# DS-2TD4035D-25/50

Thermal + Optical Bi-spectrum Network Speed Dome



## **Key Features**

### **Smart Function (Thermal Imaging)**

- Smart tracking: support panorama tracking, event tracking and multi-scene patrol tracking
- Smart detection: intrusion detection, line crossing detection, region entrance detection, region exiting detection, audio exception detection
- Smart recording: support edge recording
- Smart encoding: support low bitrate
- Smart tracking linkage: thermal and visible image

#### **IR Function**

- High-performance IR array, up to 150m IR distance
- Smart IR
- IR intensity automatically adjusted, depending on the zoom ratio
- Built-in temperature conditioner
- 30,000 hour life-time IR LED

#### **System Function**

- High-performance 1/3" sensor, up to 1920x1080 resolution
- Motor with less than 0.1° bias
- Open-ended API, support HIKVISION SDK, ONVIF, CGI and PSIA
- Support PAL
- Automatically adaptive to HIKVISION, Pelco-P/D
- 3D intelligent positioning function
- System backup
- Power-off memory function: restore PTZ & lens status after reboot
- Lightning protection, surge protection and voltage transient protection
- IP66
- Scheduled PTZ movement

#### **Visible Light Module Function**

- 30X optical zoom(4.3mm to 129mm), 16X digital zoom
- Support auto iris, auto focus, auto white balance, backlight compensation, WDR and 3D DNR
- Image enhancement (visible light): defog, high light compensation, EIS
- Region exposure and region focus
- ROI
- Support privacy mask, optional multiple regions, colors and mosaics

### **Thermal Imaging Module Function**

- 384x288 resolution, high sensitivity sensor, support contrast adjustment
- Support shutter adjustment in various modes
- 3D DNR, 14 pseudo colors adjustable, image detail enhancement
- Support mirror image and local output
- 24/7 long-distance surveillance; 25mm and 50mm lens optional

#### **Network Function**

- Ethernet control and analog output
- View image and realize control by IE and client software
- Built-in Micro SD/SDHC/SDXC card slot
- Support up to 8 NAS; edge recording
- Support three-level user, authorized user and password, HTTPS encryption, IEEE 802.1x access control and IP address filtering
- Support dual-stream technology
- Support H.264/MJPEG/MPEG4 (H.264: Baseline/Main/High Profile),;
   real-time output resolution HDTV1080p (SMPTE274M Standard), 960p
   and HDTV720p (SMPTE296M Standard)
- 1 audio input and 1 audio output

## PTZ Function

- 360° endless pan range and -15°-90° tilt range
- Up to 240°/s pan preset speed and 200°/s tilt preset speed
- 0.1° -160°/s manual pan speed and 0.1° -120°/s manual tilt speed
- 300 presets programmable; preset image freezing capability
- 8 patrols, up to 32 presets per patrol
- 4 patterns, with the recording time not less than 10 min per pattern
- Support proportional zoom and park action

## **Application Scenario**

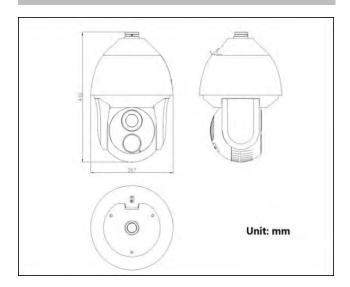
Thermal + Optical Bi-spectrum network speed dome can be widely applied in scenarios with low visibility, zero visible light and strong light interference. It has good performance in large-scale scenarios such as airports, harbors, oil fields, borders, forests, grasslands, scenic sights, military installations, etc.

# **Specification**

	Model	DS-2TDM025D-	25 DS_2TD4025D_50
Parameter	Model	DS-2TD4035D-25, DS-2TD4035D-50  Thermal + Optical Bi-spectrum Network Speed Dome	
	Image sensor	· · ·	poled Focal Plane Detectors
	Max. Resolution		4 × 288
	Response waveband	8	~14µm
	NETD	<50mk(@25°C,F#=1.0)	
	MRTD	MRTD < 100mk(@25°C,F#=1.0)	
	MRTD	0.6mrad	
	Reference Object Size	Human: 1.8*0.5m	Vehicle: 1.4*4.0m
	Lens (focal length)	25mm	50mm
Thermal Module	Detection range (Vehicles)	1533m 500m	3067m 1000m
Wiodule	Detection range (Humans)  Recognition range (Vehicles)	383m	767m
	Recognition range (Humans)	125m	250m
	Identification range (Vehicles)	192m	383m
	Identification range (Humans)	63m	125m
	Field angle	21.7°x16.4°	11.0°x8.2°
	F number	1.0	1.0
	Image Setting	Brightness, AGC, DDE, FFC adjustable via client software or web browser	
	Color Palette	White Hot, Black Hot, Fusion1, Rainbow, Fusion2, Ironbow1, Ironbow2, Sepia, Color1, Color2, Ice Fire, Rain, Red Hot, Green Hot	
	Pan range	360° endless	
	Pan speed	Pan Manual Speed: 0.1°-160°/s	
			t Speed: 240°/s
	Tilt range	-15°-90° (auto flip)	-5°-90° (auto flip)
	Tilt speed	Tilt Manual Speed: 0.1°-120°/s Tilt Preset Speed: 200°/s	
	Proportional zoom	Support	
PTZ	Number of preset	300	
	Patrol	8 patrols, up to 32 presets per patrol	
	Pattern	4 patterns, with the recording time not less than 10 minutes per pattern	
	Power-off memory	Support	
	Park action	Preset / Patrol / Pattern /Pan scan/Tilt scan/Random scan/Frame scan/Panorama scan	
	PTZ position display	On / Off	
	Preset freezing	Support	
	Scheduled task	Preset / Patrol / Pattern / Pan scan/Tilt scan/Random scan/Frame scan/Panorama scan/Dome reboot / Dome adjust / Aux output	
Infrared	IR distance	150m	
	IR intensity  Max. image resolution	Automatically adjusted, depending on the zoom ratio  1920×1080 (visible light), 384×288(infrared)	
	Wax. mage resolution	50Hz:25fps(1920×1080), 25fps(1280×960), 25fps(1280×720) (visible light)	
	Main stream	60Hz:30fps(1920×1080), 30fps(1280×960), 30fps(1280×720) (visible light)	
		50Hz:25fps(384×288) (thermal)	
	50Hz:25fps(704×576), 25fps(352×288), 25fps(176×144)		
	Sub stream	60Hz:30fps(704×480), 30fps(352×240), 30fps(176×120)	
Network	Video compression	50Hz:25fps(384×288) (thermal)	
	Audio compression	H.264/MJPEG/MPEG4, H.264 encoding with Baseline/Main/High Profile G.711u/G.711a/G.722.1/MP2L2/G726/ 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	
	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	
	Alarm input	7 inputs (0-5vDC)	
	Alarm output	2 relay outputs, alarm response actions configurable	
	Alarm action		output/Smart capture/FTP upload/Email linkage
	Audio input	1 Mic in/Line in interface. Line input	output/Smart capture/FTP upload/Email linkage : 2-2.4V[p-p], output impedance:1KΩ±10%
	Audio input Audio output	1 Mic in/Line in interface. Line input Line level, i	output/Smart capture/FTP upload/Email linkage : 2-2.4V[p-p], output impedance:1KΩ±10% mpedance: 600Ω
Integration	Audio input Audio output Ethernet	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self	output/Smart capture/FTP upload/Email linkage : 2-2.4V[p-p], output impedance:1KΩ±10% mpedance: 600Ω -adaptive Ethernet interface
Integration	Audio input Audio output Ethernet SD memory card	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self Built-in Micro SD card slot, support Micro SD/SDHC	output/Smart capture/FTP upload/Email linkage . 2-2.4V[p-p], output impedance:1KΩ±10% mpedance: 600Ω -adaptive Ethernet interface /SDXC card (up to 64G), support manual/alarm recording
Integration	Audio input Audio output Ethernet	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self Built-in Micro SD card slot, support Micro SD/SDHC 1.0V[p-p] / 750	output/Smart capture/FTP upload/Email linkage  2-2.4V[p-p], output impedance:1KΩ±10%  mpedance: 600Ω  -adaptive Ethernet interface /SDXC card (up to 64G), support manual/alarm recording  2, PAL(or NTSC), BNC
Integration	Audio input Audio output Ethernet SD memory card Analog video output	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self Built-in Micro SD card slot, support Micro SD/SDHC 1.0V[p-p] / 751 Half-duplex; HIKVISION, P	output/Smart capture/FTP upload/Email linkage . 2-2.4V[p-p], output impedance:1KΩ±10% mpedance: 600Ω -adaptive Ethernet interface /SDXC card (up to 64G), support manual/alarm recording
Integration	Audio input Audio output Ethernet SD memory card Analog video output RS485 protocols	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self Built-in Micro SD card slot, support Micro SD/SDHC 1.0V[p-p] / 750 Half-duplex; HIKVISION, P Open-ended API, support ONVIF, PSIA, CGI, H	output/Smart capture/FTP upload/Email linkage  2-2-4V[p-p], output impedance:1KΩ±10%  mpedance: 600Ω  -adaptive Ethernet interface /SDXC card (up to 64G), support manual/alarm recording  D, PAL(or NTSC), BNC  ELCO-P, PELCO-D, self-adaptive
Integration	Audio input Audio output Ethernet SD memory card Analog video output RS485 protocols Application programming Client Web browser	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self Built-in Micro SD card slot, support Micro SD/SDHC 1.0V[p-p] / 75€ Half-duplex; HIKVISION, P Open-ended API, support ONVIF, PSIA, CGI, HI IVI	output/Smart capture/FTP upload/Email linkage  2-2-4V[p-p], output impedance:1KΩ±10% mpedance: 600Ω  -adaptive Ethernet interface //SDXC card (up to 64G), support manual/alarm recording 0, PAL(or NTSC), BNC  ELCO-P, PELCO-D, self-adaptive KVISION SDK and third-party management platform wS-4200 Firefox5.0+, Safari5.02+
Integration	Audio input Audio output Ethernet SD memory card Analog video output RS485 protocols Application programming Client	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self Built-in Micro SD card slot, support Micro SD/SDHC 1.0V[p-p] / 75€ Half-duplex; HIKVISION, P Open-ended API, support ONVIF, PSIA, CGI, HI IVI	output/Smart capture/FTP upload/Email linkage  2-2-4V[p-p], output impedance:1KΩ±10% mpedance: 600Ω  -adaptive Ethernet interface //SDXC card (up to 64G), support manual/alarm recording 0, PAL(or NTSC), BNC  ELCO-P, PELCO-D, self-adaptive KVISION SDK and third-party management platform WS-4200
Integration	Audio input Audio output Ethernet SD memory card Analog video output RS485 protocols Application programming Client Web browser	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self Built-in Micro SD card slot, support Micro SD/SDHC 1.0V[p-p] / 75€ Half-duplex; HIKVISION, P Open-ended API, support ONVIF, PSIA, CGI, HI iVI IE7+, Chrome18+, Chine	output/Smart capture/FTP upload/Email linkage  2-2-4V[p-p], output impedance:1KΩ±10%  mpedance: 600Ω  -adaptive Ethernet interface  //SDXC card (up to 64G), support manual/alarm recording  D, PAL(or NTSC), BNC  ELCO-P, PELCO-D, self-adaptive  KVISION SDK and third-party management platform  wS-4200  Firefox5.0+, Safari5.02+  see/English
	Audio input Audio output Ethernet SD memory card Analog video output RS485 protocols Application programming Client Web browser Menu language	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self Built-in Micro SD card slot, support Micro SD/SDHC 1.0V[p-p] / 75C Half-duplex; HIKVISION, P Open-ended API, support ONVIF, PSIA, CGI, HI iVI IE7+, Chrome18+, Chine	output/Smart capture/FTP upload/Email linkage  2-2.4V[p-p], output impedance:1KΩ±10%  mpedance: 600Ω  -adaptive Ethernet interface /SDXC card (up to 64G), support manual/alarm recording 0, PAL(or NTSC), BNC ELCO-P, PELCO-D, self-adaptive  KVISION SDK and third-party management platform  vlS-4200  Firefox5.0+, Safari5.02+ ese/English  AC24V 0W max
Integration  General	Audio input Audio output Ethernet SD memory card Analog video output RS485 protocols Application programming Client Web browser Menu language Power  Working temperature	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self Built-in Micro SD card slot, support Micro SD/SDHC 1.0V[p-p] / 755 Half-duplex; HIKVISION, P Open-ended API, support ONVIF, PSIA, CGI, HI iVI IE7+, Chrome18+, Chine // 60 24 VAC: -40 °C	output/Smart capture/FTP upload/Email linkage  1.2-2.4V[p-p], output impedance:1KΩ±10%  mpedance: 600Ω  -adaptive Ethernet interface  //SDXC card (up to 64G), support manual/alarm recording  3, PAL(or NTSC), BNC  ELCO-P, PELCO-D, self-adaptive  KVISION SDK and third-party management platform  MS-4200  FirefoxS.0+, Safari5.02+  ese/English  AC24V  DW max  -60°C (-40°F -140°F)  % or less  IP66
	Audio input Audio output Ethernet SD memory card Analog video output RS485 protocols Application programming Client Web browser Menu language Power  Working temperature Humidity Protection level	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self Built-in Micro SD card slot, support Micro SD/SD/SD/SD/SD/SD/SD/SD/SD/SD/SD/SD/SD/S	output/Smart capture/FTP upload/Email linkage  1.2-2.4V[p-p], output impedance:1KΩ±10%  mpedance: 600Ω  -adaptive Ethernet interface  //SDXC card (up to 64G), support manual/alarm recording  D, PAL(or NTSC), BNC  ELCO-P, PELCO-D, self-adaptive  KVISION SDK and third-party management platform  MS-4200  Firefox5.0+, Safari5.02+ ese/English  AC24V  DW max  -60°C (-40°F -140°F)  % or less  IP66 ge protection, voltage transient protection
	Audio input Audio output Ethernet SD memory card Analog video output RS485 protocols Application programming Client Web browser Menu language Power Working temperature Humidity Protection level Mount option	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self Built-in Micro SD card slot, support Micro SD/SDHC 1.0V[p-p] T/S Half-duplex; HIKVISION, P Open-ended API, support ONVIF, PSIA, CGI, HI IVI IE7+, Chrome18+, Chine  24 VAC: -40 °C 90  TVS 6000V Lightning protection, surg	output/Smart capture/FTP upload/Email linkage  2-2-4V[p-p], output impedance:1KΩ±10%  mpedance: 600Ω  -adaptive Ethernet interface  //SDXC card (up to 64G), support manual/alarm recording  D, PAL(or NTSC), BNC  ELCO-P, PELCO-D, self-adaptive  KVISION SDK and third-party management platform  WS-4200  Firefox5.0+, Safari5.02+  sese/English  AC24V  JW max  -60°C (-40°F -140°F)  % or less  IP66  ge protection, voltage transient protection ose according to scenarios
	Audio input Audio output Ethernet SD memory card Analog video output RS485 protocols Application programming Client Web browser Menu language Power  Working temperature Humidity Protection level	1 Mic in/Line in interface. Line input Line level, i 1 RJ45 10M/100M Self Built-in Micro SD card slot, support Micro SD/SDHC 1.0V[p-p] T/S Half-duplex; HIKVISION, P Open-ended API, support ONVIF, PSIA, CGI, HI IVI IE7+, Chrome18+, Chine  24 VAC: -40 °C 90  TVS 6000V Lightning protection, surg	output/Smart capture/FTP upload/Email linkage  1.2-2.4V[p-p], output impedance:1KΩ±10%  mpedance: 600Ω  -adaptive Ethernet interface  //SDXC card (up to 64G), support manual/alarm recording  D, PAL(or NTSC), BNC  ELCO-P, PELCO-D, self-adaptive  KVISION SDK and third-party management platform  MS-4200  Firefox5.0+, Safari5.02+ ese/English  AC24V  DW max  -60°C (-40°F -140°F)  % or less  IP66 ge protection, voltage transient protection

REVISION No.: 050302151126

# **Dimensions**



# **Order Models**

- DS-2TD4035D-25 AC24V
- DS-2TD4035D-50 AC24V

# **Accessories**



DS-1602ZJ Long-arm wall mount



DS-1602ZJ-corner Corner mount

DS-1602ZJ-Pole Pole mount



DS-1602ZJ-Box Power box mount