DS-2TD2866-xx

Thermal and Optical Bi-Spectrum Network Bullet Camera

- **640 x 512 Thermal/1080p Optical Resolution**
- **Vanadium Oxide Uncooled Focal Plane Arrays**
- **25 mm and 50 mm Lens Options**
- **NETD <40 mk**
- **Adaptive AGC, 3D DNR**
- **Dynamic Detail Enhancement**
- **Smart Features:**
  - Line Crossing, Intrusion, Region Entrance/Exit
  - Temperature Exception
  - Advanced Fire Detection
- **Temperature Range: -4° to 302° F (-20° to 150° C)**
- **Temperature Accuracy: Maximum (±8° C, ±2%)**
- **Integrated Bracket and Junction Box**
- **IP66 Protection**
- **24 VAC, 10 W (22 W with De-Icing Heater)**

The Hikvision DS-2TD2866-xx Thermal and Optical Bi-Spectrum Network Bullet Camera uses a vanadium oxide uncooled focal plane sensor to enhance thermal image quality.

The high sensitivity sensor has 640 x 512 thermal/1080p optical resolution and features contrast adjustment for optimized images. AGC (Automatic Gain Control), 3D DNR (Dynamic Noise Reduction), and Dynamic Detail Enhancement further enhance image quality. Additionally, the 1080p sensor provides a matched field of view for unparalleled detailed images.

This camera also features advanced fire detection and a wide range of Smart functions, including temperature exception, line crossing, intrusion, and region entrance and exit, benefitting users with great improvements in security efficiency and, more importantly, with key events and objects being recorded for further forensic needs.

The camera can be supplied with a 10 mm or 15 mm lens to cover a variety of needs.

Available Models:
DS-2TD2866-25 (25 mm lens)
DS-2TD2866-50 (50 mm lens)

Specifications

	DS-2TD2866-25	DS-2TD2866-50
Thermal Module		
Image Sensor	Vanadium oxide uncooled focal plane arrays	
Maximum Resolution	640 x 512	
Detector Pitch	17 µm	
Response Waveband	8 µm to 14 µm	
NETD	<40 mk (@ 0.04° C, F#=1.0)	
Lens (Focal Length)	25 mm	50 mm
MRAD	0.68 mrad	0.34 mrad
Field of View	24.55° x 19.75°	12.42° x 9.95°
Minimum Focusing Distance	13 m	50 m
ƒ/ Number	1.0	
Optical Module		
Maximum Image Resolution	1920 x 1080	
Image Sensor	1/2.8" progressive scan CMOS	
Minimum Illumination	Color: 0.001 lux @ (ƒ/1.2, AGC on), B/W: 0.0001 lux @ (ƒ/1.2, AGC on)	
Shutter Speed	1s to 1/100,000s	
Lens (Focal Length)	7 mm	13 mm
Field of View	43° x 25° (H x V)	24° x 13.7° (H x V)
WDR	120 dB	
Day/Night	IR cut filter with auto switch	
Image Function		
Spectrum Image Fusion	Thermal view can be overlaid with optical channel details	
Picture in Picture	Thermal and optical image PIP details can be combined, thermal image overlayed with optical image	
Smart Function		
VCA	Supports 4 VCA rule types (line crossing, intrusion, region entrance, and region exiting), and up to 8 VCA rules for each scene	
Temperature Measurement	Supports 3 temperature measurement rule types, and 21 rules (10 points, 10 regions, and 1 line) for each scene	
Temperature Range	-4° to 302° F (-20° to 150° C)	
Temperature Accuracy	±8° C (14.4° F)	
Fire Detection	Dynamic fire point detection, supports up to 10 fire points	
Infrared		
IR Distance	Up to 330 ft (100 m)	
IR Intensity and Angle	Auto adjust	
Network		
Main Stream	Optical: 50 Hz: 25 fps (1920 x 1080), 25 fps (1280 x 960), 25 fps (1280 x 720); 60 Hz: 30 fps (1920 x 1080), 30 fps (1280 x 960), 30 fps (1280 x 720) Thermal: 50 fps (640 x 512)	
Sub-Stream	50 Hz: 25 fps (704 x 576), 25 fps (352 x 288), 25 fps (176 x 144); 60 Hz: 30 fps (704 x 480), 30 fps (352 x 240), 30 fps (176 x 120) Thermal: 50 fps (640 x 512)	
Video Compression	H.265+/H.264+ (Baseline/Main/High Profile), H.265/H.264/MJPEG	
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	
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 2-ch inputs (0 to 5 VDC)	
Alarm Output	Up to 2-ch relay outputs, alarm response actions configurable	
Alarm Action	SD recording/relay output/smart capture/FTP upload/email linkage	
Audio Input	One 3.5 mm microphone in/line in interface. Line input: 2-2.4 V[p-p], output impedance: 1 kΩ ± 10%	
Audio Output	Linear level; impedance: 600 Ω	
Reset	One reset button	
Ethernet	One-port RJ45 10M/100M self-adaptive Ethernet interface	
SD Memory Card	Built-in microSD/SDHC/SDXC card slot, up to 128 GB; supports manual/alarm recording	
Analog Video Output	1.0 V [p-p]/75 Ω, PAL/NTSC/BNC	
Application Programming	Open-ended API, supports ISAPI, HIKVISION SDK, and third-party management platforms	
Client	iVMS-4200	
Web Browser	IE 7+, Chrome 18+, Firefox 5.0+, Safari 5.02+	
General		
Menu	English	
Power	24 VAC ±25%, 12 VDC ±20%, two-core terminal block PoE (802.3at, class 4)	
Power Consumption	24 VAC ±25%: 0.92 A, 12 VDC ± 20%: 1.9 A, maximum 10 W (22 W with de-icing heater on), PoE (802.3at, class 4): 42.5 V to 57 V, 0.4 A to 0.5 A	
Work Temperature/Humidity	From -40° to 140° F (-40° to 65° C); humidity: 90% or less (non-condensing)	
Protection Level	IP66 standard; TVS 6000V lightning protection, surge protection, and voltage transient protection	
Dimensions	21.06" x 6.73" x 15.75" (535 mm x 171 mm x 400 mm)	
Weight	13.23 lbs (6 kg)	

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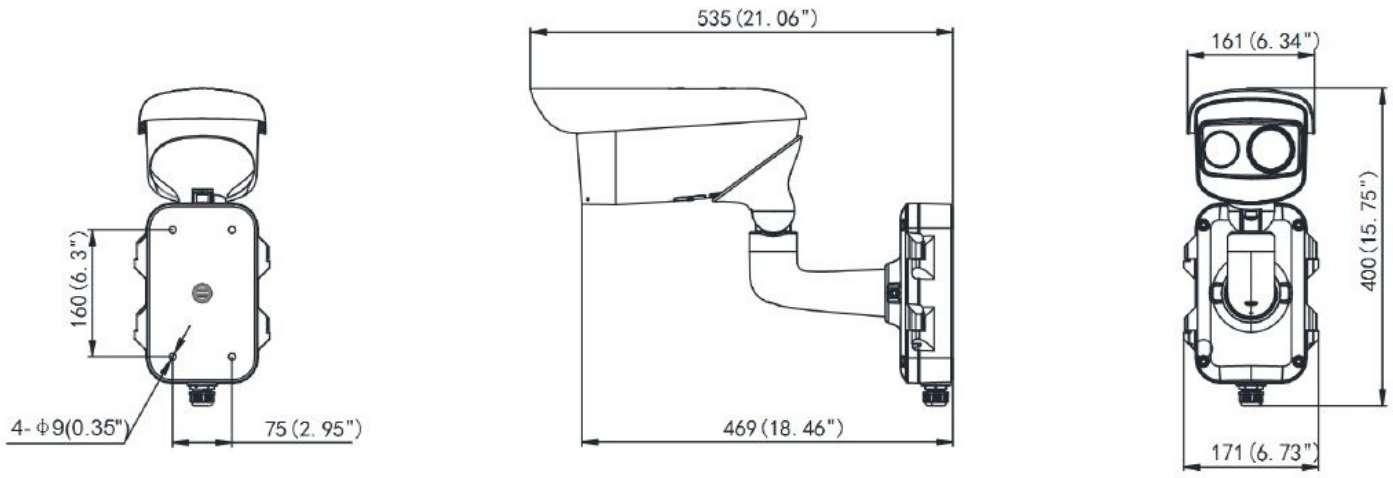
Rev. 071018NA

Range Performance[1]

Standard Range Table	Model			
	DS-2TD2866-25		DS-2TD2866-50	
Johnson Criteria	Human	Vehicle	Human	Vehicle
Detection	2,411 ft (735 m)	7,400 ft (2,255 m)	4,826 ft (1,471 m)	14,797 ft (4,510 m)
Recognition	604 ft (184 m)	1,850 ft (564 m)	879 ft (368 m)	3,698 ft (1,127 m)
Identification	302 ft (92 m)	925 ft (282 m)	604 ft (184 m)	1,850 ft (564 m)

Smart Functions Range Table		Model	
Line Cross/Intrusion/ Region Entrance-Exit	Object	DS-2TD2866-25	DS-2TD2866-50
Optimized to Johnson Criteria (Recognition)	Human	1,200 ft (366 m)	2,362 ft (720 m)
	Vehicle	3,372 ft (1,028 m)	6,752 ft (2,058 m)
Temperature Exception	Size of Point	Maximum Range	Maximum Range
Accuracy at 5 x 5 pixels	2 m x 2 m	1,919 ft (585 m)	3,838 ft (1,170 m)
	1 m x 1 m	968 ft (295 m)	1,936 ft (590 m)
Advanced Fire Detection	Size of Point	Maximum Range	Maximum Range
Accuracy at 2 x 2 pixels	2 m x 2 m	4,823 ft (1,470 m)	9,646 ft (2,940 m)
	1 m x 1 m	2,411 ft (735 m)	4,823 ft (1,470 m)

Dimensions



[1] Range performance values are calculated under ideal conditions and are not a guarantee of performance.

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Rev. 032519NA