

Obsah Ponuky

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Návrh na plnenie kritéria

	Cena celkom za predmet zákazky v EUR bez DPH	Výška DPH	Cena celkom za predmet zákazky v EUR s DPH
návrh uchádzača	382 439,07 €	76 487,81 €	458 926,88 €

Som – ~~Nie som~~ platiteľom DPH (nehodiace sa preškrtnite)

V Nitre, dňa 18.06.2021

[REDACTED]
podpis uchádzača

VÝKAZ KAMERY

Cenová tabuľka č. 1

P.č.	Názov	predpokladané množstvo	merná jednotka	jednotková cena bez DPH	cena bez DPH	DPH	Cena s DPH
1	Demontáž kamery	10	ks	120,00 EUR	1 200,00 EUR	240,00 EUR	1 440,00 EUR
2	Montáž a programovanie novej kamery s pripojením na server	50	ks	300,00 EUR	15 000,00 EUR	3 000,00 EUR	18 000,00 EUR
3	Inštalácia OR (plastová krabica s panelom do outdoor skrine)	50	ks	120,00 EUR	6 000,00 EUR	1 200,00 EUR	7 200,00 EUR
4	Zváranie v OR outdoor	30	ks	480,00 EUR	14 400,00 EUR	2 880,00 EUR	17 280,00 EUR
5	Inštalácia optického prevodníku	30	ks	20,50 EUR	615,00 EUR	123,00 EUR	738,00 EUR
6	Zatiahnutie optického kábla	3000	m	6,53 EUR	19 590,00 EUR	3 918,00 EUR	23 508,00 EUR
7	Inštalácia - Kruhový vodič 8 FeZn	1000	m	4,90 EUR	4 900,00 EUR	980,00 EUR	5 880,00 EUR
8	Inštalácia rozvodnice	30	ks	45,00 EUR	1 350,00 EUR	270,00 EUR	1 620,00 EUR
9	Inštalácia transformátora pre kameru	30	ks	18,00 EUR	540,00 EUR	108,00 EUR	648,00 EUR
10	Inštalácia PoE napájania s výstupom na optiku	30	ks	15,00 EUR	450,00 EUR	90,00 EUR	540,00 EUR
11	Zatiahnutie elektrického kábla	1000	m	4,50 EUR	4 500,00 EUR	900,00 EUR	5 400,00 EUR
12	Krimpovanie konektorov RJ45	30	ks	1,50 EUR	45,00 EUR	9,00 EUR	54,00 EUR
13	Zatiahnutie štruktúrovaného kábla	1000	m	4,50 EUR	4 500,00 EUR	900,00 EUR	5 400,00 EUR
14	Elektrická inštalácia a zapojenie	30	ks	150,00 EUR	4 500,00 EUR	900,00 EUR	5 400,00 EUR
15	Pripojovacie svorky jednostranné so svorkou KS	50	ks	5,00 EUR	250,00 EUR	50,00 EUR	300,00 EUR
16	Statický posudok na stĺp (verejného osvetlenia, trolejového vedenia)	50	ks	290,00 EUR	14 500,00 EUR	2 900,00 EUR	17 400,00 EUR
17	Východzia odborná skúška	30	ks	300,00 EUR	9 000,00 EUR	1 800,00 EUR	10 800,00 EUR
18	Projektová dokumentácia + inžinierska činnosť	30	ks	200,00 EUR	6 000,00 EUR	1 200,00 EUR	7 200,00 EUR
19	Ostatné poskytnuté práce pre inštaláciu kamery (paušál)	30	ks	90,00 EUR	2 700,00 EUR	540,00 EUR	3 240,00 EUR
20	Križovanie trolejového vedenia (spolupráca s DPB a.s, Vypnutie TV, práca v noci, prenájom izolovanej plošiny s osádkou)	5	h	190,00 EUR	950,00 EUR	190,00 EUR	1 140,00 EUR
21	Geodetické zameranie	30	súbor	200,00 EUR	6 000,00 EUR	1 200,00 EUR	7 200,00 EUR
Tabuľka č. 1 spolu					116 990,00 EUR	23 398,00 EUR	140 388,00 EUR

Cenová tabuľka č. 2

P.č.	Názov	množstvo	merná jednotka	jednotková cena bez DPH	cena bez DPH	DPH	Cena s DPH
1	2.1.1 IP PTZ kamera typ 1	10	ks	962,00 EUR	9 620,00 EUR	1 924,00 EUR	11 544,00 EUR
2	2.1.2 IP PTZ kamera typ 2	10	ks	861,19 EUR	8 611,90 EUR	1 722,38 EUR	10 334,28 EUR
3	2.1.3 IP PTZ kamera typ 3	5	ks	510,84 EUR	2 554,20 EUR	510,84 EUR	3 065,04 EUR
4	2.1.4 IP pevná kamera typ 1	5	ks	1 009,58 EUR	5 047,90 EUR	1 009,58 EUR	6 057,48 EUR
5	2.1.5 IP pevná kamera typ 2	5	ks	1 039,74 EUR	5 198,70 EUR	1 039,74 EUR	6 238,44 EUR
6	2.1.6 IP pevná kamera typ 3	5	ks	228,80 EUR	1 144,00 EUR	228,80 EUR	1 372,80 EUR
7	2.1.7 IP pevná kamera typ 4	5	ks	280,28 EUR	1 401,40 EUR	280,28 EUR	1 681,68 EUR
8	2.1.8 IP pevná kamera typ 5	4	ks	137,28 EUR	549,12 EUR	109,82 EUR	658,94 EUR
9	2.1.9 IP pevná kamera typ 6	1	ks	206,64 EUR	206,64 EUR	41,33 EUR	247,97 EUR
10	Skriňa (napr. Schneider Sarel Thalassa PLM (530x430x200), IP66	50	ks	112,52 EUR	5 626,00 EUR	1 125,20 EUR	6 751,20 EUR
11	Optická dome spojka pre min 24 vlákien na stĺp	35	ks	78,00 EUR	2 730,00 EUR	546,00 EUR	3 276,00 EUR
12	Optická spojka - kazeta do zeme pre min 24 vlákien	20	ks	78,00 EUR	1 560,00 EUR	312,00 EUR	1 872,00 EUR
13	Optický rozvádzač, Outdoor prevedenie	50	ks	53,30 EUR	2 665,00 EUR	533,00 EUR	3 198,00 EUR
14	Vonkajší dome box -optická spojka pre 24 vlákien s ochranou spojov	65	ks	24,70 EUR	1 605,50 EUR	321,10 EUR	1 926,60 EUR
15	Ochrana zvaru, zmršťovacia	30	ks	0,17 EUR	5,10 EUR	1,02 EUR	6,12 EUR

P.č.	Názov	množstvo	merná jednotka	jednotková cena bez DPH	cena bez DPH	DPH	Cena s DPH
16	Kazeta pre OR	30	ks	2,60 EUR	78,00 EUR	15,60 EUR	93,60 EUI
17	Držiak zvarov pre kazetu do OR	30	ks	0,72 EUR	21,60 EUR	4,32 EUR	25,92 EUI
18	Patchkabel SM SC/PC duplex 1m	30	ks	6,89 EUR	206,70 EUR	41,34 EUR	248,04 EUI
19	Adaptér SC/PC DUPLEX, pre OR	30	ks	1,30 EUR	39,00 EUR	7,80 EUR	46,80 EUI
20	Pigtail SC, SM, 1,5m SCPC901.5	30	ks	2,34 EUR	70,20 EUR	14,04 EUR	84,24 EUI
21	Optický modul LC konektorom pre single-mode komunikáciu o prenosovej rýchlosti 100 Mbps. Dosiahnutá vzdialenosť je 20 km	30	ks	34,32 EUR	1 029,60 EUR	205,92 EUR	1 235,52 EUI
22	Optický modul LC konektorom pre single-mode komunikáciu o prenosovej rýchlosti 100 Mbps. Dosiahnutá vzdialenosť je 20 km protikus	30	ks	32,18 EUR	965,40 EUR	193,08 EUR	1 158,48 EUI
23	Optický modul LC konektorom pre single-mode komunikáciu o prenosovej rýchlosti 1000 Mbps. Dosiahnutá vzdialenosť je 20 km	20	ks	56,49 EUR	1 129,80 EUR	225,96 EUR	1 355,76 EUI
24	Optický modul LC konektorom pre single-mode komunikáciu o prenosovej rýchlosti 1000 Mbps. Dosiahnutá vzdialenosť je 20 km - protikus	20	ks	36,47 EUR	729,40 EUR	145,88 EUR	875,28 EUI
25	Transformátor 230 VAC/24VAC	30	ks	73,52 EUR	2 205,60 EUR	441,12 EUR	2 646,72 EUI
26	PoE zdroj s výstupom na optiku SM	30	ks	77,94 EUR	2 338,20 EUR	467,64 EUR	2 805,84 EUI
27	nemenežovateľný 4portový PoE switch, 4x 10/100 Mbps Base-T + 2x 100 Mbps uplink, celkovo na všetky porty max. 60 W, ochrana pred prepätím 2 kV	10	ks	35,10 EUR	351,00 EUR	70,20 EUR	421,20 EUI
28	switch 3x 10/100 Mbps + 1x Gbit + 2x SFP Gbit, podpora PoE pre 4 porty, 4x PoE (IEEE802.3af/at), port 1-3 max. 30 W, port 4 max. 60 W, celkovo na všetky porty max. 120 W	5	ks	111,54 EUR	557,70 EUR	111,54 EUR	669,24 EUI
29	Prepätňová ochrana	65	ks	30,42 EUR	1 977,30 EUR	395,46 EUR	2 372,76 EUI
30	Elektrický kábel CYKY 3x2,5	100	m	1,22 EUR	122,00 EUR	24,40 EUR	146,40 EUI
31	Elektrický kábel CMSM 3Jx1,5	100	m	0,81 EUR	81,00 EUR	16,20 EUR	97,20 EUI
32	Istič 6A char.B	30	ks	2,33 EUR	69,90 EUR	13,98 EUR	83,88 EUI
33	FTP cat5e indoor	50	m	0,31 EUR	15,50 EUR	3,10 EUR	18,60 EUI
34	FTP cat5e outdoor	100	m	0,47 EUR	47,00 EUR	9,40 EUR	56,40 EUI
35	Konektor RJ45	50	ks	0,21 EUR	10,50 EUR	2,10 EUR	12,60 EUI
36	Optický kábel , 24vl SM., zafukovací	500	m	1,30 EUR	650,00 EUR	130,00 EUR	780,00 EUI
37	Optický kábel , 16vl SM., zafukovací	500	m	1,30 EUR	650,00 EUR	130,00 EUR	780,00 EUI
38	Optický kábel závesný 24 vl SM samonosný	1000	m	1,69 EUR	1 690,00 EUR	338,00 EUR	2 028,00 EUI
39	Optický kábel závesný 16 vl SM samonosný	1000	m	1,69 EUR	1 690,00 EUR	338,00 EUR	2 028,00 EUI
40	Trubka ohybná PSM-E-MF	250	m	1,48 EUR	370,00 EUR	74,00 EUR	444,00 EUI
41	Trubka pancierová Ø 32	250	m	13,34 EUR	3 335,00 EUR	667,00 EUR	4 002,00 EUI
42	Držiak káblovej rezervy na stožiar	100	ks	37,70 EUR	3 770,00 EUR	754,00 EUR	4 524,00 EUI
43	Závesný hák samonosného kábla na stĺp	30	ks	11,83 EUR	354,90 EUR	70,98 EUR	425,88 EUI
44	Závesný hák samonosného kábla na budovu	30	ks	11,83 EUR	354,90 EUR	70,98 EUR	425,88 EUI
45	Podpera vedenia na ploché strechy dvojbodová - PV 21 beton/plast - 1,0kg	100	ks	0,91 EUR	91,00 EUR	18,20 EUR	109,20 EUI
46	Kruhový vodič 8 FeZn	1000	m	2,17 EUR	2 170,00 EUR	434,00 EUR	2 604,00 EUI
47	Pripojovacie svorky jednostranné so svorkou KS	50	ks	2,99 EUR	149,50 EUR	29,90 EUR	179,40 EUI
48	Trubka priem 20 UV stabilná	100	m	1,16 EUR	116,00 EUR	23,20 EUR	139,20 EUI

P.č.	Názov	množstvo	merná jednotka	jednotková cena bez DPH	cena bez DPH	DPH	Cena s DPH
49	príchytka na stenu pre trubku UV stabilnú	100	ks	0,22 EUR	22,00 EUR	4,40 EUR	26,40 EUR
50	príchytka na stĺp pre trubu UV stabilnú	100	ks	2,07 EUR	207,00 EUR	41,40 EUR	248,40 EUR
Tabuľka č. 2 spolu					76 191,16 EUR	15 238,23 EUR	91 429,39 EUR

VÝKAZ VDG SENSE

Cenová tabuľka č. 3

PRÁCE							
P.č.	Názov	predpokladané množstvo	merná jednotka	jednotková cena bez DPH	cena bez DPH	DPH	cena spolu
1.	Konfigurácia Sense servera	1	ks	6 000,00 EUR	6 000,00 EUR	1 200,00 EUR	7 200,00 EUR
2.	Konfigurácia Sense pracovnej stanice	10	ks	1 000,00 EUR	10 000,00 EUR	2 000,00 EUR	12 000,00 EUR
3.	Ostatné práce	100	h	45,00 EUR	4 500,00 EUR	900,00 EUR	5 400,00 EUR
Tabuľka č. 3 spolu					20 500,00 EUR	4 100,00 EUR	24 600,00 EUR

Cenová tabuľka č. 4

VDG SENSE Hardware							
P.č.	Názov	predpokladané množstvo	merná jednotka	jednotková cena bez DPH	cena bez DPH	DPH	cena spolu
1.	Server - VDG Video server						
1.1	NVH-2608XR Video server 19", xeon, 2U, SSD, 8-port, HS RAID, RPSU (min. konfigurácii)	1	ks	5 405,89 EUR	5 405,89 EUR	1 081,18 EUR	6 487,07 EUR
1.2	NVH-2608XRD Video server 19", dual xeon, 2U, SSD, 8-port, HS RAID, RPSU	1	ks	9 108,20 EUR	9 108,20 EUR	1 821,64 EUR	10 929,84 EUR
1.5	Extra 100/1000Mbps LAN interface	4	ks	86,26 EUR	345,04 EUR	69,01 EUR	414,05 EUR
1.7	Pro video server storage 8TB Pevný disk 3,5" , 256 MB cache, 7200 ot., Interface SATA 6 GB/sInterface transfer rate 600 MB/s, prevádzka 24/7	16	ks	367,19 EUR	5 875,04 EUR	1 175,01 EUR	7 050,05 EUR
1.8	Pro video server storage 10TB Pevný disk 3,5" , 256 MB cache, 7200 ot., Interface SATA 6 GB/sInterface transfer rate 600 MB/s, prevádzka 24/7	16	ks	504,69 EUR	8 075,04 EUR	1 615,01 EUR	9 690,05 EUR
1.9	Pro video server storage 12TB Pevný disk 3,5" , 256 MB cache, 7200 ot., Interface SATA 6 GB/sInterface transfer rate 600 MB/s, prevádzka 24/7	8	ks	723,44 EUR	5 787,52 EUR	1 157,50 EUR	6 945,02 EUR
2.	Pracovná stanica - VDG Video client						
2.1	NVH-1001 Compact, i5, SSD, 1TB HDD (min. v konfigurácii)	2	ks	2 132,95 EUR	4 265,90 EUR	853,18 EUR	5 119,08 EUR
2.2	NVH-1101 Video client, i7, SSD (desktop/tower)	8	ks	2 539,45 EUR	20 315,60 EUR	4 063,12 EUR	24 378,72 EUR
2.5	NVH-QUAD Quad mini display port/DVI-D output	8	ks	728,83 EUR	5 830,64 EUR	1 166,13 EUR	6 996,77 EUR
3	Monitor 1 27" Full HD LED, 1920x1080, 24/7,VGA,DVI,HDMI,DP + kabel pre pripojenie k PC (min. 2 m)	16	ks	605,25 EUR	9 684,00 EUR	1 936,80 EUR	11 620,80 EUR
4	Monitor 2 55" Full HD LED, 1920x1080, 24/7,VGA,DVI,HDMI, kabel pre pripojenie k PC (min. 2 m)	6	ks	1 554,75 EUR	9 328,50 EUR	1 865,70 EUR	11 194,20 EUR
4	Monitor 3 60" Full HD LED, 1920x1080, 24/7,VGA,DVI,HDMI,DP kabel pre pripojenie k PC (min. 2 m)	6	ks	1 769,25 EUR	10 615,50 EUR	2 123,10 EUR	12 738,60 EUR
Tabuľka č. 4 spolu					94 636,87 EUR	18 927,37 EUR	113 564,24 EUR

VÝKAZ SERVIS

Cenová tabuľka č. 5

PRÁCE							
P.č.	Názov	predpokladané množstvo	merná jednotka	jednotková cena bez DPH	cena bez DPH	DPH	Spolu s DPH
1.	Cena za 1 hod. operatívneho servisu od 7:00 do 15:00	200	h	99,00 EUR	19 800,00 EUR	3 960,00 EUR	23 760,00 EUR
2.	Cena za 1 hod. operatívneho servisu od 15:00 do 7:00 a v sobotu	30	h	115,00 EUR	3 450,00 EUR	690,00 EUR	4 140,00 EUR
3.	Cena za 1 hod. operatívneho servisu vo sviatok a v nedeľu	30	h	129,00 EUR	3 870,00 EUR	774,00 EUR	4 644,00 EUR
4.	Servisná kontrola	100	kamera	85,00 EUR	8 500,00 EUR	1 700,00 EUR	10 200,00 EUR
5.	Odborná prehliadka a odborná skúška	50	kamera	105,00 EUR	5 250,00 EUR	1 050,00 EUR	6 300,00 EUR
6.	Prenájom montážnej plošiny výška do 12m	130	h	45,00 EUR	5 850,00 EUR	1 170,00 EUR	7 020,00 EUR
7.	Prenájom montážnej plošiny výška nad 12m	130	h	50,00 EUR	6 500,00 EUR	1 300,00 EUR	7 800,00 EUR
Tabuľka č. 5 spolu					53 220,00 EUR	10 644,00 EUR	63 864,00 EUR

DH-IPC-HFW5241E-ZE

2MP WDR IR Bullet AI Network Camera



Dahua AI series products adopt the most advanced AI technologies, including deep learning algorithms that primarily target people and vehicles, which provides higher flexibility and accuracy for end-users. This enables the Dahua AI series to offer various advanced applications such as Face Recognition, ANPR, Metadata, People Counting, traffic data statistics, etc. The complete lineup of Dahua AI includes network (PTZ) cameras, network video recorders, servers, and platform management products. Beyond seeing the world, the power of AI allows devices to perceive the environment and understand the world in a better way.

System Overview

Pro AI series contains Face Capture, Perimeter Protection and People Counting functions. Powered by deep-learning Artificial Intelligence algorithms, significantly improved accuracy. Meanwhile, the series features starlight and smart IR technology. This series fully protected from dust and water, certified to IP67 and vandal resistant to IK10 standard.

Functions

Face Capture

Face capture is a software application that automatically captures faces from within a digital image or a video frame from a video source. Dahua cameras use advanced deep learning algorithms and are trained by a large number of face data sources, enabling the camera to locate faces quickly and accurately from the video source and capture facial images.

Face Attributes

Through the use of deep learning algorithms to analyze facial images, Dahua cameras can extract six facial attributes from each frame, including Age, Gender, Expression (Jolly/Surprise/Normal/Rage/Sad/Disgusted/Confused/Frightened), Glasses, Mouth Mask, Moustache & Beard. Customers can acquire data of interest via face attributes statistics.

Perimeter Protection

Dahua's Perimeter Protection functions significantly improved accuracy. Perimeter Protection reduces false alarms and decreases pixel count requirements for object detection. Perimeter Protection features custom tripwires based on object type for automation in limited access areas such as pedestrian or vehicle-only zones. This combination of advanced AI analytics and real-time alerts to a desktop or to a mobile

- 1/2.8" 2Megapixel progressive scan STARVIS™ CMOS
- H.265 & H.264 triple-stream encoding
- 25/30 fps@1080P (1920 × 1080)
- WDR (120 dB), Day/Night (ICR), 3D DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- 2.7 mm–13.5 mm motorized lens
- 2/1 Alarm in/out, 1/1 audio in/out
- Max. IR LEDs Length 50 m
- Micro SD memory, IP67, IK10



client reduces system requirements and resources resulting in greater surveillance system efficiency.

People Counting

People Counting function uses advanced image processing technology to capture depth information from within images. The camera pairs this information with deep learning algorithms to analyze and detect human bodies and track target objects in real time. The camera provides statistics for separate individuals' entrance and exit with up to 95% counting accuracy.

Metadata

Metadata is feature attribute information extracted from a target object which can be used for data retrieval. Dahua face detection camera can extract six facial attributes and output the metadata for analysis.

ePoE technology

The ePoE technology of Dahua, designed internally, adopts advanced 2D-PAM3 coding modulation from physical layer, and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. Besides, it supports PoE and PoC power supply technology which has greatly simplified construction and wiring. Dahua ePoE technology offer a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.

Protection(IP67, IK10, wide voltage)

The camera allows for $\pm 30\%$ input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67) and impact tests (IK10), the camera is the choice for installation in even the most unforgiving environments.



Technical Specification	
Camera	
Image Sensor	1/2.8" 2Megapixel progressive scan STARVIS™ CMOS
Effective Pixels	1920 (H) × 1080 (V)
RAM/ROM	512 MB/128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3 s–1/100000 s
Minimum Illumination	0.002 Lux@F1.5
IR Distance	Distance up to 50 m (164 ft)
IR On/Off Control	Auto/Manual
IR LEDs	4

Lens					
Lens Type		Motorized			
Mount Type		Board-in			
Focal Length		2.7 mm–13.5 mm			
Max. Aperture		F1.5			
Angle of View		H: 109°–30°, V: 57°–17°			
Optical Zoom		5x			
Aperture Type		Auto			
Close Focus Distance		0.8 m (2.62 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	44m(144ft)	18m(59ft)	9m(30ft)	4m(13ft)
	T	146m(479ft)	58m(190ft)	29m(95ft)	15m(49ft)

Pan/Tilt/Rotation	
Pan/Tilt/Rotation Range	Pan: 0°–360°, Tilt: 0°–90°, Rotation: 0°–360°

Artificial Intelligence	
Face Capture	Support face image capture
Face Attributes	Support 6 kinds of face attributes extraction: Age, Gender, Expression (Jolly, Surprise, Normal, Rage, Sad, Disgusted, Confused, Frightened), Glasses, Mouth Mask, Moustache & Beard
Perimeter Protection	Tripwire, Intrusion (Human & Vehicle classification)
People Counting	Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection

General Intelligence	
Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access, Storage anomaly
General Intelligence	Object Abandoned/Missing

Video	
Compression	H.265+, H.265, H.264+, H.264, H.264B, H.264H, MJPEG (sub stream)
Streaming Capability	3 Streams

Resolution	1080P (1920 × 1080)/1.3 M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/CIF (352 × 288/352 × 240)
Frame Rate	Main Stream: 1080P (1 fps–25/30 fps)
	Sub Stream: D1 (1 fps–25/30 fps)
	Third Stream: 1080P (1 fps–6 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 Kbps–8192 Kbps H.265: 19 Kbps–7424 Kbps
Day/Night	Auto(ICR)/Color/B/W
BLC Mode	BLC/HLC/WDR (120 dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detetion	Off/On (4 Zone, Rectangle)
Region of Interest	Off/On (4 Zone)
Electronic Image Stabilization (EIS)	Support
Smart IR	Support
Defog	Support
Digital Zoom	N/A
Flip	0°/90°/180°/270°
Mirror	Off/On
Privacy Masking	Off/On (4 Area, Rectangle)

Audio	
Compression	G.711a, G.711Mu, AAC, G.726, G.723

Network	
Ethernet	RJ-45 (10/100 Base-T)
Protocol	HTTP, TCP, ARP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, IPv4/v6, SNMP, QoS, UPnP, NTP, ICMP, HTTPS, IGMP, 802.1x
Interoperability	ONVIF (Profile S/Profile G), CGI, Milstone, Genetec, P2P
Streaming Method	Unicast/Multicast
Max. User Access	20 Users
Edge Storage	NAS FTP Micro SD card 256 GB
Web Viewer	IE (versions newer than IE8), Chrome, Firefox, Safari (versions newer than Safari 12)
Management Software	Smart PSS, DSS, P2P
Smart Phone	iOS, Android

Certifications	
Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07

Interface

Video Interface	N/A
Audio Interface	1/1 channel In/Out
RS485	N/A
Alarm	2 channel In: 5mA 5V DC 1 channel Out: 300mA 12V DC

Electrical

Power Supply	DC 12V ($\pm 30\%$), PoE (802.3af) (Class 0)
Power Consumption	<10.3W

Environmental

Operating Conditions	-30° C to +60° C (-22° F to +140° F)/10%RH–95%RH
Storage Conditions	-30° C to +60° C (-22° F to +140° F)
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal, plastic
Dimensions	273.2 mm \times 95.0 mm \times 95.0 mm (10.76" \times 3.74" \times 3.74")
Net Weight	1.11 kg (2.44 lb)
Gross Weight	1.51 kg (3.33 lb)

Ordering Information

Type	Part Number	Description
2MP camera	DH-IPC-HFW5241EP-ZE	2MP WDR IR Bullet AI Network Camera, WDR, PAL
	DH-IPC-HFW5241EN-ZE	2MP WDR IR Bullet AI Network Camera, WDR, NTSC
	IPC-HFW5241EP-ZE	2MP WDR IR Bullet AI Network Camera, WDR, PAL
	IPC-HFW5241EN-ZE	2MP WDR IR Bullet AI Network Camera, WDR, NTSC
Accessories (optional)	PFA152-E	Pole mount

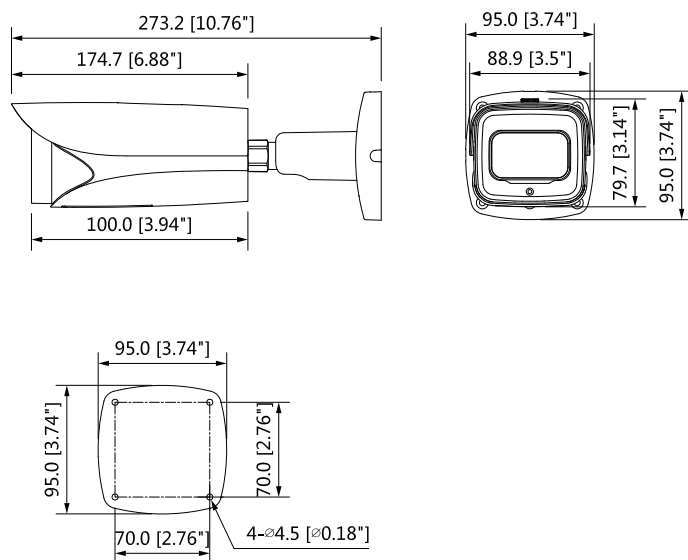
Accessories

Optional:

PFA152-E
Pole MountLR1002
ePoE Over Coax Converter

Ceiling Mount	Wall Mount	Pole Mount

Dimensions (mm[inch])



DH-IPC-HFW5442E-ZE

4MP WDR IR Bullet AI Network Camera



Dahua AI series products adopt the most advanced AI technologies, including deep learning algorithms that primarily target people and vehicles, which provides higher flexibility and accuracy for end-users. This enables the Dahua AI series to offer various advanced applications such as Face Recognition, ANPR, Metadata, People Counting, traffic data statistics, etc. The complete lineup of Dahua AI includes network (PTZ) cameras, network video recorders, servers, and platform management products. Beyond seeing the world, the power of AI allows devices to perceive the environment and understand the world in a better way.

System Overview

Pro AI series contains Face Capture, Perimeter Protection and People Counting functions. Powered by deep-learning Artificial Intelligence algorithms, significantly improved accuracy. Meanwhile, the series features starlight and smart IR technology. This series fully protected from dust and water, certified to IP67 and vandal resistant to IK10 standard.

Functions

Face Capture

Face capture is a software application that automatically captures faces from within a digital image or a video frame from a video source. Dahua cameras use advanced deep learning algorithms and are trained by a large number of face data sources, enabling the camera to locate faces quickly and accurately from the video source and capture facial images.

Face Attributes

Through the use of deep learning algorithms to analyze facial images, Dahua cameras can extract six facial attributes from each frame, including Age, Gender, Expression (Jolly/Surprise/Normal/Rage/Sad/Disgusted/Confused/Frightened), Glasses, Mouth Mask, Moustache & Beard. Customers can acquire data of interest via face attributes statistics.

Perimeter Protection

Dahua's Perimeter Protection functions significantly improved accuracy. Perimeter Protection reduces false alarms and decreases pixel count requirements for object detection. Perimeter Protection features custom tripwires based on object type for automation in limited access areas such as pedestrian or vehicle-only zones. This combination of advanced AI analytics and real-time alerts to a desktop or to a mobile

- 1/1.8" 4Megapixel progressive scan CMOS
- H.265 & H.264 triple-stream encoding
- 25/30 fps@2688 × 1520, 50/60 fps@1080 (1920 × 1080)
- WDR (140 dB), Day/Night (ICR), 3D DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- 2.7 mm–12.0 mm motorized lens
- 2/1 Alarm in/out, 1/1 audio in/out
- Max. IR LEDs Length 50 m
- Micro SD memory, IP67, IK10



client reduces system requirements and resources resulting in greater surveillance system efficiency.

People Counting

People Counting function uses advanced image processing technology to capture depth information from within images. The camera pairs this information with deep learning algorithms to analyze and detect human bodies and track target objects in real time. The camera provides statistics for separate individuals' entrance and exit with up to 95% counting accuracy.

Metadata

Metadata is feature attribute information extracted from a target object which can be used for data retrieval. Dahua face detection camera can extract six facial attributes and output the metadata for analysis.

ePoE technology

The ePoE technology of Dahua, designed internally, adopts advanced 2D-PAM3 coding modulation from physical layer, and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. Besides, it supports PoE and PoC power supply technology which has greatly simplified construction and wiring. Dahua ePoE technology offer a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.

Protection(IP67, IK10, wide voltage)

The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67) and impact tests (IK10), the camera is the choice for installation in even the most unforgiving environments.



Technical Specification						
Camera						
Image Sensor		1/1.8" 4Megapixel progressive scan CMOS				
Effective Pixels		2688 (H) × 1520 (V)				
RAM/ROM		1 GB/128 MB				
Scanning System		Progressive				
Electronic Shutter Speed		Auto/Manual, 1/3 s–1/100000 s				
Minimum Illumination		0.002 Lux@F1.8				
IR Distance		Distance up to 50 m (164 ft)				
IR On/Off Control		Auto/Manual				
IR LEDs		4				
Lens						
Lens Type		Motorized				
Mount Type		Board-in				
Focal Length		2.7 mm–12.0 mm				
Max. Aperture		F1.8				
Angle of View		H: 114°–47°, V: 62°–26°				
Optical Zoom		4.4x				
Aperture Type		Auto				
Close Focus Distance		1.2 m (3.94 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify	
	W	58m(190ft)	23m(75ft)	12m(39ft)	6m(20ft)	
	T	131m(430ft)	52m(171ft)	26m(85ft)	13m(43ft)	
Pan/Tilt/Rotation						
Pan/Tilt/Rotation Range		Pan: 0°–360°; Tilt: 0°–90°; Rotation: 0°–360°				
Artificial Intelligence						
Face Capture		Support face image capture				
Face Attributes		Support 6 kinds of face attributes extraction: Age, Gender,Expression (Jolly, Surprise, Normal, Rage, Sad, Disgusted, Confused, Frightened), Glasses, Mouth Mask, Moustache & Beard				
Perimeter Protection		Tripwire, Intrusion (Human & Vehicle classification)				
People Counting		Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection				
General Intelligence						
Event Trigger		Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access, Storage anomaly				
General Intelligence		Object Abandoned/Missing				
Video						
Compression		H.265+, H.265, H.264+, H.264, H.264B, H.264H, MJPEG (sub stream)				
Streaming Capability		3 Streams				

Resolution	2688 × 1520/2560 × 1440/2304 × 1296/1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/CIF (352 × 288/352 × 240)
Frame Rate	Main Stream: 2688 × 1520 (1 fps–25/30 fps) 2560 × 1440 (1 fps–25/30 fps) 1920 × 1080 (1 fps–50/60 fps) Sub Stream: D1 (1 fps–25/30 fps) D1 (1 fps–50/60 fps) Third Stream: 1080P (1 fps–16 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 Kbps–8192 Kbps H.265: 19 Kbps–8192 Kbps
Day/Night	Auto(ICR)/Color/B/W
BLC Mode	BLC/HLC/WDR (140 dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detetion	Off/On (4 Zone, Rectangle)
Region of Interest	Off/On (4 Zone)
Electronic Image Stabilization (EIS)	Support
Smart IR	Support
Defog	Support
Digital Zoom	N/A
Flip	0°/90°/180°/270°
Mirror	Off/On
Privacy Masking	Off/On (4 Area, Rectangle)
Audio	
Compression	G.711a, G.711Mu, AAC, G.726, G.723
Network	
Ethernet	RJ-45 (10/100 Base-T)
Protocol	HTTP, TCP, ARP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, IPv4/v6, SNMP, QoS, UPnP, NTP, ICMP, HTTPS, IGMP, 802.1x
Interoperability	ONVIF (Profile S/Profile G), CGI, Milstone, Genetec, P2P
Streaming Method	Unicast/Multicast
Max. User Access	20 Users
Edge Storage	NAS FTP Micro SD card 256 GB
Web Viewer	IE (versions newer than IE8), Chrome, Firefox, Safari (versions newer than Safari 12)
Management Software	Smart PSS, DSS, P2P
Smart Phone	iOS, Android
Certifications	
Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07

Interface

Video Interface	N/A
Audio Interface	1/1 channel In/Out
RS485	N/A
Alarm	2 channel In: 5mA 5V DC 1 channel Out: 300mA 12V DC

Electrical

Power Supply	DC 12V ($\pm 30\%$), PoE (802.3af) (Class 0)
Power Consumption	<10.9W

Environmental

Operating Conditions	-30° C to +60° C (-22° F to +140° F)/10%RH-95%RH
Storage Conditions	-30° C to +60° C (-22° F to +140° F)
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

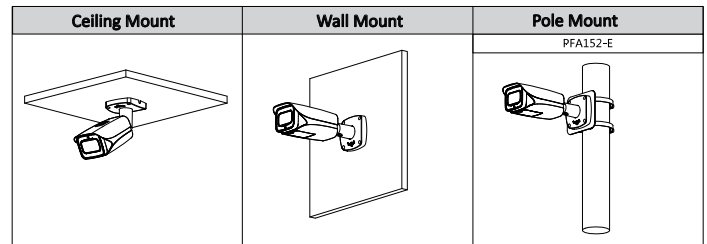
Casing	Metal, plastic
Dimensions	273.2 mm × 95.0 mm × 95.0 mm (10.76" × 3.74" × 3.74")
Net Weight	1.11 kg (2.44 lb)
Gross Weight	1.51 kg (3.33 lb)

Ordering Information

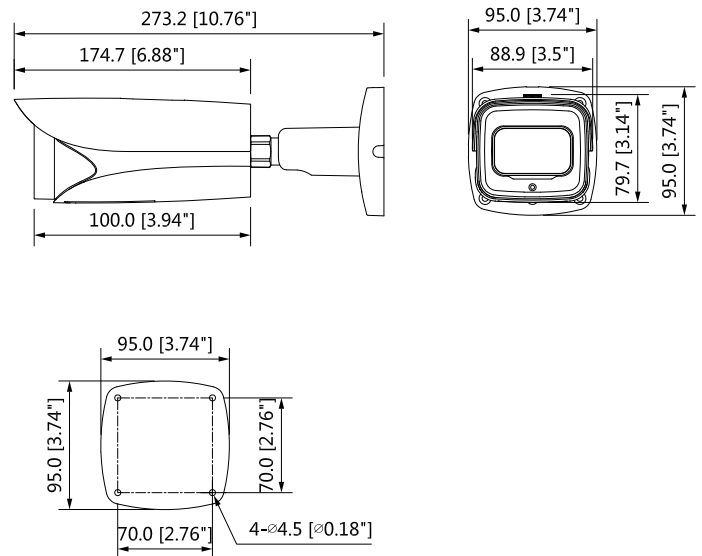
Type	Part Number	Description
4MP camera	DH-IPC-HFW5442EP-ZE	4MP WDR IR Bullet AI Network Camera, WDR, PAL
	DH-IPC-HFW5442EN-ZE	4MP WDR IR Bullet AI Network Camera, WDR, NTSC
	IPC-HFW5442EP-ZE	4MP WDR IR Bullet AI Network Camera, WDR, PAL
	IPC-HFW5442EN-ZE	4MP WDR IR Bullet AI Network Camera, WDR, NTSC
Accessories (optional)	PFA152-E	Pole mount

Accessories

Optional:

PFA152-E
Pole MountLR1002
ePoE Over Coax Converter

Dimensions (mm[inch])



DH-IPC-HFW5241T-ASE

2MP WDR IR Bullet AI Network Camera



- 1/2.8" 2Megapixel progressive scan STARVIS™ CMOS
- H.265 & H.264 triple-stream encoding
- 25/30 fps@1080P (1920 × 1080)
- WDR (120 dB), Day/Night (ICR), 3D DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- 2.8 mm fixed lens (3.6 mm, 6.0 mm, 8.0 mm, 12.0 mm optional)
- 1/1 Alarm in/out, 1/1 audio in/out
- Max. IR LEDs Length 80 m
- Micro SD memory, IP67



Dahua AI series products adopt the most advanced AI technologies, including deep learning algorithms that primarily target people and vehicles, which provides higher flexibility and accuracy for end-users. This enables the Dahua AI series to offer various advanced applications such as Face Recognition, ANPR, Metadata, People Counting, traffic data statistics, etc. The complete lineup of Dahua AI includes network (PTZ) cameras, network video recorders, servers, and platform management products. Beyond seeing the world, the power of AI allows devices to perceive the environment and understand the world in a better way.

System Overview

Pro AI series contains Face Capture, Perimeter Protection and People Counting functions. Powered by deep-learning Artificial Intelligence algorithms, significantly improved accuracy. Meanwhile, the series features starlight and smart IR technology. This series fully protected from dust and water, certified to IP67 standard.

Functions

Face Capture

Face capture is a software application that automatically captures faces from within a digital image or a video frame from a video source. Dahua cameras use advanced deep learning algorithms and are trained by a large number of face data sources, enabling the camera to locate faces quickly and accurately from the video source and capture facial images.

Perimeter Protection

Dahua's Perimeter Protection functions significantly improved accuracy. Perimeter Protection reduces false alarms and decreases pixel count requirements for object detection. Perimeter Protection features custom tripwires based on object type for automation in limited access areas such as pedestrian or vehicle-only zones. This combination of advanced AI analytics and real-time alerts to a desktop or to a mobile client reduces system requirements and resources resulting in greater surveillance system efficiency.

People Counting

People Counting function uses advanced image processing technology to capture depth information from within images. The camera pairs this information with deep learning algorithms to analyze and detect human bodies and track target objects in real time. The camera provides statistics for separate individuals' entrance and exit with up to 95% counting accuracy.

ePoE technology

The ePoE technology of Dahua, designed internally, adopts advanced 2D-PAM3 coding modulation from physical layer, and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. Besides, it supports PoE and PoC power supply technology which has greatly simplified construction and wiring. Dahua ePoE technology offer a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.

Protection(IP67, wide voltage)

The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67), the camera is the choice for installation in even the most unforgiving environments.

Technical Specification	
Camera	
Image Sensor	1/2.8" 2Megapixel progressive scan STARVIS™ CMOS
Effective Pixels	1920 (H) × 1080 (V)
RAM/ROM	512 MB/128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3 s–1/100000 s
Minimum Illumination	0.002 Lux@F1.6
IR Distance	Distance up to 80 m (262 ft)
IR On/Off Control	Auto/Manual
IR LEDs	4

Lens					
Lens Type		Fixed			
Mount Type		Board-in			
Focal Length		2.8 mm, 3.6 mm, 6.0 mm, 8.0 mm, 12.0 mm			
Max. Aperture		F1.6 (2.8 mm–8.0 mm), F2.0 (12.0 mm)			
Angle of View		H: 106°, V: 57°/H: 87°, V: 46°/H: 53°, V: 30°/ H: 41°, V: 23°/H: 26°, V: 14°			
Optical Zoom		N/A			
Aperture Type		Fixed			
Close Focus Distance		0.6 m (1.97 ft)/1.2 m (3.94 ft)/2.5 m (8.20 ft)/ 4 m (13.12 ft)/8.6 m (28.22 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	39m(128ft)	15m(49ft)	8m(26ft)	4m(13ft)
	3.6mm	55m(180ft)	22m(72ft)	11m(36ft)	6m(20ft)
	6mm	83m(272ft)	33m(108ft)	17m(56ft)	8m(26ft)
	8mm	110m(361ft)	44m(144ft)	22m(72ft)	11m(36ft)
	12mm	172m(564ft)	69m(226ft)	35m(115ft)	17m(56ft)

Pan/Tilt/Rotation	
Pan/Tilt/Rotation Range	Pan: 0°–360°; Tilt: 0°–90°; Rotation: 0°–360°

Artificial Intelligence	
Face Capture	Support face image capture
Perimeter Protection	Tripwire, Intrusion (Human & Vehicle classification)
People Counting	Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection

General Intelligence	
Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access, Storage anomaly
General Intelligence	Object Abandoned/Missing

Video	
Compression	H.265+, H.265, H.264+, H.264, H.264B, H.264H, MJPEG (sub stream)
Streaming Capability	3 Streams
Resolution	1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/CIF (352 × 288/352 × 240)
Frame Rate	Main Stream: 1080P (1 fps–25/30 fps)
	Sub Stream: D1 (1 fps–25/30 fps)
	Third Stream: 1080P (1 fps–6 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 Kbps–8192 Kbps H.265: 19 Kbps–7424 Kbps
Day/Night	Auto(ICR)/Color/ B/W
BLC Mode	BLC/HLC/WDR (120 dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detetion	Off/On (4 Zone, Rectangle)
Region of Interest	Off/On (4 Zone)
Electronic Image Stabilization (EIS)	N/A
Smart IR	Support
Defog	Support
Digital Zoom	N/A
Flip	0°/90°/180°/270°
Mirror	Off/On
Privacy Masking	Off/On (4 Area, Rectangle)

Audio	
Compression	G.711a, G.711Mu, G.726, AAC, G.723

Network	
Ethernet	RJ-45 (10/100 Base-T)
Protocol	HTTP, TCP, ARP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, IPv4/v6, SNMP, QoS, UPnP, NTP, ICMP, HTTPS, IGMP, 802.1x
Interoperability	ONVIF (Profile S/Profile G), CGI, Milstone, Genetec, P2P
Streaming Method	Unicast/Multicast
Max. User Access	20 Users
Edge Storage	NAS FTP Micro SD card 256 GB
Web Viewer	IE (versions newer than IE8), Chrome, Firefox, Safari (versions newer than Safari 12)
Management Software	Smart PSS, DSS, P2P
Smart Phone	iOS, Android

Certifications

Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07
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Interface

Video Interface	N/A
Audio Interface	1/1 channel In/Out
RS485	N/A
Alarm	1 channel In: 5mA 5V DC 1 channel Out: 300mA 12V DC

Electrical

Power Supply	DC 12V ($\pm 30\%$), PoE (802.3af) (Class 0)
Power Consumption	<8.7W

Environmental

Operating Conditions	-30° C to +60° C (-22° F to +140° F)/10%RH-95%RH
Storage Conditions	-30° C to +60° C (-22° F to +140° F)
Ingress Protection	IP67
Vandal Resistance	N/A

Construction

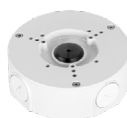
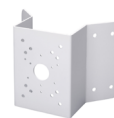
Casing	Metal
Dimensions	244.1 mm \times 79.0 mm \times 75.9 mm (9.61" \times 3.11" \times 2.99")
Net Weight	0.815 kg (1.80 lb)
Gross Weight	1.08 kg (2.38 lb)

Ordering Information

Type	Part Number	Description
2MP camera	DH-IPC-HFW5241TP-ASE	2MP WDR IR Bullet AI Network Camera, WDR, PAL
	DH-IPC-HFW5241TN-ASE	2MP WDR IR Bullet AI Network Camera, WDR, NTSC
	IPC-HFW5241TP-ASE	2MP WDR IR Bullet AI Network Camera, WDR, PAL
	IPC-HFW5241TN-ASE	2MP WDR IR Bullet AI Network Camera, WDR, NTSC
Accessories (optional)	PFA130-E	Junction box
	PFA152-E	Pole Mount
	PFA151	Corner Mount

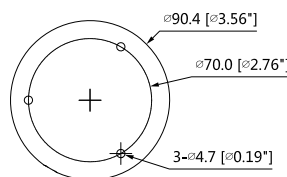
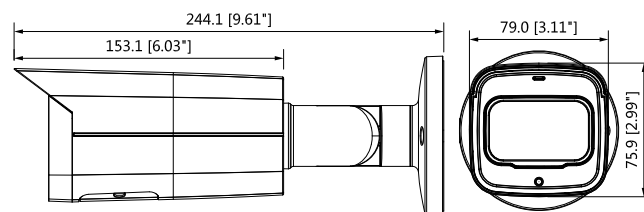
Accessories

Optional:

PFA130-E
Junction boxPFA152-E
Pole MountPFA151
Corner MountLR1002
ePoE Over Coax Converter

Junction Mount	Pole Mount	Corner Mount
PFA130-E	PFA130-E + PFA152-E	PFA130-E + PFA151

Dimensions (mm[inch])



DH-IPC-HFW5442T-ASE

4MP Pro AI IR Bullet Network Camera



System Overview

Pro AI series contains Face Detection, Perimeter Protection and People Counting functions. Powered by deep-learning Artificial Intelligence algorithms, significantly improved accuracy. Active Deterrence and Full Color camera are also in this series. Meanwhile, the series features starlight and smart IR technology. This series fully protected from dust and water, certified to IP67 standard.

Functions

Face Detection

Face Detection is a software application that automatically captures faces from within a digital image or a video frame from a video source. Dahua cameras use advanced deep learning algorithms and are trained by a large number of face data sources, enabling the camera to locate faces quickly and accurately from the video source and capture facial images.

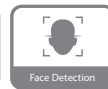
Perimeter Protection

Dahua's Perimeter Protection functions significantly improved accuracy. Perimeter Protection reduces false alarms and decreases pixel count requirements for object detection. Perimeter Protection features custom tripwires based on object type for automation in limited access areas such as pedestrian or vehicle-only zones. This combination of advanced AI analytics and real-time alerts to a desktop or to a mobile client reduces system requirements and resources resulting in greater surveillance system efficiency.

People Counting

People Counting function uses advanced image processing technology to capture depth information from within images. The camera pairs this information with deep learning algorithms to analyze and detect human bodies and track target objects in real time. The camera provides statistics for separate individuals' entrance and exit with up to 95% counting accuracy.

- 1/1.8" 4Megapixel progressive scan CMOS
- H.265 & H.264 triple-stream encoding
- 25/30 fps@2688 × 1520, 50/60 fps@1080P (1920 × 1080)
- WDR (140 dB), Day/Night (ICR), 3D DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- 2.8 mm fixed lens (3.6 mm, 6.0 mm optional)
- 1/1 Alarm in/out, 1/1 audio in/out
- Max. IR LEDs Length 50 m
- Micro SD memory, IP67, IK10



ePoE technology

The ePoE technology of Dahua, designed internally, adopts advanced 2D-PAM3 coding modulation from physical layer, and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. Besides, it supports PoE and PoC power supply technology which has greatly simplified construction and wiring. Dahua ePoE technology offer a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.

Protection(IP67, IK10, wide voltage)

The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67) and impact tests (IK10), the camera is the choice for installation in even the most unforgiving environments.

Technical Specification						
Camera						
Image Sensor		1/1.8" 4Megapixel progressive scan CMOS				
Effective Pixels		2688 (H) × 1520 (V)				
RAM/ROM		512 MB/128 MB				
Scanning System		Progressive				
Electronic Shutter Speed		Auto/Manual, 1/3 s–1/100000 s				
Minimum Illumination		0.002 Lux@F1.6				
IR Distance		Distance up to 50 m (164 ft)				
IR On/Off Control		Auto/Manual				
IR LEDs		4				
Lens						
Lens Type		Fixed-focal				
Mount Type		Board-in				
Focal Length		2.8 mm, 3.6 mm, 6.0 mm				
Max. Aperture		F1.6				
Angle of View		H: 113°, V: 60°/H: 89°, V: 48°/H: 56°, V: 31°				
Aperture Type		Fixed				
Close Focus Distance		1.3 m (4.27 ft)/1.9 m (6.23 ft)/3.8 m (12.47 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify	
	2.8mm	58m(190ft)	23m(75ft)	12m(39ft)	6m(20ft)	
	3.6mm	72m(236ft)	29m(95ft)	14m(46ft)	7m(23ft)	
	6mm	113m(371ft)	45m(148ft)	23m(75ft)	11m(36ft)	
Pan/Tilt/Rotation						
Pan/Tilt/Rotation Range		Pan: 0°–360°; Tilt: 0°–90°; Rotation: 0°–360°				
Artificial Intelligence						
Face Detection		Support face image capture				
Perimeter Protection		Tripwire, intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking detection and people gathering				
People Counting		Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection				
General Intelligence						
Event Trigger		Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access, Storage anomaly				
General Intelligence		Object Abandoned/Missing				
Heat Map		Yes				
Video						
Compression		H.265,H.264,H.264B,H.264H, MJPEG (sub stream)				
Smart Codec		Yes				

Streaming Capability		3 Streams	
Resolution		2688 × 1520/2560 × 1440/2304 × 1296/1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/CIF (352 × 288/352 × 240)	
Frame Rate		Main Stream: 2688 × 1520 (1 fps–25/30 fps) 2560 × 1440 (1 fps–25/30 fps) 1920 × 1080 (1 fps–50/60 fps)	
		Sub Stream: D1 (1 fps–25/30 fps) D1 (1 fps–50/60 fps)	
		Third Stream: 1080P (1 fps–16 fps)	
Bit Rate Control		CBR/VBR	
Bit Rate		H.264: 32 Kbps–8192 Kbps H.265: 19 Kbps–8192 Kbps	
Day/Night		Auto(ICR)/Color/B/W	
BLC Mode		BLC/HLC/WDR (140 dB)	
White Balance		Auto/Natural/Street Lamp/Outdoor/Manual	
Gain Control		Auto/Manual	
Noise Reduction		3D DNR	
Motion Detetion		Off/On (4 Zone, Rectangle)	
Region of Interest		Off/On (4 Zone)	
Electronic Image Stabilization (EIS)		N/A	
Smart IR		Yes	
Defog		Yes	
Flip		0°/90°/180°/270°	
Mirror		Off/On	
Privacy Masking		Off/On (4 Area, Rectangle)	
Audio			
Compression		G.711a, G.711Mu, G.726, AAC, G.723	
Network			
Ethernet		RJ-45 (10/100 Base-T)	
Protocol		IPv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP ;RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP ;NTP;Multicast;ICMP;IGMP;NFS;PPPoE;802.1x;SNMP	
Interoperability		ONVIF (Profile S/Profile G/Profile T), CGI, Milstone, Genetec, P2P	
Streaming Method		Unicast/Multicast	
Max. User Access		20 Users	
Edge Storage		NAS;FTP;SFTP Micro SD card 256 GB	
Web Viewer		IE (versions newer than IE8), Chrome, Firefox, Safari (versions newer than Safari 12)	
Management Software		Smart PSS, DSS, DMSS	
Smart Phone		iOS, Android	

Certifications

Certifications

CE-LVD: EN60950-1
 CE-EMC: Electromagnetic Compatibility Directive
 2014/30/EU
 FCC: 47 CFR FCC Part 15, Subpart B
 UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07

Interface

Audio Interface	1/1 channel In/Out
RS485	N/A
Alarm	1 channel In: 5mA 5V DC 1 channel Out: 300mA 12V DC

Electrical

Power Supply	DC 12V ($\pm 30\%$), PoE (802.3af) (Class 0)
Power Consumption	<9.5W

Environmental

Operating Conditions	-30° C to +60° C (-22° F to +140° F)/Less than 95% RH
Storage Conditions	-30° C to +60° C (-22° F to +140° F)
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

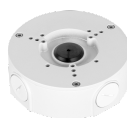
Casing	Metal
Dimensions	244.1 mm \times 79.0 mm \times 75.9 mm (9.61" \times 3.11" \times 2.99")
Net Weight	0.815 kg (1.80 lb)
Gross Weight	1.08 kg (2.38 lb)

Ordering Information

Type	Part Number	Description
4MP camera	DH-IPC-HFW5442TP-ASE	4MP Pro AI IR Bullet Network Camera, WDR, PAL
	DH-IPC-HFW5442TN-ASE	4MP Pro AI IR Bullet Network Camera, WDR, NTSC
	IPC-HFW5442TP-ASE	4MP Pro AI IR Bullet Network Camera, WDR, PAL
	IPC-HFW5442TN-ASE	4MP Pro AI IR Bullet Network Camera, WDR, NTSC
Accessories (optional)	PFA130-E	Junction box
	PFA152-E	Pole Mount
	PFA151	Corner Mount

Accessories

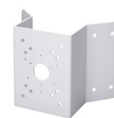
Optional:



PFA130-E
Junction box



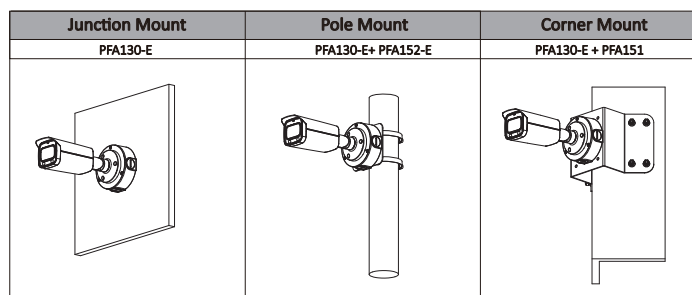
PFA152-E
Pole Mount



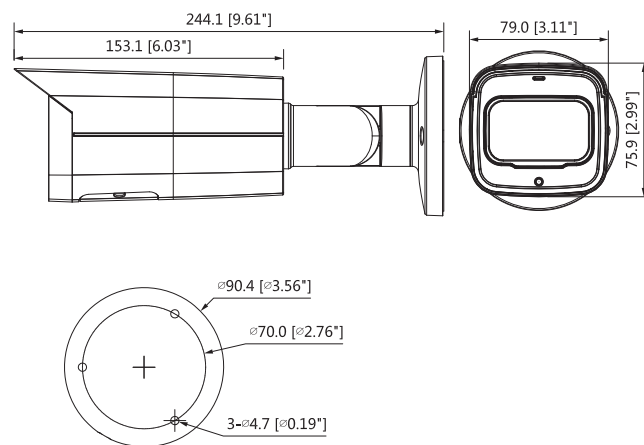
PFA151
Corner Mount



LR1002
ePoE Over Coax Converter



Dimensions (mm[inch])



iDS-2CD7A26G0/P-IZHS(Y) 2 MP ANPR IR Varifocal Bullet Network Camera

DarkFighter



▪ DeepinView^{series}

- High quality imaging with 2 MP resolution
- Excellent low-light performance via DarkFighter technology
- Clear imaging against strong back light due to 140 dB WDR technology
- License Plate Recognition
- Efficient H.265+ compression technology to save bandwidth and storage
- Advanced streaming technology that enables smooth live view and data self-correcting in poor network
- 5 streams and up to 5 custom streams to meet a wide variety of applications
- Water and dust resistant (IP67) and vandal proof (IK10)



▪ Function

Road Traffic and Vehicle Detection

With embedded deep learning based license plate capture and recognition algorithms, the camera alone can achieve plate capture and recognition. The algorithm enjoys the high recognition accuracy of common plates and complex-structured plates, which is a great step forward comparing to traditional algorithms. Blocklist and allowlist are available for plate categorization and separate alarm triggering.

Smooth Streaming

Smooth streaming offers solutions to improve the video quality in different network conditions. For example, in poor network conditions, adapting to the detected real-time network condition, streaming bit rate and resolution are automatically adjusted to avoid mosaic and lower latency in live view; in multiplayer network conditions, the camera transmits the redundant data for the self-error correcting in back-end device, so that to solve the mosaic problem because of the packet loss and error rate.

▪ Specification

Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Max. Resolution	1920 × 1080
Min. Illumination	Color: 0.001 Lux @ (F1.2, AGC ON); B/W: 0.0003 Lux @ (F1.2, AGC ON)
Shutter Speed	1 s to 1/100,000 s
Slow Shutter	Yes
P/N	P/N
Day & Night	IR cut filter Blue glass module to reduce ghost phenomenon.
Power-off Memory	Yes
Lens	
Iris Type	P-iris
Focus	Auto, semi-auto, manual
Focal Length & FOV	2.8 to 12 mm, horizontal FOV: 107.3° to 39.8°, vertical FOV: 55.9° to 22.3°, diagonal FOV: 130.1° to 45.7° 8 to 32 mm, horizontal FOV: 40.3° to 14.4°, vertical FOV: 22.1° to 8.2° diagonal FOV: 46.9° to 16.5°
Aperture	2.8 to 12 mm: F1.2 to 2.5 8 to 32 mm: F1.7 to F1.73
Lens Mount	Integrated
Illuminator	
Supplement Light Type	IR
Supplement Light Range	2.8 to 12 mm: 50 m 8 to 32 mm: 100 m
IR Wavelength	850 nm
Smart Supplement Light	Yes
Video	
Main Stream	50 Hz: 50 fps (1920 × 1080, 1280 × 720) 60 Hz: 60 fps (1920 × 1080, 1280 × 720)
Sub-Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Third Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Fourth Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Fifth Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Custom Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Video Compression	Main stream: H.265+/H.265/H.264+/ H.264 Sub-stream/Third stream/Fourth stream/Fifth stream/custom stream: H.265/H.264/MJPEG
Video Bit Rate	32 Kbps to 16 Mbps

H.264 Type	Baseline Profile/Main Profile/High Profile
H.265 Type	Main Profile
Bit Rate Control	CBR/VBR
Stream Type	Main stream/sub-stream/third stream/fourth stream/fifth stream/custom stream
Scalable Video Coding (SVC)	H.265 and H.264 support
Region of Interest (ROI)	4 fixed regions for each stream
Audio	
Environment Noise Filtering	Yes
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
Audio Compression	G.711/G.722.1/G.726/MP2L2/PCM/MP3
Audio Bit Rate	64 Kbps (G.711)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps (MP2L2)/32 Kbps (PCM)/8 to 320 Kbps (MP3)
Audio Type	Mono sound
Network	
Simultaneous Live View	Up to 20 channels
API	Open Network Video Interface (PROFILE S, PROFILE G, PROFILE T), ISAPI, SDK, ISUP
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, SFTP, SRTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour, SSL/TLS
Smooth Streaming	Yes
User/Host	Up to 32 users. 3 user levels: administrator, operator and user
Security	Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for ONVIF, RTP/RTSP OVER HTTPS, Control Timeout Settings, Security Audit Log, TLS 1.2
Network Storage	microSD/SDHC/SDXC card (256 GB) local storage, and NAS (NFS, SMB/CIFS), auto network replenishment (ANR) Together with high-end Hikvision memory card, memory card encryption and health detection are supported.
Client	iVMS-4200, Hik-Connect, Hik-Central
Web Browser	Plug-in required live view: IE8+ Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Safari 11+ Local service: Chrome 41.0+, Firefox 30.0+
Image	
Day/Night Switch	Day, Night, Auto, Schedule, Alarm Trigger, Video Triggered
Target Cropping	Yes
Distortion Correction	Yes
Picture Overlay	LOGO picture can be overlaid on video with 128 × 128 24bit bmp format
Image Enhancement	BLC, HLC, 3D DNR, Defog, EIS, Distortion Correction
Image Parameters Switch	Yes
Image Settings	Saturation, brightness, contrast, sharpness, gain, white balance adjustable by client software or web browser
SNR	≥ 52 dB
Interface	
Alarm	2 input, 2 outputs (max. 24 VDC, 1 A)

Audio	With -Y: 1 input (line in), 3.5 mm connector, max. input amplitude: 3.3 vpp, input impedance: 4.7 K Ω , interface type: non-equilibrium; 1 output (line out), 3.5 mm connector, max. output amplitude: 3.3 vpp, output impedance: 100 Ω , interface type: non-equilibrium, mono sound
RS-485	With -Y: 1 RS-485 (half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)
Video Output	1 Vp-p Composite Output (75 Ω /CVBS) (Only for debugging)
On-Board Storage	Built-in memory card slot, support microSD/SDHC/SDXC slot, up to 256 GB
Hardware Reset	Yes
Ethernet Interface	1 RJ45 10 M/100 M/1000 M self-adaptive Ethernet port
Power Output	With -Y: 12 VDC, max. 100 mA (supported by all power supply types)
Heater	Yes
Wiegand	With -Y: 1 wiegand (CardID 26bit, SHA-1 26bit, Hik 34bit)
Event	
Basic Event	Motion detection, video tampering alarm, vibration detection, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error)
Linkage	Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture Trigger recording: memory card, network storage, pre-record and post-record Trigger captured pictures uploading: FTP, SFTP, HTTP, NAS, send email Trigger notification: HTTP, ISAPI, alarm output, Email
Smart Event	Line crossing detection, up to 4 lines configurable Intrusion detection, up to 4 regions configurable Region entrance detection, up to 4 regions configurable Region exiting detection, up to 4 regions configurable Unattended baggage detection, up to 4 regions configurable Object removal detection, up to 4 regions configurable Scene change detection, audio exception detection, defocus detection
Counting	Yes
Deep Learning Function	
Perimeter Protection	Line crossing, intrusion, region entrance, region exiting Support alarm triggering by specified target types (human and vehicle) Filtering out mistaken alarm caused by target types such as leaf, light, animal, and flag, etc.
Road Traffic and Vehicle Detection	Blocklist and allowlist: up to 10,000 records Captures vehicle that has no license plate Support license plate recognition of motorcycles (only in checkpoint scenario) Support vehicle attribute detection, including vehicle type, color, brand, etc. (City Street mode is recommended.)
General	
Power	12 VDC \pm 20%, three-core terminal block, reverse polarity protection, 1.33 A, max. 16.0 W PoE: 802.3at, 42.5 V to 57 V, Type 2 Class 4, 0.43 A to 0.31 A, max. 18.0 W

Language	33 languages: English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil), Ukrainian
Online Upgrade	Yes
Dual Backup	Yes
General Function	Anti-flicker, 5 streams and up to 5 custom streams, EPTZ, heartbeat, mirror, privacy masks, flash log, password reset via e-mail, pixel counter
Storage Conditions	-40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing)
Startup and Operating Conditions	-40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing)
Camera Dimension	Without -Y: Ø144 × 347 mm (Ø5.7" × 13.7") With -Y: Ø140 × 351 mm (Ø5.5" × 13.8")
Package Dimension	405 × 190 × 180 mm (15.9" × 7.5" × 7.1")
Camera Weight	Approx. 1920 g (4.2 lb.)
With Package Weight	Approx. 3060 g (6.7 lb.)
Metadata	
Metadata	Metadata of intrusion detection, line crossing detection, region entrance detection, region exiting detection, unattended baggage detection, object removal are supported.
Approval	
Class	Class B
EMC	FCC (47 CFR Part 15, Subpart B); CE-EMC (EN 55032: 2015, EN 61000-3-2:2019, EEN 61000-3-3:2013+A1:2019, EN 50130-4: 2011 +A1: 2014); RCM (AS/NZS CISPR 32: 2015); IC (ICES-003: Issue 7); KC (KN 32: 2015, KN 35: 2015)
Safety	UL (UL 62368-1); CB (IEC 62368-1:2014+A11); CE-LVD (EN 62368-1:2014/A11:2017); BIS (IS 13252(Part 1):2010/ IEC 60950-1 : 2005); LOA (IEC/EN 60950-1)
Environment	CE-RoHS (2011/65/EU); WEEE (2012/19/EU); Reach (Regulation (EC) No 1907/2006)
Protection	IK10 (IEC 62262:2002), IP67 (IEC 60529-2013)
Anti-Corrosion Protection	With -Y: NEMA 4X(NEMA 250-2018)
Other	With -Y: PVC FREE

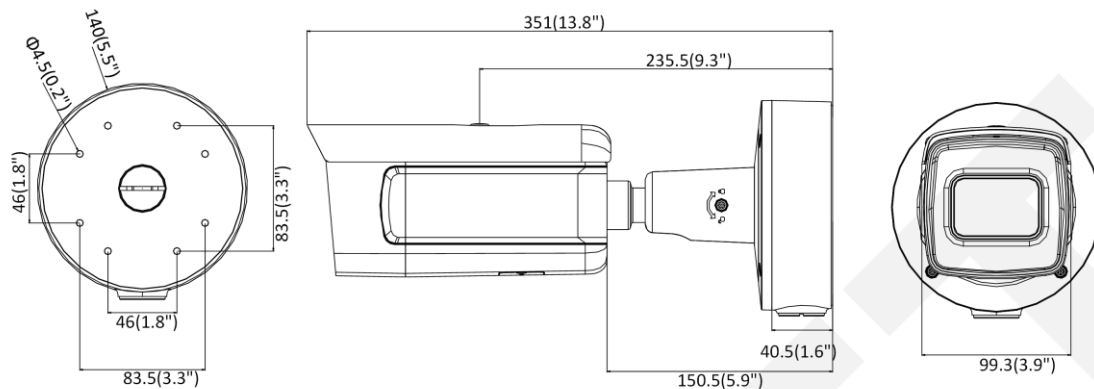
▪ Available Model

iDS-2CD7A26G0/P-IZHSY (2.8 to 12 mm, 8 to 32 mm)

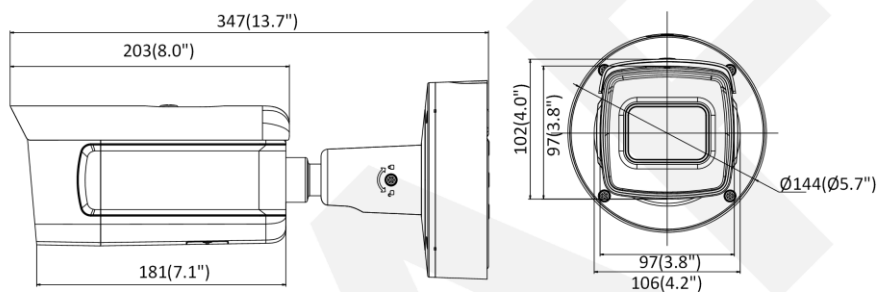
iDS-2CD7A26G0/P-IZHS (2.8 to 12 mm, 8 to 32 mm)

Dimension

-Y model:







Without -Y model:



Unit: mm(inch)

Accessory

Optional

DS-1476ZJ-SUS Corner Mount	DS-1476ZJ-Y Corner Mount	DS-1475ZJ-Y Vertical Pole Mount	DS-1475ZJ-SUS Vertical Pole Mount
			

Distributed by

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iDS-2CD7A46G0/P-IZHS(Y) 4 MP ANPR IR Varifocal Bullet Network Camera

DarkFighter



▪ DeepinView^{series}

- High quality imaging with 4 MP resolution
- Excellent low-light performance via DarkFighter technology
- Clear imaging against strong back light due to 140 dB WDR technology
- License Plate Recognition
- Efficient H.265+ compression technology to save bandwidth and storage
- Advanced streaming technology that enables smooth live view and data self-correcting in poor network
- 5 streams and up to 5 custom streams to meet a wide variety of applications
- Water and dust resistant (IP67) and vandal proof (IK10)



▪ Function

Road Traffic and Vehicle Detection

With embedded deep learning based license plate capture and recognition algorithms, the camera alone can achieve plate capture and recognition. The algorithm enjoys the high recognition accuracy of common plates and complex-structured plates, which is a great step forward comparing to traditional algorithms. Blocklist and allowlist are available for plate categorization and separate alarm triggering.

Smooth Streaming

Smooth streaming offers solutions to improve the video quality in different network conditions. For example, in poor network conditions, adapting to the detected real-time network condition, streaming bit rate and resolution are automatically adjusted to avoid mosaic and lower latency in live view; in multiplayer network conditions, the camera transmits the redundant data for the self-error correcting in back-end device, so that to solve the mosaic problem because of the packet loss and error rate.

▪ Specification

Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Min. Illumination	Color: 0.001 Lux @ (F1.2, AGC ON); B/W: 0.0003 Lux @ (F1.2, AGC ON)
Max. Resolution	2680 × 1520
Shutter Speed	1 s to 1/100,000 s
Day & Night	IR cut filter Blue glass module to reduce ghost phenomenon.
Power-off Memory	Yes
Lens	
Iris Type	P-iris
Focus	Auto, semi-auto, manual
Focal Length & FOV	2.8 to 12 mm, horizontal FOV: 114.5° to 41.8°, vertical FOV: 59.3° to 23.6°, diagonal FOV: 141.1° to 48° 8 to 32 mm, horizontal FOV: 42.5° to 15.1°, vertical FOV: 23.3° to 8.64°, diagonal FOV: 49.6° to 17.3°
Aperture	2.8 to 12 mm: F1.2 to 2.5 8 to 32 mm: F1.7 to F1.73
Lens Mount	Integrated
Illuminator	
IR Range	2.8 to 12 mm: 50 m 8 to 32 mm: 100 m
IR Wavelength	850 nm
Smart Supplement Light	Yes
Video	
Main Stream	50 Hz: 25 fps (2680 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (2680 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720)
Sub-Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Third Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Fourth Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Fifth Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Custom Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Video Compression	Main stream: H.265+/H.265/H.264+/ H.264 Sub-stream/Third stream/Fourth stream/Fifth stream/custom stream: H.265/H.264/MJPEG
Video Bit Rate	32 Kbps to 16 Mbps
H.264 Type	Baseline Profile/Main Profile/High Profile
H.265 Type	Main Profile
Bit Rate Control	CBR/VBR

Stream Type	Main stream/sub-stream/third stream/fourth stream/fifth stream/custom stream
Scalable Video Coding (SVC)	H.265 and H.264 support
Region of Interest (ROI)	4 fixed regions for each stream
Audio	
Environment Noise Filtering	Yes
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
Audio Compression	G.711/G.722.1/G.726/MP2L2/PCM/MP3
Audio Bit Rate	64 Kbps (G.711)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps (MP2L2)/32 Kbps (PCM)/8 to 320 Kbps (MP3)
Audio Type	Mono sound
Network	
Simultaneous Live View	Up to 20 channels
API	Open Network Video Interface (PROFILE S, PROFILE G, PROFILE T), ISAPI, SDK, ISUP
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, SFTP, SRTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour, SSL/TLS
Smooth Streaming	Yes
User/Host	Up to 32 users. 3 user levels: administrator, operator and user
Security	Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for Open Network Video Interface, RTP/RTSP OVER HTTPS, Control Timeout Settings, Security Audit Log, TLS 1.2
Network Storage	NAS (NFS, SMB/CIFS), auto network replenishment (ANR) Together with high-end Hikvision memory card, memory card encryption and health detection are supported.
Client	iVMS-4200, Hik-Connect, Hik-Central
Web Browser	Plug-in required live view: IE8+ Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Safari 11+ Local service: Chrome 41.0+, Firefox 30.0+
Image	
Wide Dynamic Range (WDR)	140 dB
Day/Night Switch	Day, Night, Auto, Schedule, Alarm Trigger, Video Trigger
Target Cropping	Yes
Distortion Correction	Yes
Picture Overlay	LOGO picture can be overlaid on video with 128 × 128 24bit bmp format
Image Enhancement	BLC, HLC, 3D DNR, Defog, EIS, Distortion Correction
Image Parameters Switch	Yes
Image Settings	Saturation, brightness, contrast, sharpness, gain, white balance adjustable by client software or web browser
SNR	≥ 52 dB
Interface	
Alarm	2 input, 2 outputs (max. 24 VDC, 1 A)

Audio	With -Y: 1 input (line in), 3.5 mm connector, max. input amplitude: 3.3 vpp, input impedance: 4.7 K Ω , interface type: non-equilibrium; 1 output (line out), 3.5 mm connector, max. output amplitude: 3.3 vpp, output impedance: 100 Ω , interface type: non-equilibrium, mono sound
RS-485	With -Y: 1 RS-485(half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)
Video Output	1 Vp-p Composite Output (75 Ω /CVBS)(Only for debugging)
On-Board Storage	Built-in memory card slot, support microSD/SDHC/SDXC slot, up to 256 GB
Hardware Reset	Yes
Ethernet Interface	1 RJ45 10 M/100 M/1000 M self-adaptive Ethernet port
Power Output	With -Y: 12 VDC, max. 100 mA (supported by all power supply types)
Heater	Yes
Wiegand	With -Y: 1 wiegand (CardID 26bit, SHA-1 26bit, Hik 34bit)
Event	
Basic Event	Motion detection, video tampering alarm, vibration detection, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error)
Smart Event	Line crossing detection, up to 4 lines configurable Intrusion detection, up to 4 regions configurable Region entrance detection, up to 4 regions configurable Region exiting detection, up to 4 regions configurable Unattended baggage detection, up to 4 regions configurable Object removal detection, up to 4 regions configurable Scene change detection, audio exception detection, defocus detection
Counting	Yes
Deep Learning Function	
Perimeter Protection	Line crossing, intrusion, region entrance, region exiting Support alarm triggering by specified target types (human and vehicle) Filtering out mistaken alarm caused by target types such as leaf, light, animal, and flag, etc.
Road Traffic and Vehicle Detection	Blocklist and allowlist: up to 10000 records Captures vehicle that has no license plate Support license plate recognition of motorcycles (only in checkpoint scenario) Support vehicle attribute detection, including vehicle type, color, brand, etc. (City Street mode is recommended.)
General	
Power	12 VDC \pm 20%, three-core terminal block, reverse polarity protection, 1.33 A, max. 16.0 W PoE: 802.3at, 42.5 V to 57 V, Type 2 Class 4, 0.43 A to 0.31 A, max. 18.0 W
Linkage Method	Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture Trigger recording: memory card, network storage, pre-record and post-record Trigger captured pictures uploading: FTP, SFTP, HTTP, NAS, Email Trigger notification: HTTP, ISAPI, alarm output, Email

Language	33 languages: English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil), Ukrainian
Online Upgrade	Yes
Dual Backup	Yes
General Function	Anti-flicker, 5 streams and up to 5 custom streams, EPTZ, heartbeat, mirror, privacy masks, flash log, password reset via e-mail, pixel counter
Software Reset	Yes
Storage Conditions	-40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing)
Startup and Operating Conditions	-40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing)
Camera Dimension	Without -Y: Ø144 × 347 mm (Ø5.7" × 13.7") With -Y: Ø140 × 351 mm (Ø5.5" × 13.8")
Package Dimension	405 × 190 × 180 mm (15.9" × 7.5" × 7.1")
Camera Weight	Approx. 1920 g (4.2 lb.)
With Package Weight	Approx. 3060 g (6.7 lb.)
Metadata	
Metadata	Metadata of intrusion detection, line crossing detection, region entrance detection, region exiting detection, unattended baggage detection, object removal are supported.
Approval	
Class	Class B
EMC	FCC (47 CFR Part 15, Subpart B); CE-EMC (EN 55032: 2015, EN 61000-3-2:2019, EEN 61000-3-3:2013+A1:2019, EN 50130-4: 2011 +A1: 2014); RCM (AS/NZS CISPR 32: 2015); IC (ICES-003: Issue 7); KC (KN 32: 2015, KN 35: 2015)
Safety	UL (UL 62368-1); CB (IEC 62368-1:2014+A11); CE-LVD (EN 62368-1:2014/A11:2017); BIS (IS 13252(Part 1):2010/ IEC 60950-1 : 2005); LOA (IEC/EN 60950-1)
Environment	CE-RoHS (2011/65/EU); WEEE (2012/19/EU); Reach (Regulation (EC) No 1907/2006)
Protection	IK10 (IEC 62262:2002), IP67 (IEC 60529-2013)
Anti-Corrosion Protection	With -Y: NEMA 4X(NEMA 250-2018)
Other	With -Y: PVC FREE

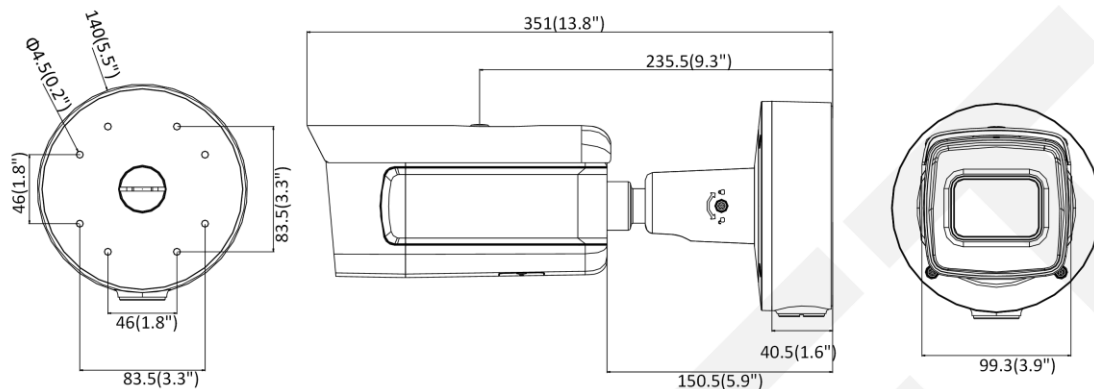
▪ Available Model

iDS-2CD7A46G0/P-IZHSY (2.8 to 12 mm, 8 to 32 mm)

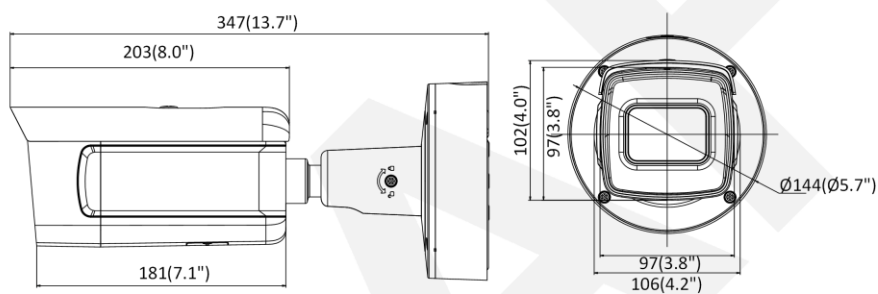
iDS-2CD7A46G0/P-IZHS (2.8 to 12 mm, 8 to 32 mm)

Dimension

-Y model:







Without -Y model:



Unit: mm(inch)

Accessory

Optional

DS-1476ZJ-SUS Corner Mount	DS-1476ZJ-Y Corner Mount	DS-1475ZJ-Y Vertical Pole Mount	DS-1475ZJ-SUS Vertical Pole Mount
			

Distributed by

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LM28-S400

28" UHD LED Monitor



Features :

- Industrial level LCD panel, suitable for continuous 24/7 operation
- 4K Ultra-HD resolution
- Using tamper-proof metal housing
- Built-in 3D COMB filter and 3D noise reduction
- 5ms response time for no motion blur, judder or ghosting
- 1.07G colors, for a realistic and immersive visual experience
- High fidelity digital processing for a brilliant and vivid video
- Professional thermal design to extend equipment lifespan
- Built-in power, low energy consumption
- Support multiple signals, such as HDMI, DP, VGA, USB multimedia, Audio, RS232



Technical Specification

Model

Model	LM28-S400
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Display

Screen Size	28"
Aspect Ratio	16:9
Resolution	3840×2160 (UHD)
Backlight	LED
Brightness/Luminance	300cd/㎡
Contrast Ratio	1000:1
Display Color	1.07G(10bit)
Viewing Angle(H/V)	170°(H)/160°(V)
Response time	5ms
Refresh Rate	60Hz

Signals

Input	VGA(D-Sub)×1, BNC×1, DP 1.2a×1, HDMI 2.0×2, USB multimedia×1, Audio×1	
Output	BNC×1	
	Speaker	5W×2

General

Power Supply	AC110~240V , 50/60 Hz
--------------	-----------------------

Consumption (Standard)	40W	
Consumption (Standby)	≤1W	
Type	Internal	
Net Weight	6.65kg (14.7lb)	
Gross Weight	8kg (17.6lb)	
Bezel Width	19.1mm(U), 19.0mm(R/L), 27.2mm(B)	
VESA	100×100mm (3.9"×3.9")	
Dimension without base (W×H×D)	662×390.5×50mm (26.1"×15.4"×2.0")	
Package(W×H×D)	755×490×129mm (29.7"×19.3"×5.1")	
Work Environment	Temperature	0°C~40°C (32°F~104°F)
	Humidity	10%~85%

Accessory

Standard	HDMI cable, power cable, hanging bracket, remote control
Optional	Pedestal

Certifications

Certifications	CE/FCC
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Technical drawing of the LG 55LA6200 television, showing front, top, and bottom views with dimensions in mm.

Front View Dimensions:

- Overall width: 662.0
- Overall height: 399.5
- Screen width: 620.9
- Screen height: 354.3
- Top bezel height: 19.0
- Bottom bezel height: 19.1
- Left bezel width: 19.0
- Right bezel width: 19.1
- Stand height (from screen bottom): 127.2

Top View Dimensions:

- Overall width: 662.0
- Overall height: 399.5
- Screen width: 620.9
- Screen height: 354.3
- Top bezel height: 19.0
- Bottom bezel height: 19.1
- Left bezel width: 19.0
- Right bezel width: 19.1
- Stand height (from screen bottom): 127.2

Bottom View Dimensions:

- Overall width: 662.0
- Overall height: 399.5
- Screen width: 620.9
- Screen height: 354.3
- Top bezel height: 19.0
- Bottom bezel height: 19.1
- Left bezel width: 19.0
- Right bezel width: 19.1
- Stand height (from screen bottom): 127.2

DHI-LM55-S400

55" UHD Monitor



Features :

- 4K Ultra-HD resolution
- Using tamper-proof metal housing
- Slim 8mm narrow bezel design
- Built-in 3D COMB filter and 3D Noise Reduction
- 6ms response time for no motion blur, judder or ghosting
- 1.07B colors, for a realistic and immersive visual experience
- High fidelity digital processing for a brilliant and vivid video
- 178°/178° wide uninterrupted viewing angle
- Professional thermal design to extend equipment lifespan
- Built-in power, low energy consumption, ultra-quiet
- Support multiple signals, such as HDMI, DP, VGA, USB multimedia, Audio, RS232



Technical Specification

Model

Model	DHI-LM55-S400
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Display

Screen Size	55"
Aspect Ratio	16:9
Resolution	3840×2160 (UHD)
Backlight	LED
Brightness/Luminance	450cd/m ²
Contrast	5500:1
Display Color	1.07B(10bit)
Viewing Angle(H/V)	178°(H)/178°(V)
Response time	6ms
Refresh Rate	60Hz

Signals

Input	DP 1.2a×1, HDMI 2.0×2, VGA(D-Sub)×1, USB multimedia×1, Audio×1, RJ45(RS232)×1	
Output	RJ45(RS232)×1	
	Speaker	5W×2

General

Power Supply	AC100~240V (+/-10%), 50/60 Hz
--------------	-------------------------------

Consumption (Standard)	<170W	
Consumption (Standby)	≤0.5W	
Type	Internal	
Net Weight	25.2kg (55.6lb)	
Gross Weight	35kg (77.2lb)	
Bezel Width	8mm (U/L/R/B)	
Wall Mount	400×400mm (15.7"×15.7")	
Dimension without standard (W×H×D)	1227.2×699.6×65.0mm (48.3"×27.5"×2.6")	
Package(W×H×D)	1410×875×255mm (55.5"×34.4"×10.0")	
Work Environment	Temperature	0°C~40°C (32°F~104°F)
	Humidity	10%~85%

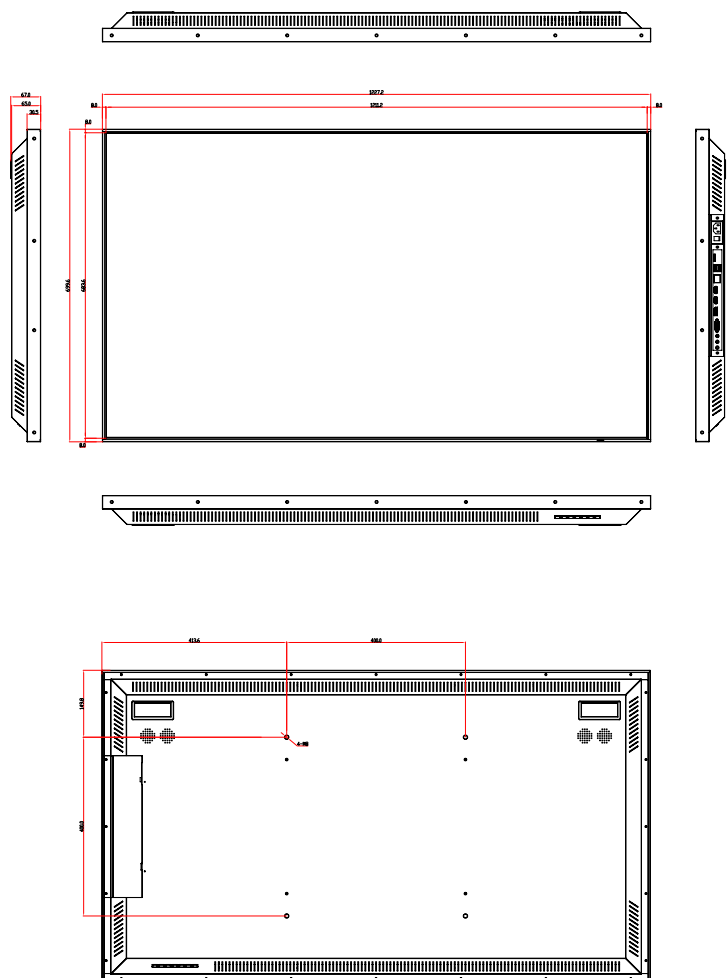
Accessory

Standard	HDMI cable, power cable, hanging bracket, remote control
Optional	Pedestal

Certifications

Certifications	CE/FCC
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Dimensions(mm)



DHI-LM65-S400

65" UHD Monitor



Features :

- Industrial level LCD panel, suitable for continuous 24/7 operation
- 4K Ultra-HD resolution
- Using tamper-proof metal housing
- 8ms response time for no motion blur, judder or ghosting
- 1.07B colors, for a realistic and immersive visual experience
- High fidelity digital processing for a brilliant and vivid video
- 178°/178° extra-wide viewing angle for overall viewing performance
- Professional thermal design to extend equipment lifespan
- Built-in power, low energy consumption
- Support multiple signals, such as VGA, HDMI, Audio ,USB multimedia, RS-232, OPS

Technical Specification

Model

Model	DHI-LM65-S400
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Display

Screen Size	64.5"
Aspect Ratio	16:9
Resolution	3840×2160 (UHD)
Backlight	LED
Brightness/Luminance	400cd/㎡
Contrast Ratio	1200:1
Display Color	1.07B(10bit)
Viewing Angle(H/V)	178°(H)/178°(V)
Response time	8ms
Refresh Rate	60Hz

Signals

Input	VGA(D-Sub)×1, HDMI×1, USB multimedia×1, Audio in×1, RS-232×1, OPS×1	
Output	RS-232×1, Audio out×1	
	Speaker	8W×2

General

Power Supply	AC100~240V(±10%), 50/60 Hz, 3.5A
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Consumption (Standard)	170W	
Consumption (Standby)	≤0.5W	
Type	Internal	
Net Weight	28.5kg (62.8lb)	
Gross Weight	40kg (88.2lb)	
Bezel Width	23.1mm (U/L/R/B)	
VESA	600×400mm (23.6"×15.7")	
Dimension without base (W×H×D)	1476.7×851.7×79.8mm (58.1"×33.5"×3.1")	
Package(W×H×D)	1660mm×1045mm×245mm (65.4"×41.1"×9.6")	
Work Environment	Temperature	0℃~40℃ (32°F~104°F)
	Humidity	20%~85%

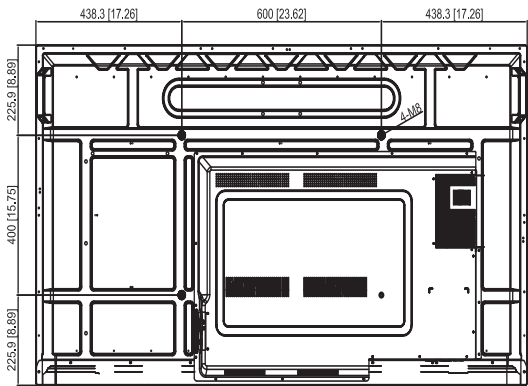
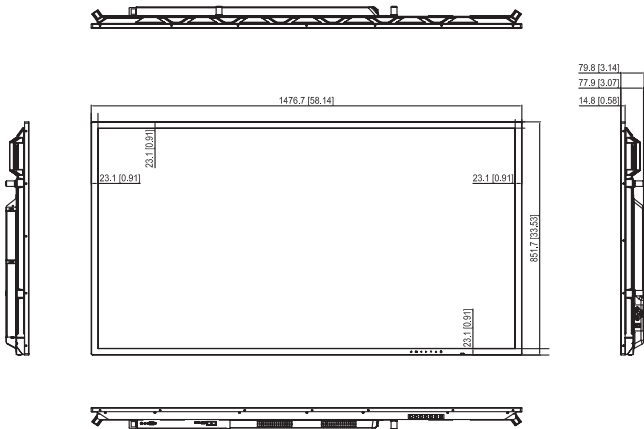
Accessory

Standard	HDMI cable, Power cable, Remote control, Hanging bracket
Optional	Pedestal

Certifications

Certifications	CE/FCC
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Dimensions(mm)



DH-SD5A432XA-HNR

4MP 32x Starlight IR WizSense Network PTZ Camera



WizSense

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

System Overview

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, this camera provides an all-in-one solution for capturing long distance video surveillance for outdoor applications. Together with infrared illumination and Starlight Technology, the camera is the perfect solution for dark, lowlight applications. The series combines a day/night mechanical IR cut filter for the highest image quality in variable lighting conditions during the day, and True WDR for applications with direct sunlight or glare.

Functions

Perimeter Protection

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets to improve alarm accuracy.

Starlight+ Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

PFA Technology

PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

- 1/2.8" 4Megapixel STARVIS™ CMOS
- Powerful 32x optical zoom
- Max. 25/30fps@4M
- IR distance up to 150 m
- Deep-learning-based auto tracking and perimeter protection
- SMD PLUS
- PoE+
- IP67, IK10
- Face Detection



SMD PLUS

With Deep-Learning Algorithm, Dahua SMD PLUS filters the motion detection alarm triggered by non-concerned target and recognizes human and vehicle effectively, sending alarms when human and vehicles intrude.

Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Auto-tracking

This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

Technical Specification

Camera

Image Sensor	1/2.8" STARVIS™ CMOS
Pixel	4MP
Max. Resolution	2560 (H) × 1440 (V)
ROM	4 GB
RAM	1 GB
Electronic Shutter Speed	1/1 s–1/30000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005 Lux@F1.35 B/W: 0.0005 Lux@F1.35 0 Lux (IR on)
Illumination Distance	150 m (492.13 ft)
Illuminator On/Off Control	Zoom Prio/Manual/SmartIR
Illuminator Number	4

Lens

Focal Length	4.9 mm–156 mm			
Max. Aperture	F1.35–F4.4			
Field of View	H: 61.6°–2.1°; V: 35.1°–1.3°; D: 68.2°–2.5°			
Optical Zoom	32x			
Focus Control	Auto/Semi-Auto/Manual			
Close Focus Distance	1 m–1.5 m (3.28 ft–4.92 ft)			
Iris Control	Auto/Manual/Fixed			
DORI Distance	Detect	Observe	Recognize	Identify
	3120 m (10236.22 ft)	1232 m (4041.99 ft)	624 m (2047.24 ft)	312 m (1023.62 ft)

PTZ

Pan/Tilt Range	Pan: 0°–360° endless Tilt: –15° to +90°, auto flip 180
Manual Control Speed	Pan: 0.1°/s–300°/s Tilt: 0.1°/s–200°/s
Preset Speed	Pan: 400°/s Tilt: 300°/s
Presets	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Power-off Memory	Support
Idle Motion	Preset/Tour/Pattern/Scanning
Protocol	DH-SD Pelco-P/D (auto recognition)

Artificial Intelligence

Smart Capture	Support human, motor vehicle and non-motor vehicle image capture.
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Perimeter Protection	Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc.
Face Detection	Support
Auto Tracking	Support
SMD PLUS	Support

Video

Compression	H.265; H.264B; H.264M; H.264H; MJPEG (Sub Stream); H.265+; H.264+
Streaming Capability	3 streams
Resolution	4M (2560 × 1440); 3M (2048 × 1536); 1080P (1920 × 1080); 720P (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240)
Frame Rate	Main stream: 4M/3M/1080P/1.3M/720P (1–25/30 fps) Sub stream 1: D1/CIF (1–25/30 fps) Sub stream 2: 720P (1–25/30 fps)
Bit Rate Control	Variable/Constant
Bit Rate	H.264: 3 Kbps–20480 Kbps H.265: 3 Kbps–20480 Kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Support
WDR	120 dB
HLC	Support
White Balance	Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/ Natural light/Street lamp
Gain Control	Auto/Manual
Noise Reduction	2D/3D
Motion Detection	Support
Region of Interest (RoI)	Support
Image Stabilization	Electronic
Defog	Electronic
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas, and up to 8 areas in the same view
S/N Ratio	≥ 55 dB

Audio

Compression	G.711a; G.711Mu; G.726; AAC; MPEG2-Layer2; G722.1; G729; G723
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Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SNMPv1/v2c/v3 (MIB-2); DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; RTCP
Interoperability	ONVIF Profile S&G&T; CGI
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth 64M)
Storage	FTP; Micro SD card (256G); NAS

Browser	IE7 and later versions Chrome 42 and earlier versions Firefox 52 and earlier versions Safari
Management Software	Smart PSS; DSS; DMSS; Easy4ip; IVSS
Mobile Phone	IOS, Android

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014 UL: UL60950-1+CAN/CSA C22.2.No.60950-1
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Port

Audio Input	1
Audio Output	1 (LINE OUT; bare wire)
Two-way Audio	Support
Alarm I/O	2/1

Power

Power Supply	AC 24V/3A ± 25% (standard) PoE+ (802.3at)
Power Consumption	Basic: 12W Max: 20W

Environment

Operating Temperature	−40°C to +70°C (−40°F to +158°F)
Operating Humidity	≤ 95%
Protection	IP67; IK10; 6000V lightning proof; surge protection; voltage transient protection

Structure

Dimensions	Φ190 mm × 332 mm (Φ7.48" × 13.07")
Net Weight	4.7 kg (10.36 lb)
Gross Weight	8 kg (17.64 lb)

Ordering Information

Type	Model	Description
4MP WizSense PTZ Camera	DH-SD5A432XA-HNR	4MP 32x Starlight IR WizSense Network PTZ Camera
	DH-SD5A432XAN-HNR	4MP 32x Starlight IR WizSense Network PTZ Camera
	SD5A432XA-HNR	4MP 32x Starlight IR WizSense Network PTZ Camera
	SD5A432XAN-HNR	4MP 32x Starlight IR WizSense Network PTZ Camera
Accessories	PFB305W	Wall Mount Bracket
	AC24V/3A	Power Adapter
	PFA111	Mount Adapter
	PFA140	Power Box
	PFB300C	Ceiling Mount Bracket
	PFA120	Junction Box
	PFA150	Pole Mount Bracket
	PFA151	Corner Mount Bracket
	PFB303S	Parapet Mount Bracket

Accessories

Included:



PFB305W
Wall Mount Bracket



AC24V/3A
Power Adapter

Optional:



PFA111
Mount Adapter



PFA140
Power Box



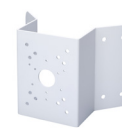
PFB300C
Ceiling Mount Bracket



PFA120
Junction Box



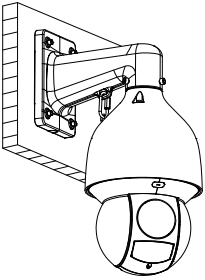
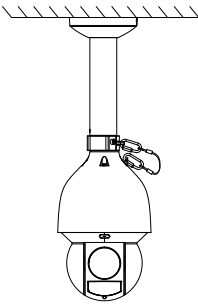
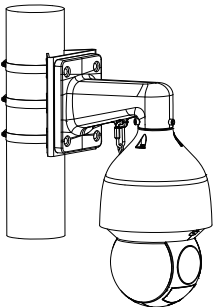
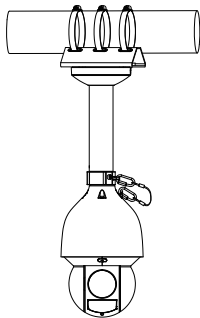
PFA150
Pole Mount Bracket



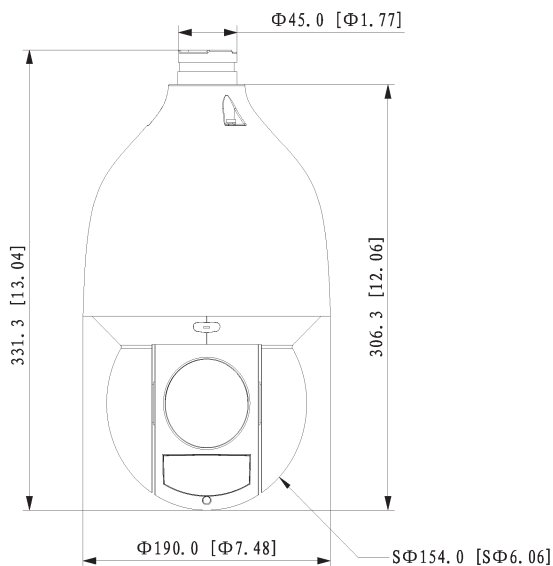
PFA151
Corner Mount Bracket



PFB303S
Parapet Mount Bracket

Wall Mount	Ceiling Mount
PFB305W	PFA111+PFB300C
	
Pole Mount(Vertical)	Pole Mount(Horizontal)
PFA150+PFB305W	PFA150+PFA111+PFB300C
	

Dimensions (mm[inch])



DH-SD5A232XA-HNR

2MP 32x Starlight IR WizSense Network PTZ Camera



WizSense

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

System Overview

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, this camera provides an all-in-one solution for capturing long distance video surveillance for outdoor applications. Together with infrared illumination and Starlight Technology, the camera is the perfect solution for dark, lowlight applications. The series combines a day/night mechanical IR cut filter for the highest image quality in variable lighting conditions during the day, and True WDR for applications with direct sunlight or glare.

Functions

Perimeter Protection

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets to improve alarm accuracy.

Starlight+ Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

PFA Technology

PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

- 1/2.8" 2Megapixel STARVIS™ CMOS
- Powerful 32x optical zoom
- Max. 50/60 fps@1080P
- IR distance up to 150 m
- Deep-learning-based auto tracking and perimeter protection
- SMD PLUS
- PoE+
- IP67, IK10
- Face Detection



SMD PLUS

With Deep-Learning Algorithm, Dahua SMD PLUS filters the motion detection alarm triggered by non-concerned target and recognizes human and vehicle effectively, sending alarms when human and vehicles intrude.

Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Auto-tracking

This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

Technical Specification

Camera

Image Sensor	1/2.8" STARVIS™ CMOS
Pixel	2MP
Max. Resolution	1920 (H) x 1080 (V)
ROM	4 GB
RAM	1 GB
Electronic Shutter Speed	1/1 s–1/30000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005 Lux@F1.35 B/W: 0.0005 Lux@F1.35 0 Lux (IR on)
Illumination Distance	150 m (492.13 ft)
Illuminator On/Off Control	Zoom Prio/Manual/SmartIR
Illuminator Number	4

Lens

Focal Length	4.9 mm–156 mm			
Max. Aperture	F1.35–F4.4			
Field of View	H: 62.8°–2.2°; V: 36.7°–1.3°; D: 69.2°–2.6°			
Optical Zoom	32x			
Focus Control	Auto/Semi-Auto/Manual			
Close Focus Distance	1 m–1.5 m (3.28 ft–4.92 ft)			
Iris Control	Auto/Manual/Fixed			
DORI Distance	Detect	Observe	Recognize	Identify
	2152 m (7060.37 ft)	850 m (2788.71 ft)	430 m (1410.76 ft)	215 m (705.38 ft)

PTZ

Pan/Tilt Range	Pan: 0°–360° endless Tilt: –15° to +90°, auto flip 180
Manual Control Speed	Pan: 0.1°/s–300°/s Tilt: 0.1°/s–200°/s
Preset Speed	Pan: 400°/s Tilt: 300°/s
Presets	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Power-off Memory	Support
Idle Motion	Preset/Tour/Pattern/Scanning
Protocol	DH-SD Pelco-P/D (auto recognition)

Artificial Intelligence

Smart Capture	Support human, motor vehicle and non-motor vehicle image capture.
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Perimeter Protection	Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc.
Face Detection	Support
Auto Tracking	Support
SMD PLUS	Support

Video

Compression	H.265; H.264B; H.264M; H.264H; MJPEG (Sub Stream); H.265+; H.264+
Streaming Capability	3 streams
Resolution	1080P (1920 × 1080); 1.3M (1280 × 960); 720P (1280 × 720); D1 (704 × 576); CIF (352 × 288)
Frame Rate	Main stream: 1080P/1.3M/720P (1–50/60 fps) Sub stream 1: D1/CIF (1–25/30 fps) Sub stream 2: 720P (1–25/30 fps)
Bit Rate Control	Variable/Constant
Bit Rate	H.264: 3 Kbps–20480 Kbps H.265: 3 Kbps–20480 Kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Support
WDR	120 dB
HLC	Support
White Balance	Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/ Natural light/Street lamp
Gain Control	Auto/Manual
Noise Reduction	2D/3D
Motion Detection	Support
Region of Interest (RoI)	Support
Image Stabilization	Electronic
Defog	Electronic
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas, and up to 8 areas in the same view
S/N Ratio	≥ 55 dB

Audio

Compression	G.711a; G.711Mu; G.726; AAC; MPEG2-Layer2; G722.1; G729; G723
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Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SNMPv1/v2c/v3 (MIB-2); DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; RTCP
Interoperability	ONVIF Profile S&G&T; CGI
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth 64M)
Storage	FTP; Micro SD card (256G); NAS

Browser	IE7 and later versions Chrome 42 and earlier versions Firefox 52 and earlier versions Safari
Management Software	Smart PSS; DSS; DMSS; Easy4ip; IVSS
Mobile Phone	IOS, Android

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014 UL: UL60950-1+CAN/CSA C22.2.No.60950-1
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Port

Alarm I/O	2/1
Two-way Audio	Support
Alarm I/O	2/1

Power

Power Supply	AC 24V/3A ± 25% (standard) PoE+ (802.3at)
Power Consumption	Basic: 12W Max: 20W

Environment

Operating Temperature	-40°C to +70°C (-40°F to +158°F)
Operating Humidity	≤ 95%
Protection	IP67; IK10; 6000V lightning proof; surge protection; voltage transient protection

Structure

Dimensions	Φ190 mm × 332 mm (Φ7.48" × 13.07")
Net Weight	4.7 kg (10.36 lb)
Gross Weight	8 kg (17.64 lb)

Ordering Information

Type	Model	Description
2MP WizSense PTZ Camera	DH-SD5A232XA-HNR	2MP 32x Starlight IR WizSense Network PTZ Camera
	DH-SD5A232XAN-HNR	2MP 32x Starlight IR WizSense Network PTZ Camera
	SD5A232XA-HNR	2MP 32x Starlight IR WizSense Network PTZ Camera
	SD5A232XAN-HNR	2MP 32x Starlight IR WizSense Network PTZ Camera
Accessories	PFB305W	Wall Mount Bracket
	AC24V/3A	Power Adapter
	PFA111	Mount Adapter
	PFA140	Power Box
	PFB300C	Ceiling Mount Bracket
	PFA120	Junction Box
	PFA150	Pole Mount Bracket
	PFA151	Corner Mount Bracket
	PFB303S	Parapet Mount Bracket

Accessories

Included:



PFB305W
Wall Mount Bracket



AC24V/3A
Power Adapter

Optional:



PFA111
Mount Adapter



PFA140
Power Box



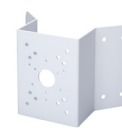
PFB300C
Ceiling Mount Bracket



PFA120
Junction Box



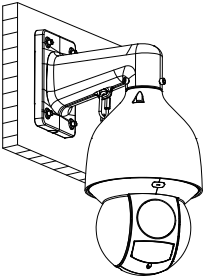
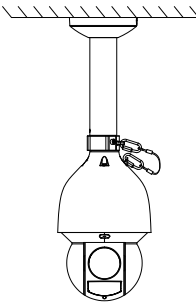
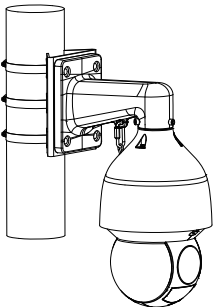
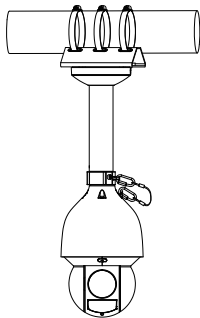
PFA150
Pole Mount Bracket



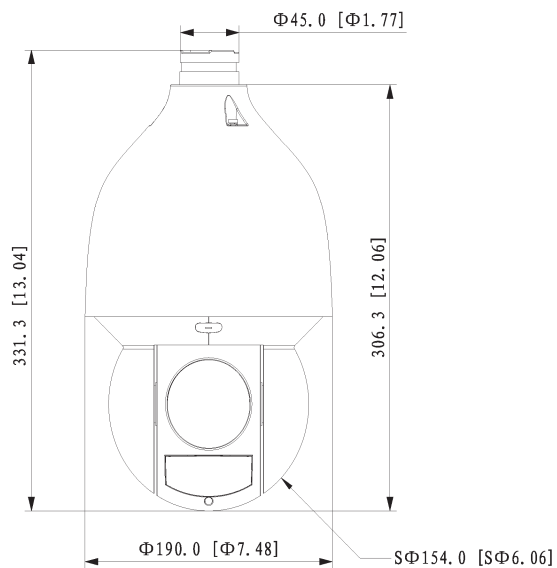
PFA151
Corner Mount Bracket



PFB303S
Parapet Mount Bracket

Wall Mount	Ceiling Mount
PFB305W	PFA111+PFB300C
	
Pole Mount(Vertical)	Pole Mount(Horizontal)
PFA150+PFB305W	PFA150+PFA111+PFB300C
	

Dimensions (mm[inch])



DH-SD49225XA-HNR

2MP 25x Starlight IR WizSense Network PTZ Camera



WizSense

- 1/2.8" 2Megapixel CMOS
- Powerful 25x optical zoom
- Starlight technology
- Max. 50/60fps@1080P
- Perimeter protection
- Support PoE+
- IR distance up to 100m
- SMD PLUS
- IP66



Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

System Overview

Dahua PTZ WizSense network camera adopts advanced CNN deep learning algorithms to support Perimeter Protection with high accuracy. This camera possesses wide monitor range, PFA algorithm that can always present a clear, focused image while zooming. The camera has very excellent low light performance due to adopting the latest starlight technology. The camera is equipped with smooth control, high quality image and good protection, which make it can meet most of the requirements of video surveillance applications.

Functions

Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Perimeter Protection

Automatically filtering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improving alarm accuracy.

Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from -40 °C to +70 °C (-40 °F to +158 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection rating makes it suitable for demanding outdoor applications.

Protection

The camera allows for 6KV lightning rating, which provides effective protection for both the camera and its structure against lightning.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

PFA Technology

PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

SMD PLUS

With Deep-Learning Algorithm, Dahua SMD PLUS filters the motion detection alarm triggered by non-concerned target and recognizes human and vehicle effectively, sending alarms when human and vehicle intrude.

Technical Specification

Camera

Image Sensor	1/2.8" STARVIS™ CMOS
Pixel	2MP
Max. Resolution	1920 (H) × 1080 (V)
ROM	4GB
RAM	1GB
Electronic Shutter Speed	1/1 s–1/30,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005Lux@F1.6 B/W: 0.0005Lux@F1.6 0Lux@F1.6 (IR light on)
Illumination Distance	100 m (328.08 ft)
Illuminator On/Off Control	Zoom Prio/Manual/SmartIR
Illuminator Number	6

Lens

Focal Length	4.8 mm–120 mm			
Max. Aperture	F1.6–F4.4			
Field of View	H: 62.8°–2.6°; V: 33.2°–1.7°; D: 67.3°–3.9°			
Optical Zoom	25x			
Focus Control	Auto/Semi-Auto/Manual			
Close Focus Distance	0.1 m–1.5 m (0.33 ft–4.92 ft)			
Iris Control	Auto/Manual			
DORI Distance	Detect	Observe	Recognize	Identify
	1613 m (5291.99 ft)	646 m (2119.42 ft)	323 m (1059.71 ft)	161 m (528.22 ft)

PTZ

Pan/Tilt Range	Pan: 0°–360° (endless) Tilt: -15°–90° (auto flip 180°)
Manual Control Speed	Pan: 0.1°–200°/s Tilt: 0.1°–120°/s
Preset Speed	Pan: 240°/s Tilt: 200°/s
Presets	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Speed Adjustment	Support
Power-off Memory	Support
Idle Motion	Preset/Tour/Pattern/Scanning
Protocol	DH-SD Pelco-P/D (auto recognition)

General Intelligence

Event Trigger	Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly
IVS	Object Abandoned/Missing

Artificial Intelligence

Perimeter Protection	Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc.
SMD PLUS	Support
Face Detection	Support
Smart Capture	Support human, motor vehicle and non-motor vehicle image capture.

Video

Compression	H.265+/H.265/H.264+/H.264/MJPEG (sub stream)
Streaming Capability	3 streams
Resolution	1080P (1920 × 1080); 1.3 M (1280 × 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240)
Frame Rate	Main stream: 1080P/1.3 M/720P (1–50/60fps) Sub stream 1: D1/CIF (1–25/30fps) Sub stream 2: 1080P/1.3M/720P/D1/CIF (1–25/30fps)
Bit Rate Control	Variable/Constant
Bit Rate	H.265/H.264: 3 kbps–20480 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Support
WDR	120 dB
HLC	Support
White Balance	Auto/Indoor/Outdoor/Track/Manual/Sodium lamp/ Natural light/Street lamp
Gain Control	Auto/Manual
Noise Reduction	Ultra DNR (2D/3D)
Motion Detection	Support
Region of Interest (RoI)	Support
Image Stabilization	Electronic
Defog	Electronic
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas, and up to 8 areas in the same view

Audio

Compression	G.711a; G.711Mu; AAC; G.722.1; G.726; MPEG2-Layer2; G.729
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Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; SSL; TCP/IP; UDP; UPnP; ICMP; IGMP; SNMPv1/v2c/v3(MIB-2); ARP; RTCP; RTSP; RTP; SMTP; NTP; DHCP; DNS; PPPOE; DDNS; FTP; IP Filter; QoS; Bonjour; 802.1x

Interoperability	ONVIF Profile S&G&T; CGI
Streaming Method	Unicast/Multicast
User/Host	19
Storage	NAS; Local PC; Micro SD card (256G)
Browser	IE7 and newer versions Chrome 45 and newer versions Firefox 52 and earlier versions Safari (no version restrictions)
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	IOS/Android

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014 UL: UL62368-1+CAN/CSA C22.2, No. 62368-1
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Port

Audio Input	1
Audio Output	1
Alarm I/O	2/1

Power

Power Supply	DC 12V/3A PoE+ (802.3at)
Power Consumption	13W 22W (IR on)

Environment

Operating Temperature	-40°C to +70°C (-40°F to +158°F)
Operating Humidity	≤95%
Protection	IP66; TVS 6000V lightning proof; Surge protection

Structure

Dimensions	Φ160 mm × 295 mm (6.30" × 11.61")
Net Weight	3 kg (6.61 lb)
Gross Weight	4.8kg (10.58lb)

Ordering Information

Type	Model	Description
2M WizSense PTZ Camera	DH-SD49225XA-HNR	2MP 25x Starlight IR WizSense Network PTZ Camera, WDR, PAL
	DH-SD49225XAN-HNR	2MP 25x Starlight IR WizSense Network PTZ Camera, WDR, NTSC
	SD49225XA-HNR	2MP 25x Starlight IR WizSense Network PTZ Camera, WDR, PAL
	SD49225XAN-HNR	2MP 25x Starlight IR WizSense Network PTZ Camera, WDR, NTSC

Accessories	PFB305W	Wall Mount Bracket
	PFA111	Mount Adapter
	DC12V/3A	Power Adapter
	PFA140	Power Box
	PFB300C	Ceiling Mount Bracket
	PFA120	Water-proof Junction Box
	PFA150	Pole Mount Bracket
	PFA151	Corner Mount Bracket
	PFB303S	Parapet Mount Bracket

Accessories

Included:



PFB305W
Wall Mount Bracket

Optional:



PFA111
Mount Adapter



DC12V/3A
Power Adapter



PFA140
Power Box



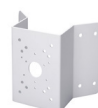
PFB300C
Ceiling Mount Bracket



PFA120
Water-proof Junction Box



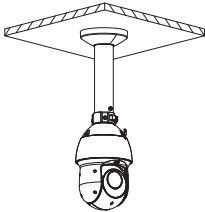
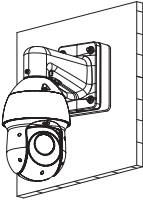
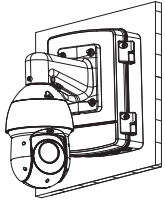
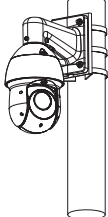
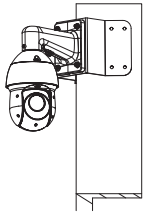
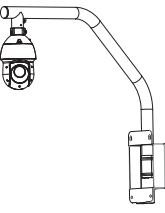
PFA150
Pole Mount Bracket



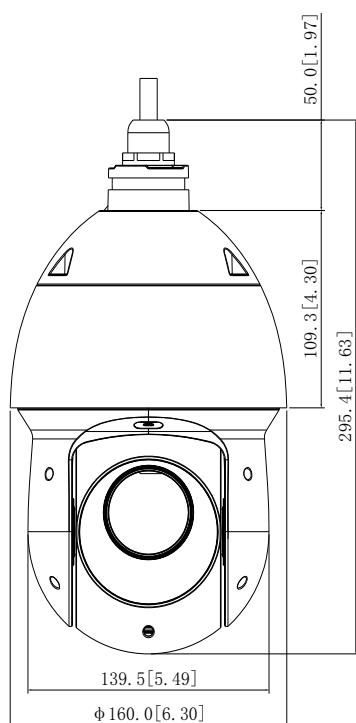
PFA151
Corner Mount Bracket



PFB303S
Parapet Mount Bracket

Ceiling Mount	Junction Mount	Power Box Mount
PFA111+PFB300C	PFB305W + PFA120	PFB305W + PFA140
		
Pole Mount	Corner Mount	Parapet Mount
PFB305W+PFA150	PFB305W+PFA151	PFA111+PFB303S
		

Dimensions (mm[inch])



NVH-GBLAN

A PCI Express Ethernet adapter perfect for expanding your Ethernet port(s).

DESCRIPTION

The NVH-GBLAN uses auto-negotiation to ensure the adapter runs at the highest available network speed, and it maintains full bandwidth capacity with the dedicated bandwidth of a PCI Express input/output (I/O) bus to provide connectivity you can count on. The NVH-GBLAN allows you to take advantage of the dedicated I/O by combining Gigabit Ethernet with PCI Express to provide high performance network connectivity for desktops with PCI Express slots.

The NVH-GBLAN offers optimal performance in a low cost, low power, compact profile.

FEATURES

Optimized queues: 2 transmit (Tx) + 2 receive (Rx)

10/100/1000 Mbps auto-negotiation

PCI Express x1 slot compatible

Compatible with fast ethernet and ethernet

Interrupt moderation



Technical features

Connectors	RJ45 (1x)
Data rate supported by port	10, 100 and 1000 Mbps
Bus type	PCI Express 1.1 (2.5 GT/s)
Bus width	x1 lance PCI Express operable in x1, x4, x8, x16 slots
Bus speed	2.5 Gbps uni-directional 5 Gbps bi-directional
Interrupt levels	INTA, MSI, MSI-X
IEEE Support	802.3

Power

Power consumption	1.9w
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Operating Conditions

Operating temperature	0 °C to 55 °C
Storage temperature	-40 °C to 70 °C
Humidity	90% (no condensation at 35°C)

Physical Dimensions

Form Factor	Plug-in Card
Height	11.92 cm (4.696)
Width	5.53 cm (2.181)

Regulation Approval

Certification & Compliance	FCC B, UL, CE, VCCI, BSMI, CTICK, MIC, RoHS
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Compatibility

Compatible with	NVH-1101
	NVH-2004
	NVH-1004X
	NVH-1504IR
	NVH-2608XR
	NVH-2516XR
	NVH-2524XR
	NVH-2648XR
	NVH-2608XRD
	NVH-2516XRD
	NVH-2524XRD

Ordering info

NVH-GBLAN	Extra 100/1000Mbps LAN interface
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RELATED



Intel NVH-FIBER
Ethernet server adapter fiber

NVH-1001

Compact, i5, SSD, 1TB HDD

DESCRIPTION

The NVH-1001 is a compact client computer, which can be used as a viewing unit or as stand alone, for storing video content. Ideal for a small video security setup.

FEATURES

Small solution (195mm x 190mm x 66.2mm)

Viewer possibility

Server storage possibility

16GB internal memory

1 TB hard drive



The compact, mountable design and near-silent experience make it perfectly suitable for any workstation at any location. With two video outputs (DisplayPort & HDMI), it is suitable to be used with many different monitors. The combination of a 64GB SSD and 16GB internal memory ensure a high speed performance. while the 1 TB hard drive provides more than sufficient storage capacity.

Optional expansions:

- PTZ joystick/keyboard

System	
Operating system	Microsoft Windows 10 Pro 64-bit
Hard drive	128GB SSD (included)
	1 x 1TB 2.5" hard drive (included)
Processor	Intel Core i5
Chipset	Intel H310
Memory	16GB memory
Network Interface	1x Gigabit Ethernet RJ-45 (10/100/1000 MB/s)
Video output	1x DisplayPort / 1x HDMI
Mechanical	
Form Factor	Compact Desktop (wall mountable)
Dimensions (DxWxH)	195mm x 190mm x 66.2mm (7.67" x 7.48" x 2.60")
Electrical	
Power Input	100-240VAC, 50/60Hz 1.6A
Power Supply	90W Single
Power Consumption	60W
Environmental	
Operating Temperature	5° C - 40° C (41°F - 104°F)
Storage Temperature	-40° C - 65° C (-40°F - 149°F)
Ordering Info	
NVH-1001	Compact, i5, SSD, 1TB HDD
Supplied Accessories	USB Compact Keyboard
	USB Optical Mouse
	230V Power Cord
VDG Client accessories	
NVH-KEY1001	PTZ joystick for VDG Video client, USB 3.0
NVH-KEY1002	PTZ keyboard for VDG Video client, USB 2.0
NVH-KEY1003	PTZ joystick for VDG Video client, USB 2.0







RELATED



VDG NVH-KEY1001

PTZ joystick for use with Sense Client



VDG NVH-KEY1002

An easy-to-use, plug-and-play control keyboard.



VDG NVH-KEY1003

PTZ joystick for use with Sense Client, USB

NVH-1101

Video client, i7, SSD (desktop/tower)

DESCRIPTION

The NVH-1101 is an efficient and powerful client system, fitted with the latest top-brand components. Useable as desktop model or tower configuration, the NVH-1101 guarantees a reliable performance, built for 24/7 runtime. Part of a complete VDG Sense configuration, the NVH-1101 is the perfect workstation. With the optional extra hard drive expansion, it is also possible to use the NVH-1101 as a small stand-alone VDG Sense configuration. The compact and sleek casing lets the hardware blend in perfectly in any workplace environment.

FEATURES

Desktop/Tower possibility

Standard two-monitor setup

2 Ethernet connection ports

Maximum 1Gb Ethernet with
possibility for redundancy



Preconfigured with optimal hard- and software for VDG Sense, the system is set-up for plug-and-play use within minutes. The hardware components are selected specifically for the most reliable and efficient setup. The hardware consist only of top-quality components from third party manufacturers. A powerful experience is guaranteed with the Intel i7 CPU. Our NVH-1101 is fitted with a 64GB SSD and a smart air duct cooling system. This ensures an as good as silent operating experience combined with high output performance.

Optional expansions

- Quad card for four monitor output
- VDG Video server storage to operate as stand-alone VDG Sense configuration
- PTZ joystick/keyboard

System	
Operating system	Microsoft Windows 10 Pro 64-bit
Hard disk	128 GB SSD (included)
Recording Storage Capacity	1 x 3.5 inch hard drive (optional)
Processor	Intel Core i7
Chipset	Intel C246
Memory	16 GB memory
Network Interface	Dual Gigabit Ethernet RJ-45 (10/100/1000 MB/s)
Video output	1x VGA / 1x DisplayPort / 1x HDMI

Mechanical	
Form Factor	Desktop / Tower
Dimensions (DxWxH)	390 mm x 340 mm x 103 mm (15.35" x 13.39" x 4.06")

Electrical	
Power Input	100-240VAC, 50/60Hz 6~3A
Power Supply	300W Single
Power Consumption	150W

Environmental	
Operating Temperature	5° C - 40° C (41°F - 104°F)
Storage Temperature	-40° C - 65° C (-40°F - 149°F)

Ordering Info	
NVH-1101	Video client, i7, SSD (desktop/tower)
Supplied Accessories	USB Compact Keyboard
	USB Optical Mouse
	Power Cord 1.5 meter

VDG Client accessories	
NVH-QUAD	Quad mini Displayport/DVI-D output
NVH-HDMI-F	Displayport to HDMI adapter cable for NVH-1101
NVH-KEY1001	PTZ joystick for VDG Video client, USB 3.0
NVH-KEY1002	PTZ keyboard for VDG Video client, USB 2.0
NVH-KEY1003	PTZ joystick for VDG Video client, USB 2.0

Basic video server storage	NVH-81TB	NVH-82TB	NVH-83TB	NVH-84TB	NVH-86TB	NVH-88TB	NVH-810TB
(incl. assembly and config)	1TB	2TB	3TB	4TB	6TB	8TB	10TB

Pro video server storage	NVH-92TB	NVH-94TB	NVH-96TB	NVH-98TB
(incl. assembly and config)	2TB	4TB	6TB	8TB

	NVH-910TB	NVH-912TB	NVH-914TB	NVH-916TB	NVH-918TB
	10TB	12TB	14TB	16TB	18TB



TOWER



FLAT





RELATED

**NVIDIA NVH-QUAD**

A Low profile, Multi-View, Mini DisplayPort Quad Graphic Card

**VDG NVH-KEY1001**

PTZ joystick for use with Sense Client

**VDG NVH-KEY1002**

An easy-to-use, plug-and-play control keyboard.

**VDG NVH-KEY1003**

PTZ joystick for use with Sense Client, USB

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Basic server storage for the storage environments.

**WesternDigital NVH Pro Server Storage**

Professional server storage for the most demanding storage environments.

NVH-2608XR

Video server 19", 2U, 8 bay HS, Xeon, SSD, RAID, RPSU

DESCRIPTION

The NVH-2608XR is a powerful, customizable, stackable and rack-mounted VDG server. It combines top quality components and a user-friendly configuration to deliver high-power output and reliability. Its casing and components are engineered to ensure an optimized airflow (even when stacked) for higher efficiency, which results in lower energy consumption. Its redundant hot-plug power supply ensures a continuous operation at all times.

FEATURES

2U High Thermal Performance Server Chassis

8x 3.5" hot swappableHDD bays

Standard RAID 5configuration

650W Reduntant Hot-plug Power Supply

2x 4-Port 12G Mini-SAS Backplane

Two Ethernet (1gb/s) ports

One Active management Technology (AMT) port

Front access info tag for easy server management

Slide rail



The front-mounted hard-drives are configured for hot-swapping, as are the cooling fans, to ensure 24/7 operation. This means that they are easy to service and can reduce running costs. The reliability is ensured through a standard RAID 5 configuration and redundancy, but can be configured otherwise if necessary. Optionally, a hot-standby hard-drive can be configured to ensure maximum reliability and reduce service needs.

Optional expansions:

- VDG Video server storage
- NVH-GBLAN for 1 extra Ethernet connection port
- Ethernet server adapter fiber
- 1x NVH-RMM for remote management access

System

Operating system	Microsoft Windows 10 Pro 64-bit
Hard disk	128GB SSD (included)
Recording storage capacity	Up to 144TB (8 x 3.5" hard disk drives)
Raid configuration	Standard Raid 5 configuration
Effective recording storage capacity	126TB (after Raid 5)
Processor	Intel Xeon E3 processor
Chipset	Intel C232 Chipset
Memory	16GB memory
Network Interface	Dual Gigabit Ethernet RJ-45 (10/100/1000 MB/s)
Video output	VGA

Mechanical

Form Factor	2U 19-inch Rack Mount
Dimensions (DxWxH)	660mm x 430mm x 88mm (26" x 16.9" x 3.5")

Electrical

Power Input	100-240VAC, 50/60Hz 5A
Power Supply	650W Redundant Hot-plug

Environmental

Operating Temperature	5° C - 40° C (41°F - 104°F)
Storage Temperature	-40° C - 65° C (-40°F - 149°F)

Ordering Info

NVH-2608XR	Video server 19", 2U, 8 bay HS, Xeon, SSD, RAID, RPSU
Supplied Accessories	USB Compact Keyboard
	USB Optical Mouse
	Power Cord 1.5 meter
	Slide rail

VDG Server accessories

NVH-GBLAN	Extra 100/1000Mbps LAN interface
NVH-FIBER	Ethernet server adapter fiber

Basic video server storage

	NVH-81TB	NVH-82TB	NVH-83TB	NVH-84TB	NVH-86TB	NVH-88TB	NVH-810TB
(incl. assembly and config)	1TB	2TB	3TB	4TB	6TB	8TB	10TB

Pro video server storage

	NVH-92TB	NVH-94TB	NVH-96TB	NVH-98TB
(incl. assembly and config)	2TB	4TB	6TB	8TB

	NVH-910TB	NVH-912TB	NVH-914TB	NVH-916TB	NVH-918TB
	10TB	12TB	14TB	16TB	18TB



FRONT



FRONT WITH OPEN HDD BAY





RELATED



Intel NVH-GBLAN

A PCI Express Ethernet adapter perfect for expanding your Ethernet port(s).



Intel NVH-RMM

Remote management module for NVH-10xx and NVH-2xxx servers



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Professional server storage for the most demanding storage environments.

NVH-2608XRD

Video server 19", 2U, 8 bay HS, dual Xeon, SSD, RAID, RPSU

DESCRIPTION

The NVH-2608XRD is a powerful dual Xeon CPU rack-mountable VDG server. It combines top quality components and a user-friendly configuration to deliver high-power output and reliability. Its casing and components are engineered to ensure an optimized airflow (even when stacked) for higher efficiency, which results in lower energy consumption. Its redundant power supply ensures a continuous operation at all times.

FEATURES

2U High Thermal Performance Server Chassis

Dual Intel Xeon Silver 4210

8x 3.5" hot swappableHDD bays

Standard RAID 5configuration

650W Reduntant Power Supply

2x 4-Port 12G Mini-SAS Backplane

Front access info tag for easy server management

Slide rail



The front-mounted hard-drives are configured for hot-swapping, as are the cooling fans, to ensure 24/7 operation. This means that they are easy to service and can reduce running costs. The reliability is ensured through a standard RAID 5 configuration and redundancy, but can be configured otherwise if necessary. Optionally, a hot-standby hard-drive can be configured to ensure maximum reliability and reduce service needs.

Optional expansions:

- VDG Video server storage
- NVH-GBLAN for 1 extra Ethernet connection port
- Ethernet server adapter fiber

System							
Operating system	Microsoft Windows 10 Pro 64-bit						
Hard disk	128GB SSD (included)						
Recording storage capacity	Up to 144TB (8 x 3.5" hard disk drives)						
Raid configuration	Standard Raid 5 configuration						
Effective recording storage capacity	126TB (after Raid 5)						
Processors	2x Intel Xeon Silver 4210 processor						
Intel Lewisburg PCH C621							
Memory	32GB memory						
Network Interface	Dual Gigabit Ethernet RJ-45 (10/100/1000 MB/s)						
Interface Advanced Management Technology (AMT)							
Video output	VGA						
Mechanical							
Form Factor	2U 19-inch Rack Mount						
Dimensions (DxWxH)	660mm x 430mm x 88mm (26" x 16.9" x 3.5")						
Electrical							
Power Input	100-240VAC,50/60Hz 5A						
Power Supply	650W Redundant						
Environmental							
Operating Temperature	5° C - 40° C (41°F - 104°F)						
Storage Temperature	-40° C - 65° C (-40°F - 149°F)						
Ordering Info							
NVH-2608XRD	Video server 19", 2U, 8 bay HS, dual Xeon, SSD, RAID, RPSU						
Supplied Accessories	USB Compact Keyboard						
	USB Optical Mouse						
	Power Cord 1.5 meter						
	Slide rail						
VDG Server accessories							
NVH-GBLAN	Extra 100/1000Mbps LAN interface						
NVH-FIBER	Ethernet server adapter fiber						
Basic video server storage	NVH-81TB	NVH-82TB	NVH-83TB	NVH-84TB	NVH-86TB	NVH-88TB	NVH-810TB
(incl. assembly and config)	1TB	2TB	3TB	4TB	6TB	8TB	10TB
Pro video server storage	NVH-92TB		NVH-94TB		NVH-96TB		NVH-98TB
(incl. assembly and config)	2TB		4TB		6TB		8TB
		NVH-910TB	NVH-912TB	NVH-914TB	NVH-916TB	NVH-918TB	

Specs



	10TB	12TB	14TB	16TB	18TB







RELATED



Intel NVH-GBLAN

A PCI Express Ethernet adapter perfect for expanding your Ethernet port(s).



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Basic server storage for the storage environments.



WesternDigital NVH Pro Server Storage

Professional server storage for the most demanding storage environments.

NVH PRO SERVER STORAGE

Professional server storage for the most demanding storage environments.

DESCRIPTION

VDG's Professional video server storage hard drives offer up to 12TB capacities to suit even the most demanding datacenter, enterprise server, or cloud storage needs. With the highest error tolerance and MTBF of any capacity-optimized drive, the VDG Pro video server storage delivers the durability and 24x7x365 reliability required in tightly packed vibration prone multi-drive systems. The combination of high-capacity, peak performance and robust design make VDG Pro video server storage drives ideal for heavy workload environments, delivering both performance and reliability to any datacenter environment.

FEATURES

Professional drive

Can be used in all servers (1 to 48 hard drives)

Raid configurable



Performance	
Data buffer (MB)	128 (2TB,4TB,6TB)
	256 (8TB,10TB,12TB)
	512 (14TB)
Rotational speed (RPM)	7200
Latency average, (ms)	4.16
Interface	SATA 6Gb/s
Interface transfer rate (MB/s, max)	600
Seek time (read/write, ms, typical)	7.6 / 8.0 (2TB,4TB,6TB)
	8.0 / 8.6 (8TB,10TB,12TB,14TB)

Reliability	
Load/Unload cycles (at 40°C)	600,000
MTBF (M hours)	2.0 (2TB,4TB,6TB)
	2.5 (8TB,10TB,12TB,14TB)
Annualized Failure Rate (AFR)	0.44% (2TB,4TB,6TB)
	0.35% (8TB,10TB,12TB,14TB)
Availability (hrs/day x days/wk)	24x7

Power	
Requirement	+5V,+12V
Operating (W, typical)	9.1 (2TB,4TB,6TB)
	6.8 (8TB,10TB,12TB)
	7.6 (14TB)
Idle (W)	7.1 (2TB,4TB,6TB)
	5.0 (8TB,10TB,12TB)
	5.6 (14TB)

Physical size	
Drive type	3.5 inch Internal hard drive
z-height (mm)	26.1
Dimensions (width x depth, mm)	101.6 x 147
Weight (g)	715 (2TB,4TB,6TB)
	660 (8TB,10TB,12TB)
	690 (14TB)

Environmental (operating)	
Ambient temperature	5° to 60° C
Shock (half-sine wave 2ms, G)	70
Vibration (G RMS, 5 to 500 Hz)	0.67 (XYZ)

Environmental (non-operating)	
Ambient temperature	-40° to 70° C
Shock (half-sine wave 2ms, G)	300

Specs



Environmental (non-operating)				
Vibration (G RMS, 5 to 500 Hz)	1.04 (XYZ)			
Pro video server storage	NVH-92TB	NVH-94TB	NVH-96TB	NVH-98TB
(incl. assembly and config)	2TB	4TB	6TB	8TB
	NVH-910TB	NVH-912TB	NVH-914TB	
	10TB	12TB	14TB	

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