HIKMICRO

HM-TD95C8-150ZE4FL/W(B)
Thermal & Optical Bi-spectrum Network Sphere Positioning System

Hikmicro HM-TD95C8-150ZE4FL/W(B) Thermal & Optical Bi-spectrum Network Sphere Positioning System equipped with built-in GPU which supports intelligent perimeter protection algorithm with vehicle/human classification, can realize high-precision VCA detection and real-time alarm. It is applied to perimeter protection scenes, also airport, railway, port, large parking lot and other scenarios. The pre-alarm system helps you discover unexpected events immediately and protects your property.

- Perimeter protection function, based on intelligent algorithm: line crossing, intrusion, region entrance and exit

- 1280×1024 resolution 12 μm, VOx UFPA, NETD ≤25 mK (25 °C, F# = 1.0)

- Fire detection and smoke detection algorithm

- Image processing technology: Liner, histogram, and self-adaptive thermal AGC mode, DDE, 3D DNR

- Smart wiper, automatically turns on when it rains

- High quality detector with 10 years guarantee

- NEMA-4X Standard, Anti-corrosion coating

▪ Specification

Thermal Module	
Image Sensor	VOx Uncooled Focal Plane Arrays
Resolution	1280×1024
Pixel Pitch	12μm
Spectral Range	8μm to 14μm
NETD	Less than 25 mK (@ 25 °C,F# = 1.0)
Focal Length	30 to 150 mm
Focus Mode	Semi-auto & Manual
IFOV	0.40 to 0.08 mrad
Aperture	F0.85 to F1.2
Field of View	28.7°×23.2° (H×V) to 5.9°×4.7° (H×V)
Min. Focusing Distance	3 m
Digital Zoom	×2, ×4, ×8
Optical Module	
Image Sensor	1/1.8" Progressive Scan CMOS
Resolution	2688×1520, 4 MP
Min. Illumination	Color: 0.005 Lux @ (F3.5, AGC ON), B/W: 0.0005 Lux @ (F3.5, AGC ON)
Field of View	31.2°×17.8° (H×V) to 0.5°×0.3° (H×V)
Focal Length	10 to 800 mm, 80x
Aperture (Range)	F3.0 to F11.5
Focus Mode	Semi-auto & Manual
Digital Zoom	×2, ×4, ×8, ×16
Shutter Speed	1 s to 1/30,000 s
WDR	120 dB
Optical Defog	Yes
Image Effect	
Picture in Picture	Display partial image of thermal channel on the full screen of optical channel
Target Coloration	Supported in white hot and black hot mode
Image Stabilization	Thermal channel: Built-in gyroscope to improve EIS performance(conflicted with intelligent function）; Optical channel：Optical Image Stabilization (OIS)
PTZ	
Movement Range	Pan: 360° Continuous Rotate; Tilt: From -45° to + 45° (auto flip)
Pan Speed	Configurable, From 0.01°/s to 120°/s, Preset Speed: 120°/s
Tilt Speed	Configurable, From 0.01°/s to 80°/s, Preset Speed: 80°/s
Proportional Zoom	Yes
Presets	300 in total, 273 are configurable.
Patrol Scan	8; Up to 256 Presets Per Patrol
Pattern Scan	4; More Than 10 Minutes Per Pattern
Power Off Memory	Yes

Park	Preset/Pattern Scan/Patrol Scan/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan
PT Status	Turn On/Turn Off
Scheduled Task	Preset/Pattern Scan/Patrol Scan/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan/Doom Reboot/Doom Adjust/Aux Output
Illuminator	
Laser Distance	Up to 3000m
Smart Function	
Basic Event	motion detection,video tampering alarm,alarm input and output,audio exception detection,scene change detection
VCA	Support 4 VCA rule types (Line Crossing, Intrusion, Region Entrance, and Region Exiting), up to 50 scenes and 8 VCA rules for each scene
Fire Detection	Dynamic fire point detection, up to 10 fire points detectable.
Smoke Detection	Up to 12km detection ability with 5m*5m smoke
Video and Audio	
Main Stream	Optical channel 50 Hz: 25 fps (2688×1520, 1920×1080, 1280×960, 1280×720) 60 Hz: 30 fps (2688×1520, 1920×1080, 1280×960, 1280×720) Thermal channel 25 fps (1920×1080, 1280×1024, 1280×960, 1280×720, 704×576, 640×512, 384×288)
Sub-stream	Optical channel 50 Hz: 25 fps (704×576, 352×288) 60 Hz: 30 fps (704×576, 352×288) Thermal channel 25 fps (704×576, 640×512, 384×288)
Video Compression	Main stream: H.265/H.264 Sub-stream: H.265/H.264/MJPEG
Audio Compression	G .711u/G.711a/G.722.1/MP2L2/G.726/PCM/AAC
Video and Image	
Color Palettes	15 palettes (White hot, Black hot, Fusion 1, Rainbow, Fusion 2, Ironbow 1, Ironbow 2, Sepia, Color 1, Color 2, Icefire, Rain, Red hot,Green hot, Dark blue)
Network	
Protocols	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE
Network Storage	MicroSD/SDHC/SDXC card (up to 512 G) local storage, and NAS (NFS, SMB/CIFS), auto network replenishment (ANR)
API	ISAPI, ISUP, HIKVISION SDK, Open Network Video Interface (Profile S, Profile G, Profile T), OTAP
Simultaneous Live View	Up to 20 channels
User/Host level	Up to 32 users, 3 levels: Administrator, Operator, User
Security	User authentication (ID and Password), MAC address binding, HTTPS encryption, IEEE 802.1x(EAP-MD5, EAP-TLS), access control, IP address filtering
Client	iVMS-4200, Hik-Connect, Hik-Central

Web Browser	Live view (plug-in allowed) : Internet Explorer 11 Live view (plug-in free) : Chrome 57.0 +, Firefox 52.0 + Local service : Chrome 57.0+, Firefox 52.0 +
Interface	
Alarm Input	2-ch inputs (0 to 5 VDC)
Alarm Output	2-ch relay outputs, alarm response actions configurable
Alarm Action	Preset/Patrol Scan/Pattern Scan/SD Card Record/Relay Output/Smart capture/FTP upload/Email linkage
Audio Input	1, 3.5 mm Mic in/Line in interface. Line input: 2 to 2.4 V [p-p], output impedance: 1 K $\Omega \pm 10\%$
Audio Output	Linear Level; Impedance: 600 Ω
Communication Interface	1, RJ45 10 M/100 M/1000 M Self-adaptive Ethernet interface. 1, RS-485 interface
Analog Output	1.0 V [p-p]/75 Ω, BNC for thermal channel
General	
Menu Language	32 languages English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil)
Power Supply	48 VDC $\pm$ 20%, 4-pin Aviation Connector
Power Consumption	180 W; Max. 460 W with deicing heating
Working Temperature/Humidity	From -40°C to 70°C (-40°F to 158°F); Humidity: 90% $\pm$ 3% (no condensation)
Wiper	Manual & Scheduled & Smart Wiper
Protection Level	IP67 Standard; TVS 6000V Lightning Protection, Surge Protection and Voltage Transient Protection
Dimensions	578.3 mm×571 mm×955.7 mm (22.8 "×22.5 "×37.6 ")
Weight	Approx. 100kg (220.5 lb)
Detection Range Table	
VCA Range for Humans	1050 m
VCA Range for Vehicles	3150 m
Approval	
EMC	CE-EMC (EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN50130-4: 2011+A1: 2014)
Safety	CB: IEC 62368-1: 2014+A11; CE-LVD: EN 62368-1: 2014/A11: 2017
Environment	CE-RoHS：2011/65/EU, WEEE: 2012/19/EU, Reach：Regulation(EC) No 1907/2006
Protection	IP67: IEC 60529-2013
Anti-Corrosion Protection	NEMA 4X (NEMA 250-2018)

▪ Range Table

VCA Range (Vehicles: 1.4×4.0 m)	VCA Range (Humans: 1.8×0.5 m)	VCA Range (Vessels: 10×5 m)	Fire Detection (Object: 1×1 m)	Smoke Detection (Object: 5×5 m)
3150 m	1050 m	4500 m	6250 m	12000 m

▪ DORI

*Effective distance values shown are nominal values and should be used as estimates only. Exact value calculations depend on a wide variety of conditions. These values are calculated according to Stanag 4347 standards.

Target type	Human(1.8*0.5m)	Vehicle(1.4*4m)	Ship(10*5m)	Ship(20*5m)
Detection Range	5.1km	11.9km	15.4km	16.9km
Recognition Range	1.9km	4.3km	8.2km	11.3km
Identification Range	1km	2.1km	4.1km	6km

▪ Typical Application

HIKMICRO products are classified into three levels according to their anti-corrosion performance. Refer to the following description to choose for your using environment.

No products could be used under HYDROGEN FLUORIDE environment. This model has MODERATE PROTECTION.
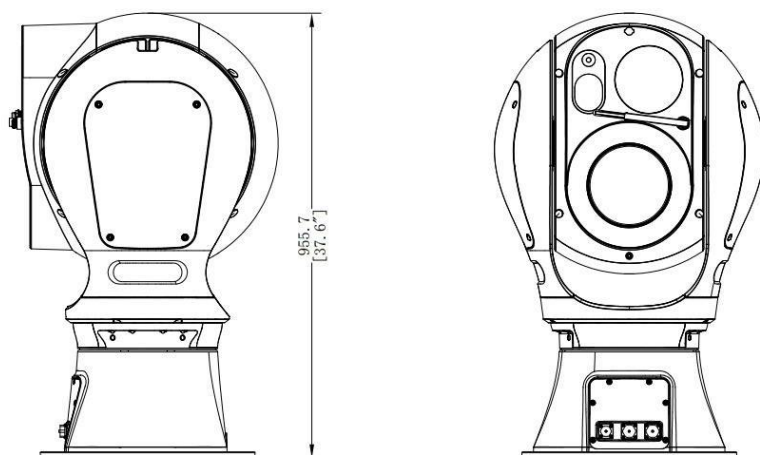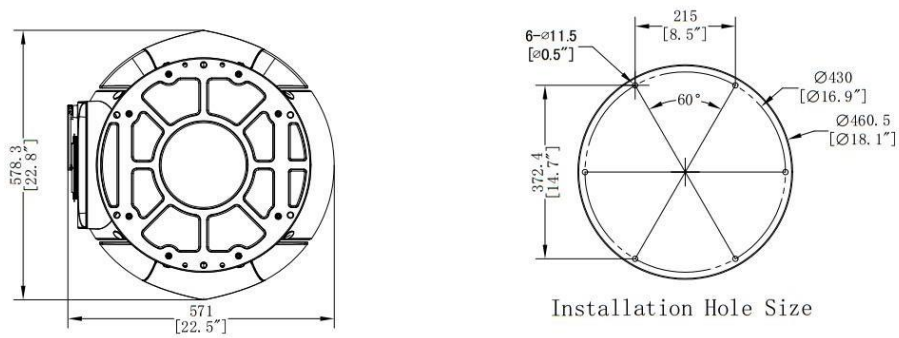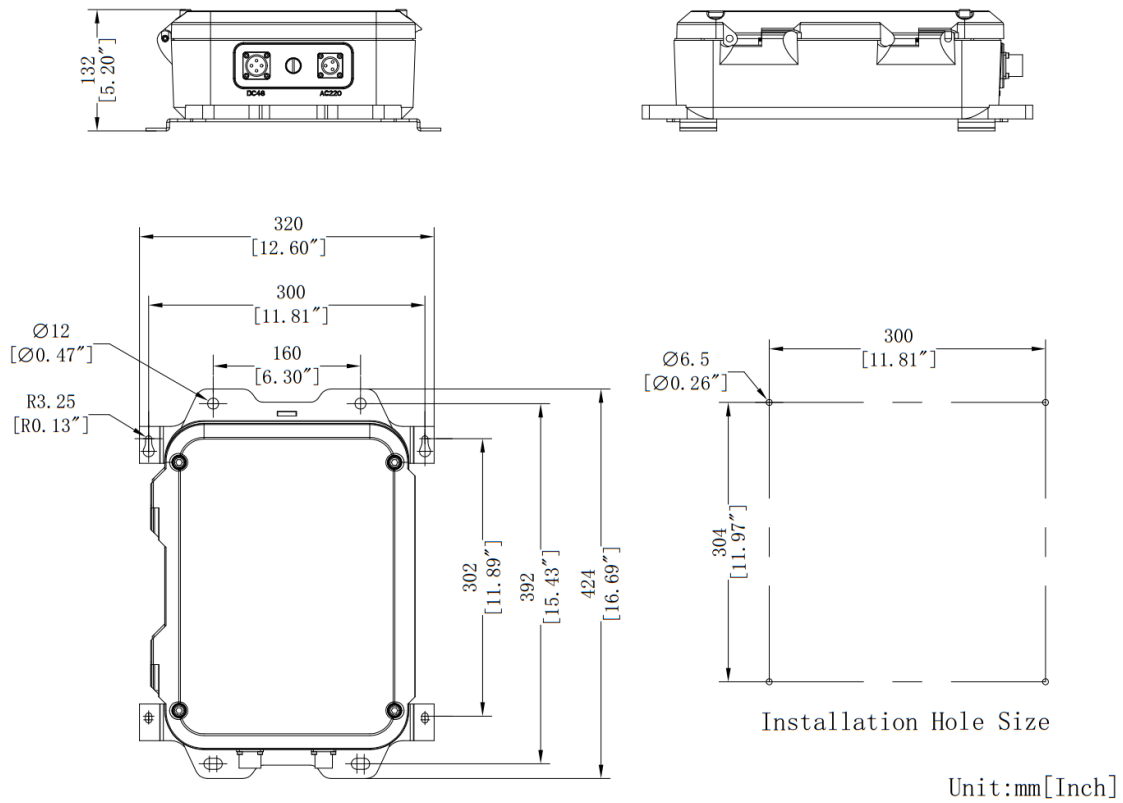
Level	Description
Top-level Protection	HIKMICRO products at this level are equipped for use in areas where professional anti-corrosion protection is a must. Usually it is used in salt-spray and sulfur dioxide (with a concentration volume ratio of less than 0.67%) environment, such as chemical plants and coastal lines.
Moderate Protection	HIKMICRO products at this level are equipped for use in areas with moderate anti-corrosion demands. Typical application scenarios include coastal areas about 2 kilometers (1.24 miles) away from coastlines, as well as areas affected by acid rain.
No Specific Protection	HIKMICRO products at this level are equipped for use in areas where no specific anti-corrosion protection is needed.

▪ Available Model

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▪ Dimension

132
[5.20"]

DC48   AC220

320
[12.60"]

300
[11.81"]

∅12
[∅0.47"]

160
[6.30"]

R3.25
[R0.13"]

302
[11.89"]

392
[15.43"]

424
[16.69"]

∅6.5
[∅0.26"]

300
[11.81"]

304
[11.97"]

Installation Hole Size

Unit:mm[Inch]

578.3
[22.8"]

571
[22.5"]

215
[8.5"]

6-∅11.5
[∅0.5"]

∅430
[∅16.9"]

∅460.5
[∅18.1"]

60°

372.4
[14.7"]

Installation Hole Size

955.7
[37.6"]

Unit:mm(inch)