes, and electrical equipment. The camera offers multiple interface protocols and is suitable for Internet of Things (IoT) integrations. The camera is also designed with Wi-Fi support, automatic alarms, and real-time video streaming.



APEX 200



## COMPACT, VERSATILE DESIGN

With dimensions of 109 mm x 55.9 mm x 29.5 mm (4.29" x 2.2" x 1.16"), this sleek, compact camera can give users instant access hard-to-reach places. With IoT capabilities, flexible configurations, and multiple interface protocols, the APEX 200 offers unmatched versatility.



## DURABLE CONSTRUCTION

Designed with a tough plastic front shell and an aluminum alloy rear shell, the APEX-200 holds up in the toughest, most demanding work environments. Despite its compact size, the camera has proven sustainable in even the most harsh environments.



## REMOTE OPERATION AND ANALYSIS

With the APEX-200 IoT capabilities, it is simple for users to reset, upgrade and troubleshoot the camera remotely. Users will also be able to stream video and temperature data, for real-time analysis and system control.



The APEX 200 provides continuous temperature monitoring, hot spot detection, and alarming capabilities to protect against critical equipment failures. Compact and easy to install, the system features a 256 x 192 thermal detector and a built-in 1920 x 1080 visible camera. The APEX 200 has an accuracy of  $\pm 2^{\circ}\text{C}$  ( $\pm 3.6^{\circ}\text{F}$ ) or  $\pm 2\%$  and is suitable for a wide variety of fixed-point applications including monitoring high voltage cabinets, gasification reactors, as well as iron and steel processing. Connects to monitoring systems and is compatible with multiple interface protocols. Offers FTP file sharing and SMTP email support.

## Features

- Connects to monitoring systems, such as NVR, etc.
- Compatible with multiple interface protocols
- FTP file sharing and SMTP email support
- Central spot, hot spot and cold spot tracing
- Up to 16 points/16 lines/16 areas of temperature analysis
- High temperature measuring
- Alarm threshold settings
- 1 Alarm input and 2 alarm outputs
- Remote reset and device reset button
- Power over Ethernet support
- High-definition visible and infrared streaming
- Radiometric data streaming
- Small and compact structure

## Applications

- Fixed-point monitoring
- Process control and monitoring
- High voltage cabinet monitoring
- Semiconductor manufacturing
- Electronics manufacturing
- Industrial process imaging
- Laser instrumentation
- Short range surveillance
- Gasification reactors
- Scientific research
- Food monitoring
- Livestock health

## Accessories

- Coaxial to Ethernet cable
- Windows 32-bit SDK
- Linux SDK (x86, x64 and ARM)

## Specifications

- **Pixel Resolution:** 256 x 192
- **Accuracy:**  $\pm 2^{\circ}\text{C}$  ( $\pm 3.6^{\circ}\text{F}$ ) or  $\pm 2\%$
- **Temperature Range:**  $-20^{\circ}\text{C}$  to  $550^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $1022^{\circ}\text{F}$ )
- **Operation Range:**  $-10^{\circ}\text{C}$  to  $50^{\circ}\text{C}$  ( $14^{\circ}\text{F}$  to  $122^{\circ}\text{F}$ )
- **Storage Range:**  $-40^{\circ}\text{C}$  to  $70^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $158^{\circ}\text{F}$ )
- **Detector Array:** UFPA (VOx)
- **Pixel Pitch:** 12  $\mu\text{m}$
- **FOV:**  $56^{\circ} \times 42^{\circ}$
- **Focal Length:** 3.2 mm
- **Focus:** fixed
- **Spectral Band:** 8  $\mu\text{m}$  to 14  $\mu\text{m}$
- **Thermal Sensitivity (NETD):**  
< (40 mK) 0.04  $^{\circ}\text{C}$  at 30  $^{\circ}\text{C}$  ( $86^{\circ}\text{F}$ )
- **Frame Rate:** 30 Hz
- **Humidity:** 95% non-condensing
- **Pixel Operability:** > 99 %
- **Shock/Vibration:** 25 G/2 G
- **Dimensions (without lens):**  
109 mm x 55.9 mm x 29.5 mm (L x W x D  $\pm 0.5$  mm)  
(4.29" x 2.20" x 1.16" (L x W x H  $\pm 0.02$ "))
- **Weight:** 170 g (6 oz)
- **Power:** DC 12V to 24V,  $\leq 2\text{W}$ , PoE support
- **Interface:**
  - 8 pin M12 A type connector: including 10M / 100M adaptive RJ-45 Ethernet port, and POE power supply
  - 12 pin M12 A type connector: including DC power supply, alarm input and output
- **Protocols:**
  - Network: TCP, UDP, RTSP, HTTP, SMTP
  - Interface: ONVIF, GB28181, Modbus TCP, MQTT
- **Streaming:**
  - Infrared: up to 4x, max 1024 x 768
  - Visible: 1920 x 1080
- **Video Format:** MP4
- **Image Format:** IR JPG (with data) + visible JPG
- **Image Polarity:** 18 options
- **Image Modes:** IR, fusion (ICI Dual Vision), visible, picture-in-picture, enhanced
- **Memory:** 32 GB, internal
- **Digital Camera:** 2 MP, FOV:  $72^{\circ} \times 61^{\circ}$
- **IP Rating:** IP67
- **Light:** LED
- Automatic alarms
- Alarm snapshot
- FTP file sharing and SMTP email support
- Internal non-uniformity correction (NUC)
- Remote reset and device reset button