

# CONTINUOUS MONITORING SOLUTION

## INNOVATIVE THERMAL TECHNOLOGY

ICI's APEX 300 is a cost-effective thermal solution with over 2 million visible light pixels, delivering high resolution at a fraction of the cost of comparable devices. Its compact yet robust design makes it perfect for challenging spaces, while multiple interface protocols and IoT integration capabilities ensure seamless connectivity. With Wi-Fi support, automatic alarms, and real-time streaming, the APEX 300 offers continuous temperature monitoring, guarding against critical equipment failures.



APEX 300



## ADVANCED CONNECTIVITY

The APEX 300, designed for IoT readiness, seamlessly integrates into monitoring systems such as NVR, offering automatic alarms and real-time video streaming. With Wi-Fi support, users can easily stream video and temperature data for instant analysis, while FTP file sharing and SMTP email support enhance data sharing capabilities. Its unmatched versatility, flexible configurations, and compatibility with multiple interface protocols make the APEX 300 the epitome of seamless integration into existing setups, providing a comprehensive and effortless monitoring solution.



## DURABLE CONSTRUCTION

Engineered with durability in mind, the APEX 300 features a robust design, combining a resilient plastic front shell with an aluminum alloy rear shell. Its compact dimensions of 109 mm x 58 mm x 31 mm (4.29" x 2.28" x 1.22") make it ideal for accessing confined and hard-to-reach spaces. With an IP67 rating, the APEX 300 ensures protection against water ingress, enhancing its reliability in challenging work environments and delivering exceptional performance under the toughest conditions.



## PRECISION TEMPERATURE ANALYSIS

The APEX 300 sets the standard for precision temperature analysis, capable of measuring temperatures up to 650°C (1202°F) with remarkable accuracy. With a precision of  $\pm 2^{\circ}\text{C}$  ( $\pm 3.6^{\circ}\text{F}$ ), this thermal camera is tailored for a diverse range of fixed-point applications. Users benefit from the ability to conduct real-time analysis on up to 8 points, 8 lines, and 8 areas, providing in-depth temperature data that includes maximum, minimum, and average temperature analysis for each point of interest. The camera also incorporates environmental variable corrections, making it a reliable tool for enhancing maintenance programs.



Featuring a 384 x 288 thermal detector, a built-in 1080P visible camera, and  $\pm 2^{\circ}\text{C}$  ( $\pm 3.6^{\circ}\text{F}$ ) or  $\pm 2\%$  accuracy, the APEX 300 ensures seamless temperature monitoring and guards against critical equipment failures. Its compact size and easy installation make it ideal for diverse fixed-point applications in hard-to-reach or narrow locations. The device connects to existing monitoring systems and is compatible with various interface protocols for enhanced equipment protection.

## Features

- Connects to monitoring systems, such as NVR, etc.
- Compatible with multiple interface protocols
- FTP file sharing and SMTP email support
- Up to 8 points/8 lines/8 areas of temperature analysis
- Maximum, minimum, and average temperature for analysis
- Power over Ethernet and Wi-Fi connection support
- High-definition visible and radiometric streaming
- 1 Alarm input, 2 alarm outputs, and Alarm threshold settings
- High temperature measuring
- Environmental variable corrections
- 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

- 12 pin to DC connector cable (optional)
- 8-Pin Coaxial to Ethernet cable
- Screws and installation stickers
- Windows 32-bit SDK
- Linux SDK (x86, x64 and ARM)

## Specifications

- **Pixel Resolution:** 384 x 288
- **Accuracy:**  $\pm 2^{\circ}\text{C}$  ( $\pm 3.6^{\circ}\text{F}$ ) or  $\pm 2\%$
- **Temperature Range:**  $-20^{\circ}\text{C}$  to  $650^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $1202^{\circ}\text{F}$ )
- **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:**  $68^{\circ} \times 51.8^{\circ}$
- **IFOV:** 3.16mrad
- **Focal Length:** 3.8 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:** 25 Hz
- **Humidity:** 95% non-condensing
- **Pixel Operability:** > 99 %
- **Shock/Vibration:** 25 G/2 G
- **Dimensions (without lens):**  
109 mm x 58 mm x 31 mm (L x W x D  $\pm 0.5$  mm)  
(4.29" x 2.28" x 1.22" (L x W x H  $\pm 0.02$ "))
- **Weight:** 170 g (6 oz)
- **Power:** DC 12V to 30V,  $\leq 2\text{W}$ , 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 1024 x 768
  - Visible: 1080P
- **Video Format:** MP4
- **Image Format:** IR JPG (with data) + visible JPG
- **Image Polarity:** 20 options
- **Image Modes:** IR, fusion (ICI Dual Vision), visible, enhanced, side-by-side visible
- **Memory:** 32 GB, internal
- **Digital Camera:** 2 MP, FOV:  $81^{\circ} \times 61^{\circ}$
- **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