# IPT640M
## Mini Online Thermal Camera Core
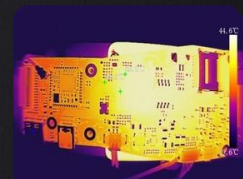
**High Resolution · High Performance**



5.9mm



15mm

## Introduce

Equipped with an uncooled VOx detector, the high-performance IPT640M is extremely sensitive with a wider temperature measurement range. Utilizing the small and lightweight benefits, several protocols, multiple web access, easy-to-use SDK furthers the integration into high-level systems.

## Features and Benefits

o  Small and compact with "temperature measurement + IP network"

o  Autofocus in 1s with 2 optional lenses  and the success rate of 98%

o  Multiple temperature alarms (overtemperature, temperature difference, etc.)

o  21 objects（spots, lines, rectangles, polygons and circles）

o  Onvif, RTSP, HTTP, SMTP, MQTT, FTP and GB28181

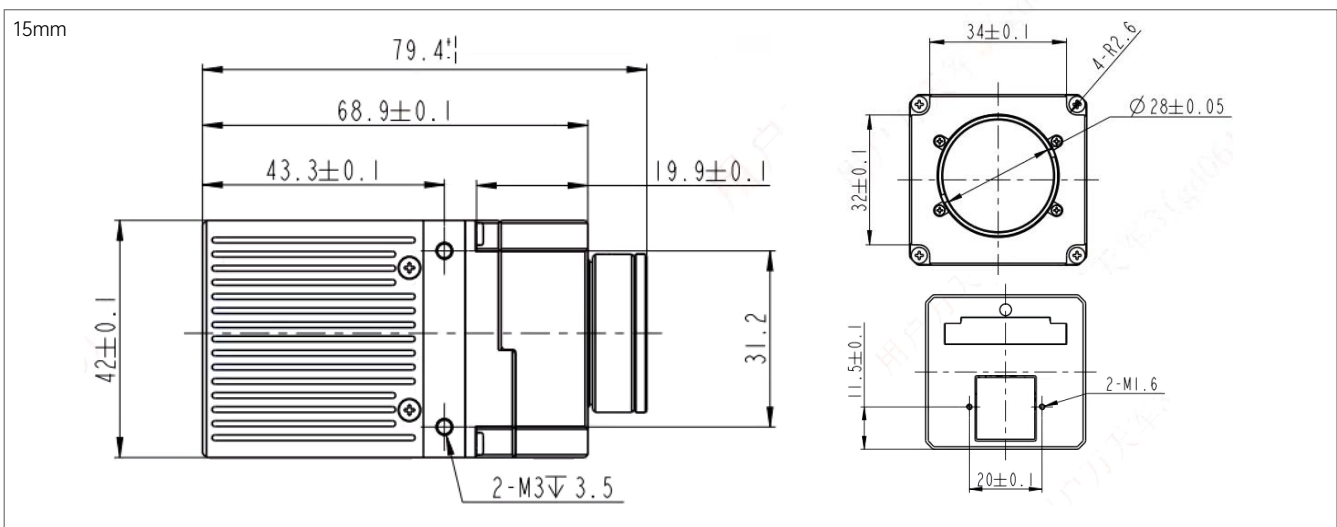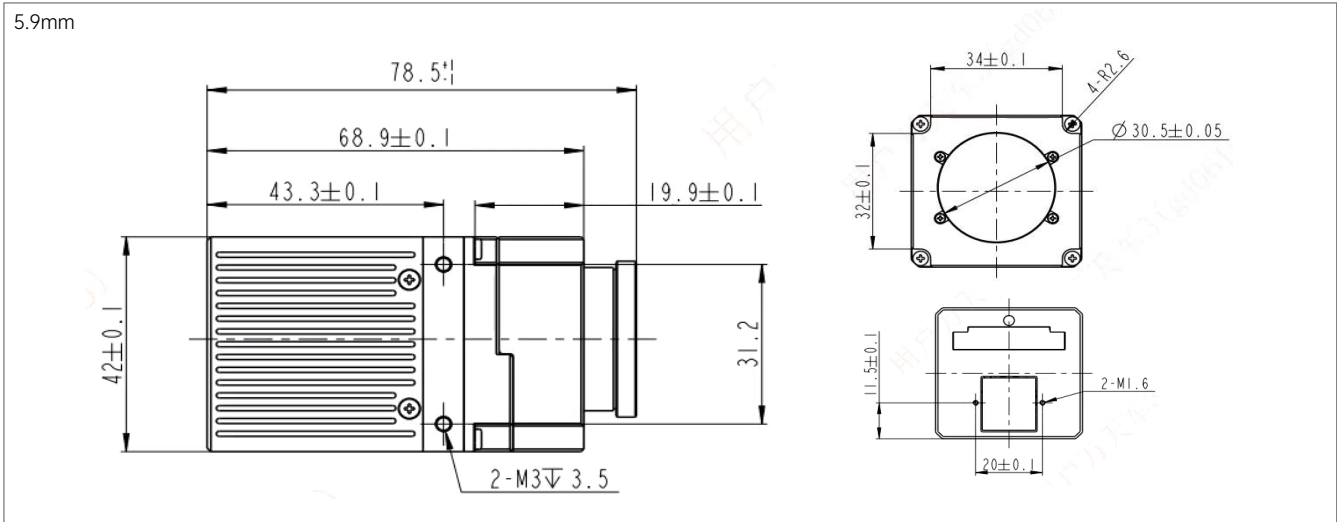o  SDK and API for integration into high-level systems

## Application

o  IPT640M can be integrated into electric inspection robots or security monitoring systems for temperature monitoring within short or middle distances.

# Specifications

| Model | IPT640M |
|---|---|
| **Thermographic** | |
| Detector type | VOx |
| Detector resolution | 640 × 512 |
| Pixel size | 12μm |
| Wavelength range | 8μm to 14μm |
| NETD | ≤55mK@30℃ |
| Thermographic camera lenses | 5.9mm, 81°x63°; 15mm, 29°x23° |
| Detail enhancement | Supported |
| Noise reduction | 2D/3D noise reduction |
| Pseudo colors | 26 (White hot, Black hot, etc.) |
| **Temperature measurement** | |
| Measurement range | Low：-20℃ to 150℃, High：100℃ to 350℃; Low：-20℃ to 150℃, High：100℃ to 550℃ (select one from the two groups) |
| Measurement accuracy | ±2 ℃ or ±2%, whichever is greater |
| Target setting | Up to 21 targets (6 spots, 6 lines, 3 circles or ovals and 3 polygons) |
| Cold/hot spot tracking | Supported |
| Full-screen point temperature measuring | Supported |
| Query and export of temperature measuring information | Supported |
| **Image** | |
| Video compression standard | H.264 |
| Image coding formats | JPEG |
| Code stream | 640 × 512@25Hz |
| **Protocol and storage** | |
| Network protocol | TCP, UDP, ICMP, IGMP, DHCP, RTSP, ONVIF, GB/T 28181 |
| SDK/ API | Open SDK/ API for software integration |
| Local storage | 16G EMMC |
| **System function** | |
| Language version | Chinese/English |
| Browser | Supported |
| User management | Max. 20 users with multi-level user permission management |
| Fault detection | Network disconnection, IP conflict, Illegal access, storage exception |
| **Hardware interface** | |
| Power interface | DC12V |
| Network interface | One RJ45 (10M/100M) |
| Alarm interface | 1 output |
| Other interfaces | 1-channel RS485 |
| **Environmental** | |
| Working temperature | -20℃ to +60℃ |
| Working humidity | ≤95%, non-condensing |
| Certification | CNAS/ EMC/ RoHS |
| **Physical** | |
| Power consumption | ≤2.5W |
| Size (L × W × H) | 5.9mm: 78.5mm × 44mm × 42mm; 15mm: 79.4mm × 44mm × 42mm |
| Net weight | ≤215g (with lens) |

## Structure and size

5.9mm

78.5
68.9±0.1
43.3±0.1
19.9±0.1
42±0.1
31.2
2-M3▽3.5

34±0.1
4-R2.6
Ø30.5±0.05
32±0.1

11.5±0.1
2-M1.6
20±0.1

15mm

79.4
68.9±0.1
43.3±0.1
19.9±0.1
42±0.1
31.2
2-M3▽3.5

34±0.1
4-R2.6
Ø28±0.05
32±0.1

11.5±0.1
2-M1.6
20±0.1

## Hardware Interfaces

P_ALARM-
GND
12V-VIN

P_ALARM+
RS485A
RS485B

复位键

RJ45