HM-TD63C8-100C4L/G0/T2Y
Thermal & Optical Bi-spectrum Network Positioning System

HIKMICRO HM-TD63C8-100C4L/G0/T2Y Anti-corrosion Thermal Optical Bi-spectrum Network Positioning System is applied to perimeter protection and fire-prevention purposes in scenes such as port, dock, island, aquafarm. The coating technology can meet the use requirements in anti-corrosion environment.

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

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

- Temperature exception alarm for fire prevention

- Fire detection and smoke detection algorithm

- Built-in self-cleaning module for clear lens

- 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 Interval	12 μm
Response Waveband	8 μm to 14 μm
NETD	Less than 25 mK (@25°C,F#=1.0)
Focal Length	100 mm
Focus Mode	Semi-auto & Manual
IFOV	0.12 mrad
Aperture	F1.0
Field of View	11.7° (H) *9.4° (V)
Min. Focusing Distance	10m
Digital Zoom	X2, x4, x8
Optical Module	
Image Sensor	1/1.8" Progressive Scan CMOS
Min. Illumination	Color: 0.002 Lux @(F1.5, AGC ON), B/W: 0.0002 Lux@ (F1.5, AGC ON) ,0 Lux with IR
Resolution	2688 × 1520, 4 MP
Field of View	55.56°(H)*32.4°(V)~1.86°(H)*1.06°V)
Focal Length	6-360mm, 60x
Aperture (Range)	F1.59-5.42
Focus Mode	Auto & Semi-auto & Manual
Shutter Speed	1.1 s to 1/30,000 s
WDR	120 dB
Optical Defog	Yes
Digital Zoom	x2, x4, x8, x16
Image Effect	
Picture in Picture	Display partial image of thermal channel on the full screen of optical channel
Target Coloration	Yes. Supported in white hot and black hot mode.
Image Stabilization	Thermal channel supports EIS. Optical channel supports OIS.
PTZ	
Movement Range	Pan: 360° Continuous Rotate; Tilt: From -85° to + 85° (auto flip)
Pan Speed	Configurable, From 0.01°/s to 110°/s
Tilt Speed	Configurable, From 0.01°/s to 50°/s
Proportional Zoom	Yes
Presets	300 in total
Patrol Scan	8; Up to 32 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	
IR Distance	Up to 2000 m
IR Intensity and Angle	Automatically adjusted
Smart Function	
VCA	Support 4 VCA rule types (Line Crossing, Intrusion, Region Entrance, and Region Exiting), up to 10 scenes and 8 VCA rules for each scene
Temperature Measurement	Support 3 temperature measurement rule types, 273 presets as scene, 21 rules of each scene (10 points, 10 areas, and 1 line)
Temperature Range	-20 °C to 150 °C (-4 °F to 302 °F)
Temperature Accuracy	± 8 °C (±14.4 °F)
Fire Detection	Dynamic fire point detection, up to 10 fire points detectable.
Smoke Detection	Up to 6km 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 50 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 x 576, 640 x 512, 384 x 288)
Sub-stream	Optical channel 50 Hz: 25fps (704 × 576, 352 × 288) 60 Hz: 30 fps (704 × 576, 352 × 288) Thermal channel 50 fps (704 × 576, 640 × 512, 384 × 288)
Video Compression	Main stream: H.265+/H.265/H.264+/ H.264 Sub-stream: H.265/H.264/MJPEG
Audio Compression	G .711u/G.711a/G.722.1/MP2L2/G.726/PCM
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, HIKVISION SDK, third-party management platform, ONVIF (Profile S, Profile G, Profile T)
Simultaneous Live View	Up to 20 channels
User/Host level	Up to 32 users, 3 levels: Administrator, Operator, User
Security	User authentication (ID and PW), MAC address binding, HTTPS encryption, IEEE 802.1x access control, IP address filtering
Client	iVMS-4200, Hik-Connect
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	7-ch inputs (0-5 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 - 2.4 V [p-p], output impedance: 1 KΩ ± 10%
Audio Output	Linear Level; Impedance: 600 Ω
Communication Interface	1, RJ45 10 M/100 M Self-adaptive Ethernet interface. 1, RS-485 interface
Analog Video Output	1.0 V [p-p]/75 Ω, BNC for thermal channel
General	
Power	36VDC ± 20%, 48VDC ± 20%, two-core terminal block
Power Consumption	7 A, max. 150 W
Work Temperature/Humidity	From -40°C to 70°C (-40°F to 158°F); Humidity: 95% or Less
Wiper	Yes
Protection Level	IP66 Standard; TVS 6000V Lightning Protection, Surge Protection and Voltage Transient Protection
Dimension	543.8mm × 399.7mm × 390.3 mm (21.41" × 15.74" × 15.37")
Weight	Approx. 27.5 kg (60.627 lb)
Detection Range Table	
VCA Range for Humans	1000m
VCA Range for Vehicles	3000m
Approval	
EMC	CE-EMC (EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN50130-4: 2011+A1: 2014); RCM (AS/NZS CISPR 32: 2015); IC (ICES-003: Issue 7)
Safety	CB: IEC 62368-1: 2014+A11; CE-LVD: EN 62368-1: 2014/A11: 2017; BIS: IS 13252 (Part 1): 2010/ IEC 60950-1: 2005
Environment	CE-RoHS：2011/65/EU, WEEE: 2012/19/EU, Reach：Regulation(EC) No 1907/2006
Protection	IP66: IEC 60529-2013
Other	NEMA 4X (NEMA 250-2018)

▪ **Range Table**

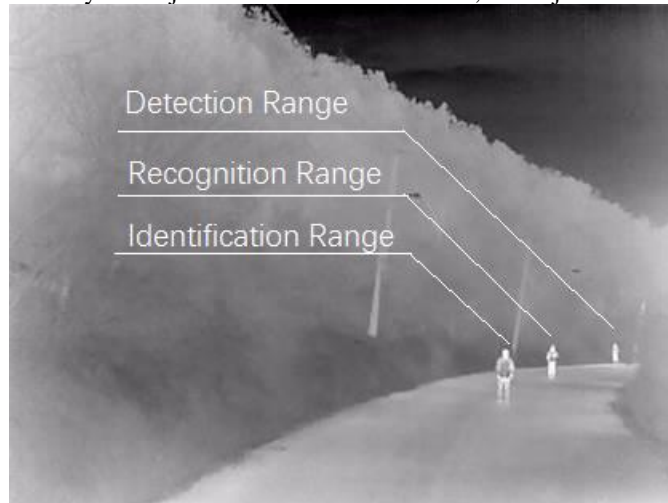| VCA Range (Vehicles: 1.4 × 4.0 m)	VCA Range (Humans: 1.8 × 0.5 m)	VCA Range (Vessels: 10 × 5 m)	Temperature Measurement (Object: 1 × 1 m)	Fire Detection (Object: 1 × 1 m)	Smoke Detection (Object: 5 × 5 m)
3000m	1000m	4000m	1667m	4000m	6000m

▪ DORI

* The table is only for reference and the performance may vary according to different environment.

* The optimal human detection, recognition, and identification distances are calculated according to Johnson's Criteria.

Detection Range: In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels.

Recognition Range: In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels.

Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.
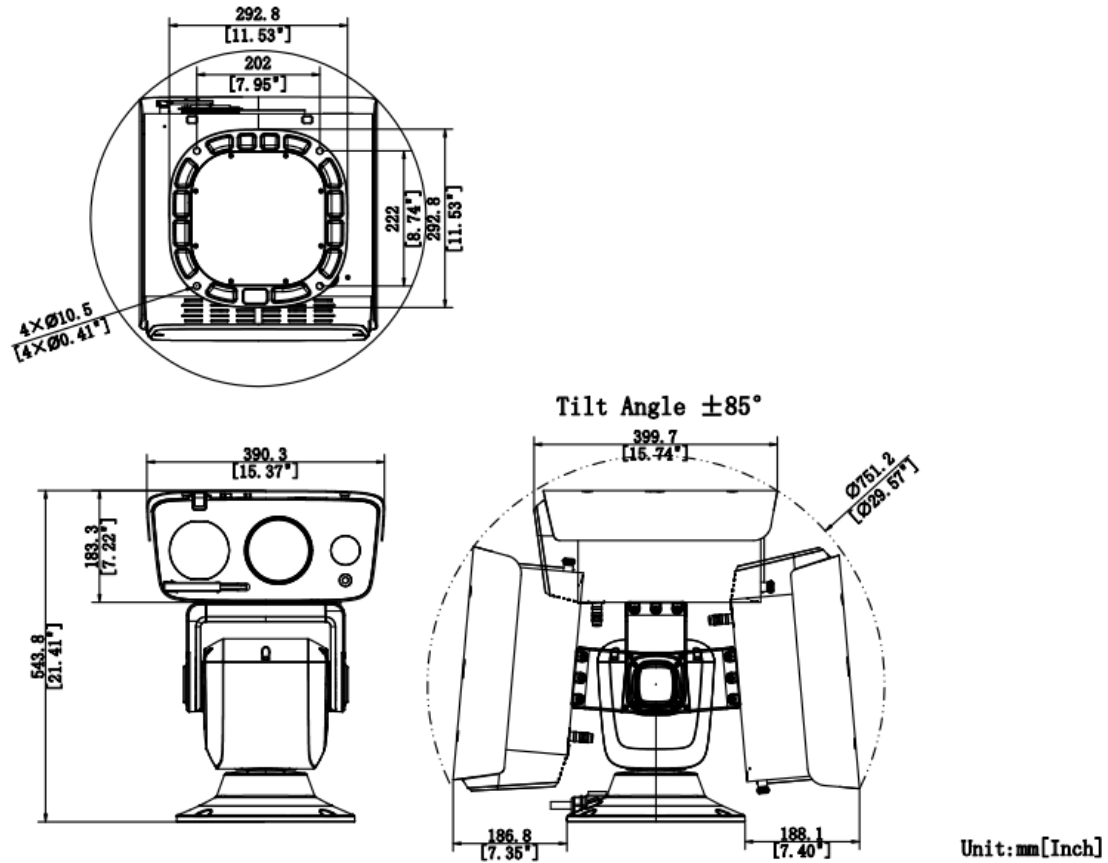

Detection Range (Vehicles: 1.4 × 4.0 m)	Detection Range (Humans: 1.8 × 0.5 m)	Recognition Range (Vehicles: 1.4 × 4.0 m)	Recognition Range (Humans: 1.8 × 0.5 m)	Identification Range (Vehicles: 1.4 × 4.0 m)	Identification Range (Humans: 1.8 × 0.5 m)
12778m	4167m	3194m	1042m	1597m	521m

▪ Available Model

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▪Dimension

292.8
[11.53"]

202
[7.95"]

222
[8.74"]

292.8
[11.53"]

4×Ø10.5
[4×Ø0.41"]

390.3
[15.37"]

183.3
[7.22"]

543.8
[21.41"]

Tilt Angle ±85°

399.7
[15.74"]

Ø751.2
[Ø29.57"]

186.8
[7.35"]

188.1
[7.40"]

Unit: mm[Inch]