

# THIP-P4078FM-IR

Thermal Network Hybrid Speed Dome Camera



- 256x192 VOx uncooled thermal sensor
- 1/2.8" 4 MP progressive scan CMOS
- Smart alarm linkage with white light & loudspeaker
- IVS, Perimeter Protection and Auto Tracking
- Temperature, Call and Fire Detection
- IR support up to 115 feet
- Micro SD memory, IP66, PoE+

## System Overview

Combining IC Realtime's thermal hybrid technology with speed dome featuring a dual 1.3MP Thermal and 4 MP Visible lens, IC Realtime's THIP-P4078FM-IR provides flexibility and utility. This series provides an all-in-one solution for capturing video surveillance for indoor and outdoor applications where monitoring thermal properties are important. Intelligence features include Temperature, Fire and Call detection as well as IVS with Auto Tracking.

With thermal and visible-light Technology, the camera is the perfect solution for dark, small area monitoring applications. The series combines one thermal camera for monitoring in total darkness and one visible camera with smart IR with a Max IR distance of 164 feet.

## Functions

### Uncooled Vox Technology

IC Realtime thermal cameras use uncooled Vox sensor technology. The compact size and excellent performance make this a cost-effective solution for thermal surveillance.

### Fire Detection & Alarm

With built-in Fire detect function, the camera has the ability to detect fire at a long distance. Due to the thermal camera's sensitivity to temperature, the accuracy of fire detection will be higher than a visible-light camera.

### Environmental

With a temperature range of -22 °F to +140 °F (-30 °C to +60 °C), the camera is designed for extreme temperature environments. Subjected and certified to rigorous dust and water immersion tests, the IP66 rating makes it suitable for demanding outdoor applications.

### Smart Alarm Linkage

When an abnormal event is detected by the thermal or visible-light channel, the spotlight and loudspeaker will turn on to make a visual or voice prompt, then record and snapshot. The spotlight and the loudspeaker intensity is configurable.

### Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

### Perimeter Protection

IC Realtime's Perimeter Protection features significantly improve detection accuracy. The benefits of Perimeter Protection include up to a 90% reduction in false alarms. Other advantages include a decrease in pixel count requirement for object detection, which translates into more efficiency with less strain on the system. Perimeter Protection options let you customize tripwires based on the object type and allow intelligent automation within a limited area of access such as pedestrian or vehicle-only zones. The combination of advanced AI analytics and real-time alerts maximizes efficiency & balance of the total systems capacity and resources resulting in greater surveillance system efficiency.

## Technical Specification

### Thermal Camera

Image Sensor	Uncooled VOx Microbolometer, Vanadium oxide uncooled focal plane detector
Effective Pixels	256(H) x 192(V)
Pixel Size	12um
Thermal Sensitivity (NETD)	≤50mK
Spectral Range	8 ~ 14um
Temperature Measurement Range	Low temperature mode: -4°F (-20°C) to +302°F (150°C) High temperature mode: 34°F (0°C) to +1022°F (550°C)
Temperature Accuracy	Max ±3.6°F (±2°C, ±2%)
Temperature Mode	Spot: 12, Line: 12, Area: 12 Supports 12 rules simultaneously
Field of View	Horizontal: 50.6°; Vertical: 37.8°
Focal Length	7mm, F1.0
Focus Mode	Auto, Manual
Image Setting	Brightness/Sharpness/ROI/AGC/FFC/3D DNR
Color Palettes	18 color modes selectable such as Whitehot/Blackhot/ Ironrow/Icefire.
Image Options	AGC (Auto, Manual), 2D NR; 3D NR
Detection Distance	Vehicle: 1276ft (389m); Human: 479ft (146m)
Recognition Distance	Vehicle: 318ft (97m); human: 125ft (38m)
Identification Distance	Vehicle: 161ft (49m); human: 62ft (19m)

### Visible Camera

Image Sensor	1/2.8" CMOS
Effective Pixels	2336(H) x 1752(V), 4MP
Electronic Shutter Speed	1/1s~1/30,000s (auto or manual)
Min. Illumination	Color: 0.05Lux, Black & white: 0.005Lux, IR light (on): 0Lux
IR Distance	Distance up to 164ft (50m)
IR On/Off Control	Auto/Manual
IR LEDs	1

### Visible Lens

Focal Length	8mm
Max Aperture	F2.0
Angle of View	H: 71° V: 52°
Close Focus Distance	0.65ft (0.2m)

### PTZ

Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -15° ~ 90°
Manual Control Speed	Pan: 0.1°~200°/s; Tilt: 0.01°~120°/s
Preset Speed	Pan: 240°/s; Tilt: 200°/s
Presets	300
PTZ Mode	5 Auto Scan, 8 Tour, 5 Pattern, Auto Pan
Power up Action	Auto restore to previous PTZ and lens after power failure
Idle Motion	Activate Preset/Scan/Tour/Pattern/Pan

### Audio

Compression	G.711a; G.711mu; PCM
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### Video

Compression	H.265/H.264M/H.264H/H.264B/MJPEG
Streaming Capability	2 Streams

Resolution	Thermal: Main stream: 1.3M (1280 x 960); XVGA (1024 x 768); VGA (640 x 480/256 x 192); 1280 x 960 (default) Sub stream: VGA (640 x 480/256 x 192); 256 x 192  Visible: Main stream: 2336 x 1752; 1080p (1920 x 1080); 720p (1280 x 720); D1 (704 x 576); 2336 x 1752 (default) Sub stream: 720p (1280 x 720); D1 (704 x 576); CIF (352 x 288); 352 x 288
Frame Rate	Thermal: Main stream: 1 fps~25 fps, 25 fps by default Sub stream: 1 fps~25 fps, 15 fps by default  Visible: Main stream: 1 fps~25 fps, 25 fps by default Sub stream: 1 fps~25 fps, 15 fps by default
Bit Rate	H.265: 256 ~ 8192Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC/HLC/DWDR
White Balance	Auto/indoor/outdoor/tracking/manual/sodium lamp/ natural/street light
Noise Reduction	2D DNR/3D DNR
Electronic Image Stabilization (EIS)	Supported
Electronic Defog	Supported

### Intelligence

Tracking Trigger Mode	Manual/Auto (alarm triggered)
IVS	Tripwire, Intrusion
Advanced Intelligent Functions	Perimeter Protection (Tripwire, Intrusion with Human/ Vehicle Recognition) +Auto Tracking Cold/Hot spot trace (Auto Tracking), Call detection, Fire detection

### Network

Ethernet	RJ-45 (10/100/1000 Base-T)
Protocol	HTTP, TCP, ARP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, IPv4/v6, SNMP, QoS, UPnP, NTP
Interoperability	ONVIF Profile S
Streaming Method	Unicast / Multicast
Max. User Access	20 Users
Edge Storage	Micro SD (256G), NAS (Network Attached Storage), Local PC for instant recording
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

### Interface

Video Interface	1 port(BNC)
Audio Interface	In/Out 1/1 (2 Way talk supported)
RS485	Supported
Alarm	2/1 channel In/Out

### Electrical

Power Supply	DC 12V±15%/PoE+
Power Consumption	Max 24W

### Environmental

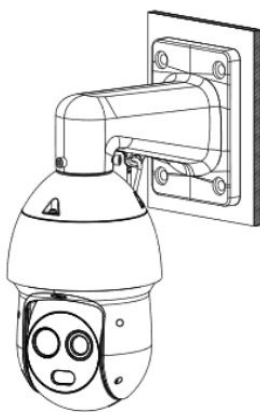
Heater	Auto heater protects the CPU under cold environment
Operating Humidity	≤ 95%
Ingress Protection	IP66

**Construction**

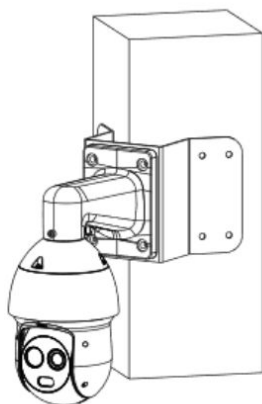
Casing	Metal
Dimensions	11.61"×6.3" (295mm×160mm)
Packaging Dimensions	10.51"×10.51"×17.2 (267.0mm×267.0mm×437.0mm)
Net Weight	7.05 lb (3.2Kg)
Gross Weight	10.36 lb (4.7Kg)

**Accessories**

Included Mount



Included mount with MNT-PCNRIP

**Dimensions (mm/in)**