

Parameter		Model	DS-2TD8166-150ZH2F/V2
			Thermal & Optical Bi-spectrum Network Stable PTZ Camera
Thermal module	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)		30 mm to 150 mm
	MRAD		0.57 to 0.11 mrad
	Field of View		WIDE:20.56° x 16.51°; TELE:4.15° x 3.32°
	Min. Focusing Distance		2 m
	F number		1.2
Optical camera	Image Sensor		1/1.9 " Progressive Scan CMOS
	Min. Illumination		Color : 0.002 Lux @ (F1.5, AGC ON) B/W : 0.0002 Lux @ (F1.5, AGC ON)
	Focal Length		5.7-205.2 mm, 36 x
	Field of View		58.7° - 2.0° (Wide-Tele)
	Min. Working Distance		10-1500mm (Wide-Tele)
	Aperture Range		F1.5-F4.5
	Focus Mode		Auto / Semiautomatic / Manual
	WDR		120dB
	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
	Enhancement		3D DNR
Smart function	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, over 256 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)
	Fire detection		Support 10 fire points
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/Doom
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
	Menu	English
General	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
	Weight	Approx. 60kg (132.3 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.

Lens (focal length)	7mm	10mm	15mm	25mm	35mm	50mm	75mm	100 mm	150 mm	180 mm
Detection range (Vehicles)	631m	902m	1353m	2255m	3157m	4510m	6765m	9020m	13529 m	16235 m
Detection range (Humans)	206m	294m	441m	735m	1029m	1471m	2206m	2941m	4412 m	5294 m
Recognition range (Vehicles)	158m	225m	338m	564m	789m	1127m	1691m	2255m	3382 m	4059 m
Recognition range (Humans)	51m	74m	110m	184m	257m	368m	551m	735m	1103 m	1324 m
Identification range (Vehicles)	79m	113m	169m	282m	395m	564m	846m	1127m	1691 m	2029 m
Identification range (Humans)	26m	37m	55m	92m	129m	184m	276m	368m	551 m	662 m