

**HIKVISION**<sup>®</sup>

**SMART  
SECURITY  
TECHNOLOGY**



**MAY 2015**

Product **Quick Guide**

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## Hikvision Technical Support

Hikvision® strives to provide industry-leading support to our customer base and we work continuously to innovate video surveillance technology. From product installation questions to technical troubleshooting to firmware upgrades, dedicated telephone support guides you to the solution.

### Hikvision USA Technical Support:

US Toll-free: 1-866-200-6690

Phone: +1-909-895-0400

E-mail: [techsupport.usa@hikvision.com](mailto:techsupport.usa@hikvision.com)

## Hikvision Partner Programs

Hikvision Partner Programs reward partner loyalty with exciting relationship-based advantages and recognition. Through this program, Hikvision extends exclusive access to products, business assistance, and priority service to key industry partners. To learn about joining this select partner network as a Silver, Gold, or Platinum level member, contact [partners.usa@hikvision.com](mailto:partners.usa@hikvision.com).



# About Hikvision

Hikvision is a world leading innovator of award-winning video surveillance products and solutions. Established in 2001, Hikvision is a global enterprise with more than 13,000 employees—including 4,200 R&D engineers.

With the largest R&D team in the industry and a passion for continuous innovation, Hikvision is a total solution provider. Products include high-definition IP cameras, digital video servers, hybrid and standalone DVRs, NVRs, speed domes, encoders, and decoders. These products have been proven and tested in a variety of demanding environments around the world. For more information, please visit Hikvision's website at [www.hikvision.com](http://www.hikvision.com).

Dynamic growth and exceptional products have seen Hikvision recognized as the number one global vendor of CCTV and video surveillance equipment for three years in a row, according to IHS Research's *World Market for CCTV and Video Surveillance Equipment Report 2014*. Hikvision has also been listed for seven years in a row in Security 50, a market survey recognizing the top 50 security vendors in the global security market.

# A Worldwide Leader Focused on Excellence in Security Systems

Hikvision brings decades of experience to the world of video surveillance technology. From its inception, Hikvision has played an active role in the ever-evolving video surveillance market, devoting seven percent of its annual revenue into research and development for continued product innovation. By offering a complete end-to-end solution, Hikvision provides a seamless integration of system components, resulting in an exceptional user experience. From video capture to video processing and storage, to video management, Hikvision designs and manufactures a full line of innovative products.



Network Cameras



Smart IP PTZs



Video Management Software  
iVMS-4200 and iVMS-4500



TurboHD Cameras



Analog Cameras



NVRs



WiFi NVRs



DVRs and Hybrid DVRs



Encoders and Decoders



# We Add Value to Your Business

Hikvision provides a full range of video surveillance products and solutions. We are a true “one-stop shop” for the security needs of a broad spectrum of industries. Renowned across the globe, our systems are currently installed in over 100 countries spread across six continents. Hikvision products serve a diverse set of vertical markets, including Government, Retail, Banking and Finance, Transportation, Education, Commercial, and Residential Applications. Hikvision is committed to protecting its customers while creating business value for them as well. Comprehensive products, solutions, and services customized for the end-user are essential in providing preeminent video surveillance tailored to a particular industry.

# Featured Products



## 6.0 MP IR Array Bullet Network Camera

See [DS-2CD4A65F-IZH](#) Page 9

This innovative bullet camera captures remarkably detailed images with up to 3072 x 2048 resolution at a real-time 24 fps. Digital wide dynamic range, 3D digital noise reduction, and EXIR technology with Smart IR allow it to produce crisp images in a variety of settings. Smart features such as intrusion zones and line crossing make video surveillance more efficient.



## 3.0 MP WDR Outdoor Dome Network Camera

See [DS-2CD4535FWD-IZH](#) Page 10

This rugged camera boasts an IP66 rating, superior vandal resistant protection, and supports up to 128 GB on-board storage. With up to 2048 x 1536 resolution at 30 fps, wide dynamic range of 120 dB, and 3D digital noise reduction, it provides exceptionally high image quality. Smart features such as intrusion detection, facial detection, and object counting take video surveillance one step further.



## 2.0 MP Darkfighter Ultra Low-Light PTZ Camera

See [DS-2DF6223I-AEL](#) Page 12

Designed to deliver precise color and exact image quality in very low light conditions, Hikvision's cutting edge DarkFighter Network Camera thrives in the most challenging light conditions. Features include 120 dB Wide Dynamic Range and an ultra sharp 23x optical zoom lens with auto focus to provide crystal-clear color images day and night – an ideal choice for 24-hour surveillance installations. DarkFighter complies with ONVIF, PSIA, and CGI standards for quick and easy integration with third-party video surveillance systems.



## TurboHD 720p/1080p HD-TVI Cameras

See Pages 23-29

The latest in high-definition analog technology, TurboHD delivers significant advantages over other HD analog formats. High definition images are transmitted over existing analog media (Coax, UTP, F.O.) at distances up to 1500 feet. Ideal for supporting the move away from legacy analog video, Hikvision's analog-to-HD migration solution enables users to reuse existing infrastructure, maximizing the ROI on video surveillance equipment.

# Serving Vertical Markets



Education



Financial/Banking



Commercial



Hospital/Healthcare












Safe Cities



Casinos










Network Camera - Smart Series

smart IPC	Box Camera						Indoor Dome		
Model	DS-2CD4012FWD-A	DS-2CD4024FWD-A	DS-2CD6026FHWDA-A3- A11	DS-2CD4032FWD-A	DS-2CD4065F-A	DS-2CD4085F-A	DS-2CD4112FWD-IZ	DS-2CD4124FWD-IZ	DS-2CD4132FWD-IZ
									
	*Lens NOT included <b>1.3 MP</b>	*Lens NOT included <b>2.0 MP</b>	<b>DarkFighter</b> <b>2.0 MP</b>	*Lens NOT included <b>3.0 MP</b>	*Lens NOT included <b>6.0 MP</b>	*Lens NOT included <b>4K</b>	<b>1.3 MP</b>	<b>2.0 MP</b>	<b>3.0 MP</b>
Image Sensor	1/3" progressive scan CMOS	1/2.8" progressive scan CMOS	1/2" progressive scan CMOS	1/3" progressive scan CMOS	1/1.8" progressive scan CMOS	1/1.7" progressive scan CMOS	1/3" progressive scan CMOS	1/2.8" progressive scan CMOS	1/3" progressive scan CMOS
Min. Illumination (lux)	Color: 0.01 @ f/1.2 B/W: 0.001 @ f/1.2	Color: 0.01 @ f/1.2 B/W: 0.001 @ f/1.2	Color: 0.003 @ f/1.5 B/W: 0.0003 @ f/1.5	Color: 0.1 @ f/1.2 B/W: 0.01 @ f/1.2	Color: 0.02 @ f/1.2 B/W: 0.002 @ f/1.2	Color: 0.01 @ f/1.2 B/W: 0.001 @ f/1.2	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.14 @ f/1.4 B/W: 0 with IR
Lens	Auto back focus, C/CS mount	Auto back focus, C/CS mount	A11: 11 to 40 mm f/1.5 A3: 3.8 to 16 mm f/1.5 Auto back focus, C/CS mount	Auto back focus, C/CS mount	Auto back focus, C/CS mount	Auto back focus, C/CS mount	2.8 mm to 12 mm @ f/1.4, autofocus	2.8 mm to 12 mm @ f/1.4, autofocus	2.8 mm to 12 mm @ f/1.4, autofocus
Horizontal Angle of View	Lens dependent	Lens dependent	Lens dependent	Lens dependent	Lens dependent	Lens dependent	98.4° to 30.2°	113° to 33.8°	91.2° to 28.3°
Pan/Tilt/Rotation	---	---	---	---	---	---	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°
Day/Night	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
BLC/WDR	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	No/Digital	No/Digital	Yes/120 dB	Yes/120 dB	Yes/120 dB
Max. IR Range (meters)	---	---	---	---	---	---	30	30	30
Video Compression	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG
Max. Image Resolution (pixels)	1280 x 960	1920 x 1080	1920 x 1080	2048 x 1536	3072 x 2048	4096 x 2160	1280 x 960	1920 x 1080	2048 x 1536
Frame Rate (fps)	30 @ 1280 x 960	25 @ 1280 x 960, 1280 x 720 30 @ 1280 x 960, 1280 x 720	30 @ 1920 x 1080, 1280 x 960, 1280 x 720	30 @ 1920 x 1080, 1280 x 720 20 @ 2048 x 1536	24 @ 3072 x 2048 30 @ 2560 x 2048, 2560 x 1920, 2048 x 1536, 1920 x 1080, 1280 x 720	22 @ 4096 x 2160, 3840 x 2160 30 @ 1920 x 1080, 1280 x 720	30 @ 1280 x 960	30 @ 1280 x 960, 1280 x 720	20 @ 2048 x 1536 30 @ 1920 x 1080, 1280 x 720
Multi-Streaming	Triple	Triple	Triple	Triple	Triple	Triple	Triple	Triple	Triple
Smart Features	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>
Audio Input/Output	IN: 1 line/mic OUT: 1 line MIC: Built in	IN: 1 line/mic OUT: 1 line MIC: Built in	IN: 1 line/mic OUT: 1 line MIC: Built in	IN: 1 line/mic OUT: 1 line MIC: Built in	IN: 1 line/mic OUT: 1 line MIC: Built in	IN: 1 line/mic OUT: 1 line MIC: Built in	IN: 1 line/mic OUT: 1 line	IN: 1 line/mic OUT: 1 line	IN: 1 line/mic OUT: 1 line
Alarm Input/Output	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
Local Storage	MicroSD 128 GB max.	MicroSD 128 GB max.	MicroSD 128 GB max.	MicroSD 128 GB max.	MicroSD 128 GB max.	MicroSD 128 GB max.	MicroSD 128 GB max.	MicroSD 128 GB max.	MicroSD 128 GB max.
Ratings	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	IK10, UL/cUL Listed	IK10, UL/cUL Listed	IK10, UL/cUL Listed
Operating Conditions (max.)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)
Power Requirements (max.)	24 VAC, 12 VDC, PoE (802.3af), 9 W	24 VAC, 12 VDC, PoE (802.3af), 11 W	24 VAC, 12 VDC, PoE (802.3af), 6 W	24 VAC, 12 VDC, PoE (802.3af), 9 W	24 VAC, 12 VDC, PoE (802.3af), 9 W	24 VAC, 12 VDC, PoE (802.3af), 6 W	12 VDC, PoE (802.3af), 11 W	12 VDC, PoE+ (802.3at), 13 W	12 VDC, PoE (802.3af), 11 W

<sup>1</sup>Full Smart Suite: Line Crossing, Intrusion, Region Entrance, Region Exiting, Unattended Baggage, Object Removal, Scene Change, Sudden Audio Increase/Decrease, Audio Loss, Defocus, Face Detection, Object Counting, Defog












Network Camera - Smart Series





Model	Indoor Dome		Outdoor Bullet						
	DS-2CD4165F-IZ	DS-2CD4185F-IZ	DS-2CD4212FWD-IZH	DS-2CD4212FWD-IZH8	DS-2CD4A26FWD-IZH	DS-2CD4232FWD-IZH	DS-2CD4232FWD-IZH8	DS-2CD4A35FWD-IZH	DS-2CD4A35FWD-IZH8
									
	<b>6.0 MP</b>	<b>4K</b>	<b>1.3 MP</b>	<b>1.3 MP</b>	<b>DarkFighter EXIR</b> <b>2.0 MP</b>	<b>3.0 MP</b>	<b>3.0 MP</b>	<b>EXIR</b> <b>3.0 MP</b>	<b>EXIR</b> <b>3.0 MP</b>
Image Sensor	1/1.8" progressive scan CMOS	1/1.7" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/1.8" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/2.8" progressive scan CMOS	1/2.8" progressive scan CMOS
Min. Illumination (lux)	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 lux @ f/1.4 B/W: 0 lux with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.0027 @ f/1.4 B/W: 0 with IR	Color: 0.14 @ f/1.4 B/W: 0 with IR	Color: 0.14 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR
Lens	2.8 mm to 12 mm @ f/1.4, autofocus	2.8 mm to 12 mm @ f/1.4, autofocus	2.8 mm to 12 mm @ f/1.4, autofocus	8 mm to 32 mm @ f/1.4, autofocus	2.8 mm to 12 mm @ f/1.4, autofocus	2.8 mm to 12 mm @ f/1.4, autofocus	8 mm to 32 mm @ f/1.4, autofocus	2.8 mm to 12 mm @ f/1.4, autofocus	8 mm to 32 mm @ f/1.4, autofocus
Horizontal Angle of View	94.5° to 30.5°	96.0° to 32.6°	98.4° to 30.2°	27.8° to 9.1°	92° to 32°	91.2° to 28.3°	26° to 8.54°	105° to 32° 29.7° to 9.7°	105° to 32° 29.7° to 9.7°
Pan/Tilt/Rotation	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	3-Axis Positioning	3-Axis Positioning	3-Axis Positioning	3-Axis Positioning	3-Axis Positioning	3-Axis Positioning	3-Axis Positioning
Day/Night	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
BLC/WDR	No/Digital	No/Digital	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB
Max. IR Range (meters)	30	30	30	80	50	30	80	50	100
Video Compression	H.264/MJPEG	H.264/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MJPEG	H.264/MJPEG
Max. Image Resolution (pixels)	3072 x 2048	4096 x 2160	1280 X 960	1280 X 960	1920 x 1080	2048 x 1536	2048 x 1536	2048 x 1536	2048 x 1536
Frame Rate (fps)	24 @ 3072 x 2048 30 @ 3072 x 1728, 2560 x 2048, 2560 x 1920, 2048 x 1536, 1920 x 1080, 1280 x 720	22 @ 4096 x 2160, 3840 x 2160 30 @ 1920 x 1080, 1280 x 720	30 @ 1280 x 960	30 @ 1280 x 960	30 @ 1920 x 1080, 1280 x 960, 1280 x 720	20 @ 2048 x 1536 30 @ 1920 x 1080, 1280 x 720	20 @ 2048 x 1536 30 @ 1920 x 1080, 1280 x 720	30 @ 2048 x 1536	30 @ 2048 x 1536
Multi-Streaming	Triple	Triple	Triple	Triple	Triple	Triple	Triple	Triple	Triple
Smart Features	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>
Audio Input/Output	IN: 1 line/mic OUT: 1 line	IN: 1 line/mic OUT: 1 line	---	---	---	---	---	---	---
Alarm Input/Output	1/1	1/1	---	---	---	---	---	---	---
Local Storage	MicroSD 128 GB max.	MicroSD 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.
Ratings	IK10, UL/cUL Listed	IK10, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP67, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP67, UL/cUL Listed	IP67, UL/cUL Listed
Operating Conditions (max.)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% or less (non-condensing)	-40° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)
Power Requirements (max.)	12 VDC, PoE (802.3af), 9 W	12 VDC, PoE (802.3af), 9 W	12 VDC, PoE+ (802.3at), 12 W	12 VDC, PoE+ (802.3at), 12 W	12 VDC, PoE (802.3af), 12 W	12 VDC, PoE+ (802.3at), 12 W	12 VDC, PoE+ (802.3at), 12 W	12 VDC, PoE (802.3af), 12 W	12 VDC, PoE (802.3af), 12 W

<sup>1</sup>Full Smart Suite: Line Crossing, Intrusion, Region Entrance, Region Exiting, Unattended Baggage, Object Removal, Scene Change, Sudden Audio Increase/Decrease, Audio Loss, Defocus, Face Detection, Object Counting, Defog

Network Camera - Smart Series

Model	Outdoor Bullet		Outdoor Dome						
	DS-2CD4A65F-IZH	DS-2CD4A85F-IZH	DS-2CD4312FWD-IZHS	DS-2CD4312FWD-IZHS8	DS-2CD4324FWD-IZHS	DS-2CD4324FWD-IZHS8	DS-2CD4526FWD-IZH	DS-2CD4332FWD-IZHS	DS-2CD4332FWD-IZHS8
									
	<b>EXIR</b> <b>6.0 MP</b>	<b>EXIR</b> <b>4K</b>	<b>1.3 MP</b>	<b>1.3 MP</b>	<b>2.0 MP</b>	<b>2.0 MP</b>	<b>DarkFighter</b> <b>2.0 MP</b>	<b>3.0 MP</b>	<b>3.0 MP</b>
Image Sensor	1/1.8" progressive scan CMOS	1/1.7" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/2.8" progressive scan CMOS	1/2.8" progressive scan CMOS	1/1.8" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS
Min. Illumination (lux)	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.0027 @ f/1.4 B/W: 0 with IR	Color: 0.14 @ f/1.4 B/W: 0 with IR	Color: 0.14 @ f/1.4 B/W: 0 with IR
Lens	2.8 to 12 mm @ f/1.4, autofocus	2.8 to 12 mm @ f/1.4, autofocus	2.8 to 12 mm @ f/1.4, autofocus	8 to 32 mm @ f/1.4, autofocus	2.8 to 12 mm @ f/1.4, autofocus	8 to 32 mm @ f/1.4, autofocus	2.8 to 12 mm @ f/1.4, autofocus	2.8 to 12 mm @ f/1.4, autofocus	8 to 32 mm @ f/1.4, autofocus
Horizontal Angle of View	92.4° to 31.8°	96.0° to 32.6°	98.4° to 30.2°	27.8° to 9.1°	113° to 33.8°	31.2° to 10.2°	92° to 32°	91.2° to 28.3°	26° to 8.54°
Pan/Tilt/Rotation	3-Axis Positioning	3-Axis Positioning	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°
Day/Night	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
BLC/WDR	Yes/Digital	No/Digital	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB
Max. IR Range (meters)	50	50	30	50	30	50	40	30	50
Video Compression	H.264/MJPEG	H.264/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG	H.264/MPEG4/MJPEG
Max. Image Resolution (pixels)	3072 x 2048	4096 x 2160	1280 x 960	1280 x 960	1920 x 1080	1920 x 1080	1920 x 1080	2048 x 1536	2048 x 1536
Frame Rate (fps)	24 @ 3072 x 2048, 30 @ 3072 x 1728, 2560 x 2048, 2560 x 1920, 2048 x 1536, 1920 x 1080, 1280 x 720	22 @ 4096 x 2160, 3840 x 2160 30 @ 1920 x 1080, 1280 x 720	30 @ 1280 x 960	30 @ 1280 x 960	30 @ 1920 x 1080, 1280 x 960, 1280 x 720	30 @ 1920 x 1080, 1280 x 960, 1280 x 720	30 @ 1920 x 1080, 1280 x 960, 1280 x 720	20 @ 2048 x 1536 30 @ 1920 x 1080, 1280 x 720	20 @ 2048 x 1536 30 @ 1920 x 1080, 1280 x 720
Multi-Streaming	Triple	Triple	Triple	Triple	Triple	Triple	Triple	Triple	Triple
Smart Features	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>
Audio Input/Output	---	---	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line
Alarm Input/Output	---	---	2/2	2/2	2/2	2/2	1/1	2/2	2/2
Local Storage	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.
Ratings	IP67, UL/cUL Listed	IP67, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK10, UL/cUL Listed
Operating Conditions (max.)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)
Power Requirements (max.)	12 VDC, PoE (802.3af), 12 W	12 VDC, PoE (802.3af), 12 W	24 VAC, PoE (802.3af), 12 W	24 VAC, PoE (802.3af), 12 W	24 VAC, PoE+ (802.3at), 15 W	24 VAC, PoE+ (802.3at), 15 W	24 VAC, 12 VDC, PoE+ (802.3at), 17 W	24 VAC, PoE (802.3af), 12 W	24 VAC, PoE (802.3af), 12 W

<sup>1</sup>Full Smart Suite: Line Crossing, Intrusion, Region Entrance, Region Exiting, Unattended Baggage, Object Removal, Scene Change, Sudden Audio Increase/Decrease, Audio Loss, Defocus, Face Detection, Object Counting, Defog

Network Camera - Smart Series				
Model	Outdoor Dome			
	DS-2CD4535FWD-IZH	DS-2CD4535FWD-IZH8	DS-2CD4565F-IZH	DS-2CD4585F-IZH
	 3.0 MP	 3.0 MP	 6.0 MP	 4K
Image Sensor	1/2.8" progressive scan CMOS	1/2.8" progressive scan CMOS	1/1.8" progressive scan CMOS	1/1.7" progressive scan CMOS
Min. Illumination (lux)	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR
Lens	2.8 to 12 mm @ f/1.4, autofocus	8 to 32 mm @ f/1.4, autofocus	2.8 to 12 mm @ f/1.4, autofocus	2.8 to 12 mm @ f/1.4, autofocus
Horizontal Angle of View	105° to 32°	29.7° to 9.7°	94.5° to 30.5°	96.0° to 32.6°
Pan/Tilt/Rotation	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°
Day/Night	TRUE	TRUE	TRUE	TRUE
BLC/WDR	Yes/120 dB	Yes/120 dB	Yes/Digital	Yes/Digital
Max. IR Range (meters)	40 (2.8 to 12 mm)	50 (8 mm to 32 mm)	40	40
Video Compression	H.264/MJPEG/MPEG 4	H.264/MJPEG/MPEG 4	H.264/MJPEG	H.264/MJPEG
Max. Image Resolution (pixels)	2048 × 1536	2048 × 1536	3072 × 2048	4096 × 2160
Frame Rate (fps)	30 @ 2048 × 1536	30 @ 2048 × 1536	24 @ 3072 × 2048 30 @ 3072 × 1728, 2560 × 2048, 2560 × 1920, 2048 × 1536, 1920 × 1080, 1280 × 720	22 @ 4096 × 2160 24 @ 3840 × 2160 30 @ 1920 × 1080, 1280 × 720
Multi-Streaming	Triple	Triple	Triple	Triple
Smart Features	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>	Full Smart Suite <sup>1</sup>
Audio Input/Output	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line
Alarm Input/Output	1/1	1/1	1/1	1/1
Local Storage	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.
Ratings	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK10, UL/cUL Listed
Operating Conditions (max.)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 95% (non-condensing)
Power Requirements (max.)	12 VDC, 24 VAC, PoE (802.3af), 12 W	12 VDC, 24 VAC, PoE (802.3af), 12 W	12 VDC, 24 VAC, PoE+ (802.3at), 17 W	24 VAC, 12 VDC, PoE+ (802.3at), 17 W

## Why Smart IP?

Smart IP brings intelligence, efficiency, and convenience to video surveillance. Enriched with Smart technologies, Hikvision's Smart IP cameras, Smart PTZ Dome cameras, and Smart NVRs are all designed to deliver Smart security in the modern marketplace.

Easily meeting all bandwidth and storage utilization requirements, Hikvision's Smart IP Camera Series offers unparalleled image quality and customer convenience. Similarly, Hikvision's Smart PTZ Dome Camera Series features excellent HD, smooth Pan/Tilt/Zoom, and Smart tracking functions to ensure the elimination of all blind spots within the camera's area of coverage. At the core of this solution is Hikvision's Smart NVR. With the ability to connect all Hikvision Smart cameras together, it simplifies the experience even further. Features such as live viewing, recorded video, Smart video playback, and event playback/backup are available. In addition, the Smart NVR boasts multi-channel recording, HD video preview, massive storage capacity, and system stability, providing an ideal choice for professional surveillance applications.









## Hikvision Smart IP Cameras

Based on Hikvision Smart IP cameras and PTZ, the video streams are "Smart tagged" and then transmitted to the NVR.












<sup>1</sup>Full Smart Suite: Line Crossing, Intrusion, Region Entrance, Region Exiting, Unattended Baggage, Object Removal, Scene Change, Sudden Audio Increase/Decrease, Audio Loss, Defocus, Face Detection, Object Counting, Defog

Network Camera - Smart Series

	Fisheye				Covert			
Model	DS-2CD6332FWD-I  <b>3.0 MP</b>	DS-2CD6332FWD-IV  <b>3.0 MP</b>	DS-2CD6362F-I  <b>6.0 MP</b>	DS-2CD6362F-IV  <b>6.0 MP</b>	DS-2CD6412FWD-C2 (Base Unit)  <i>*Base unit ONLY</i>	DS-2CD6412FWD-L10 (Lens/Sensor)  <i>*Base unit NOT included</i> <b>1.3 MP</b>	DS-2CD6412FWD-L20 (Lens/Sensor)  <i>*Base unit NOT included</i> <b>1.3 MP</b>	DS-2CD6412FWD-L30 (Lens/Sensor)  <i>*Base unit NOT included</i> <b>1.3 MP</b>
Image Sensor	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/1.8" progressive scan CMOS	1/1.8" progressive scan CMOS	Supports (2) L10, L20, or L30 lenses/sensor units (not included)	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS
Min. Illumination (lux)	Color: 0.28 @ f/2.0 B/W: 0 with IR	Color: 0.28 @ f/2.0 B/W: 0 with IR	Color: 0.3 @ f/2.8 B/W: 0 with IR	Color: 0.3 @ f/2.8 B/W: 0 with IR	---	Color: 0.04 @ f/2.3	Color: 0.04 @ f/2.3	Color: 0.04 @ f/2.0
Lens	1.19 mm @ f/2.0	1.19 mm @ f/2.0	1.27 mm @ f/2.8	1.27 mm @ f/2.8	---	3.7 mm @ f/2.3	3.7 mm @ f/2.3	2.8 mm, 4 mm @ f/2.0
Horizontal Angle of View	180°	180°	180°	180°	Lens dependent	57°	57°	92.5°, 73.1°
Day/Night	TRUE	TRUE	TRUE	TRUE	---	Electronic	Electronic	Electronic
BLC/WDR	No/120 dB	No/120 dB	No/Digital	No/Digital	---	No/120 dB	No/120 dB	No/120 dB
Max. IR Range (meters)	10	10	10	10	---	---	---	---
Video Compression	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MPEG4/MJPEG	---	---	---
Max. Image Resolution (pixels)	2048 × 1536	2048 × 1536	3072 × 2048	3072 × 2048	---	1280 x 960	1280 x 960	1280 x 960
Frame Rate (fps)	Fisheye: Main:1536x1536, Sub:720x720 Panorama: Main:1600x1200, Sub:740x480 ePTZ: Main:800x600  M1: 20@ FE(M), P(M), 3XePTZ(M) M2: 30@ FE(M), 4XePTZ(M) M3: 30@ FE(M), FE(S), 15@ePTZ(M) M4: 30@ P(M), P(S).	Fisheye: Main:1536x1536, Sub:720x720 Panorama: Main:1600x1200, Sub:740x480 ePTZ: Main:800x600  M1: 20@ FE(M), P(M), 3XePTZ(M) M2: 30@ FE(M), 4XePTZ(M) M3: 30@ FE(M), FE(S), 15@ePTZ(M) M4: 30@ P(M), P(S).	Fisheye: Main: 3072x2048, Sub:1280x1280 Panorama: Main:2048x1536, Sub:740x480 ePTZ: Main:1024x768  M1: 15@ FE(M), P(M), 3XePTZ(M) M2: 30@ FE(M), 4XePTZ(M) M3: 15@ FE(M), FE(S), 15@ePTZ(M) M4: 30@ P(M), P(S).	Fisheye: Main: 3072x2048, Sub:1280x1280 Panorama: Main:2048x1536, Sub:740x480 ePTZ: Main:1024x768  M1: 15@ FE(M), P(M), 3XePTZ(M) M2: 30@ FE(M), 4XePTZ(M) M3: 15@ FE(M), FE(S), 15@ePTZ(M) M4: 30@ P(M), P(S).	30 @ 1280 x 960, 1280 x 720	---	---	---
Multi-Streaming	High Frame Rate Mode; Multi-Channel Mode; Mode 3; Mode 4	High Frame Rate Mode; Multi-Channel Mode; Mode 3; Mode 4	High Frame Rate Mode; Multi-Channel Mode; Mode 3; Mode 4	High Frame Rate Mode; Multi-Channel Mode; Mode 3; Mode 4	Triple Stream	---	---	---
Motion Detection	Yes	Yes	Yes	Yes	Basic Smart Suite <sup>2</sup>	---	---	---
Audio Input/Output	Built-in speaker and mic	Built-in speaker and mic	Built-in speaker and mic	Built-in speaker and mic	IN: 1 line/mic OUT: 1 line	---	---	---
Alarm Input/Output	---	---	---	---	1/1	---	---	---
Local Storage	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	---	---	---
Ratings	UL/cUL Listed	IP66/IK10, UL/cUL Listed	UL/cUL Listed	IP66/IK10, UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed
Operating Conditions (max.)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)
Power Requirements (max.)	12 VDC, PoE (802.3af), 12 W	12 VDC, PoE (802.3af), 12 W	12 VDC, PoE (802.3af), 12 W	12 VDC, PoE (802.3af), 12 W	12 VDC, PoE (802.3af), 6.5 W	---	---	---





<sup>2</sup>Basic Smart Suite: Line Crossing Detection, Intrusion Detection

Network PTZ Camera - Smart Pro Series

	Indoor			Outdoor					
Model	DS-2DF5276-AE3	DS-2DF5220S-DE4/W	DS-2DF5286-AE3	DS-2DF5276-AEL	DS-2DF5286-AEL	DS-2DF6223-AEL	DS-2DF6236V-AEL	DS-2DF6336V-AEL	DS-2DF7276-AEL
	 <b>1.3 MP</b>	 <b>2.0 MP</b>	 <b>2.0 MP</b>	 <b>1.3 MP</b>	 <b>2.0 MP</b>	 <b>DarkFighter 2.0 MP</b>	 <b>LightFighter 2.0 MP</b>	 <b>3.0 MP</b>	 <b>1.3 MP</b>
Image Sensor	1/3" progressive scan CMOS	1/2.8" progressive scan CMOS	1/2.8" progressive scan CMOS	1/3" progressive scan CMOS	1/2.8" progressive scan CMOS	1/1.9" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS
Min. Illumination (lux)	Color: 0.05 @ f/1.6 B/W: 0.005 @ f/1.6	Color: 0.3 @ f/1.6 B/W: 0.002 @ f/1.6	Color: 0.4 @ f/1.6 B/W: 0.03 @ f/1.6	Color: 0.05 @ f/1.6 B/W: 0.005 @ f/1.6	Color: 0.4 @ f/1.6 B/W: 0.03 @ f/1.6	Color: 0.005 @ f/1.5 B/W: 0.0005 @ f/1.5	Color: 0.05 @ f/1.6 B/W: 0.01 @ f/1.6	Color: 0.05 @ f/1.6 B/W: 0.01 @ f/1.6	Color: 0.05 @ f/1.6 B/W: 0.005 @ f/1.6, 0 with IR
Lens	4.3 to 129.0 mm	4.7 to 94 mm	4.3 to 129.0 mm	4.3 to 129.0 mm	4.3 to 129.0 mm	5.9 to 135.7 mm	4.5 to 162 mm	4.5 to 162 mm	4.3 to 129.0 mm
Horizontal Angle of View	57.4° to 2.8°	58.3° to 3.2°	65.5° to 2.11°	57.4° to 2.8°	65.5° to 2.11°	59.8° to 3.0°	60.6° to 3.68°	60.6° to 3.68°	57.4° to 2.8°
Optical Zoom	30x	20x	30x	30x	30x	23x	36x	36x	30x
Pan Range	360° endless	360° endless	360° endless	360° endless	360° endless	360° endless	360° endless	360° endless	360° endless
Tilt Range	-5° to 90° (auto flip)	-30° to 90° (auto flip)	-5° to 90° (auto flip)	-5° to 90° (auto flip)	-5° to 90° (auto flip)	-15° to 90° (auto flip)	-20° to 90° (auto flip)	-20° to 90° (auto flip)	-2° to 90° (auto flip)
Pan & Tilt Speed (Manual)	Pan: 0.1° to 300°/sec. Tilt: 0.1° to 240°/sec.	Pan: 0.1° to 160°/sec. Tilt: 0.1° to 120°/sec.	Pan: 0.1° to 300°/sec. Tilt: 0.1° to 240°/sec.	Pan: 0.1° to 300°/sec. Tilt: 0.1° to 240°/sec.	Pan: 0.1° to 300°/sec. Tilt: 0.1° to 240°/sec.	Pan: 0.1° to 300°/sec. Tilt: 0.1° to 240°/sec.	Pan: 0.1° to 300°/sec. Tilt: 0.1° to 240°/sec.	Pan: 0.1° to 300°/sec. Tilt: 0.1° to 240°/sec.	Pan: 0.1° to 160°/sec. Tilt: 0.1° to 120°/sec.
Pan & Tilt Speed (Preset)	Pan: 540°/sec. Tilt: 400°/sec.	Pan: 240°/sec. Tilt: 200°/sec.	Pan: 540°/sec. Tilt: 400°/sec.	Pan: 540°/sec. Tilt: 400°/sec.	Pan: 540°/sec. Tilt: 400°/sec.	Pan: 540°/sec. Tilt: 400°/sec.	Pan: 540°/sec. Tilt: 400°/sec.	Pan: 540°/sec. Tilt: 400°/sec.	Pan: 240°/sec. Tilt: 200°/sec.
Day/Night	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
BLC/WDR	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	No/120 dB	No/140 dB	No/120 dB	Yes/Digital
Max. IR Range (meters)	---	---	---	---	---	---	---	---	150
Smart Features/ Presets/Tours/Patterns	Tracking, Defog/ 300/8/4	Tracking, Defog/ 300/8/4	Tracking, Defog/ 300/8/4	Tracking, Defog/ 300/8/4	Tracking, Defog/ 300/8/4	Tracking, Defog/ 300/8/4	Tracking, Defog/ 300/16/10	Tracking, Defog/ 300/16/10	Tracking, Defog/ 300/8/4
Video Compression	H.264/MJPEG/MPEG4	H.264/MJPEG/MPEG4	H.264/MJPEG/MPEG4	H.264/MJPEG/MPEG4	H.264/MJPEG/MPEG4	H.264/MJPEG/MPEG4	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG/MPEG4
Max. Image Resolution (pixels)	1280 × 960	1920 × 1080	1920 × 1080	1280 × 960	1920 × 1080	1920 × 1080	1920 × 1080	2048 × 1536	1280 × 960
Frame Rate (fps)	30 @ 1280 × 960, 1280 × 720	30 @ 1920 × 1080, 1280 × 960, 1280 × 720	30 @ 1920 × 1080, 1280 × 960, 1280 × 720	30 @ 1280 × 960, 1280 × 720	30 @ 1920 × 1080, 1280 × 960, 1280 × 720	30 @ 1920 × 1080, 1280 × 960, 1280 × 720	30 @ 1920 × 1080, 1280 × 960, 1280 × 720	30 @ 1280 × 720	30 @ 1280 × 960, 1280 × 720
Local Storage	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>
Ratings	IP66, UL/cUL Listed	UL/cUL Listed	IP66, UL/cUL Listed	IP66, IK10, UL/cUL Listed	IP66, IK10, UL/cUL Listed	IP66, IK10, UL/cUL Listed	IP66, IK10, UL/cUL Listed	IP66, IK10, UL/cUL Listed	IP66, UL/cUL Listed
Operating Conditions (max.)	-10° C to 50° C (14° F to 122° F), humidity 90% (non-condensing)	-10° C to 50° C (14° F to 122° F), humidity 90% (non-condensing)	-10° C to 50° C (14° F to 122° F), humidity 90% (non-condensing)	24 VAC: -40° C to 65° C (-40° F to 149° F); Hi-PoE: -30° C to 65° C (-22° F to 149° F), humidity 90% (non-condensing)	24 VAC: -40° C to 65° C (-40° F to 149° F); Hi-PoE: -30° C to 65° C (-22° F to 149° F), humidity 90% (non-condensing)	-40° C to 65° C (-40° F to 149° F), humidity 90% (non-condensing)	-40° C to 65° C (-40° F to 149° F), humidity 90% (non-condensing)	-40° C to 65° C (-40° F to 149° F), humidity 90% (non-condensing)	24 VAC: -40° C to 65° C (-40° F to 149° F); Hi-PoE: -30° C to 65° C (-22° F to 149° F), humidity 90% (non-condensing)
Power Requirements (max.)	24 VAC, PoE+ (802.3at), 25 W	12 VDC, PoE+ (802.3at), 25 W	24 VAC, PoE+ (802.3at), 25 W	24 VAC, Hi-PoE, 60 W	24 VAC, Hi-PoE, 60 W	24 VAC, Hi-PoE, 60 W	24 VAC, Hi-PoE, 60 W	24 VAC, Hi-PoE, 60 W	24 VAC, Hi-PoE, 60 W

<sup>3</sup>Firmware v 5.3 and later

Network PTZ Camera - Smart Pro Series

	Outdoor IR			
	DS-2DF7286-AEL	DS-2DF8223I-AEL	DS-2DF8236IV-AEL	DS-2DF8336IV-AEL
Model	 <b>1.3 MP</b>	 <b>DarkFighter 2.0 MP</b>	 <b>LightFighter 2.0 MP</b>	 <b>3.0 MP</b>
Image Sensor	1/2.8" progressive scan CMOS	1/3" progressive scan CMOS	1/1.9" progressive scan CMOS	1/3" progressive scan CMOS
Min. Illumination (lux)	Color: 0.4 @ f/1.6 B/W: 0.03 @ f/1.6, 0 with IR	Color: 0.005 @ f/1.5 B/W: 0.0005 @ f/1.5	Color: 0.05 @ f/1.6 B/W: 0.01, 0 with IR	Color: 0.05 @ f/1.6 B/W: 0.01, 0 with IR
Lens	4.3 to 129.0 mm	5.9 to 135.7 mm	4.5 to 162 mm	4.5 to 162 mm
Horizontal Angle of View	65.5° to 2.11°	59.8° to 3.0°	60.6° to 3.68°	60.6° to 3.68°
Optical Zoom	30x	23x	36x	36x
Pan Range	360° endless	360° endless	360° endless	360° endless
Tilt Range	-2° to 90° (auto flip)	-15° to 90° (auto flip)	-20° to 90° (auto flip)	-20° to 90° (auto flip)
Pan & Tilt Speed (Manual)	Pan: 0.1° to 160°/sec. Tilt: 0.1° to 120°/sec.	Pan: 0.1° to 160°/sec. Tilt: 0.1° to 120°/sec.	Pan: 0.1° to 160°/sec. Tilt: 0.1° to 120°/sec.	Pan: 0.1° to 160°/sec. Tilt: 0.1° to 120°/sec.
Pan & Tilt Speed (Preset)	Pan: 240°/sec. Tilt: 200°/sec.	Pan: 240°/sec. Tilt: 200°/sec.	Pan: 240°/sec. Tilt: 200°/sec.	Pan: 240°/sec. Tilt: 200°/sec.
Day/Night	TRUE	TRUE	TRUE	TRUE
BLC/WDR	Yes/Digital	No/120 dB	No/140 dB	No/120 dB
Max. IR Range (meters)	150	200	200	200
Smart Features/Presets/Tours/Patterns	Tracking, Defog/ 300/8/4	Tracking, Defog/ 300/8/4	Tracking, Defog/ 300/16/10	Tracking, Defog/ 300/16/10
Video Compression	H.264/MJPEG/MPEG4	H.264/MJPEG/MPEG4	H.264/MJPEG	H.264/MJPEG
Max. Image Resolution (pixels)	1920 × 1080	1920 × 1080	1920 × 1080	2048 × 1536
Frame Rate (fps)	30 @ 1920 × 1080, 1280 × 960, 1280 × 720	30 @ 1920 × 1080, 1280 × 960, 1280 × 720	30 @ 1920 × 1080, 1280 × 960, 1280 × 720	30 @ 2048 × 1536
Local Storage	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>
Ratings	IP66, UL/cUL Listed	IP66, IK10, UL/cUL Listed	IP66, IK10, UL/cUL Listed	IP66, IK10, UL/cUL Listed
Operating Conditions (max.)	24 VAC: -40° C to 65° C (-40° F to 149° F); Hi-PoE: -30° C to 65° C (-22° F to 149° F), humidity 90% (non-condensing)	-40° C to 65° C (-40° F to 149° F), humidity 90% (non-condensing)	-40° C to 65° C (-40° F to 149° F), humidity 90% (non-condensing)	-40° C to 65° C (-40° F to 149° F), humidity 90% (non-condensing)
Power Requirements (max.)	24 VAC, Hi-PoE, 60 W	24 VAC, Hi-PoE, 60 W	24 VAC, Hi-PoE, 60 W	24 VAC, Hi-PoE, 60 W

<sup>3</sup>Firmware v 5.3 and later

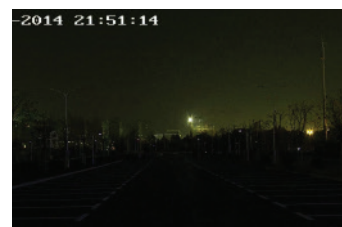
Hikvision is proud to present state-of-the-art IP cameras for every lighting situation: DarkFighter and LightFighter Cameras

DarkFighter cameras feature industry-leading ultra-low light technology. With models offering IR distances up to 200 m, DarkFighter is the perfect solution to capture color images clearly in dimly lit environments.

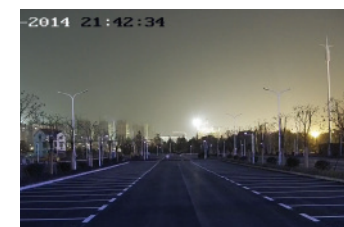
In extremely bright light conditions, LightFighter's groundbreaking 140 db Wide Dynamic Range (WDR) feature operates similarly to the human eye, extending the range of lighting extremes, on the scene, that the camera can successfully resolve, resulting in an image without under or over exposure.

Both cameras offer full 1080p HD to capture even the most minute details. Smart features, 3D digital noise reduction (DNR), defogging technology, and electronic image stabilization (EIS) options allow DarkFighter and LightFighter cameras to provide superior quality images and high performance.

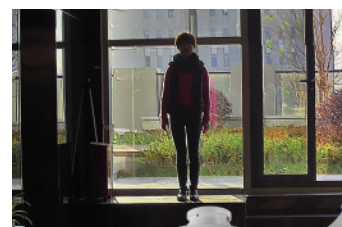
Conventional PTZ Camera



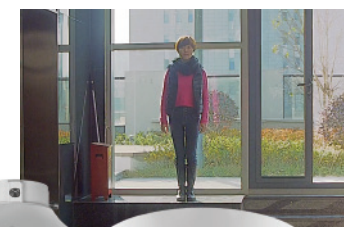
Hikvision DarkFighter PTZ










Conventional Camera



Hikvision LightFighter Camera












## Network Video Recorder

Pro Series							
Model	DS-9616NI-ST	DS-9632NI-ST	DS-9664NI-ST	DS-9632NI-H8	DS-9664NI-H8	DS-96128NI-E24/H <sup>4</sup>	DS-96256NI-E24/H <sup>4</sup>
							
<b>Max. Recording Resolution</b>	6 MP	6 MP	6 MP	4K	4K	6 MP	6 MP
<b>Video Compression</b>	H.264	H.264	H.264	H.264	H.264	H.264	H.264
<b>HDMI/VGA Output</b>	1920 x 1080/1920 x 1080	1920 x 1080/1920 x 1080	1920 x 1080/1920 x 1080	1920 x 1080 (HDMI1), 3840 x 2160 (HDMI2)	1920 x 1080 (HDMI1), 3840 x 2160 (HDMI2)	1920 x 1080/1920 x 1080, 6 HDMI Output	1920 x 1080/1920 x 1080, 6 HDMI Output
<b>IP Video Inputs</b>	16	32	64	32	64	128	256
<b>Alarm Input/Output</b>	16/4	16/4	16/4	16/4	16/4	16/8	16/8
<b>USB</b>	3 USB 2.0	3 USB 2.0	3 USB 2.0	2 USB 2.0; 2 USB 3.0	2 USB 2.0; 2 USB 3.0	2 USB 3.0	2 USB 3.0
<b>HDD Array Type</b>	RAID 0, RAID 1, RAID 5, RAID 10	RAID 0, RAID 1, RAID 5, RAID 10	RAID 0, RAID 1, RAID 5, RAID 10	RAID 0, RAID 1, RAID 5, RAID 10	RAID 0, RAID 1, RAID 5, RAID 10	RAID 0, RAID 1, RAID 5, RAID 10	RAID 0, RAID 1, RAID 5, RAID 10
<b>Internal SATA</b>	8 SATA interfaces (up to 6 TB each)	8 SATA interfaces (up to 6 TB each)	8 SATA interfaces (up to 6 TB each)	8 SATA interfaces (up to 6 TB each)	8 SATA interfaces (up to 6 TB each)	24 SATA (up to 6 TB each), RAID-Standard	24 SATA (up to 6 TB each) RAID-Standard
<b>Maximum Internal Storage</b>	48 TB	48 TB	48 TB	48 TB	48 TB	144 TB	144 TB
<b>Max Incoming Bandwidth (Mbps)</b>	100 (100 with RAID)	200 (100 with RAID)	200 (100 with RAID)	384	768	400 (200 with RAID)	320 (320 with RAID)
<b>Maximum Outgoing Bandwidth (Mbps)</b>	240 (100 with RAID)	160 (100 with RAID)	160 (100 with RAID)	768	768	400 (200 with RAID)	640 (320 with RAID)
<b>Ratings</b>	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed
<b>Rack Units</b>	2	2	2	2	2	4	4
<b>Power Requirements</b>	100 to 240 VAC, 50 to 60 Hz	100 to 240 VAC, 50 to 60 Hz	100 to 240 VAC, 50 to 60 Hz	100 to 240 VAC, 50 to 60 Hz	100 to 240 VAC, 50 to 60 Hz	100 to 240 VAC, 50 to 60 Hz redundant power	100 to 240 VAC, 50 to 60 Hz redundant power
<b>Power Consumption</b>	6.3 A, ≤45 W without HDD	6.3 A, ≤45 W without HDD	6.3 A, ≤45 W without HDD	≤100 W without HDD or DVD-R/W	≤100 W without HDD or DVD-R/W	6.3 A, ≤450 W without HDD	6.3 A, ≤450 W without HDD

<sup>4</sup>Requires appropriate rack shelf (not included) to rack mount the unit due to its weight






Network Camera - Value Series

	Outdoor Bullet Fixed Focal		Outdoor Dome Fixed Focal		Outdoor Bullet Fixed Focal		Outdoor Turret Fixed Focal		Compact Dome
Model	DS-2CD2022WD-I	DS-2CD2042WD-I	DS-2CD2122FWD-IS	DS-2CD2142FWD-IS	DS-2CD2T22WD-I	DS-2CD2T42WD-I	DS-2CD2322WD-I	DS-2CD2342WD-I	DS-2CD2522FWD-IS
									
	<b>2.0 MP</b>	<b>4.0 MP</b>	<b>2.0 MP</b>	<b>4.0 MP</b>	<b>EXIR</b> <b>2.0 MP</b>	<b>EXIR</b> <b>4.0 MP</b>	<b>EXIR</b> <b>2.0 MP</b>	<b>EXIR</b> <b>4.0 MP</b>	<b>2.0 MP</b>
Image Sensor	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/2.8" progressive scan CMOS	1/2.8" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS
Min. Illumination (lux)	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR
Lens	4 mm @ f/2.0 (6 mm option)	4 mm @ f/2.0 (6 mm option)	2.8 mm @ f/2.0 (4 mm, 6 mm option)	2.8 mm @ f/2.0, (4 mm, 6 mm option)	4 mm, 6 mm @ f/2.0	4 mm, 6 mm @ f/2.0	2.8 mm (4 mm, 6 mm option) @ f/2.0	2.8 mm (4 mm, 6 mm option) @ f/2.0	4 mm @ f/2.0 (2.8 mm, 6 mm option)
Horizontal Angle of View	85° (4 mm), 52° (6 mm)	82° (4 mm), 55° (6 mm)	106° (2.8 mm), 85° (4 mm), 52° (6 mm)	106° (2.8 mm), 85° (4 mm), 56° (6 mm)	90° (4 mm), 54° (6 mm)	83° (4 mm), 56° (6 mm)	106° (2.8 mm), 85° (4 mm), 52° (6 mm)	106° (2.8 mm), 85° (4 mm), 56° (6 mm)	106° (2.8 mm), 85° (4 mm), 52° (6 mm)
Pan/Tilt/Rotation	3-Axis Positioning	3-Axis Positioning	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	3-Axis Positioning	3-Axis Positioning	0° to 360°/ 0° to 75°/0° to 360°	0° to 360°/ 0° to 75°/0° to 360°	-30° to 30°/ 0° to 75°/0° to 360°
Day/Night	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
BLC/WDR	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB
Max. IR Range (meters)	30	30	30	30	50	50	30	30	10
Video Compression	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG
Max. Image Resolution (pixels)	1920 x 1080	2688 x 1520	1920 x 1080	2688 x 1520	1920 x 1080	2688 x 1520	1920 x 1080	2688 x 1520	1920 x 1080
Frame Rate (fps)	30 @ 1920 x 1080, 1280 x 960, 1280 x 720	20 @ 2688 x 1520 30 @ 1920 x 1080, 1280 x 720	30 @ 1920 x 1080, 1280 x 960, 1280 x 720	20 @ 2688 x 1520 30 @ 1920 x 1080, 1280 x 720	30 @ 1920 x 1080, 1280 x 960, 1280 x 720	20 @ 2688 x 1520 30 @ 1920 x 1080, 1280 x 720	30 @ 1920 x 1080, 1280 x 960, 1280 x 720	20 @ 2688 x 1520 30 @ 1920 x 1080, 1280 x 720	30 @ 1920 x 1080, 1280 x 960, 1280 x 720
Multi-Streaming	Dual	Dual	Dual	Dual	Dual	Dual	Dual	Dual	Dual
Motion Detection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Audio Input/Output	---	---	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line	---	---	---	---	IN: 1 mic OUT: 1 line
Alarm Input/Output	---	---	1/1	1/1	---	---	---	---	1/1
Local Storage	---	---	MicroSD, 128 GB max.	MicroSD, 128 GB max.	---	---	---	---	MicroSD, 128 GB max.
Smart Features	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>
Ratings	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66/IK08, UL/cUL Listed	IP66/IK08, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66/IK08, UL/cUL Listed
Operating Conditions (max.)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)
Power Requirements (max.)	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 7.5 W	12 VDC, PoE (802.3af), 7.5 W	12 VDC, PoE (802.3af), 7.5 W	12 VDC, PoE (802.3af), 7.5 W	12 VDC, PoE (802.3af), 5 W

<sup>2</sup>Basic Smart Suite: Line Crossing Detection, Intrusion Detection



Network Camera - Value Series

	Compact Dome	Outdoor Bullet Vari-Focal		Outdoor Dome Vari-Focal	
	DS-2CD2542FWD-IS	DS-2CD2622FWD-ISZ	DS-2CD2642FWD-ISZ	DS-2CD2722FWD-ISZ	DS-2CD2742FWD-ISZ
<b>Model</b>	 <b>4.0 MP</b>	 <b>2.0 MP</b>	 <b>4.0 MP</b>	 <b>2.0 MP</b>	 <b>4.0 MP</b>
<b>Image Sensor</b>	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS
<b>Min. Illumination (lux)</b>	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR
<b>Lens</b>	2.8 mm @ f/2.0, (4 mm, 6 mm option)	2.8 to 12 mm @ f/1.4, motorized lens	2.8 to 12 mm @ f/1.4, motorized lens	2.8 to 12 mm @ f/1.4, motorized lens	2.8 to 12 mm @ f/1.4, motorized lens
<b>Horizontal Angle of View</b>	106° (2.8 mm), 83° (4 mm), 56° (6 mm)	106° to 35°	112° to 33.8°	106° to 35°	112° to 33.8°
<b>Pan/Tilt/Rotation</b>	-30° to 30°/ 0° to 75°/0° to 360°	3-Axis Positioning	3-Axis Positioning	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°
<b>Day/Night</b>	TRUE	TRUE	TRUE	TRUE	TRUE
<b>BLC/WDR</b>	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB	Yes/120 dB
<b>Max. IR Range (meters)</b>	10	30	30	30	30
<b>Video Compression</b>	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG
<b>Max. Image Resolution (pixels)</b>	2688 × 1520	1920 × 1080	2688 × 1520	1920 × 1080	2688 × 1520
<b>Frame Rate (fps)</b>	20 @ 2688 × 1520 30 @ 1920 × 1080, 1280 × 720	30 @ 1920 × 1080, 1280 × 960, 1280 × 720	20 @ 2688 × 1520 30 @ 1920 × 1080, 1280 × 720	30 @ 1920 × 1080, 1280 × 960, 1280 × 720	20 @ 2688 × 1520 30 @ 1920 × 1080, 1280 × 720
<b>Multi-Streaming</b>	Dual	Dual	Dual	Dual	Dual
<b>Motion Detection</b>	Yes	Yes	Yes	Yes	Yes
<b>Audio Input/Output</b>	IN: 1 mic OUT: 1 line	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line
<b>Alarm Input/Output</b>	1/1	1/1	1/1	1/1	1/1
<b>Local Storage</b>	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.
<b>Smart Features</b>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>
<b>Ratings</b>	IP66/IK08, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK10, UL/cUL Listed
<b>Operating Conditions (max.)</b>	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)
<b>Power Requirements (max.)</b>	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 7.5 W	12 VDC, PoE (802.3af), 7.5 W	12 VDC, PoE (802.3af), 5.5 W	12 VDC, PoE (802.3af), 5.5 W

Smart PTZ dome cameras incorporate Hikvision's innovative HD camera modules

Based on Hikvision ISP (Image Signal Processing) technology, the HD camera modules can provide 3 MP (2048×1536), 2 MP (1920×1080) and 1.3MP (1280×960) real-time HD. The 36x zoom capability enables a closer view to capture more detail. Using progressive scan sensors, the camera modules deliver true color representation and clear images of fast-moving objects.



2 MP, overview



2 MP, 16x optical zoom












2 MP, 30x optical zoom



Hikvision's 2 MP, 30x PTZ dome (DS-2DF7286/5286) can capture a license plate one-quarter mile away.










<sup>2</sup>Basic Smart Suite: Line Crossing Detection, Intrusion Detection

Network Camera - Value Series

	Outdoor Dome Fixed Focal		Compact Dome				Recessed Dome Fixed Focal		Outdoor Bullet
Model	DS-2CD2112F-I	DS-2CD2132F-I	DS-2CD2510F	DS-2CD2512F-IS	DS-2CD2520F	DS-2CD2532F-IS	DS-2CD2E10F	DS-2CD2E20F	DS-2CD2012-I
									
	1.3 MP	3.0 MP	1.3 MP	1.3 MP	2.0 MP	3.0 MP	1.3 MP	2.0 MP	1.3 MP
Image Sensor	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/2.8" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS
Min. Illumination (lux)	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.19 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0.0028 @ f/2.0	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0.0028 @ f/2.0	Color: 0.19 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR
Lens	4 mm @ f/2.0 (2.8 mm, 6 mm option)	4 mm @ f/2.0 (2.8 mm, 6 mm option)	2 mm @ f/2.0	4 mm @ f/2.0 (2.8 mm, 6 mm option)	2 mm @ f/2.0	4 mm @ f/2.0 (2.8 mm, 6 mm option)	4 mm (2.8 mm, 6 mm option)	4 mm (2.8 mm, 6 mm option)	4 mm @ f/2.0 (6 mm, 12 mm option)
Horizontal Angle of View	92.5° (2.8 mm), 73.1° (4 mm), 46° (6 mm)	98.5° (2.8 mm), 79° (4 mm), 49° (6 mm)	115° (2 mm)	92.5° (2.8 mm), 73.1° (4 mm), 46° (6 mm)	126° (2 mm)	70° @ 2048 x 1536, 79° @ 1920 x 1080	92.5° (2.8 mm), 73.1° (4 mm), 46° (6 mm)	106° (2.8 mm), 85° (4 mm), 52° (6 mm)	73.1° (4 mm), 46° (6 mm), 22° (12 mm)
Pan/Tilt/Rotation	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	±15°/0° to 90°/±15°	±30°/0° to 75°/ 0° to 360°	±15°/0° to 90°/±15°	±30°/0° to 75°/ 0° to 360°	0° to 355°/0° to 80°/na	0° to 355°/0° to 80°/na	3-Axis Positioning
Day/Night	TRUE	TRUE	Electronic	TRUE	Electronic	TRUE	TRUE	TRUE	TRUE
BLC/WDR	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital
Max. IR Range (meters)	30	30	---	10	---	10	---	---	20 to 30
Video Compression	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG
Max. Image Resolution (pixels)	1280 x 960	2048 x 1536	1280 x 960	1280 x 960	1920 x 1080	2048 x 1536	1280 x 960	1920 x 1080	1280 x 960
Frame Rate (fps)	30 @ 1280 x 960, 1280 x 720	20 @ 2048 x 1536, 30 @ 1920 x 1080, 1280 x 720	30 @ 1280 x 960, 1280 x 720, 704 x 576	30 @ 1280 x 960, 1280 x 720	30 @ 1920 x 1080, 1280 x 960, 1280 x 720	20 @ 2048 x 1536 30 @ 1920 x 1080, 1280 x 720	30 @ 1280 x 960, 1280 x 720	30 @ 1920 x 1080, 1280 x 960, 1280 x 720	30 @ 1280 x 960, 1280 x 720
Multi-Streaming	Dual	Dual	Dual	Dual	Dual	Dual	Dual	Dual	Dual
Smart Features	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>
Motion Detection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Audio Input/Output	---	---	---	OUT: 1 line MIC: Built in	---	OUT: 1 line MIC: Built in	---	---	---
Alarm Input/Output	---	---	---	1/1	---	1/1	---	---	---
Local Storage	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	MicroSD, 128 GB max.	---
Ratings	IP66/IK10, UL/cUL Listed	IP66/IK8, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK8, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK8, UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	IP66, UL/cUL Listed
Operating Conditions (max.)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-10° C to 40° C (14° F to 104° F), humidity 90% (non-condensing)	-10° C to 40° C (14° F to 104° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)
Power Requirements (max.)	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 4 W	12 VDC, PoE (802.3af), 7 W	12 VDC, PoE (802.3af), 4 W	12 VDC, PoE (802.3af), 7 W	12 VDC, PoE (802.3af), 4.2 W	12 VDC, PoE (802.3af), 4.5 W	12 VDC, PoE (802.3af), 7 W









<sup>2</sup>Basic Smart Suite: Line Crossing Detection, Intrusion Detection

Network Camera - Value Series

	Outdoor Bullet Fixed Focal			Outdoor Turret Fixed Focal		Outdoor Bullet Fixed Focal		Outdoor Bullet Vari-Focal	
Model	DS-2CD2032-I	DS-2CD2212-I5	DS-2CD2232-I5	DS-2CD2312-I	DS-2CD2332-I	DS-2CD2T12-I5	DS-2CD2T32-I5	DS-2CD2612F-I	DS-2CD2612F-I5
									
	<b>3.0 MP</b>	<b>EXIR</b> <b>1.3 MP</b>	<b>EXIR</b> <b>3.0 MP</b>	<b>EXIR</b> <b>1.3 MP</b>	<b>EXIR</b> <b>3.0 MP</b>	<b>EXIR</b> <b>1.3 MP</b>	<b>EXIR</b> <b>3.0 MP</b>	<b>1.3 MP</b>	<b>1.3 MP</b>
<b>Image Sensor</b>	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS
<b>Min. Illumination (lux)</b>	Color: 0.19 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.19 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.19 @ f/2.0 B/W: 0 with IR	Color: 0.014 @ f/2.0 B/W: 0 with IR	Color: 0.14 @ f/2.0 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR
<b>Lens</b>	4 mm @ f/2.0 (6 mm, 12 mm option)	4 mm @ f/2.0 (6 mm, 12 mm option)	4 mm @ f/2.0 (6 mm, 12 mm option)	4 mm @ f/2.0 (2.8 mm, 6 mm, 12 mm option)	4 mm @ f/2.0 (2.8 mm, 6 mm, 12 mm option)	4 mm @ f/2.0 (6 mm, 12 mm option)	4 mm @ f/2.0 (6 mm, 12 mm option)	2.8 to 12 mm @ f/1.4	2.8 to 12 mm @ f/1.4
<b>Horizontal Angle of View</b>	70° @ 2048 x 1536, 79° @ 1920 x 1080	73.1° (4 mm), 46° (6 mm), 22° (12 mm)	70° @ 2048 x 1536, 79° @ 1920 x 1080	92.5° (2.8 mm), 73.1° (4 mm), 46° (6 mm), 22° (12 mm)	70° @ 2048 x 1536, 79° @ 1920 x 1080	73.1° (4 mm), 46° (6 mm), 22° (12 mm)	70° (4 mm), 43.3° (6 mm), 20.6° (12 mm)	98.4° to 30.2°	98.4° to 30.2°
<b>Pan/Tilt/Rotation</b>	3-Axis Positioning	3-Axis Positioning	3-Axis Positioning	0° to 360°/ 0° to 75°/0° to 360°	0° to 360°/ 0° to 75°/0° to 360°	3-Axis Positioning	3-Axis Positioning	3-Axis Positioning	3-Axis Positioning
<b>Day/Night</b>	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
<b>BLC/WDR</b>	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital
<b>Max. IR Range (meters)</b>	20 to 30	50	50	20 to 30	20 to 30	50	50	30	30
<b>Video Compression</b>	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG
<b>Max. Image Resolution (pixels)</b>	2048 x 1536	1280 x 960	2048 x 1536	1280 x 960	2048 x 1536	1280 x 960	2048 x 1536	1280 x 960	1280 x 960
<b>Frame Rate (fps)</b>	20 @ 2048 x 1536 30 @ 1920 x 1080, 1280 x 720	30 @ 1280 x 960, 1280 x 720	20 @ 2048 x 1536 30 @ 1920 x 1080, 1280 x 720	30 @ 1280 x 960, 1280 x 720	20 @ 2048 x 1536 30 @ 1920 x 1080, 1280 x 720	30 @ 1280 x 960, 1280 x 720	20 @ 2048 x 1536 30 @ 1920 x 1080, 1280 x 720	30 @ 1280 x 960, 1280 x 720	30 @ 1280 x 960, 1280 x 720, 704 x 576
<b>Multi-Streaming</b>	Dual	Dual	Dual	Dual	Dual	Dual	Dual	Dual	Dual
<b>Smart Features</b>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>
<b>Motion Detection</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Audio Input/Output</b>	---	---	---	---	---	---	---	---	IN: 1 line OUT: 1 line
<b>Alarm Input/Output</b>	---	---	---	---	---	---	---	---	1/1
<b>Local Storage</b>	---	---	---	---	---	---	---	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>
<b>Ratings</b>	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed
<b>Operating Conditions (max.)</b>	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)
<b>Power Requirements (max.)</b>	12 VDC, PoE (802.3af), 7 W	12 VDC, PoE (802.3af), 9 W	12 VDC, PoE (802.3af), 9 W	12 VDC, PoE (802.3af), 7 W	12 VDC, PoE (802.3af), 7 W	12 VDC, PoE (802.3af), 9 W	12 VDC, PoE (802.3af), 9 W	12 VDC, PoE (802.3af), 9 W	12 VDC, PoE (802.3af), 5.5 W










<sup>2</sup>Basic Smart Suite: Line Crossing Detection, Intrusion Detection  
<sup>3</sup>Firmware v 5.3 and later

Network Camera - Value Series

	Outdoor Bullet Vari-Focal		Outdoor Dome Vari-Focal				Pinhole	Fisheye
Model	DS-2CD2632F-I	DS-2CD2632F-IS	DS-2CD2712F-I	DS-2CD2712F-IS	DS-2CD2732F-I	DS-2CD2732F-IS	DS-2CD2D14WD	DS-2CD2942F-IS
								
	<b>3.0 MP</b>	<b>3.0 MP</b>	<b>1.3 MP</b>	<b>1.3 MP</b>	<b>3.0 MP</b>	<b>3.0 MP</b>	<b>1.0 MP</b>	<b>4 MP</b>
Image Sensor	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/4" progressive scan CMOS	1/3" progressive scan CMOS
Min. Illumination (lux)	Color: 0.1 @ f/1.4 B/W: 0 with IR	Color: 0.1 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.1 @ f/1.4 B/W: 0 with IR	Color: 0.1 @ f/1.4 B/W: 0 with IR	Color: 0.028 @ f/2.0	Color: 0.018 @ f/1.6 B/W: 0.0018 @ f/1.6 0 with IR
Lens	2.8 mm to 12 mm @ f/1.4	2.8 mm to 12 mm @ f/1.4	2.8 mm to 12 mm @ f/1.4	2.8 mm to 12 mm @ f/1.4	2.8 mm to 12 mm @ f/1.4	2.8 mm to 12 mm @ f/1.4	3.2 mm @ f/2.0	1.6 mm, f/1.6
Horizontal Angle of View	91.2° to 28.3°	91.2° to 28.3°	98.4° to 30.2°	98.4° to 30.2°	91.2° to 28.3°	91.2° to 28.3°	65°	186° (horizontal), 106° (vertical)
Pan/Tilt/Rotation	3-Axis Positioning	3-Axis Positioning	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	0° to 360°/0° to 90°/na	---
Day/Night	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	Electronic	Electronic
BLC/WDR	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	No/100 dB	Yes/Digital
Max. IR Range (meters)	30	30	30	30	30	30	---	8
Video Compression	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG
Max. Image Resolution (pixels)	2048 × 1536	2048 × 1536	1280 × 960	1280 × 960	2048 × 1536	2048 × 1536	1280 × 720	2560 × 1440
Frame Rate (fps)	20 @ 2048 × 1536 30 @ 1920 × 1080, 1280 × 720	20 @ 2048 × 1536 30 @ 1920 × 1080, 1280 × 720	30 @ 1280 × 960, 1280 × 720	30 @ 1280 × 960, 1280 × 720	20 @ 2048 × 1536 30 @ 1920 × 1080, 1280 × 720	20 @ 2048 × 1536 30 @ 1920 × 1080, 1280 × 720	30 @ 1280 × 720	15 @ 2560 × 1440 30 @ 1920 × 1080, 1280 × 720
Multi-Streaming	Dual	Dual	Dual	Dual	Dual	Dual	Dual	Dual
Smart Features	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	---
Motion Detection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Audio Input/Output	---	IN: 1 line OUT: 1 line	---	IN: 1 line OUT: 1 line	---	IN: 1 line OUT: 1 line	---	IN: 1 line OUT: 1 line
Alarm Input/Output	---	1/1	---	1/1	---	1/1	---	1/1
Local Storage	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	---	MicroSD, 128 GB max. <sup>3</sup>
Ratings	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK10, UL/cUL Listed	UL/cUL Listed	UL/cUL Listed
Operating Conditions (max.)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)	-10° C to 40° C (14° F to 104° F), humidity 95% (non-condensing)
Power Requirement (max.)	12 VDC, PoE (802.3af), 7 W	12 VDC, PoE (802.3af), 7 W	12 VDC, PoE (802.3af), 7 W	12 VDC, PoE (802.3af), 7 W	12 VDC, PoE (802.3af), 7 W	12 VDC, PoE (802.3af), 7 W	12 VDC, 3 W	12 VDC, PoE (802.3af), 5.55 W

<sup>2</sup>Basic Smart Suite: Line Crossing Detection, Intrusion Detection  
<sup>3</sup>Firmware v 5.3 and later

Network PTZ Camera - Value Series





	Indoor PTeZ™		Indoor PTZ					Outdoor IR		
Model	DS-2DE2103-DE3/W	DS-2DE22021-DE3/W	DS-2DE4220-AE3	DS-2DE5184-AE3	DS-2DE4220-AE	DS-2DE5174-AE	DS-2DE5184-AE	DS-2DE7174-AE	DS-2DE7184-AE	
	 <b>1.0 MP</b>	 <b>2.0 MP</b>	 <b>2.0 MP</b>	 <b>2.0 MP</b>	 <b>2.0 MP</b>	 <b>1.3 MP</b>	 <b>2.0 MP</b>	 <b>1.3 MP</b>	 <b>2.0 MP</b>	
Image Sensor	1/2.8" progressive scan CMOS	1/3" progressive scan CMOS	1/2.8" progressive scan CMOS	1/2.8" progressive scan CMOS	1/2.8" progressive scan CMOS	1/3" progressive scan CMOS	1/2.8" progressive scan CMOS	1/3" progressive scan CMOS	1/2.8" progressive scan CMOS	
Min. Illumination (lux)	Color: 0.05 @ f/1.6 B/W: 0.01 @ f/1.6	Color: 0.1 @ f/2.0 B/W: 0.01 @ f/2.0	Color: 0.05 @ f/1.6 B/W: 0.01 @ f/1.6	Color: 0.05 @ f/1.6 B/W: 0.01 @ f/1.6	Color: 0.05 @ f/1.6 B/W: 0.01 @ f/1.6	Color: 0.05 @ f/1.4 B/W: 0.01 @ f/1.4	Color: 0.05 @ f/1.6 B/W: 0.01 @ f/1.6	Color: 0.05 @ f/1.4 B/W: 0.01 @ f/1.4, 0 with IR	Color: 0.05 @ f/1.6 B/W: 0.01 @ f/1.6, 0 with IR	
Lens	3.6 to 11 mm, (effective) <sup>5</sup> via PTeZ™	3.6 to 8.6 mm, (effective) <sup>5</sup> via PTeZ™	4.7 to 94 mm	4.7 to 94 mm	4.3 to 94 mm	4.7 to 94 mm	4.7 to 94 mm	4.7 to 94 mm	4.7 to 94 mm	
Horizontal Angle of View	80° to 33°	80° to 64.5°	58.3° to 3.2°	58.3° to 3.2°	58.3° to 3.2°	58.3° to 3.2°	58.3° to 3.2°	58.3° to 3.2°	58.3° to 3.2°	
Optical Zoom	3x <sup>6</sup>	2x <sup>6</sup>	20x	20x	20x	20x	20x	20x	20x	
Pan Range	0° to 350°	0° to 350°	360° endless	360° endless	360° endless	360° endless	360° endless	360° endless	360° endless	
Tilt Range	0° to 90° (auto flip)	+5° to 90°	+5° to 90° (auto flip)	+5° to 90° (auto flip)	+5° to 90° (auto flip)	-5° to 90° (auto flip)	-5° to 90° (auto flip)	-15° to 90° (auto flip)	-15° to 90° (auto flip)	
Pan & Tilt Speed (Manual)	Pan: 0.1° to 100°/sec. Tilt: 0.1° to 80°/sec.	Pan: 0.1° to 60°/sec. Tilt: 0.1° to 50°/sec.	Pan: 0.1° to 160°/sec. Tilt: 0.1° to 120°/sec.	Pan: 0.1° to 250°/sec. Tilt: 0.1° to 150°/sec.	Pan: 0.1° to 160°/sec. Tilt: 0.1° to 120°/sec.	Pan: 0.1° to 250°/sec. Tilt: 0.1° to 150°/sec.	Pan: 0.1° to 250°/sec. Tilt: 0.1° to 150°/sec.	Pan: 0.1° to 160°/sec. Tilt: 0.1° to 120°/sec.	Pan: 0.1° to 160°/sec. Tilt: 0.1° to 120°/sec.	
Pan & Tilt Speed (Preset)	Pan: 100°/sec. Tilt: 80°/sec.	Pan: 50°/sec. Tilt: 50°/sec.	Pan: 160°/sec. Tilt: 120°/sec.	Pan: 300°/sec. Tilt: 200°/sec.	Pan: 160°/sec. Tilt: 120°/sec.	Pan: 300°/sec. Tilt: 200°/sec.	Pan: 300°/sec. Tilt: 200°/sec.	Pan: 240°/sec. Tilt: 200°/sec.	Pan: 240°/sec. Tilt: 200°/sec.	
Day/Night	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	
BLC/WDR	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	
Max. IR Range (meters)	---	20	---	---	---	---	---	100	100	
Smart Features	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	Basic Smart Suite <sup>2</sup>	
Presets/Tours/Patterns	300/0/0	300/0/0	300/8/4	300/8/4	300/8/4	300/8/4	300/8/4	300/8/4	300/8/4	
Wireless	IEEE 802.11b/g/n	IEEE 802.11b/g/n	---	---	---	---	---	---	---	
Video Compression	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	
Max. Image Resolution (pixels)	1280 × 720	1920 × 1080	1920 × 1080	1920 × 1080	1920 × 1080	1280 × 960	1920 × 1080	1280 × 960	1920 × 1080	
Frame Rate (fps)	30 @ 1280 × 720	30 @ 1920 × 1080	30 @ 1920 × 1080, 1280 × 720	30 @ 1280 × 960, 1280 × 720	30 @ 1920 × 1080, 1280 × 720	30 @ 1280 × 960, 1280 × 720	30 @ 1920 × 1080, 1280 × 960, 1280 × 720	30 @ 1280 × 960, 1280 × 720	30 @ 1920 × 1080, 1280 × 960, 1280 × 720	
Local Storage	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	
Ratings	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	IP66, IK10, UL/cUL Listed	IP66, IK08, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66/IK10, UL/cUL Listed	IP66, UL/cUL Listed	UL/cUL Listed	
Operating Conditions (max.)	-10° C to 50° C (14° F to 122° F)/90%	-10° C to 50° C (14° F to 122° F)/90%	-10° C to 50° C (14° F to 122° F), humidity 90% (non-condensing)	-10° C to 50° C (14° F to 122° F), humidity 90% (non-condensing)	-30° C to 65° C (-22° F to 149° F), humidity 90% (non-condensing)	-30° C to 65° C (-22° F to 149° F), humidity 90% (non-condensing)	-30° C to 65° C (-22° F to 149° F), humidity 90% (non-condensing)	-30° C to 65° C (-22° F to 149° F), humidity 90% (non-condensing)	-30° C to 65° C (-22° F to 149° F), humidity 90% (non-condensing)	
Power Requirements (max.)	12 VDC, PoE (802.3af), 7 W	12 VDC, PoE (802.3af), 9 W	24 VAC, PoE (802.3af), 12 W	24 VAC, PoE+ (802.3at), 14 W	24 VAC, PoE+ (802.3at), 18 W	24 VAC, PoE+ (802.3at), 22 W/ 14 W (heater ON/OFF)	24 VAC, PoE+ (802.3at), 22 W/ 14 W (heater ON/OFF)	24 VAC, Hi-PoE, 60 W/ 21 W (heater ON/OFF)	24 VAC, Hi-PoE, 60 W/ 21 W (heater ON/OFF)	

<sup>2</sup>Basic Smart Suite: Line Crossing Detection, Intrusion Detection










<sup>3</sup>Firmware v 5.3 and later

<sup>5</sup>PTeZ™ cameras have a sensor-based zoom



Network Video Recorder








	Plug & Play			
	DS-7604NI-E1/4P	DS-7608NI-E2/8P	DS-7616NI-E2/16P	DS-7716NI-SP/16
<b>Model</b>				
<b>Video Compression</b>	H.264	H.264	H.264	H.264
<b>HDMI/VGA Output</b>	1920 x 1080/1920 x 1080	1920 x 1080/1920 x 1080	1920 x 1080/1920 x 1080	1920 x 1080/1920 x 1080
<b>IP Video Input</b>	4-ch IPC with integrated 4-port PoE/PoE+ supply to cameras	8-ch IPC with integrated 4-port PoE/PoE+ supply to cameras	16-ch IPC with integrated 16-port PoE/PoE+ supply to cameras	16-ch IPC with integrated 16-port PoE/PoE+ supply to cameras
<b>Audio Input/Output</b>	1 line in/1 line out	1 line in/1 line out	1 line in/1 line out	1 line in/1 line out
<b>Alarm Input/Output</b>	1 ch/1 ch	8 ch/4 ch	16 ch/4 ch	16 ch/4 ch
<b>USB</b>	1 USB 2.0; 1 USB 3.0	1 USB 2.0; 1 USB 3.0	1 USB 2.0; 1 USB 3.0	3 USB 2.0
<b>Internal SATA</b>	1 SATA interface (up to 6 TB each)	2 SATA interfaces (up to 6 TB each)	2 SATA interfaces (up to 6 TB each)	4 SATA interfaces (up to 6 TB each)
<b>Max Incoming Bandwidth (Mbps)</b>	25 Mbps	50 Mbps	100 Mbps	100 Mbps
<b>Maximum Outgoing Bandwidth (Mbps)</b>	80 Mbps	80 Mbps	240 Mbps	240 Mbps
<b>Max. Remote Connections</b>	128	128	128	128
<b>Rack Units</b>	1	1	1	1.5
<b>Ratings</b>	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed
<b>PoE Budget</b>	50 W	120 W	200 W	200 W
<b>Power Requirements</b>	48VDC (100 to 240 VAC Power Adapter), ≤10 W without HDD	48VDC (100 to 240 VAC Power Adapter), ≤10 W without HDD	100 to 240 VAC, ≤10 W without HDD	100 to 240 VAC, 6.3 A, 50 to 60 Hz, ≤40 W without HDD

Network Camera - Value Series

	Wi-Fi Outdoor Dome Fixed Focal		Wi-Fi Compact Dome		Wi-Fi Cube		Wi-Fi Indoor PTZ		
Model	DS-2CD2112F-IWS  1.3 MP	DS-2CD2132F-IWS  3.0 MP	DS-2CD2522F-IWS  2.0 MP	DS-2CD2542FWD-IWS  4.0 MP	DS-2CD2421F-IW  1.3 MP	DS-2CD2432F-IW  3.0 MP	DS-2DE2103-DE3/W  1.0 MP	DS-2DE2202I-DE3/W  2.0 MP	DS-2DF5220S-DE4/W  2.0 MP
Image Sensor	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS
Min. Illumination (lux)	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.19 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.028 @ f/2.0 B/W: 0 with IR	Color: 0.28 @ f/2.0 B/W: 0 with IR	Color: 0.05 @ f/1.6 B/W: 0.01 @ f/1.6	Color: 0.1 @ f/2.0 B/W: 0.01 @ f/2.0	Color: 0.3 @ f/1.6 B/W: 0.002 @ f/1.6
Lens	4 mm @ f/2.0 (2.8 mm, 6 mm option)	4 mm @ f/2.0 (2.8 mm, 6 mm option)	4 mm @ f/2.0 (2.8 mm, 6 mm option)	2.8 mm @ f/2.0 (4 mm, 6 mm option)	4 mm @ f/2.0 (2.8 mm option)	4 mm @ f/2.0 (2.8 mm option)	3.6 to 11 mm, 3x (effective) <sup>5</sup> via PTeZ™	3.6 to 8.6 mm, 2x (effective) <sup>5</sup> via PTeZ™	4.7 to 94 mm, 20x
Horizontal Angle of View	92.5° (2.8 mm), 73.1° (4 mm), 46° (6 mm)	98.5° (2.8 mm), 79° (4 mm), 49° (6 mm)	106° (2.8 mm), 85° (4 mm), 52° (6 mm)	106° (2.8 mm), 83° (4 mm), 56° (6 mm)	92.5° (2.8 mm), 73.1° (4 mm)	86° (2.8 mm), 79° (4 mm)	80° to 33°	80° to 64.5°	58.3° to 3.2°
Pan/Tilt/Rotation	0° to 355°/ 0° to 75°/0° to 355°	0° to 355°/ 0° to 75°/0° to 355°	-30° to 30°/ 0° to 75°/0° to 360°	-30° to 30°/ 0° to 75°/0° to 360°	3-Axis Positioning	3-Axis Positioning	0° to 350°/0° to 90°/NA	0° to 350°/0° to 90°/NA	360° endless/ -30° to 90° (auto flip)/NA
Day/Night	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
BLC/WDR	Yes/Digital	Yes/Digital	No/120 dB	No/120 dB	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital
Max. IR Range (meters)	30	30	10	10	10	10	---	20	---
Video Compression	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG
Max. Image Resolution (pixels)	1280 x 960	2048 x 1536	1920 X 1080	2688 x 1520	1280 x 960	2048 x 1536	1280 x 720	1920 x 1080	1920 x 1080
Frame Rate (fps)	30 @ 1280 x 960, 1280 x 720	30 @ 1920 x 1080, 1280 x 720	30 @ 1920 X 1080, 1280 X 960, 1280 X 720	20 @ 2688 x 1520 30 @ 1920 x 1080, 1280 x 720	30 @ 1280 x 960, 1280 x 720	20 @ 2048 x 1536 30 @ 1920 x 1080, 1280 x 720	30 @ 704 x 480, 352 x 240, 320 x 240	30 @ 1920 x 1080	30 @ 1920 x 1080, 1280 x 960, 1280 x 720
Multi-Streaming	Dual	Dual	Dual	Dual	Dual	Dual	Dual	Dual	Dual
Motion Detection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wireless	IEEE 802.11b/g/n	IEEE 802.11b/g/n	IEEE 802.11b/g/n	IEEE 802.11b/g/n	IEEE 802.11b/g/n	IEEE 802.11b/g/n	IEEE 802.11b/g/n	IEEE 802.11b/g/n	IEEE 802.11b/g/n
Audio Input/Output	IN: 1 line OUT: 1 line	IN: 1 line OUT: 1 line	OUT: 1 line Mic: Built in	OUT: 1 line Mic: Built in	Built-in mic and speaker	Built-in mic and speaker	OUT: 1 line Mic: Built in	OUT: 1 line Mic: Built in	IN: 1 line OUT: 1 line
Alarm Input/Output	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
Local Storage	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>	MicroSD, 128 GB max. <sup>3</sup>
Ratings	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed
Operating Conditions (max.)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 95% (non-condensing)	0° C to 40° C (-22° F to 104° F), humidity 95% (non-condensing)	0° C to 40° C (-22° F to 104° F), humidity 95% (non-condensing)	-10° C to 50° C (14° F to 122° F), humidity 90% (non-condensing) (indoor dome)	-10° C to 50° C (14° F to 122° F), humidity 90% (non-condensing)	-10° C to 50° C (14° F to 122° F), humidity 90% (non-condensing)
Power Requirements (max.)	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 5 W	12 VDC, PoE (802.3af), 5.5 W	12 VDC, PoE (802.3af), 9 W	12 VDC, PoE+ (802.3at), 24 W

<sup>5</sup>PTeZ™ cameras have a sensor-based zoom  
<sup>3</sup>Firmware v 5.3 and later

Network Video Recorder		
	Wi-Fi NVR	
	DS-7104NI-SL/W	DS-7108NI-E1/V/W/1T (with 1 TB HDD)
<b>Model</b>		
<b>Video Compression</b>	H.264	H.264
<b>HDMI/VGA Output</b>	1920 x 1080/ 1920 x 1080	1920 x 1080 / -
<b>IP Video Input</b>	4-ch	8-ch
<b>Network Interface</b>	1 LAN	1 WAN, 3 LAN
<b>Wireless</b>	IEEE 802.11b/g/n	IEEE 802.11b/g/n
<b>Audio/Video I/O</b>	1/1, (HDMI), VGA	0/1 (HDMI)
<b>USB</b>	2 USB 2.0	1 USB 3.0
<b>Internal SATA</b>	1 (up to 4 TB)	1 (1 TB HDD included)
<b>Max Incoming Bandwidth (Mbps)</b>	25 Mbps	50 Mbps
<b>Maximum Outgoing Bandwidth (Mbps)</b>	40 Mbps	80 Mbps
<b>Max. Remote Connections</b>	128	128
<b>Ratings</b>	UL/cUL Listed	UL/cUL Listed, ONVIF
<b>Power Requirements</b>	12 VDC	12 VDC
<b>Max Total Power w/full HDD load</b>	16 W	12 W

Encoders and Decoders							
Model	Encoders				Decoders		
	DS-6701HWI	DS-6704HWI	DS-6708HWI	DS-6716HWI	DS-6401HDI-T	DS-6404HDI-T	DS-6408HDI-T
<b>Model</b>							
<b>Frame Rate (fps)</b>	30	30	30	30	Per video input	Per video input	Per video input
<b>Multi-Streaming</b>	Yes	Yes	Yes	Yes	1 video output	4 video outputs	8 video outputs
<b>Video In</b>	1-ch, BNC (1.0 Vp-p, 75 Ω)	4-ch, BNC (1.0 Vp-p, 75 Ω)	8-ch, BNC (1.0 Vp-p, 75 Ω)	16-ch, BNC (1.0 Vp-p, 75 Ω)	H.264/MPEG4 TCP/IP	H.264/MPEG4 TCP/IP	H.264/MPEG4 TCP/IP
<b>Video Out</b>	Ethernet	Ethernet	Ethernet	Ethernet	1 HDMI, 1 VGA, 1 BNC	4 HDMI, 4 VGA, 2 BNC (via DB-15 connector)	8 HDMI, 8 VGA, 4 BNC (via DB-15 connector)
<b>Network Interface</b>	1 RJ-45 10/100 Mbps adaptive Ethernet (PoE)	1 RJ-45 10/100 Mbps adaptive Ethernet (PoE)	1 RJ-45 10/100/1000 Mbps adaptive Ethernet	1 RJ-45 10/100/1000 Mbps adaptive Ethernet	1 10/100/1000 Mbps self-adaptive Ethernet	1 10/100/1000 Mbps self-adaptive Ethernet	1 10/100/1000 Mbps self-adaptive Ethernet
<b>Audio Input/ Output</b>	1 line in/1 line out	4 line in/1 line out	8 line in/1 line out	16 line in/1 line out	1 line in/1 line out	4 line in/4 line out	8 line in/8 line out
<b>Voice Talk Input</b>	1-ch	1-ch	1-ch	1-ch	1-ch	1-ch	1-ch
<b>Alarm Input/ Output</b>	1/1	4/2	8/4	16/4	4/4	4/4	4/4
<b>RS-232</b>	---	Yes	Yes	Yes	Yes	Yes	Yes
<b>RS-485</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Resolution</b>	WD1 (960H)/4CIF/2CIF/ CIF/qCIF	WD1 (960H)/4CIF/2CIF/ CIF/qCIF	WD1 (960H)/4CIF/2CIF/ CIF/qCIF	WD1 (960H)/4CIF/2CIF/ CIF/qCIF	2-ch@5 MP, 4-ch@1080p, 8-ch@720p, 16-ch@4CIF	4-ch@5 MP, 8-ch@1080p, 16-ch@720p, 32-ch@4CIF	8-ch@5 MP, 16-ch@1080p, 32-ch@720p, 64-ch@4CIF
<b>Ratings</b>	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed
<b>Power Requirements (max.)</b>	12 VDC, PoE (802.3af), ≤5 W	12 VDC, PoE (802.3af), ≤7 W	12 VDC (≤10 W)	12 VDC (≤22 W)	12 VDC (≤15 W)	100 to 240 VAC (≤70 W)	100 to 240 VAC (≤70 W)

## TurboHD HD-TVI Technology

TurboHD is HD-TVI, the latest in high-definition analog technology, delivering significant advantages over other HD analog formats. Ideal for supporting the move away from legacy analog to HD video, Hikvision's analog-to-digital migration solution enables users to utilize existing infrastructure, maximizing the ROI on their video surveillance equipment.









Unparalleled Performance,  
Amazing Price.

With tried and true analog installation methods and an attractive price point, the TurboHD solution represents an ideal migration path.
















### TurboHD Analog Camera - 720p

	Outdoor Bullet	Outdoor Turret			Outdoor Bullet		Indoor Dome	Outdoor Dome
Model	DS-2CE16C2T-IR	DS-2CE56C2T-IRM	DS-2CE56C5T-VFIT3	DS-2CE56C5T-IT1	DS-2CE16C5T-VFIR3	DS-2CE16C5T-IT1	DS-2CE56C5T-AVFIR	DS-2CE56C5T-AVPIR3
			 EXIR	 EXIR		 EXIR		
<b>Video Out</b>	HD-TVI	HD-TVI	HD-TVI/CVBS (selectable)	HD-TVI/CVBS (selectable)	HD-TVI/CVBS (selectable)	HD-TVI/CVBS (selectable)	HD-TVI/CVBS (selectable)	HD-TVI/CVBS (selectable)
<b>Image Sensor</b>	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS
<b>Min. Illumination (lux)</b>	Color: 0.043 @ f/2.5 B/W: 0 with IR	Color: 0.043 @ f/2.5 B/W: 0 with IR	Color: 0.0014 @ f/1.4 B/W: 0 with IR	Color: 0.043 @ f/2.5 B/W: 0 with IR	Color: 0.0014 @ f/1.4 B/W: 0 with IR	Color: 0.043 @ f/2.5 B/W: 0 with IR	Color: 0.0014 @ f/1.4 B/W: 0 with IR	Color: 0.0014 @ f/1.4 B/W: 0 with IR
<b>Lens</b>	3.6 mm @ f/2.5 (2.8 mm, 6 mm option)	3.6 mm @ f/2.5 (2.8 mm, 6 mm option)	2.8 to 12 mm @ f/1.4	3.6 mm @ f/2.5 (2.8 mm, 6 mm, 8 mm option)	2.8 to 12 mm @ f/1.4	3.6 mm @ f/2.5 (2.8 mm, 6 mm, 8 mm option)	2.8 to 12 mm @ f/1.4	2.8 to 12 mm @ f/1.4
<b>Horizontal Angle of View</b>	76.88° (3.6 mm), 99.73° (2.8 mm), 50.1° (6 mm)	76.88° (3.6 mm), 99.73° (2.8 mm), 50.1° (6 mm)	78° to 28°	71.43° (3.6 mm), 92.45° (2.8 mm), 46.9° (6 mm), 34.5° (8 mm)	78° to 28°	71.43° (3.6 mm), 92.45° (2.8 mm), 46.9° (6 mm), 34.5° (8 mm)	78° to 28°	78° to 28°
<b>Pan/Tilt/Rotation</b>	0° to 360°/ 0° to 90°/0° to 360°	0° to 360°/ 0° to 75°/0° to 360°	0° to 355°/ 0° to 90°/0° to 355°	0° to 360°/ 0° to 90°/0° to 360°	3-Axis Positioning	3-Axis Positioning	0° to 355°/ 0° to 180°/0° to 355°	0° to 355°/ 0° to 80°±90°
<b>Day/Night</b>	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
<b>BLC/WDR</b>	No/No	No/No	No/Digital	No/Digital	No/Digital	No/Digital	No/Digital	No/Digital
<b>Max. IR Range (meters)</b>	20	20	50	20	40	20	30	40
<b>Max. Image Resolution (pixels)</b>	1280 x 720	1280 x 720	1280 x 720	1280 x 720	1280 x 720	1280 x 720	1280 x 720	1280 x 720
<b>Vertical Synchronization</b>	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal
<b>OSD Menu via Up-the-Coax (UTC)</b>	No	No	Yes	Yes	Yes	Yes	Yes	Yes
<b>Ratings</b>	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	UL/cUL Listed	IP66/IK10, UL/cUL Listed
<b>Operating Conditions (max.)</b>	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)
<b>Power Requirements (max.)</b>	12 VDC, 3.5 W	12 VDC, 3.5 W	12 VDC, 6 W	12 VDC, 3 W	12 VDC, 4 W	12 VDC, 3 W	12 VDC, 3.5 W 24 VAC: 5 W	12 VDC, 3.5 W 24 VAC: 5 W

### TurboHD Analog Camera - 1080p

	Outdoor Bullet	Outdoor Dome	Outdoor Bullet	Outdoor Dome	Outdoor Box	Outdoor Bullet	Outdoor Turret	Outdoor Bullet	Outdoor Turret
<b>Model</b>	DS-2CE16D1T-IR	DS-2CE56D1T-VPIR	DS-2CE16D1T-AVFIR3	DS-2CE56D1T-AVPIR3	DS-2CC12D9T-A	DS-2CE16D5T-IT3	DS-2CE56D5T-IT3	DS-2CE16D5T-AVFIT3	DS-2CE56D5T-VFIT3
									
<b>Video Out</b>	HD-TVI	HD-TVI	HD-TVI	HD-TVI	HD-TVI/CVBS (Dual)	HD-TVI/CVBS (Dual)	HDTVI/CVBS (Dual)	HD-TVI/CVBS (Dual)	HD-TVI/CVBS (Dual)
<b>Image Sensor</b>	1/2.7" progressive scan CMOS 1/3" progressive scan CMOS (only 2.8 mm)	1/2.7" progressive scan CMOS 1/3" progressive scan CMOS (only 2.8mm)	1/2.7" progressive scan CMOS	1/2.7" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS
<b>Min. Illumination (lux)</b>	Color: 0.34 @ f/2.2 0 with IR	Color: 0.034 @ f/2.2 B/W: 0.0034 @ f/2.2, 0 with IR	Color: 0.14 @ f/1.4 0 with IR	Color: 0.14 @ f/1.4 0 with IR	Color: 0.1 @ f/1.2 B/W: 0.0001 @ f/1.2	Color: 0.043 @ f/2.5 B/W: 0 with IR	Color: 0.043 @ f/2.5 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR
<b>Lens</b>	2.8 mm, 3.6 mm, 6 mm option	2.8 mm, 3.6 mm, 6 mm option	2.8 to 12 mm @ f/1.4	2.8 to 12 mm @ f/1.4	Color: 0.1 @ f/1.2 B/W: 0.0001 @ f/1.2	3.6 mm @ f/2.5 (2.8 mm, 6 mm, 12 mm option)	3.6 mm @ f/2.5 (2.8 mm, 6 mm, 12 mm, option)	2.8 to 12 mm @ f/1.4	2.8 to 12 mm @ f/1.4
<b>Horizontal Angle of View</b>	90° (2.8 mm), 80° (3.6 mm), 55.4° (6 mm)	90° (2.8 mm), 80° (3.6 mm), 55.4° (6 mm)	102° to 35°	102° to 35°	Dependent on lens	80° (3.6 mm), 103.5° (2.8 mm), 54.3° (6 mm), 24.3° (12 mm)	80° (3.6 mm), 103.5° (2.8 mm), 54.3° (6 mm), 24.3° (12 mm)	92° to 32°	92° to 32°
<b>Pan/Tilt/Rotation</b>	0° to 360°/ 0° to 90°/0° to 360°	0° to 360°/ 0° to 75°/0° to 360°	0° to 360°/ 0° to 90°/0° to 360°	0° to 355°/ 0° to 90°/0° to 355°	---	3-Axis Positioning	0° to 360°/ 0° to 90°/0° to 360°	3-Axis Positioning	0° to 360°/ 0° to 75°/0° to 360°
<b>Day/Night</b>	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
<b>BLC/WDR</b>	Yes/No	Yes/No	Yes/No	Yes/No	No/120 dB	No/120 dB	No/120 dB	No/120 dB	No/120 dB
<b>Max. IR Range (meters)</b>	20	20	40	40	---	40	40	50	50
<b>Max. Image Resolution (pixels)</b>	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
<b>Vertical Synchronization</b>	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal
<b>OSD Menu via Up-the-Coax (UTC)</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Ratings</b>	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66/IK10, UL/cUL Listed	UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed
<b>Operating Conditions (max.)</b>	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)	Indoor w/o housing: -30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)
<b>Power Requirements (max.)</b>	12 VDC, 3 W	12 VDC, 3 W	12 VDC, 24 VAC, 5 W	12 VDC, 24 VAC, 4 W	12 VDC, 24 VAC, 4.5 W	12 VDC, 5 W	12 VDC, 5 W	12 VDC, 7 W 24 VAC, 10 W	12 VDC, 7 W

 TurboHD Cameras Accessories: Video Balun DS-1H18. See page 31 for details.

TurboHD Analog Camera - 1080p		
	Indoor Dome	Outdoor Dome
Model	DS-2CE56D5T-AVFIR	DS-2CE56D5T-AVPIR3
		
Video Out	HD-TVI/CVBS (Dual)	HD-TVI/CVBS-(Dual)
Image Sensor	1/3" progressive scan CMOS	1/3" progressive scan CMOS
Min. Illumination (lux)	Color: 0.014 @ f/1.4 B/W: 0 with IR	Color: 0.014 @ f/1.4 B/W: 0 with IR
Lens	2.8 to 12 mm @ f/1.4	2.8 to 12 mm @ f/1.4
Horizontal Angle of View	92° to 32°	92° to 32°
Pan/Tilt/Rotation	0° to 355°/ 0° to 180°/0° to 355°	0° to 355°/ 0° to 80°±90°
Day/Night	TRUE	TRUE
BLC/WDR	No/120 dB	No/120 dB
Max. IR Range (meters)	30	40
Max. Image Resolution (pixels)	1920 x 1080	1920 x 1080
Vertical Synchronization	Internal	Internal
OSD Menu via Up-the-Coax (UTC)	Yes	Yes
Ratings	UL/cUL Listed	IP66/IK10, UL/cUL Listed
Operating Conditions (max.)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)	-30° C to 60° C (-22° F to 140° F), humidity 90% (non-condensing)
Power Requirements (max.)	12 VDC, 4.5 W 24 VAC, 6.5 W	12 VDC, 4.5 W 24 VAC, 6.5 W

TurboHD Analog PTZ Camera - 720p and 1080p					
	Indoor	Outdoor		Outdoor IR	
Model	DS-2AE5230T-A3	DS-2AE5123T-A	DS-2AE5230T-A	DS-2AE5123TI-A	DS-2AE7230TI-A
					
Image Sensor	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS	1/3" progressive scan CMOS
Min. Illumination (lux)	Color: 0.02 @ f/1.6 B/W: 0.002 @ f/1.6	Color: 0.02 @ f/1.6 B/W: 0.002 @ f/1.6	Color: 0.02 @ f/1.6 B/W: 0.002 @ f/1.6	Color: 0.05 @ f/1.4 B/W: 0.005 @ f/1.4, 0 with IR	Color: 0.02 @ f/1.6 B/W: 0.002 @ f/1.6, 0 with IR
Lens	4 to 120 mm	4 to 92 mm	4 to 120 mm	4 to 92 mm	4 to 120 mm
Horizontal Angle of View	58° to 1.7°	49° to 2.2°	58° to 1.7°	49° to 2.2°	58° to 1.7°
Pan/Tilt/Zoom	360° endless/ -5° to 90° (auto flip)/30x	360° endless/ -5° to 90° (auto flip)/23x	360° endless/ -5° to 90° (auto flip)/30x	360° endless/ -15° to 90° (auto flip)/23x	360° endless/ -5° to 90° (auto flip)/30x
Pan & Tilt Speed (Manual)	Pan: 0.1° to 250°/sec. Tilt: 0.1° to 150°/sec.	Pan: 0.1° to 250°/sec. Tilt: 0.1° to 150°/sec.	Pan: 0.1° to 250°/sec. Tilt: 0.1° to 150°/sec.	Pan: 0.1° to 400°/sec. Tilt: 0.1° to 120°/sec.	Pan: 0.1° to 160°/sec. Tilt: 0.1° to 120°/sec.
Pan & Tilt Speed (Preset)	Pan: 300°/sec. Tilt: 200°/sec.	Pan: 300°/sec. Tilt: 200°/sec.	Pan: 300°/sec. Tilt: 200°/sec.	Pan: 400°/sec. Tilt: 200°/sec.	Pan: 240°/sec. Tilt: 200°/sec.
Day/Night	TRUE	TRUE	TRUE	TRUE	TRUE
BLC/WDR	Yes/Digital	Yes/Digital	Yes/Digital	Yes/Digital	No/Digital
Max. IR Range (meters)	---	---	---	150	120
Presets/Tours/Patterns	256/8/4	256/8/4	256/8/4	256/8/4	256/8/4
Max. Image Resolution (pixels)	1920 x 1080	1280 x 720	1920 x 1080	1280 x 720	1920 x 1080
Video Output	HD-TVI/CVBS, UTC menu	HD-TVI/CVBS, UTC menu	HD-TVI/CVBS, UTC menu	HD-TVI/CVBS, UTC menu	HD-TVI/CVBS, UTC menu
Ratings	UL/cUL Listed	IP66, IK10, UL/cUL Listed	IP66, IK10, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed
Operating Conditions (max.)	-10° C to 50° C (14° F to 122° F), humidity 90% or less (non-condensing)	-30° C to 65° C (-22° F to 149° F), humidity 90% or less (non-condensing)	-30° C to 65° C (-22° F to 149° F), humidity 90% or less (non-condensing)	-30° C to 65° C (-22° F to 149° F) (outdoor dome), humidity 90% or less (non-condensing)	-30° C to 65° C (-22° F to 149° F), humidity 90% or less (non-condensing)
Power Requirements (max.)	24 VAC, 12 W	24 VAC, 20 W (heater on), 12 W (heater off)	24 VAC, 20 W (heater on), 12 W (heater off)	24 VAC, 20 W (heater on), 12 W (heater off)	24 VAC, 40 W



TurboHD Cameras Accessories: Video Balun DS-1H18. See page 31 for details.

### Analog Camera PICADIS - 720TVL/960H

	Indoor Dome Fixed Focal	Outdoor Turret Fixed Focal		Outdoor Dome Vari-Focal	Outdoor Bullet Fixed Focal		Outdoor Bullet Vari-Focal
	DS-2CE55C2N	DS-2CE55C2N-IRM	DS-2CE56C2N-IT3	DS-2CE55C2N-VFIR3	DS-2CE15C2N-IR	DS-2CE16C2N-IT3	DS-2CE15C2N-VFIR3
<b>Model</b>			 <b>EXIR</b>			 <b>EXIR</b>	
<b>Image Sensor</b>	1/3" PICADIS	1/3" PICADIS	1/3" PICADIS	1/3" PICADIS	1/3" PICADIS	1/3" PICADIS	1/3" PICADIS
<b>Min. Illumination (lux)</b>	Color: 0.34 @ f/2.2	Color: 0.34 @ f/2.2 B/W: 0 with IR	Color: 0.34 @ f/2.2 B/W: 0 with IR	Color: 0.14 @ f/1.4 B/W: 0 with IR	Color: 0.34 @ f/2.2 B/W: 0 with IR	Color: 0.34 @ f/2.2 B/W: 0 with IR	Color: 0.14 @ f/1.4 B/W: 0 with IR
<b>Lens</b>	3.6 mm @ f/2.2	3.6 mm @ f/2.2	3.6 mm @ f/2.2	2.8 to 12 mm @ f/1.4	3.6 mm @ f/2.2	3.6 mm @ f/2.2	2.8 to 12 mm @ f/1.4
<b>Horizontal Angle of View</b>	71.4°	71.4°	71.4°	80° to 27.2°	71.4°	71.4°	80° to 27.2°
<b>Pan/Tilt/Rotation</b>	0° to 355°/ 0° to 90°/0° to 355°	0° to 360°/ 0° to 75°/0° to 360°	0° to 360°/ 0° to 75°/0° to 360°	0° to 360°/ 0° to 75°/0° to 360°	0° to 360°/ 0° to 90°/0° to 360°	0° to 360°/ 0° to 90°/0° to 360°	0° to 360°/ 0° to 90°/0° to 360°
<b>Day/Night</b>	Electronic	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
<b>BLC/WDR</b>	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
<b>Max. IR Range (meters)</b>	No	20	40	40	20	40	30 to 40
<b>Max. Image Resolution</b>	720TVL	720TVL	720TVL	720TVL	720TVL	720TVL	720TVL
<b>Vertical Synchronization</b>	Internal	Internal	Internal	Internal	Internal	Internal	Internal
<b>OSD Menu</b>	No	No	No	No	No	No	No
<b>Ratings</b>	UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed	IP66, UL/cUL Listed
<b>Operating Conditions (max.)</b>	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)	-40° C to 60° C (-40° F to 140° F), humidity 90% (non-condensing)
<b>Power Requirements (max.)</b>	12 VDC, 1 W	12 VDC, 4.5 W	12 VDC, 5 W	12 VDC, 6.5 W	12 VDC, 4.5 W	12 VDC, 5 W	12 VDC, 6.5 W







TurboHD Cameras Accessories: Video Balun DS-1H18. See page 31 for details.

## Digital Video Recorder

	TurboHD Tribrid DVR Value Series			TurboHD Tribrid DVR Pro Series	
Model	DS-7204HGHI-SH 	DS-7208HGHI-SH 	DS-7216HGHI-SH 	DS-7308HQHI-SH 	DS-7316HQHI-SH 
<b>Video Compression</b>	H.264	H.264	H.264	H.264	H.264
<b>HDMI/VGA Output</b>	1920 x 1080/1920 x 1080, sync output	1920 x 1080/1920 x 1080, sync output	1920 x 1080/1920 x 1080, sync output	1920 x 1080/1920 x 1080, sync output	1920 x 1080/1920 x 1080, sync output
<b>Analog Input</b>	4-Ch 1.0 Vp-p, 75 Ω	8-Ch 1.0 Vp-p 75 Ω	16-Ch 1.0 Vp-p 75 Ω	8-Ch 1.0 Vp-p 75 Ω	16-Ch 1.0 Vp-p 75 Ω
<b>Video Standard</b>	HD-TVI/CVBS (auto-detect)	HD-TVI/CVBS (auto-detect)	HD-TVI/CVBS (auto-detect)	HD-TVI/CVBS (auto-detect)	HD-TVI/CVBS (auto-detect)
<b>Audio Input/Output</b>	1-ch/1-ch	1-ch/1-ch	1-ch/1-ch	4-ch/2-ch	4-ch/2-ch
<b>Alarm Input/Output</b>	4 /1	16/4	16/4	16/4	16/4
<b>USB 2.0</b>	2	2	2	3	3
<b>Internal SATA</b>	1 (up to 6 TB each)	2 (up to 6 TB each)	2 (up to 6 TB each)	4 (up to 6 TB each)	4 (up to 6 TB each)
<b>Total Internal Storage</b>	6 TB	12 TB	12 TB	24 TB	24 TB
<b>Support 720p Turbo</b>	Yes, 30 fps	Yes, 30 fps	Yes, 30 fps	Yes, 30 fps	Yes, 30 fps
<b>Support 1080p Turbo</b>	Yes, 12 fps	Yes, 12 fps	Yes, 12 fps	Yes, 30 fps	Yes, 30 fps
<b>Analog Resolution to 960 H (WD1)</b>	Yes	Yes	Yes	Yes	Yes
<b>Disable Turbo/CVBS Channel/Add IPC</b>	---	---	---	Yes	Yes
<b>Hikvision IP Camera Support</b>	1 up to 1080p	2 up to 1080p	2 up to 1080p	2 up to 1080p (up to 10 ch if HD-TVI channels disabled)	2 up to 1080p (up to 18 ch if HD-TVI channels disabled)
<b>Front Panel Control</b>	---	---	---	Yes	Yes
<b>OSD Menu-Up-the-Coax</b>	Yes	Yes	Yes	Yes	Yes
<b>Spot Monitor Output (BNC)</b>	---	---	---	Yes	Yes
<b>eSATA Interface</b>	---	---	---	Yes	Yes
<b>VCA (Video Content Analysis)<sup>6</sup></b>	Up to 1 channel support	Up to 1 channel support	Up to 1 channel support	Up to 2 channel support	Up to 2 channel support
<b>Smart Play<sup>7</sup></b>	Yes	Yes	Yes	Yes	Yes
<b>Max Incoming/Outgoing Bandwidth (Mbps)</b>	60 Mbps	96 Mbps	128 Mbps	200 Mbps	200 Mbps
<b>Max. Network Streams</b>	128	128	128	128	128
<b>User Names</b>	32	32	32	32	32
<b>Remote User Logins</b>	128	128	128	128	128
<b>Ratings</b>	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed
<b>Rack Units</b>	1	1	1	1.5	1.5
<b>Power Requirements</b>	12 VDC, ≤15 W without HDD	12 VDC, ≤20 W without HDD	12 VDC, ≤20 W without HDD	100 to 240 VAC, 50 to 60 Hz, ≤40 W without HDD	100 to 240 VAC, 50 to 60 Hz, ≤55 W without HDD

<sup>6</sup>Tribrid Smart Suite: Line Crossing, Intrusion Detection. Turbo channels only, not functional for IP cameras.<sup>7</sup>Turbo and analog channels only, not functional for IP cameras.

Digital Video Recorder				
	TurboHD Tribrid DVR Pro Series		Hybrid DVR Pro Series	
	DS-9008HQHI-SH	DS-9016HQHI-SH	DS-9008HWI-ST	DS-9016HWI-ST
Model				
Video Compression	H.264	H.264	H.264	H.264
HDMI/VGA Output	1920 x 1080/1920 x 1080	1920 x 1080/1920 x 1080	1920 x 1080/1920 x 1080	1920 x 1080/1920 x 1080
Analog Input	8-Ch 1.0 Vp-p 75 Ω	16-Ch 1.0 Vp-p 75 Ω	8-Ch 1.0 Vp-p 75 Ω	16-Ch 1.0 Vp-p 75 Ω
Video Standard	HD-TVI/CVBS (auto-detect)	HD-TVI/CVBS (auto-detect)	CVBS	CVBS
Audio Input/Output	8-ch/2-ch	16-ch/2-ch	8 line in/2 line out	16 line in/2 line out
Alarm Input/Output	16/4	16/4	16/4	16/4
USB 2.0	3	3	3	3
Internal SATA	8 (up to 6 TB each)	8 (up to 6 TB each)	8 (up to 6 TB each)	8 (up to 6 TB each)
Total Internal Storage	48 TB	48 TB	48 TB	48 TB
Support 720p Turbo	Yes, 30 fps	Yes, 30 fps	---	---
Support 1080p Turbo	Yes, 30 fps	Yes, 30 fps	---	---
Analog Resolution to 960 H (WD1)	Yes	Yes	Yes	Yes
Disable Turbo/CVBS Channel/ Add IPC	Yes	Yes	Yes	Yes
Hikvision IP Camera Support	8 up to 5 MP (up to 16 if HD-TVI channels disabled)	16 up to 5 MP (up to 32 if HD-TVI channels disabled)	8 up to 6 MP (up to 16 if CVBS channels disabled)	16 up to 6 MP (up to 32 if CVBS channels disabled)
Front Panel Control	Yes	Yes	Yes	Yes
OSD Menu-Up-the-Coax	Yes	Yes	---	---
Spot Monitor Output (BNC)	Yes	Yes	Yes	Yes
eSATA Interface	Yes	Yes	Yes	Yes
VCA (Video Content Analysis) <sup>6</sup>	Up to 2 channel support	Up to 2 channel support	IP: All channels Analog: Channels 01 to 04	IP: All channels Analog: Channels 01 to 04
Smart Play <sup>7</sup>	Yes	Yes	Yes	Yes
Max Incoming Bandwidth (Mbps)	160 Mbps	260 Mbps	50 Mbps (100 when all analog disabled)	100 Mbps (200 when all analog disabled)
Maximum Outgoing Bandwidth (Mbps)	160 Mbps	260 Mbps	240 Mbps	240 (160 when all analog disabled)
Max. Network Streams	128	128	128	128
User Names	32	32	32	32
Remote User Logins	128	128	128	128
Ratings	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed
Rack Units	2	2	2	2
Power Requirements	100 to 240 VAC 47 to 63 Hz, ≤45 W without HDD	100 to 240 VAC, 47 to 63 Hz, ≤65 W without HDD	100 to 240 VAC, 6.3 A, 50 to 60 Hz	100 to 240 VAC, 6.3 A, 50 to 60 Hz

<sup>6</sup>Tribrid Smart Suite: Line Crossing, Intrusion Detection. Turbo channels only, not functional for IP cameras.

<sup>7</sup>Turbo and analog channels only, not functional for IP cameras.


Accessories		
	Ethernet Over Coax	
	DS-1H05-T	DS-1H05-R
Model		
Input Interface	RJ-45 interface and BNC	BNC
Output Interface	BNC	RJ-45 Interface and BNC
Maximum Bandwidth (Mbps)	36 (downstream)	11 (upstream)
Distance	Up to 1,500 feet with RG6/U cable	Up to 1,500 feet with RG6/U cable
Dimensions	80 x 96 x 27 mm	80 x 96 x 27 mm
Operating Conditions (max.)	-10° C to +55° C, 10% to 90% humidity (non-condensing)	-10° C to +55° C, 10% to 90% humidity (non-condensing)
Power Requirements (max.)	12 VDC, 5 W	12 VDC, 5 W

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Hikvision USA sells products only through authorized distributors. We value our industry partners and are proud of the relationships we have developed to help expand the use of our innovative technology products and solutions. These authorized resellers have committed to serve as a link in the Hikvision USA value chain by providing excellent pre- and post-sale customer service including full firmware and sales engineering support.










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If you have any questions or concerns about the official status of your Hikvision distributor before your purchase, please contact Hikvision USA Customer Service at [csr.usa@hikvision.com](mailto:csr.usa@hikvision.com) to confirm their authorized status. Thank you for your continued support of our industry-leading video surveillance products.

Keyboards			
Model	DS-1003KI	DS-1005KI	DS-1100KI
			
RS-485	Yes	No	Yes
USB	No	Yes	Yes
Control Mode	RS-485	USB	Network
LCD Screen	5" x 2.5"	N/A	7" TFT touchscreen at 800 x 480 resolution
Joystick	3-Axis	3-Axis	3-Axis
Resolution	No	No	1920 x 1080
Network	No	No	Yes
Power Requirements	12 VDC (<10 W)	5 VDC via USB (≤5 W)	12 VDC (<15 W)

PoE Gigabit L2.5 Ethernet Switch			
Model	DS-3D2208P	DS-3D2216P	DS-3D2228P
			
Ports	8p 10/100Mbps, 2p 10/100/1000Mbps, 2p 1 Gb TX/SFP, 1p console	16p 10/100Mbps, 2p 10/100/1000Mbps, 2p 1 Gb TX/SFP, 1p console	24p 10/100Mbps, 4p 10/100/1000Mbps, 4p 1 Gb TX/SFP, 1p console
Forwarding	4.2 Mpps	5.4 Mpps	9.6 Mpps
Backplane	5.6 Gbps	7.2 Gbps	12.8 Gbps
Dimensions	340 x 250 x 44 mm	442 x 315 x 44 mm	442 x 315 x 44 mm
Operating Conditions (max.)	Working temperature: 0° C to 50° C, Storage temperature: -40° C to 70° C, Humidity: 0 to 90% no condensation	Working temperature: 0° C to 50° C, Storage temperature: -40° C to 70° C, Humidity: 0 to 90% no condensation	Working temperature: 0° C to 50° C, Storage temperature: -40° C to 70° C, Humidity: 0 to 90% no condensation
Power Requirements (max.)	110 to 240 VAC, 170 W	110 to 240 VAC, 400 W	110 to 240 VAC, 400 W
PoE Budget	170 W (8 PoE or 4 PoE+)	400 W (16 PoE, or 12 PoE+)	400 W (24 PoE, or 12 PoE+)
PoE Support	8 ports 802.3af (up to 15.4 W/port) or 5 ports 802.3at (up to 30 W/port)	16 ports 802.3af (up to 15.4 W/port) or 12 ports 802.3at (up to 30 W/port)	24 ports 802.3af (up to 15.4 W/port) or 12 ports 802.3at (up to 30 W/port)

Megapixel Auto Iris Lenses											
Model	TV0515D-MPIR	YV2.8x2.8SR4A-SA2	YV3.3x15SR4A-SA2L	TV2712D-MPIR	TV0550D-MPIR	DV3.8x4SR4A-SA1	DV4x12.5SR4A-SA1	DV4X12.5SR4A-SA1L	HV30733D-6MP	HV1140D-8MPIR	HV3816D-8MPIR
	 <b>1.3 MP</b>	 <b>3.0 MP</b>	 <b>3.0 MP</b>	 <b>3.0 MP</b>	 <b>3.0 MP</b>	 <b>3.0 MP</b>	 <b>5.0 MP</b>	 <b>5.0 MP</b>	 <b>6.0 MP</b>	 <b>8.0 MP</b>	 <b>8.0 MP</b>
Specifications	1.3 MP, 1/3" sensor, 5 to 50mm f/1.4 Auto-iris IR corrected, CS	3 MP, 1/2.7" sensor 2.8 to 8 mm f/1.3 Auto-iris, CS	3 MP, 1/2.7" sensor 15 to 50mm f/1.5 Auto-iris, CS	3 MP, 1/2.7" sensor 2.7 to 12mm f/1.7 Auto-iris IR corrected, CS	3 MP, 1/2.7" sensor 5 to 50mm f/1.7 Auto-iris IR corrected, CS	3 MP, 1/1.8" sensor 4 to 15.2mm f/1.5 Auto-iris, C	5 MP, 1/1.8" sensor 12.5 to 50mm f/1.6 Auto-iris, C	5 MP, 1/1.8" sensor 12.5 to 50mm f/1.5 Auto-iris, C	6 MP, 1/1.8" sensor 7 to 33mm f/0.95 Auto-iris, CS	8 MP, 1/1.8" sensor 11 to 40mm f/1.5 Auto-iris IR corrected, CS	8 MP, 1/1.8" sensor 3.8 to 16mm f/1.5 Auto-iris IR corrected, CS

Surveillance Grade Hard Drives						Enterprise Hard Drives			
Model	HK-HDD1T	HK-HDD2T	HK-HDD3T	HK-HDD4T	HK-HDD6T	HK-HDD1T-E	HK-HDD2T-E	HK-HDD3T-E	HK-HDD4T-E
									
Capacity	1 TB	2 TB	3 TB	4 TB	6 TB	1 TB	2 TB	3 TB	4 TB
Interface	SATA	SATA	SATA	SATA	SATA	SATA 6 Gb/sec.	SATA 6 Gb/sec.	SATA 6 Gb/sec.	SATA 6 Gb/sec.
Classification	Audio/Video	Audio/Video	Audio/Video	Audio/Video	Audio/Video	Audio/Video	Audio/Video	Audio/Video	Audio/Video
Operation	24/7 continuous	24/7 continuous	24/7 continuous	24/7 continuous	24/7 continuous	24/7 continuous	24/7 continuous	24/7 continuous	24/7 continuous

PTZ Brackets								
Model	WMP-L	JBP	CPM-S	CPM-L	WMP-S	RPM	PMP	CMP
Description	Wall Mount PTZ-Long	PTZ Junction box	Ceiling Pendant Mount-Short	Ceiling Pendant Mount-Long	Short wall mount for 4" PTZ (use with CM, not CMP)	Roof Parapet Mount	Pole Mount Adapter PTZ	Corner Mount Adapter PTZ

Camera Housing			Box Camera Brackets			 Megapixel Auto Iris Lenses See page 30	Balun	Bracket for DVR/NVR
Model	CHB	CHB-HBW	CHB-HB	WBS	WBL		DS-1H18	WMR
Description	Camera Housing with Bracket	Camera Housing with Bracket, Heater, Blower, Wiper	Camera Housing with Bracket, Heater, Blower	Suitable for box camera, Wall Mount	Suitable for box camera and housing, Wall mount	Unshielded twisted pair (UTP) Baluns	Wall Mounted Bracket for DVR/NVR is compatible with DS-7208HWI-SH, DS-7216HWI-SH and DS-7608NI-E2/8P	

Universal Brackets for Pendant Caps					Universal Brackets for Wall Mounts	
Model	CPM	WMS	WML	RPM	PM	CM
Description	Camera Ceiling Pendant Mount	Short Wall Mount, junction box and Teflon tape included by default	Long Wall Mount, junction box and Teflon tape included by default	Roof Parapet Mount	Pole Mount Adapter	Corner Mount Adapter

**Bracket Model Naming Rules:**

- WMP: Wall Mount PTZ
- WBS: Wall Mount
- WBL: Wall Mount
- JBP: Junction Box PTZ
- CPM: Corner Mount PTZ
- CPM-S: Short Ceiling Pendant Mount PTZ
- CPM-L: Long Ceiling Pendant Mount PTZ
- WMS: Camera Wall Mount w/Short Junction Box
- WML: Camera Wall Mount w/Long Junction Box
- CPM: Camera Ceiling Pendant Mount
- PM: Pole Mount Adapter
- CM: Corner Mount Adapter
- RPM: Roof Parapet Mount
- PC: Pendant Cap with thread adapters
- RCM: Recessed Ceiling Mount
- AB: Angled Base
- CB: Conduit Base
- Numeric Value: Cap Size

Camera Brackets (see Camera Bracket Compatibility Chart on next page)															
Model	PC110	PC110T	PC120	PC130	PC130T	PC135	PC140	PC160	PC165	PC-FE	CB110	CB130	CB135	CB165	CB-FE
Description	110 mm Cap	110TRS Cap	120 mm Pendant Cap	130 mm Pendant Cap	130TRL Cap	135 mm Cap	140 mm Cap	160 mm Cap	Pendant Cap	Pendant Cap for fisheye	Wire Intake Box	Conduit Base	Wire Intake	Junction Box	Wire Intake Box (Conduit Base) for fisheye



Camera Brackets continued															
Model	CBM	CBS	CBT-1	AB110	AB135	AB165	AB-FE	AB-FE2	ABM	RCM-1	RCM-2	RCM-3	WM-C	WM110	GP100
Description	Junction Box	Junction Box	Wire Intake Box	Inclined ceiling mount	Inclined ceiling mount	Inclined ceiling mount	Inclined ceiling mount for fisheye (Angled Base)	Inclined ceiling mount for fisheye (Angled Base)	Inclined ceiling mount	In-ceiling mount	Recessed ceiling mount	Recessed ceiling mount	Wall Mount, Compact	Plastic Wall Mount	Single Gang Plate




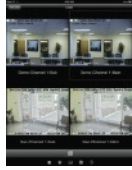

Camera Bracket Compatibility Chart (see previous page for bracket details)																														
Model	Pendant Cap with Thread Adapters										Conduit Base							Angled Base					Recessed Ceiling Mount			Wall Mount		*		
	PC110	PC110T	PC120	PC130	PC130T	PC135	PC140	PC160	PC165	PC-FE	CB110	CB130	CB135	CB165	CB-FE	CBM	CBS	CBT-1	AB110	AB135	AB165	AB-FE	AB-FEZ	ABM	RCM-1	RCM-2	RCM-3	WM-C	WM110	GP100
DS-2CD72xx DS-2CD43xx							●																							
DS-2CD25xxF-I, -W, -S			●																											
DS-2CC5x2N-IR DS-2CE55x2N-IRXX DS-2CE56C2T-IRM DS-2CE56D1T-IRM		●																												
DS-2CD22x2-I5 DS-2CE16C5T-IT1												●																		
DS-2CE56C2N-IT3 DS-2CE56C5T-IT1 DS-2CE56D5T-IT3	●																												●	
DS-2CD7xx DS-2CD41xx			●																	●										
DS-2CD21x2F-I DS-2CE56D1T-VPIR	●									●									●										●	
DS-2CC52xxN-AVPIR2 DS-2CD27xxF-I, -S						●						●								●						●				
DS-2CD23x2-I DS-2CE56C5T-VFIT3 DS-2CE56D5T-VFIT3					●										●									●						
DS-2CD6332FWD-I, -V, -S DS-2CD6362F-I, -V, -S									●						●							●								
DS-2CD4525FWD-IZH								●					●								●									
DS-2CE55x2N-VFIR3				●											●			●												
DS-2CE55x2N																														●
DS-2CD2942F-IS																							●							
DS-2CD2942F-IS DS-2DE2103-DE3/W																													●	
DS-2CE56C5T-AVPIR3 DS-2CE56D1T-AVPIR3 DS-2DE56D5T-AVPIR3							●																				●			
DS-2CE56C5T-AVFIR DS-2CE56D5T-AVFIR			●																								●			
DS-2CE16C5T-VFIR3 DS-2CE16D1T-AVFIR3 DS-2CE16D5T-AVFIT3 DS-2CD2T12-I5 DS-2CD2T32-I5 DS-2CD4A25FWD-IZ, -H, -S DS-2CD4A26FWD-IZH DS-2CD4A35FWD-IZH DS-2CD4A65F-IZH DS-2CD4A85F-IZH																	●													
Model	PC110	PC110T	PC120	PC130	PC130T	PC135	PC140	PC160	PC165	PC-FE	CB110	CB130	CB135	CB165	CB-FE	CBM	CBS	CBT-1	AB110	AB135	AB165	AB-FE	AB-FEZ	ABM	RCM-1	RCM-2	RCM-3	WM-C	WM110	GP100

\*Gang Plate

## iVMS-4200 Client Software (Windows and Mac Compatible) *No Licensing Fee!*

<b>LIVE VIEW</b>	Support up to 4 output screens for live view, and upmost 64 cameras in live view screens	<p style="text-align: center;"><b>Minimum Server System Requirements</b></p>   <p style="text-align: center;">Intel Pentium IV 3.0 and above, Microsoft Windows 2003/2008/Win 7 (32-bit) 2 GB RAM, 100 Mbps Ethernet card, 1024 x 768 pixels or higher display resolution, ATI 5000/nVidia GTX260, 512 MB video card</p>
<b>ENCODING DEVICE</b>	Up to 256 encoded devices	
<b>DECODING DEVICE</b>	Up to 64 decoding devices	
<b>IMPORTED CAMERA</b>	Up to 1024 imported cameras	
<b>CAMERA GROUP</b>	Up to 256 camera groups, and maximum 64 cameras in one group	
<b>STORAGE SERVER</b>	Up to 16 storage servers, each server's recording performance is 64*2 Mbps	
<b>STREAM MEDIA SERVER</b>	Up to 16 stream media server, each server is with incoming connections of 64*2 Mbps and outgoing connections of 200*2 Mbps	
<b>PLAYBACK</b>	Up to 16 channels playback	
<b>DOWNLOAD</b>	Up to 16 simultaneous download tasks	
<b>USER</b>	Up to 51 users	
<b>SYSTEM LOG</b>	Unlimited	
<b>MAP</b>	Supports PNG, BMP, and JPEG images. Nested maps supported.	
<b>PTZ</b>	Control, presets, patrols, pattern supported	
<b>DEVICE SEARCH</b>	Supports Search Activated Device Protocol (SADP)	
<b>DEVICE CONFIGURATION</b>	Supports remote programming and configuration of any connected device. Features Add Device Wizard.	

## iVMS-4500 Mobile Client Applications for SmartPhones and Tablets

Mobile client software can be used to monitor the live video remotely from embedded hybrid DVR, NVR, DVR recorders, IP camera, IP speed dome or DVS/encoder via wireless network.		<p style="text-align: center;"><b>Compatible Devices</b></p>    <p style="text-align: center;">Android (1.6 or higher)** BlackBerry Bold (Not Shown) Windows Mobile (Not Shown)</p> <p style="text-align: center;">Apple iOS (iPhone/iPad)*</p> <p style="text-align: center;">*iPhone/iPad app must be acquired from the iTunes App Store. **Android app can be obtained at the Android Market or Hikvision.com. *Windows Phone 8 app must be acquired from the Windows Store.</p>
<b>NUMBER OF DEVICES</b>	100 device addresses	
<b>LIVE VIEW</b>	iPhone/Android Phone: up to 4 cameras; iPad/Android Tablet: up to 16 cameras; Windows Phone: up to 4 cameras	
<b>REMOTE PLAYBACK</b>	iPhone/Android Phone/Windows Phone: 1-ch playback; iPad/Android Tablet: up to 4-ch	
<b>CONFIGURABLE IMAGE QUALITY</b>	Clear, balanced, fluent, and customized	
<b>FRAME RATE</b>	Up to 25/30 fps (dependant on device and network)	
<b>RESOLUTION</b>	Up to 1080p	
<b>STREAM TYPE</b>	Video and audio	
<b>PTZ CONTROL</b>	Pan, tilt, zoom	
<b>SNAPSHOT</b>	Snapshot and video recording in Live View	

Standard Software is included in the compatible product packages only. No-fee policy applies to license, channel, software support agreement, and technical support access of Standard Software only. Customized software may incur additional fee.

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## Professional Solutions

DS-2CD4012FWD-A	7	DS-2CD6412FWD-L20	11	DS-2CD2112F-I	17	DS-7616NI-E2/16P	21	DS-2CE56D5T-VFIT3	25	DS-3D2216P	30	WMS	31				
DS-2CD4024FWD-A	7	DS-2CD6412FWD-L30	11	DS-2CD2112F-I	17	DS-7716NI-SP/16	21	DS-2CE56D5T-AVFIR	26	DS-3D2228P	30	WML	31				
DS-2CD6026FHW-A3-/A11	7	DS-2DF5276-AE3	12	DS-2CD2132F-I	17	<b>Wi-Fi Solutions</b>						DS-2CE56D5T-AVPIR3	26	TV0515D-MPIR	30	RPM	31
DS-2CD4032FWD-A	7	DS-2DF5220S-DE4/W	12	DS-2CD2510F	17	DS-2CD2112F-IWS	22	DS-2AE5230T-A3	27	YV2.8X2.8SR4A-SA2	30	PM	31				
DS-2CD4065F-A	7	DS-2DF5286-AE3	12	DS-2CD2512F-IS	17	DS-2CD2132F-IWS	22	DS-2AE5123T-A	27	YV3.3X1.5SR4A-SA2L	30	CM	31				
DS-2CD4085F-A	7	DS-2DF5276-AEL	12	DS-2CD2520F	17	DS-2CD2522FWD-IWS	22	DS-2AE5230T-A	27	TV2712D-MPIR	30	PC110	31				
DS-2CD4112FWD-IZ	7	DS-2DF5286-AEL	12	DS-2CD2532F-IS	17	DS-2CD2542FWD-IWS	22	DS-2AE5123TI-A	27	TV0550D-MPIR	30	PC110T	31				
DS-2CD4124FWD-IZ	7	DS-2DF6223-AEL	12	DS-2CD2E10F	17	DS-2CD2412F-IW	22	DS-2AE7230TI-A	27	DV3.8X4SR4A-SA1	30	PC120	31				
DS-2CD4132FWD-IZ	7	DS-2DF6236V-AEL	12	DS-2CD2E20F	17	DS-2CD2432F-IW	22	DS-2CE55C2N	28	DV4X12.5SR4A-SA1	30	PC130	31				
DS-2CD4165F-IZ	8	DS-2DF6336V-AEL	12	DS-2CD2012-I	17	DS-2DE2103-DE3/W	22	DS-2CE55C2N-IRM	28	DV4X12.5SR4A-SA1L	30	PC130T	31				
DS-2CD4185F-IZ	8	DS-2DF7276-AEL	12	DS-2CD2032-I	18	DS-2DE2202I-DE3/W	22	DS-2CE56C2N-IT3	28	HV30733D-6MP	30	PC135	31				
DS-2CD4212FWD-IZH	8	DS-2DF7286-AEL	13	DS-2CD2212-I5	18	DS-2DF5220S-DE4/W	22	DS-2CE55C2N-VFIR3	28	HV1140D-8MPIR	30	PC140	31				
DS-2CD4212FWD-IZH8	8	DS-2DF8223I-AEL	13	DS-2CD2232-I5	18	DS-7104NI-SL/W	23	DS-2CE15C2N-IR	28	HV3816D-8MPIR	30	PC160	31				
DS-2CD4A26FWD-IZH	8	DS-2DF8236IV-AEL	13	DS-2CD2312-I	18	DS-7108NI-E1/W/W/1T	23	DS-2CE16C2N-IT3	28	HK-HDD1T	30	PC165	31				
DS-2CD4232FWD-IZH	8	DS-2DF8336IV-AEL	13	DS-2CD2332-I	18	<b>Analog Migration Solutions</b>						DS-2CE15C2N-VFIR3	28	HK-HDD2T	30	PC-FE	31
DS-2CD4232FWD-IZH8	8	DS-9616NI-ST	14	DS-2CD2T12-I5	18	DS-6701HWI	23	DS-7204HGHI-SH	29	HK-HDD3T	30	CB110	31				
DS-2CD4A35FWD-IZH	8	DS-9632NI-ST	14	DS-2CD2T32-I5	18	DS-6704HWI	23	DS-7208HGHI-SH	29	HK-HDD4T	30	CB130	31				
DS-2CD4A35FWD-IZH8	8	DS-9664NI-ST	14	DS-2CD2612F-I	18	DS-6708HWI	23	DS-7216HGHI-SH	29	HK-HDD6T	30	CB135	31				
DS-2CD4A35FWD-IZH8	8	DS-9632NI-H8	14	DS-2CD2612F-IS	18	DS-6716HWI	23	DS-7308HQHI-SH	29	HK-HDD1T-E	30	CB165	31				
DS-2CD4A65F-IZH	9	DS-9664NI-H8	14	DS-2CD2632F-I	19	DS-6401HDI-T	23	DS-7316HQHI-SH	29	HK-HDD2T-E	30	CB-FE	31				
DS-2CD4A85F-IZH	9	DS-96128NI-E24/H	14	DS-2CD2632F-IS	19	DS-6404HDI-T	23	DS-9008HQHI-SH	29	HK-HDD3T-E	30	CBM	31				
DS-2CD4312FWD-IZHS	9	DS-96256NI-E24/H	14	DS-2CD2712F-I	19	DS-6408HDI-T	23	DS-9016HQHI-SH	29	HK-HDD4T-E	30	CBS	31				
DS-2CD4312FWD-IZHS8	9	<b>Value Plus Solutions</b>			DS-2CD2712F-IS	19	DS-2CE16C2T-IR	24	DS-9008HWI-ST	29	WMP-L	31	CBT-1	31			
DS-2CD4324FWD-IZHS	9	DS-2CD2022WD-I	15	DS-2CD2732F-I	19	DS-2CE56C2T-IRM	24	DS-9016HWI-ST	29	JBP	31	AB110	31				
DS-2CD4324FWD-IZHS8	9	DS-2CD2042WD-I	15	DS-2CD2732F-IS	19	DS-2CE56C5T-VFIT3	24	DS-1H05-T	29	CPM-S	31	AB135	31				
DS-2CD4526FWD-IZH	9	DS-2CD2122FWD-IS	15	DS-2CD2D14WD	19	DS-2CE56C5T-IT1	24	DS-1H05-R	29	CPM-L	31	AB165	31				
DS-2CD4332FWD-IZHS	9	DS-2CD2142FWD-IS	15	DS-2CD2942F-IS	19	DS-2CE16C5T-VFIR3	24	<b>Accessories</b>						WMP-S	31	AB-FE	31
DS-2CD4332FWD-IZHS8	9	DS-2CD2T22WD-I	15	DS-2DE2103-DE3/W	20	DS-2CE16C5T-IT1	24	DS-6701HWI	30	RPM	31	AB-FE2	31				
DS-2CD4535FWD-IZH	10	DS-2CD2T42WD-I	15	DS-2DE2202I-DE3/W	20	DS-2CE56C5T-AVFIR	24	DS-6704HWI	30	PMP	31	ABM	31				
DS-2CD4535FWD-IZH8	10	DS-2CD2322WD-I	15	DS-2DE4220-AE3	20	DS-2CE56C5T-AVPIR3	24	DS-6708HWI	30	CMP	31	RCM-1	31				
DS-2CD4565F-IZH	10	DS-2CD2342WD-I	15	DS-2DE5184-AE3	20	DS-2CE16D1T-IR	25	DS-6716HWI	30	CHB	31	RCM-2	31				
DS-2CD4585F-IZH	10	DS-2CD2522FWD-IS	15	DS-2DE4220-AE	20	DS-2CE56D1T-VPIR	25	DS-6401HDI-T	30	CHB-HBW	31	RCM-3	31				
DS-2CD6332FWD-I	11	DS-2CD2542FWD-IS	16	DS-2DE5174-AE	20	DS-2CE16D1T-AVPIR3	25	DS-6404HDI-T	30	CHB-HB	31	WM-C	31				
DS-2CD6332FWD-IV	11	DS-2CD2622FWD-ISZ	16	DS-2DE5184-AE	20	DS-2CE56D1T-AVPIR3	25	DS-6408HDI-T	30	WBS	31	WM110	31				
DS-2CD6362F-I	11	DS-2CD2642FWD-ISZ	16	DS-2DE7174-AE	20	DS-2CC12D9T-A	25	DS-1003KI	30	WBL	31	GP100	31				
DS-2CD6362F-IV	11	DS-2CD2722FWD-ISZ	16	DS-2DE7184-AE	20	DS-2CE16D5T-IT3	25	DS-1005KI	30	DS-1H18	31						
DS-2CD6412FWD-C2	11	DS-2CD2742FWD-ISZ	16	DS-7604NI-E1/4P	21	DS-2CE56D5T-IT3	25	DS-1100KI	30	WMR	31						
DS-2CD6412FWD-L10	11			DS-7608NI-E2/8P	21	DS-2CE16D5T-AVFIT3	25	DS-3D2208P	30	CPM	31						

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