

## DS-2TD6166-50B2L/75B2L

### Observable Thermal + Optical Bi-Spectrum Outdoor Network PTZ Camera

- 640 x 512 Resolution
- Vanadium Oxide Uncooled FPA
- 50 mm and 75 mm Lens Options
- NETD <50 mk
- Adaptive AGC
- Dynamic Detail Enhancement
- Visible Imager: 1/2.8" CMOS
- 32x Optical Zoom, 16x Digital Zoom
- Smart IR Array, 1,640 ft (500 m) Range
- Smart Features
  - Smart Tracking
  - Line Crossing, Intrusion, Region Entrance/Exit
  - Temperature Exception
  - Advanced Fire Detection
- Edge Recording
- 3D DNR, EIS, Defog
- Region of Interest Encoding (ROI)
- IP66
- 24 VAC (Optional 36 VDC) and Hi-PoE, 120 W



The Hikvision DS-2TD6166-50B2L and DS-2TD6166-75B2L Thermal + Optical Bi-Spectrum network PTZ cameras offer thermal as well as optical imaging in a single unit.

Smart Detection functions include intrusion detection, line crossing detection, region entrance detection, region exiting detection, audio exception detection, benefitting users with great improvement in security efficiency and, more importantly, with key events and objects being recorded for further forensic needs.

Also featured is Smart Tracking: panorama tracking, event tracking, and multi-scene patrol tracking, which enable the camera to detect a progressively moving object and follow it within the camera's area of coverage. IR intensity is automatically adjusted, depending on the zoom ratio.

Image enhancement features include defog, high light compensation, and EIS (Electronic Image Stabilization).

#### Available Models:

DS-2TD6166-50B2L (50 mm lens)  
DS-2TD6166-75B2L (75 mm lens)



	DS-2TD6166-50B2L	DS-2TD6166-75B2L
<b>Thermal Module</b>		
Image Sensor	Vanadium Oxide Uncooled Focal Plane Detectors	
Maximum Resolution	640 x 512	
Response Waveband	8 to 14µm	
NETD	<50 mk (@25° C, f=1.0)	
Lens (Focal Length)	50 mm	75 mm
MRAD	0.5 mrad	0.23 mrad
Field Angle	10.97° x 8.24°	8.3° x 6.6°
Minimum Focusing Distance	7.5 m	8 m
F Number	1.0	
<b>Optical Module</b>		
Maximum Resolution	1920 x 1080	
Image Sensor	1/2.8" Progressive Scan CMOS	
Minimum Illumination	Color : 0.02 Lux @ (F1.5 , AGC ON); B/W : 0.002 Lux @ (F1.5 , AGC ON)	
Focal Length	8 to 250 mm, 32x	
Aperture Range	F1.8 to F6.1	
<b>PTZ</b>		
Movement Range	Pan: 360° continuous rotation; Tilt: +40° to -90°	
Pan Speed	Configurable, from 0.1°/s to 110°/s	
Tilt Speed	Configurable, from 0.1°/s to 50°/s	
Proportional Zoom	Supported	
Presets	300	
Patrol Scan	8; Up to 32 presets per patrol	
Pattern Scan	4; more than 10 minutes per pattern	
Power Off Memory	Supported	
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	
<b>Infrared</b>		
IR Distance	Up to 1,640 ft (500 m)	
IR Intensity and Angle	Auto adjust	
<b>Network</b>		
Main Stream	Optical light: 50 Hz: 25 fps (1920 × 1080), 25 fps (1280 × 960), 25 fps (1280 × 720); Optical light: 60 Hz: 30 fps (1920 × 1080), 30 fps (1280 × 960), 30 fps (1280 × 720); Thermal: 50 fps (640 × 512)	
Sub Stream	50 Hz: 25 fps (704 × 576), 25 fps (352 × 288), 25 fps (176 × 144); 60 Hz: 30 fps (704 × 480), 30 fps (352 × 240), 30 fps (176 × 120); Thermal: 25 fps (384 × 288)	
Video Compression	H.264 (Baseline / Main / High Profile) / MJPEG / MPEG4	
Audio Compression	G.711u / G.711a / G.722.1 / MP2L2 / G726 / AAC / 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 Authentication	Up to 32 users; three levels: administrator, operator, and user	
Security Measures	User authentication (ID and PW), MAC address binding, HTTPS encryption, IEEE 802.1x access control, IP address filtering	
<b>Integration</b>		
Alarm Input	Up to 7-ch relay input (0 to 5 VDC)	
Alarm Output	Up to 2-ch; supports alarm linkage	
Alarm Action	Preset / patrol scan / pattern scan / SD card recording / relay output	
Audio Input	Line input / microphone input; peak: from 2 to 2.4 V [p-p]; output impedance: 1 kΩ ±10%	
Audio Output	Linear level; impedance: 600 Ω	
Communication Interface	Built-in RJ-45; 10M/100M Ethernet interface	
Onboard Storage	Built-in microSD / SDHC / SDXC card slot, up to 64 GB; support manual / alarm recording	
Analog Video Output	1.0 V [p-p] / 75 Ω, PAL / NTSC / BNC	
RS-485	Half-duplex; HIKVISION, PELCO-P, and PELCO-D self-adaptive	
API	Open-ended; supports ONVIF, PSIA, and CGI; supports HIKVISION SDK and third-party management platforms	
Client	iVMS-4200	
Web Browser	IE 7+, Chrome 18+, Firefox 5.0+, Safari 5.02+; multiple languages	
<b>General</b>		
Menu	English	
Power	24 VAC (36 VDC optional) + Hi-PoE, 120 W	
Working Temperature/Humidity	-40° F to 140° F (-40° C to 60° C); humidity: 90% or less	
Protection Level	IP66 standard; TVS 6000 V lightning protection, surge protection, and voltage transient protection	
Weight	41.89 lbs (19 kg)	

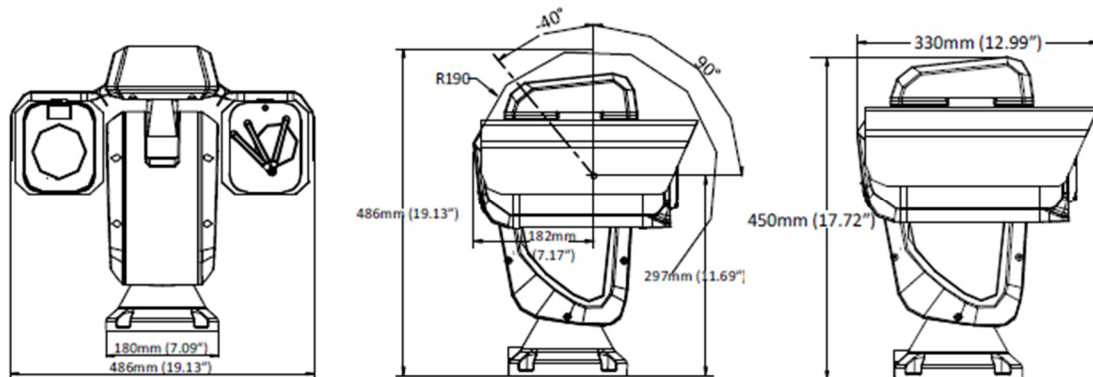


# Range Performance<sup>1</sup>

Standard Range Table	Model			
	DS-2TD6166D-50		DS-2TD6166D-75	
Johnson Criteria	Human	Vehicle	Human	Vehicle
Detection	4,826 ft (1471 m)	14,797 ft (4,510 m)	7,238 ft (2,206 m)	22,195 ft (6,765 m)
Recognition	1207 ft (368 m)	3,698 ft (1,127 m)	1,808 ft (551 m)	5,548 ft (1,691 m)
Identification	604 ft (184 m)	1,850 ft (564 m)	906 ft (276 m)	2,776 ft (846 m)

Smart Functions Range Table	Object	Model	
		DS-2TD6166D-50	DS-2TD6166D-75
Line Cross/Intrusion/Region Entrance-Exit	Human	410 ft (368 m)	1,808 ft (551 m)
	Vehicle	3,698 ft (1,127 m)	5,548 ft (1,691 m)
Optimized to Johnson Criteria (Recognition)			
Temperature Exception	Size of Point	Max Range	Max Range
	2 m x 2 m	3,839 ft (1,170 m)	5,823 ft (1,755 m)
Accuracy at 5 x 5 pixels	1 m x 1 m	1,936 ft (590 m)	2,904 ft (885 m)
Advanced Fire Detection	Size of Point	Max Range	Max Range
	2 m x 2 m	9,346 ft (2,940 m)	14,469 ft (4,410 m)
Accuracy at 2 x 2 pixels	1 m x 1 m	4,823 ft (1,470 m)	7,234 ft (2,205 m)

# Dimensions



# Accessories

<b>WBPT</b> Wall Mount Bracket for Positioning System	<b>PMP</b> Pole Mount Adapter for PTZ	<b>CMP</b> Corner Mount for WMP-L and WMP-S

<sup>1</sup>Range performance values are calculated under ideal conditions and are not a guarantee of performance.