

IPPT-ELT2D

2MP 4/3.5mm Hybrid Thermal PTZ



System Overview

Equipped with an Uncooled VOx Microbolometer image sensor and a 4/3.5mm hybrid fixed lens, the VOx Microbolometer is a lighter, smaller, and lower cost detector than regular cooled thermal detectors. High Thermal Sensitivity (<50mK) makes the camera capture more image detail and temperature difference information. This camera also features a Micro SD card slot capable of handling up to a 256GB micro SD card for either recording directly or used with Automatic Network Replenishment.

Functions

Uncooled VOx Technology

This thermal camera uses uncooled VOx sensor technology. Because of its small size and better performance, it's a cost-effective solution for thermal security.

High Sensitivity

High thermal sensitivity (<50mK) makes the camera capture more image details and temperature difference information.

Fire Detection & Alarm

With built-in Fire detect function, the camera has the ability to detect a fire in a long distance. Because the thermal camera is sensitive to temperature, the accuracy of fire detection will be higher than a visible-light camera.

Smart Alarm Linkage

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

- 256 x 192 VOx uncooled thermal sensor technology
- 1/2.8" 2 Megapixel progressive scan CMOS
- Smart alarm linkage with white light & loudspeaker
- Support Fire detection & alarm
- Up to 300 presets, 5 auto scan, 8 tour, 5 pattern
- Micro SD memory, IP66, PoE



Intelligent Video System (IVS)

IVS system provides advanced, accurate video analytic for both IP and analog cameras. The IVS engine can track, classify and analyze the behavior of individual or group of objects over long distance to greatly improve parameter security and monitoring efficiency.

Environmental

With a temperature range of -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.

Protection

Supporting ±15% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 6KV lightning rating provides protection against the camera and its structure from the effects of lightning.

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/Globow/Iconbow1/ Iconbow2 .etc)

Thermal Lens

Lens Type	Fixed/F1.0
Focus Control	Athermalized, Focus-free
Focal Length	4/3.5mm
Angle of View	H: 50.6°, V: 37.8°
Effective Distance ^① Human(1.8m*0.5m)	D: 146m R: 38m I: 19m
Effective Distance Vehicle(4.0m*1.4m)	D: 389m R: 97m I: 49m

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	35m
IR On/Off Control	Auto/Manual
IR LEDs	1

Visible Lens

Focal Length	4mm
Max Aperture	F2.0
Angle of View	H: 84° V: 45°
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
Pre-set Speed	Pan: 0.1° ~ 240° /s; Tilt: 0.1° ~ 200° /s
Pre-set	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 Pre-set/ Scan/Tour/Pattern if there is no command in the specified period
Protocol	DH-SD, Pelco-P/D (Auto recognition)

Video

Compression	H.265/H.264M/H.264H/H.264B/MJPEG
Frame Rate	Main Stream: 50Hz: Thermal: 1280*960/1024*768/640*480/256*192@25fps Visible: 1920*1080/1280*720/704*576@25fps 60Hz: Thermal: 1280*960/1024*768/640*480/256*192@30fps Visible: 1920*1080/1280*720/704*480@30fps Sub Stream: 50Hz: Thermal: 640*480/256*192@25fps Visible: 704*576/352*288@25fps 60Hz: Thermal: 640*480/256*192@30fps Visible: 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

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

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	HTTP, TCP, ARP, 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) Memory status display (Normal/Error/Active/Formatting/Lock) NAS (Network Attached Storage) Local PC for instant recording
Web Viewer	>IE8, <Chrome42, <Firefox42, <Safari 10
Management Software	Smart PSS, DSS
Smart Phone	Android, IOS
Certifications	
Certification	CE (EN 60950:2000) FCC (FCC Part 15 SubpartB)
Interface	
Video Interface	1 port(BNC)
Audio Interface	In/Out 1/1
RS485	Support
Alarm	2/1 In/Out
Electrical	
Power Supply	DC 12V±15%/PoE+
Power Consumption	Max 24W
Environmental	
Operating Condition	-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)
Cross 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

Accessories

Include:



WM-EL305W
Wall Mount

Optional:



MA-EL120
Wall Mount



PM-EL150
Pole Mount



CM-EL151
Corner Mount

Mounting Type

Junction Mount	Pole Mount
WM-EL305W + MA-EL120	WM-EL305W + PM-EL150
Corner Mount	
WM-EL305W + CM-EL151	

Dimensions (mm)

