

#### DS-2TD8167-190ZE2F/WY Anti-corrosion Thermal & Optical Bi-spectrum Network Stable PTZ



Hikvision DS-2TD8167-190ZE2F/WY Anti-corrosion Thermal & Optical Bi-spectrum Network Stable PTZ equipped is applied to perimeter defense and fire-prevention purposes in scenes such as: port, dock, island, aquafarm. The coating technology can meet the use requirements in anti-corrosion environment.

#### **Key Feature**

- Behavior analysis function, based on deep learning algorithm: line crossing, intrusion, region entrance & exit
- Temperature exception alarm for fire prevention
- Fire detection algorithm

**DeepinView** 

- 640 × 512 resolution 17  $\mu$ m, VOx UFPA, NETD ≤ 35 mK (25 °C, F# = 1.1)
- Image processing technology: Liner, histogram, and self-adaptive thermal AGC mode, DDE, 3D DNR
- NEMA-4X Standard





# Specification

Thermal Module						
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays					
Resolution	640 × 512					
Pixel Interval	17 μm					
Response Waveband	8 μm to 14 μm					
NETD (Noise Equivalent Temperature Difference)	≤ 35 mK (25 °C, F# = 1.1)					
Focal Length	36 to 190 mm					
IFOV	0.47 to 0.09 mrad					
Field of View	17.19° × 13.79° (H × V) to 3.46° × 2.77° (H × V)					
Min. Focusing Distance	3 m					
Aperture	F0.8 to F1.2					
Focus Mode	Semi-auto, manual					
Digital Zoom	×2, ×4, ×8					
Optical Module						
Image Sensor	1/1.8" Progressive Scan CMOS					
Resolution	1920 × 1080					
Min. Illumination	Color: 0.005 Lux @ (F3.5, AGC ON), B/W: 0.0005 Lux @ (F3.5, AGC ON)					
Shutter Speed	1s to 1/30,000s					
Focal Length	12.5 to 775 mm					
Field of View	Wide: 32.13° × 18.4°; Tele: 0.53°× 0.3°					
Aperture Range	F3.5 to F8.2					
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	Yes. Supported in white hot and black hot mode.					
PTZ						
Movement Range	Pan: 360° Continuous Rotate; Tilt: From -45° to + 45° (auto flip)					
Pan Speed	Configurable, From 0.01°/s to 40°/s					
Tilt Speed	Configurable, From 0.01°/s to 20°/s					
Proportional Zoom	Yes					
Presets	300					
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/Dome Reboot/Dome Adjust/Aux Output			
Smart Function				
VCA (Video Content Analysis)	4 VCA rule types (line crossing, intrusion, region entrance, and region exiting), 10 scenes and 8 VCA rules for each scene.			
Temperature Measurement	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 detection, up to 10 fire points detectable.			
Video & Audio				
Main Stream	Optical channel 50 Hz:25 fps (1920 × 1080, 1280 × 960, 1280 × 720) 60 Hz: 30 fps (1920 × 1080, 1280 × 960, 1280 × 720) Thermal channel 25 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 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 × 480, 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			
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 256 G) local storage, and NAS (NFS, SMB/CIFS), auto network replenishment (ANR)			
API	ISAPI, HIKVISION SDK, third-party management platform, open network video interface			
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(EAP-MD5, EAP-TLS), access control, IP address filtering			
Client	iVMS-4200, Hik-Connect			
Web Browser	ISAPI, HIKVISION SDK, third-party management platform, open network video interface			
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 Innut	1, 3.5 mm Mic in/Line in interface.					
Audio Input	Line input: 2-2.4 V [p-p], output impedance: 1 K $\Omega$ ± 10%					
Audio Output	Linear level, impedance: 600 Ω					
Communication Interface	1, RJ45 10M/100M self-adaptive Ethernet interface.					
	1, RS-485 interface					
Analog Video Output	1.0 V [p-p]/75 $\Omega$ ,BNC for thermal channel					
General						
	32 languages					
	English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak					
Menu Language	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	48 VDC ± 20%, two-core terminal block					
Power Consumption	48 VDC, 5 A, max. 220 W					
Working Temperature/Humidity	-40 °C to 65 °C (-40 °F to 149 °F)					
	95% or less					
Wiper	Yes					
Protection Level	IP67 Standard					
	TVS 6000V lightning protection, surge protection, voltage transient protection					
Dimension	649.2 mm × 438 mm × 668.3 mm (25.6 " × 17.2 " × 26.3 ")					
Weight	Approx. 60kg (132.3 lb)					



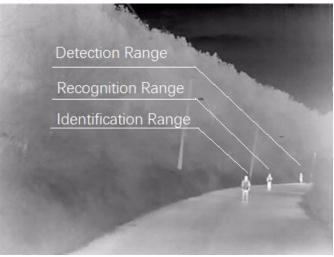
# **DRI Range Table**

\* 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	Detection Range	Recognition	Recognition	Identification	Identification
(Vehicles: 1.4 ×	(Humans: 1.8 ×	Range (Vehicles:	Range (Humans:	Range (Vehicles:	Range (Humans:
4.0 m)	0.5 m)	1.4 × 4.0 m)	1.8 × 0.5 m)	1.4 × 4.0 m)	1.8 × 0.5 m)
17137 m	5588 m	4284 m	1397 m	2142 m	699 m

#### Smart Function Table

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

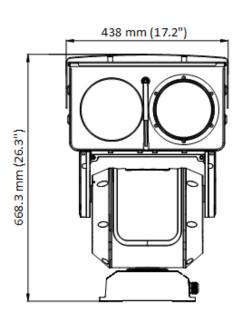
VCA Range (Vehicles: 1.4 × 4.0 m)	VCA Range (Humans: 1.8 × 0.5 m)	Temperature Measurement (Object: 2 × 2 m)	Temperature Measurement (Object: 1 × 1 m)	Fire Detection (Object: 2 × 2 m)	Fire Detection (Object: 1 × 1 m)
3912 m	1397 m	4446 m	2242 m	11172 m	5586 m

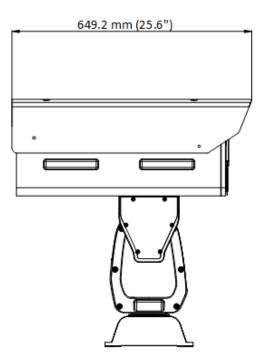
# **Available Model**

DS-2TD8167-190ZE2F/WY



### Dimension





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