

# THIP-P2078FM-IR

Thermal Network Hybrid Speed Dome Camera



- 256x192 VOx uncooled thermal sensor
- 1/2.8" 2 MP progressive scan CMOS
- ROI, motion detection, color palette Support
- Smart alarm linkage with white light & loudspeaker
- Fire Detection & Alarm Support
- IR support up to 164 feet
- Micro SD memory, IP66, PoE+

## System Overview

The THIP-P2078FM-IR is IC Realtime's premiere thermal hybrid speed dome featuring a dual lens (Thermal and Visible), this series provides an all-in-one solution for capturing video surveillance for indoor and outdoor applications.

Together 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 for confirming details. In addition, the camera also features IVS support and 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 -30 °C to +60 °C (-22 °F to +140 °F), 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.

### IVS

With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a predetermined line has been crossed, ideal for business intelligence, workforce optimization, and actionable intelligence.

## Technical Specification

### Thermal Camera

Image Sensor	Uncooled VOx Microbolometer
Effective Pixels	256(H) x 192(V)
Pixel Size	12um
Thermal Sensitivity (NETD)	≤50mK
Spectral Range	8 ~ 14um
Image Setting	Brightness/Sharpness/ROI/AGC/FFC/3D DNR
Color Palettes	18(Whitehot/Blackhot/Ironrow/Icefire/Fusion/Rainbow/G lobow/Iconbow1/Iconbow2 .etc)

### Thermal Lens

Lens Type	Fixed/F1.0
Mount Type	Athermalized, Focus-free
Focal Length	7mm
Max. Aperture	F1.4
Angle of View	H: 24°, V: 18°
Effective Distance①Human(1.8m*0.5m)	D: 292m R: 75m I: 38m
Effective Distance②Vehicle(4.0m*1.4m)	D: 778m R: 194m I: 97m

### Visible Camera

Image Sensor	1/2.8" 2M CMOS
Effective Pixels	1920(H)x1080(V)
Electronic Shutter Speed	1/1 ~ 1/30,000s
Min. Illumination	Color: 0.005Lux; B/W: 0.0005Lux; 0Lux (IR on)
IR Distance	Distance up to 50m (164ft)
IR On/Off Control	Auto/Manual
IR LEDs	1

### Visible Lens

Focal Length	8mm
Max Aperture	F1.9
Angle of View	H: 40° V: 22°
Close Focus Distance	0.2m

### PTZ

Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -15° ~ 90°
Manual Control Speed	Pan: 0.1° ~ 200° /s; Tilt: 0.1° ~ 120° /s
Preset Speed	Pan: 0.1° ~ 240° /s; Tilt: 0.1° ~ 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 status after power failure
Idle Motion	Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period
Protocol	ICR-SD, Pelco-P/D (Auto recognition)

### Video

Compression	H.265/H.264M/H.264H/H.264B/MJPEG
Streaming Capability	2 Streams
Resolution	Thermal: 1280x960 Visible: 1920x1080

Frame Rate	Main Stream: 50Hz:Thermal: 1280*960/1024*768/640*480/256*192@25fpsVisible: 1920*1080/1280*720/704*576@25fps 60Hz:Thermal: 1280*960/1024*768/640*480/256*192@30fpsVisible: 1920*1080/1280*720/704*480@30fps  Sub Stream: 50Hz:Thermal: 640*480/256*192@25fpsVisible: 704*576/352*288@25fps 60Hz:Thermal: 640*480/256*192@30fpsVisible: 704*480/352*240@30fps
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 640 ~ 8192Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC/HLC/DWDR
White Balance	Auto/Indoor/ Outdoor/Manual etc.
Noise Reduction	2D DNR/3D DNR
Motion Detection	Off/On (4 zone, Rectangle)
Region of Interest	Off/On (4 zone)
Defog	Off/On
Flip	180°
Mirror	Off/On
Privacy Masking	Off/On (4 area, Rectangle)

### Audio

Compression	G.711a/G.711Mu/AAC/PCM
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### Intelligence

Tracking Trigger Mode	Manual/Auto (alarm triggered)
Tracking Trigger Event	Targeting, Tracking, Recording, Snapshot, Alarm, etc.
IVS	Tripwire, Intrusion
Advanced Intelligent Functions	Fire detection & alarm, Cold/Hot spot trace, Human/Vehicle classification

### Network

Ethernet	RJ-45 (10/100Base-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 & G, API
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
RS485	Support
Alarm	2/1 channel In/Out

### Electrical

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

**Environmental**

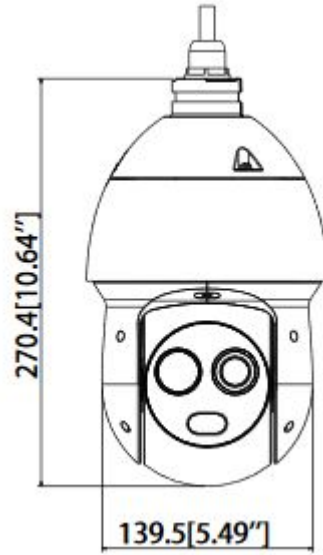
Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F)
Storage Conditions	-40° C ~ +70° C (-40° F ~ +158° F)
Relative Humidity	≤ 95%
Ingress Protection	IP66

**Construction**

Casing	Metal
Dimensions	295mm × Φ160mm (11.61" × Φ6.30")
Net Weight	3.2Kg (7.05 lb)
Gross Weight	4.7Kg (10.36 lb)

Note:  
 ① Effective distance values shown are nominal values and should be used as estimates only. Exact value calculations depend on a wide variety of conditions.  
 ② D: Detection Distance  
 ③ R: Recognition Distance  
 ④ I: Identification Distance

**Dimensions (mm/in)**



**Accessories**

