CMIP3T22W1-2M

Platinum Thermal & Optical Network Turret Camera

The CMIP3T22W1-2M Thermal & Optical Network Turret Camera comes equipped with a built-in GPU which supports an intelligent behavior analysis algorithm. This camera provides precise VCA detections and real-time alarms. It excels in fire-prevention applications in indoor spaces such as engine rooms, ATM vestibules, conference rooms, warehouses, museums, train stations, power stations, and many more similar settings. The pre-alarm system also helps users discover unexpected events immediately and prevents loss and damage to property.

Smart Function (Thermal Imaging)

- Leading image processing technology: Adaptive AGC, DDE, 3D DNR, NETD less than 40 mK (25° C), F# = 1.1
- Powerful behavior analysis functionality, based on deep learning algorithms: Line crossing, intrusion, region entrance & exit
- Reliable temperature exception/anomaly alarm function
- Advanced fire detection algorithm
- Bi-spectrum image fusion, picture in picture preview

Thermal Imaging Module Function

- 160 × 120 resolution sensor (resolution output is 320 × 240), high sensitivity sensor; supports contrast adjustment
- Shutter adjustment in various modes
- 3D DNR, 15 palettes of adjustable color, and image detail enhancement

Specifications

Thermal Module	
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Max. Resolution	160 × 120 (output resolution 320 × 240)
Pixel Interval	17 μm
Response Waveband	8 to 14 μm
NETD	Less than 40 mK (25° C), F# = 1.1
Lens (Focal Length)	1.8 mm
MRAD	9.44 mrad
Field of View	Hor: 90°, Vert: 66.4°
Min. Focusing Distance	0.1 m
Aperture	F1.1

Optical Module	
Max. Image Resolution	1920 × 1080
Image Sensor	1/2.7 in. Progressive Scan CMOS
Min. Illumination	Color: 0.002 Lux @ (F1.2, AGC on), B & W: 0.0002 Lux @ (F1.2, AGC on)
Shutter Speed	1 sec. to 1/100,000 sec.
Lens (Focal Length)	2.1 mm
Field of View	Hor: 101.2°, Vert: 77°(
WDR	120 WDR
Day & Night	IR cut filter with auto switch

Image Function	
Bi-spectrum Image Fusion	Fusion view of thermal view and overlaid details of the optical channel
Picture in Picture	Combins details of thermal and optical image PIP, overlay thermal image on optical image

Smart Function	
VCA (Video Content Analysis)	4 VCA rule types (Line Crossing, Intrusion, Region Entrance, and Region Exiting), up to 8 VCA rules
Temperature Measurement	3 temperature measurement rule types, 21 rules (10 points, 10 areas, and 1 line)
Temperature Range	-4° to 302° F (-20° to 150° C)
Temperature Accuracy	± 14.4° F (± 8° C)
Fire detection	Dynamic fire point detection, up to 10 fire points detectable.

Infrared	
IR Distance	Up to 49 ft (15 m)
IR Intensity and Angle	Automatically adjusted

Network	
Main Stream	Visible Light: 50 Hz: 25 fps (1920 × 1080), 25 fps (1280 × 960), 25 fps (1280 × 720)
	Visible Light: 60 Hz: 30 fps (1920 × 1080), 30 fps (1280 × 960), 30 fps (1280 × 720)
	Thermal: 25 fps (160 × 120 (the resolution of output image is 320 × 240))

Sub Stream	Visible Light: 50 Hz: 25 fps (704 × 576), 25 fps (640 × 480)
	Visible Light: 60 Hz: 30 fps (704 × 480), 30 fps (640 × 480)
	Thermal: 25 fps (160 × 120 (the resolution of output image is 320 × 240))
Video Compression	H.265 / H.264, H.265+ / H.264+ encoding with Baseline / Main / High Profile
Audio Compression	G .711 u / G.711 a / G.722.1 / MP2L2 / G.726 / PCM
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour
Simultaneous Live View	Up to 20
User / Host level	Up to 32 users, 3 levels: Administrator, Operator, User
Security Measures	User authentication (ID and PW), MAC address binding, HTTPS encryption, IEEE 802.1x access control, IP address filtering

Integration

Alarm Input	1 ch input (0 - 5 VDC)
Alarm Output	1 ch relay output, alarm response actions configurable
Alarm Action	SD recording / Relay output / Smart capture / FTP upload / Email linkage
Audio Input	3.5 mm Mic in/Line in interface; line input: 2 - 2.4 V [p-p], output imp: 1 KΩ ± 10%
Audio Output	Linear Level; Impedance: 600 Ω
Reset	Button
Ethernet	1 x RJ45 10M/100M Self-adaptive Ethernet interface, 1 x RS-485 interface
SD Memory Card	Built-in Micro SD card slot, supports Micro SD / SDHC / SDXC cards (up to 256 GB), supports manual / alarm recording
Analog Video Output	1.0 V [p-p] / 75 Ω, PAL / NTSC / BNC
Application Programming	Open-ended API, support ISAPI, SDK and third-party management platform
Web Browser	IE 9+, Chrome 31 - 44, Firefox 30 - 51, Safari 5.02+ (Mac)

General

Menu language	English
Power	12 VDC ±20%, two-core terminal block
	PoE (802.3 af, class 3)
Power Consumption	12 VDC ±20%: 0.7 A, max. 8 W
	PoE (802.3 af, class 3): 42.5 to 57 V, 0.14 to 0.22 A; max. 8.5 W
Operating Temperature / Humidity	-22° to 140° F (-30° to 60° C), 95% or less
Protection Level	IP67 Standard
	TVS 6000V Lightning protection, surge protection, voltage transient protection
Dimensions	5.45 × 5.45 × 4.85 in. (138.3 × 138.3 × 123.1 mm)
Weight	1.98 lbs (900 g)

Detection Range Table

Note: This table is for reference only; performance may vary from camera to camera.

Smart functions Range

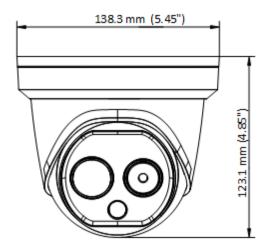Each target triggers VCA events within unique range limits.

VCA Range (Vehicles: 1.4 × 4.0 m)	VCA Range (Humans: 1.8 × 0.5 m)	Temperature Measurement (Object: 2 × 2 m)	Temperature measurement (Object: 1 × 1 m)	Fire Detection (Object: 2 × 2 m)	Fire Detection (Object: 1 × 1 m)
42 m	14 m	44 m	22 m	108 m	54 m

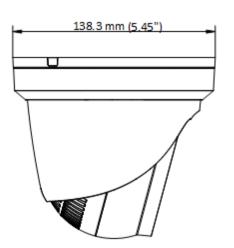## Wide Range Coverage

There is range limit for detecting, recognizing, and identifying human / vehicle targets.

Detection Range (Vehicles: 1.4 × 4.0m)	Detection Range (Humans: 1.8 × 0.5m)	Recognition Range (Vehicles: 1.4 × 4.0m)	Recognition Range (Humans: 1.8 × 0.5m)	Identification Range (Vehicles: 1.4 × 4.0m)	Identification Range (Humans: 1.8 × 0.5m)
162 m	53 m	41 m	13 m	20 m	7 m

Dimensions