

## DS-2TD8166-100C2F/V2

### Thermal & Optical Bi-spectrum Network Stable PTZ Camera



Hikvision DS-2TD8166-100C2F/V2 Thermal & Optical Bi-spectrum Network Stable PTZ Camera equipped with built-in GPU which support intelligent behavior analysis algorithm, can realize high precision VCA detection and real-time alarm. It is applied to frontier defense occasions, maritime defense occasions, port monitoring, airport perimeter security, and so on. The pre-alarm system helps you discover unexpected events immediately and protects you from property loss.

#### Smart Function (Thermal Imaging)

- Leading image processing technology: Adaptive AGC, DDE, 3D DNR, NETD < 40mk (@25°C, F#=1.0)
- Smart tracking: Panorama tracking, Event tracking and Multi-scene patrol tracking
- Smart tracking linkage: thermal view and optical view
- Powerful behavior analysis algorithm: Line crossing, Intrusion, Region Entrance & Exit
- Reliable temperature exception alarm function
- Advanced fire detection algorithm

#### Thermal Imaging Module Function

- 640\*512 resolution, high sensitivity sensor, support contrast adjustment
- Support shutter adjustment in various modes
- 3D DNR, 15 palettes of color adjustable, image detail enhancement



## Specifications

Parameter		Model
		<b>DS-2TD8166-100C2F/V2</b>
		Thermal & Optical Bi-spectrum Network Stable PTZ Camera
<b>Thermal module</b>	Image sensor	Vanadium Oxide Uncooled Focal Plane Arrays
	Max. Resolution	640 × 512
	Detector Pitch	17μm
	Response waveband	8μm to 14μm
	NETD	< 40mk (@25°C,F#=1.0)
	Lens (focal length)	100 mm
	MRAD	0.17 mrad
	Field of View	6.23° × 4.98°
	Min. Focusing Distance	10 m
	F number	1.0
<b>Optical camera</b>	Image Sensor	1/2.8" Progressive Scan CMOS
	Min. Illumination	Color : 0.05Lux @ (F1.8, AGC ON) B/W : 0.01Lux @ (F1.8, AGC ON)
	Focal Length	6.7-330mm, 49x
	Digital Zoom	16 X
	Field of View	41.3° to 1.2° (Wide-Tele)
	Min. Working Distance	10-1500mm(Wide-Tele)
	Aperture Range	F1.8-F6.1
	Focus Mode	Auto / Semiautomatic / Manual
	WDR	Digital
	Shutter Time	PAL: 1-1/30,000s / NTSC: 1-1/30,000s
	White Balance	Auto / Manual / ATW/Indoor/Outdoor/Daylight lamp/Sodium lamp
	Day & Night	IR Cut Filter
	Privacy Mask	24 privacy masks programmable; optional multiple colors and mosaics
	Optical Defog	Yes
<b>Smart function</b>	Enhancement	3D DNR
	VCA	Support 4 VCA rule types (Line Crossing, Intrusion, Region Entrance, and Region Exiting), 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 °C to 302 °F)
	Temperature accuracy	± 8 °C (14.4 °F)
<b>PTZ</b>	Fire detection	Support 10 fire points
	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/Doom Reboot/Doom Adjust/AuxOutput	

Network	Main Stream	Optical Light: 50Hz:25fps(1920×1080), 25fps(1280×960), 25fps(1280×720) Optical Light: 60Hz:30fps(1920×1080), 30fps(1280×960), 30fps(1280×720) Thermal: 50fps (640 × 512)
	Sub stream	50Hz:25fps (704 × 576), 25fps (352 × 288), 25fps (176 × 144) 60Hz:30fps (704 × 480), 30fps (352 × 240), 30fps (176 × 120) Thermal: 50fps (640 × 512)
	Video compression	H.265+/ H.264+/H.265/H.264/MJPEG, H.264 encoding with Baseline/Main/High Profile
	Audio compression	G.711u/G.711a/G.722.1/MP2L2/G.726/PCM
	Protocols	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE, Bonjour
	Simultaneous live view	Up to 20-ch
	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	Up to 7-ch Relay Input (0-5V DC)
	Alarm Output	Up to 2-ch; Support Alarm Linkage
	Alarm Action	Preset/Patrol Scan/Pattern Scan/SD Card Record/Relay Output/Smart capture/FTP upload/Email linkage
	Audio Input	LINE_IN Input/MIC Input; Peak: From 2 to 2.4V[p-p]; Output Impedance: 1KΩ±10%
	Audio Output	Linear Level; Impedance: 600Ω
	Communication Interface	Built-in RJ45; 10M/100M Ethernet Interface
	Onboard Storage	Built-in Micro SD/SDHC/SDXC Card Slot, Up to 64GB; Support Manual/Alarm Recording
	Analog Video Output	1.0V [p-p]/75Ω, PAL/NTSC/BNC
	RS485	Half-Duplex; HIKVISION, PELCO-P and PELCO-D Self-adaptive
	API	Open-ended API, support ISAPI; Support HIKVISION SDK and Third-party Management Platform
	Client	iVMS-4200
	Web Browser	IE 7+, Chrome 18+, Firefox 5.0+, Safari 5.02+; Multiple Languages
General	Menu	English
	Wiper	Yes
	Power	48V DC/5A, 220W
	Work Temperature/Humidity	From -40°C to 60°C (-40°F to 140°F); Humidity: 90% or Less
	Protection Level	IP66 Standard; TVS 6000V Lightning Protection, Surge Protection and Voltage Transient Protection
	Dimension	559.2 mm × 380 mm × 239.8 mm (22.02 '' × 14.96 '' × 9.44 '')
	Weight	Approx. 42kg (92.6 lb)

## Wide Range Coverage for Different Specifications

**Note:** The table below is only for reference, the performance varies from model to model, and the specific data is based on 17 μm detector pitch.

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)
9020m	2941m	2255m	735m	1127m	368m

## Smart functions Range Table

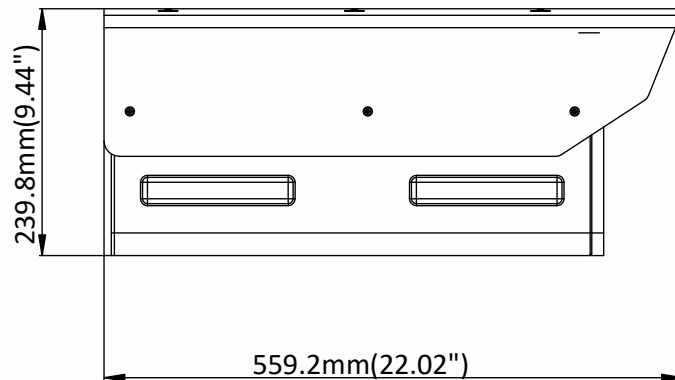
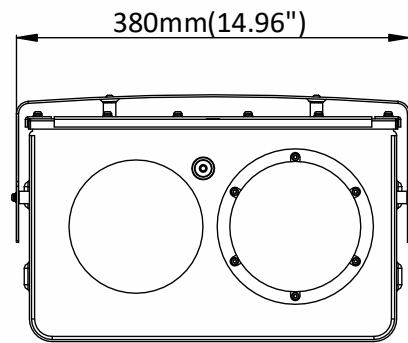
**Note:** The table below is only for reference, the performance varies from model to model, and the specific data is based on 17 μm detector pitch.

VCA Range (Vehicles: 1.4×4.0m)	VCA Range (Humans: 1.8×0.5m)	Temperature Measurement (Object:2×2 m)	Temperature measurement (Object:1×1 m)	Fire Detection (Object:2×2 m)	Fire Detection (Object:1×1 m)
3000m	1000m	2340m	1180m	5880m	2940m

## Order Models

DS-2TD8166-100C2F/V2

## Dimensions



Distributed by



## HIKVISION®

### Headquarters

No.555 Qianmo Road, Binjiang District,  
Hangzhou 310051, China  
T +86-571-8807-5998  
overseasbusiness@hikvision.com

**Hikvision USA**  
T +1-909-895-0400  
sales.usa@hikvision.com

**Hikvision Europe**  
T +31-23-55-42-770  
info.eu@hikvision.com

**Hikvision Middle East**  
T +971-4-8816086  
salesme@hikvision.com

**Hikvision Russia**  
T +7-495-669-67-99  
saleru@hikvision.com

**Hikvision India**  
T +91-22-28469900  
sales@pramahikvision.com

**Hikvision Italy**  
T +39-0438-6902  
info.it@hikvision.com

**Hikvision France**  
T +33(0)1-85-330-450  
info.fr@hikvision.com

**Hikvision Spain**  
T +34-91-737-16-55  
info.es@hikvision.com

**Hikvision Poland**  
T +48-22-460-01-50  
poland@hikvision.com

**Hikvision UK**  
T +01628-902140  
support.uk@hikvision.com

**Hikvision Singapore**  
T +65-6684-4718  
sg@hikvision.com

**Hikvision Oceania**  
T +61-2-8599-4233  
salesau@hikvision.com

**Hikvision Canada**  
T +1-909-895-0400  
sales.usa@hikvision.com

**Hikvision Korea**  
T +82-31-731-8841  
sales.korea@hikvision.com

**Hikvision Brazil**  
T +55 11 3318-0050  
Latam.support@hikvision.com

**Hikvision Africa**  
T +27 (10) 0351172  
sale.africa@hikvision.com

**Hikvision Hong Kong**  
T +852-2151-1761