



dahua
TECHNOLOGY



DAHUA PFW8601-A180
3x 2.0 MPx sensor
1x 6.0MPx stream
180° View



IPC-PFW8800-A180

4x2MP Multi-Sensor Panoramic Network IR
Bullet Camera



IPC-PDBW8800-A180

4x2MP Multi-Sensor Panoramic Network IR
Dome Camera

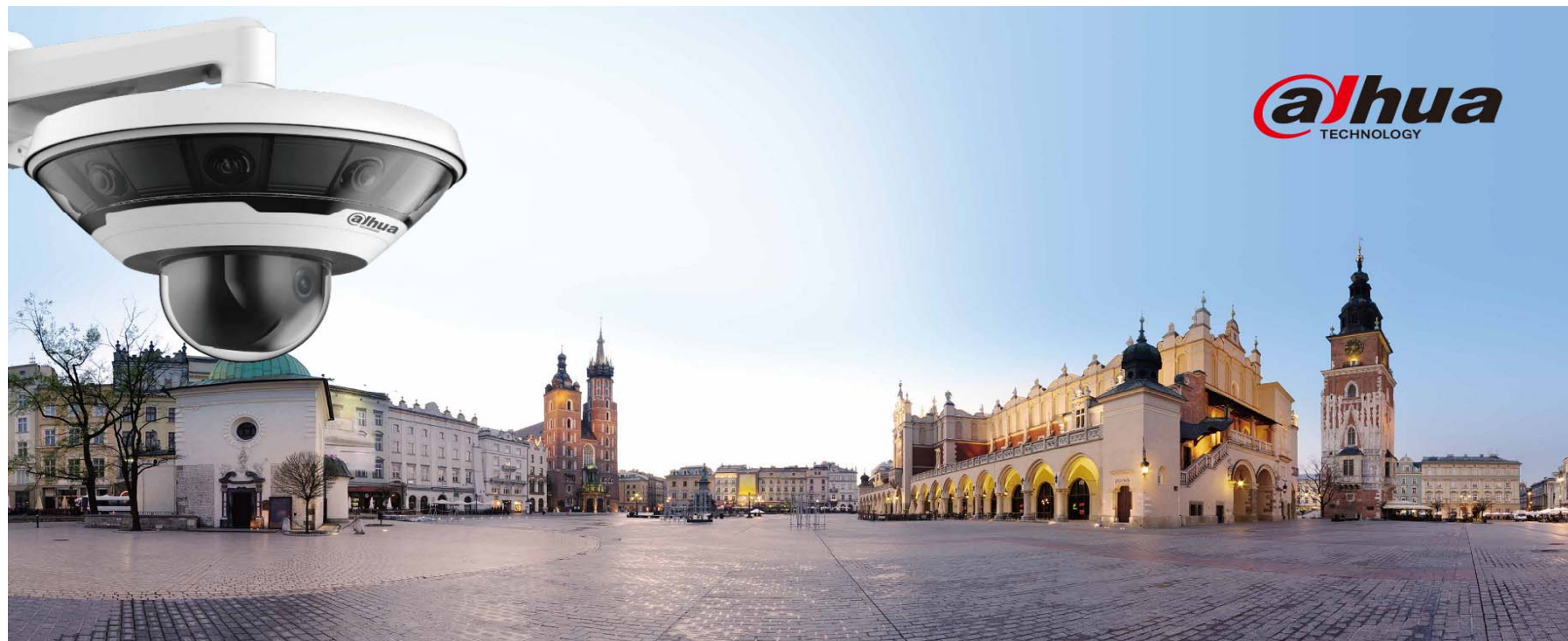


IPC-PFW8601-A180

3x2MP Multi-Sensor Panoramic Network IR
Bullet Camera

NETWORK CAMERA

Panoramic Series						
	Panoramic					
Model	IPC-PFW8800-A180	IPC-PFW8601-A180	IPC-PDBW8800-A180	IPC-EBW81230	IPC-EBW8630	IPC-EBW8630-IVC
				 4K		 8MP
Image Sensor	Four 1/2.8" 2MP STARVIS™ CMOS	Three 1/2.8" 2MP STARVIS™ CMOS	Four 1/2.8" 2MP STARVIS™ CMOS	1/1.7" 12MP STARVIS™ CMOS	1/1.8" 6MP STARVIS™ CMOS	1/1.8" 6MP STARVIS™ CMOS
Lens	3.0mm/F2.0	3.6mm/F1.8	3.0mm/F2.0	1.98mm/F2.8	1.7mm/F2.0	1.3mm/F2.8
FOV-H	180°	180°	180°	185°/185°/185°	185°/185°/185°	185°/185°/185°
Min. Illumination	0.007Lux/F2.0 (Color, 1/3s, 30IRE) 0.05Lux/F2.0 (Color, 1/30s, 30IRE) 0Lux/F2.0 (IR on)	0.007Lux/F1.8 (Color, 1/3s, 30IRE) 0.05Lux/F1.8 (Color, 1/30s, 30IRE) 0Lux/F2.0 (IR on)	0.007Lux/F2.0 (Color, 1/3s, 30IRE) 0.05Lux/F2.0 (Color, 1/30s, 30IRE) 0Lux/F2.0 (IR on)	0.001Lux/F2.8 (Color, 1/3s, 30IRE) 0.01Lux/F2.8 (Color, 1/30s, 30IRE) 0Lux/F2.0 (IR on)	0.002Lux/F2.0 (Color, 1/3s, 30IRE) 0.02Lux/F2.0 (Color, 1/30s, 30IRE) 0Lux/F2.0 (IR on)	0.005Lux/F2.8 (Color, 1/3s, 30IRE) 0.05Lux/F2.8 (Color, 1/30s, 30IRE) 0Lux/F2.0 (IR on)
Max. IR Distance	30m(98ft)	30m(98ft)	30m(98ft)	10m(33ft)	10m(33ft)	10m(33ft)
Day/Night	ICR	ICR	ICR	ICR	ICR	ICR
WDR	DWDR	120dB	DWDR	DWDR	DWDR	DWDR
Video Compression	H.265+/H.265/H.264+/H.264	H.265+/H.265/H.264+/H.264	H.265+/H.265/H.264+/H.264	H.265/H.264	H.265/H.264	H.265/H.264
Resolution	(4096×1800)	(4096×832)	(4096×1800)	12M(4000×3000)	6M(3072×2048)	6M(3072×2048)
Frame Rate	25fps@ (4096×1800)	30fps@ (4096×832)	25fps@ (4096×1800)	25fps@12M	30fps@6M	30fps@6M
Multi-streaming	3 streams	3 streams	3 streams	3 streams	3 streams	3 streams
Pan/Tilt/Rotation	Pan: 0°~360°; Tilt: 0°~90° Rotation: 0°~360°	Pan: 0°~360°; Tilt: 0°~90° Rotation: 0°~360°	Pan: 0°~355°; Tilt: 0°~75° Rotation: 0°~±20°	--	--	--
Intelligent Video	Tripwire, Intrusion Scene Change Abandoned/Missing Face Detection	Tripwire, Intrusion Scene Change Abandoned/Missing Face Detection	Tripwire, Intrusion Scene Change Abandoned/Missing Face Detection	Tripwire, Intrusion Heat map	Tripwire, Intrusion Heat map	Tripwire, Intrusion Heat map
Dewarping Mode	--	--	--	1O; 1P+3R; 2R 1O+2R; 1O+3R; 4R 1O+4R; 1P+6R; 1O+8R	1O; 1P+3R; 2R 1O+2R; 1O+3R; 4R 1O+4R; 1P+6R; 1O+8R	1O; 1P+3R; 2R 1O+2R; 1O+3R; 4R 1O+4R; 1P+6R; 1O+8R
Compatibility	ONVIF profile S&G, CGI	ONVIF profile S&G, CGI	ONVIF profile S&G, CGI	ONVIF profile S&G, CGI	ONVIF profile S&G, CGI	ONVIF profile S&G, CGI
Audio In/Out	1/1	1/1	1/1	1/1, Built-in Mic	1/1, Built-in Mic	1/1, Built-in Mic
Memory Slot	Micro SD, Max. 128GB	Micro SD, Max. 128GB	Micro SD, Max. 128GB	Micro SD, Max. 128GB	Micro SD, Max. 128GB	Micro SD, Max. 128GB
Alarm In/Out	2/2	2/1	2/2	2/2	2/2	2/2
Ingress Protection	IP67, IK10	IP67, IK10	IP67, IK10	IP67, IK10	IP67, IK10	IP67, IK10
Working Temperature	-40°C~+60°C (-40°F ~ +140°F)	-40°C~+60°C (-40°F ~ +140°F)	-40°C~+60°C (-40°F ~ +140°F)	-30°C~+60°C (-22°F ~ +140°F)	-30°C~+60°C (-22°F ~ +140°F)	-30°C~+60°C (-22°F ~ +140°F)
Power	AC24V PoE+ (802.3at)(Class 4) Max. 25.5W	AC24V PoE+ (802.3at)(Class 4) Max. 23W	AC24V PoE+ (802.3at)(Class 4) Max. 25.5W	DC12V PoE (802.3af)(Class 0) Max. 12W	DC12V PoE (802.3af)(Class 0) Max. 12W	DC12V PoE (802.3af)(Class 0) Max. 12W



180° / 360° Panoramic + PTZ Camera

Features

- 1/1.9" 2Megapixel progressive scan CMOS
- Support H.265 & H.264 dual encoding
- 2x25fps@4096x1800+50/60fps@1080P
- Support 180-degree /360-degree panoramic view

- Day/Night(ICR), 3DNR, AWB, AGC, BLC, WDR
- Smart tracking
- Intelligent function
- IP67, IK10



NETWORK CAMERA

Panoramic Series

- Multiple image sensors with 1 IP address
- Seamless splicing technology for flawless image
- 4+1/8+1 sensors for 180°/360° high definition panoramic image without distortion
- Multi-sensor design to save installation and maintenance cost
- Smart tracking to trace subject of interest automatically
- All models rated IP67 & IK10, designed for outdoor application



Panoramic Series				
Model	Panoramic			
	PSD81602-A360		PSD8802-A180	
				
	Panoramic	PTZ	Panoramic	PTZ
Image Sensor	Eight 1/1.9" 2MP Sony CMOS	1/1.9" 2MP Sony CMOS	Four 1/1.9" 2MP Sony CMOS	1/1.9" 2MP Sony CMOS
Lens	5.0mm/F2.2	5.5~206mm/F1.5	5.0mm/F2.2	5.5~206mm/F1.5
FOV-H	360°		180°	
Min. Illumination	0.005Lux/F2.2(Color,1/3s,30IRE) 0.03Lux/F2.2(Color,1/30s,30IRE) 0.003Lux/F2.2(B/W,1/3s,30IRE) 0.07Lux/F2.2(B/W,1/30s,30IRE)	0.002Lux/F1.5(Color,1/3s,30IRE) 0.01Lux/F1.5(Color,1/30s,30IRE) 0.001Lux/F1.5(B/W,1/3s,30IRE) 0.008Lux/F1.5(B/W,1/30s,30IRE)	0.005Lux/F2.2(Color,1/3s,30IRE) 0.03Lux/F2.2(Color,1/30s,30IRE) 0.003Lux/F2.2(B/W,1/3s,30IRE) 0.07Lux/F2.2(B/W,1/30s,30IRE)	0.002Lux/F1.5(Color,1/3s,30IRE) 0.01Lux/F1.5(Color,1/30s,30IRE) 0.001Lux/F1.5(B/W,1/3s,30IRE) 0.008Lux/F1.5(B/W,1/30s,30IRE)
Max. IR Distance	--		--	
Day/Night	--		--	
WDR	120dB		120dB	
Video Compression	H.265+/H.265/H.264+/H.264		H.265+/H.265/H.264+/H.264	
Resolution	2x(4096x1800)		4096x1800	1080P(1920x1080)
Frame Rate	25fps@(4096x1800)		25fps@(4096x1800)	60fps@1080P
Multi-streaming	3 streams		3 streams	
Pan/Tilt/Rotation	--	Pan: 0°~360°; Tilt: -20°~90° Auto flip 180°	--	Pan: 0°~360°; Tilt: -20°~90° Auto flip 180°
Intelligent Video	Tripwire, Intrusion Scene Change		Tripwire, Intrusion Scene Change	
			Tripwire, Intrusion Scene Change Abandoned/Missing Face Detection	
Dewarping Mode	--		--	
Compatibility	ONVIF profile S&G, CGI		ONVIF profile S&G, CGI	
Audio In/Out	2/1		2/1	
Memory Slot	Micro SD, Max. 128GB		Micro SD, Max. 128GB	
Alarm In/Out	7/2		7/2	
Ingress Protection	IP67, IK10		IP67, IK10	
Working Temperature	-40°C~+60°C (-40°F ~ +140°F)		-40°C~+60°C (-40°F ~ +140°F)	
Power	DC36V Max120W		DC36V Max120W	

**PSD81602-A360**

8x2MP Multi-Sensor Panoramic Network
Camera+PTZ Camera

**PSD8802-A180**

4x2MP Multi-Sensor Panoramic Network
Camera+PTZ Camera

It provides monitoring effect of both panoramic and partial details. Panoramic camera can provide realtime HD surveillance of 360° or 180° view coverage. Besides, it is convenient to recognize and exclude abnormality via quick positioning and zoom in of tracking PTZ dome camera when abnormality happens. Support 180-degree panoramic view Smart tracking Intelligent Function.

Smart track / Auto track / IVS

IVS	Support general behavior analysis of panoramic camera and tracking speed dome. Panoramic camera supports intrusion and tripwire, tracking speed dome supports cross fence, tripwire, intrusion, object abandoned, fast moving, parking detection, crowd gathering, object missing and loitering detection. When alarm happens, it supports a series of linkage actions, such as linked tracking, linked record, relay-out, send email, PTZ and snapshot etc. Support to add calibration area, filter disturbance and shadow, valid target filtration.
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3	Gesture	It is to operate the mouse to control PTZ via the channel image of tracking speed dome. Select the channel image of tracking speed dome, click the icon and drag image to control PTZ via pressing left button on the channel image of tracking speed dome, it can zoom the image via rolling mouse wheel.
9	Manual Track	Click the icon and drag left button to select tracking target on the preview interface of the tracking speed dome, the system will auto track and select the target.

4.4.1 Set Smart Track

After enabling linkage tracking and setting calibration parameters, the tracking speed dome will be activated to corresponding location and track the object till it is out of the monitoring range when the intelligent rules of panorama camera triggers alarm.



HDCVI 4.0 4K

HAC-PFW3601-A180

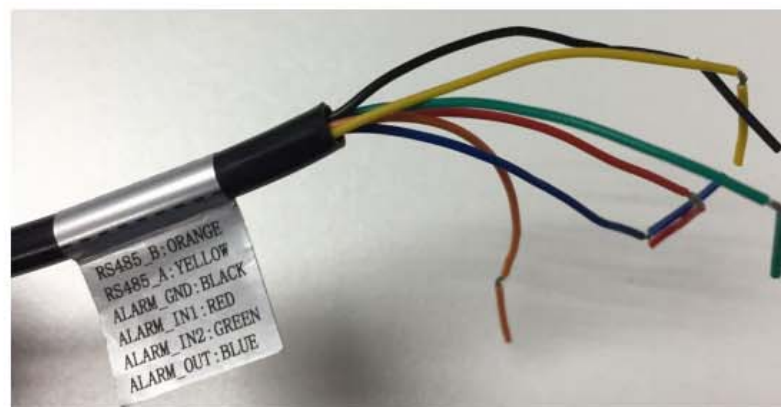
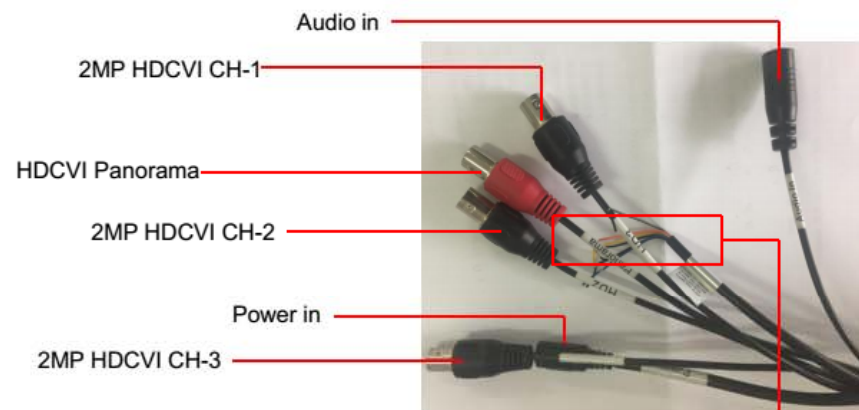
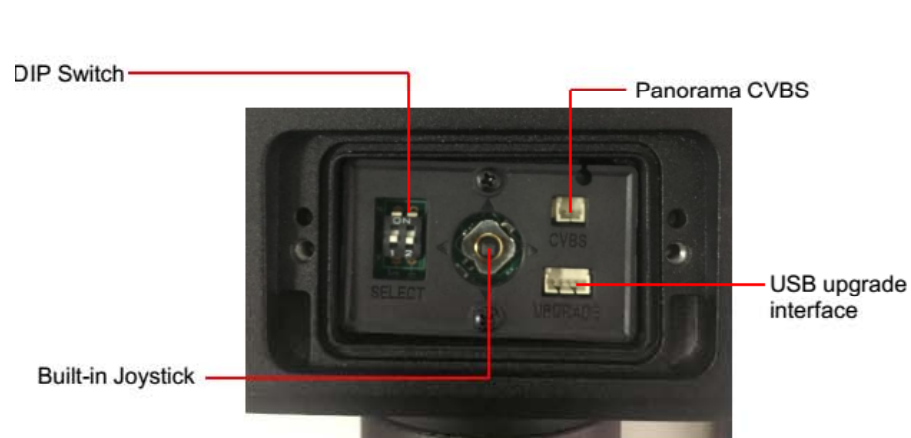


- 3*1/2.8" 2MP CMOS
- HDCVI 4K starlight technology
- 180° panoramic stitching view
- 4ch HDCVI video output simultaneously (1Pano+3individual)
- Support auto electronic cruise, a.k.a E-PTZ function
- 4K&4MP HDCVI panorama video output optional
- Wide Dynamic Range (WDR)
- 3D Digital Noise Reduction
- Max IR distance 20m(66ft), Smart IR
- Audio/Alarm I/O
- DC12V±25% or DC24V±25%
- IP67/IK10

Product Feature



Multi-sensor Camera



Dahua Multi-sensor Panoramic technology

1 Pano+3 individual video output



3*2MP sensor

01

02

3*3.6mm lens

Advanced stitching
algorithm

03

Output 1 panorama & 3 individual video
simultaneously to fit the scenario that require
180° of situational awareness as well as details

IS COST A PROBLEM FOR PANO ADOPTION

# Cameras	Model	Description	
3	HFW2231E	2MP CMOS, 3.6mm lens, 0.005Lux/F1.6, ICR, WDR, 30fps@1080p, IP67	
1	PFW3601	3*2MP CMOS, 3-3.6mm lens, 0.005Lux/F1.4, ICR, WDR, 15fps@4K, 25fps@4MP IP67 IK10	

1080p	Equipment	3601
3	Cameras	1
3	Cables	1
3	Labor	1
3	Power	1
3	Sever	1

3x 1080p Cameras

Higher cost with smaller vision field



PFW3601-A180

Lower cost with Larger coverage

180° Panoramic Cameras



HD analog is quickly becoming the mainstream of analog video. By 2018, over 90% of analog cameras will be HD analog (according to the IHS 2016 report). Dahua led the industry to introduce HDCVI Technology in 2012, and continues to enhance the technology leadership by bringing state of the art technologies in terms of resolution, light sensitivity, intelligence and usability to the HDCVI community.

With its commitment to further revolutionize the HD Analog industry, Dahua Technology launches its HDCVI 4.0 in 3 phases throughout 2017.

HDCVI 4.0 4K

Ultra High Definition

The image sensor is the key component of a clear and vivid picture presentation. The HDCVI 4.0 cameras adopt large image sensors with a super CMOS image surface to ensure high quality video performance even in the existing coaxial infrastructure.

- Up to 4/3" sensor ensuring ultra-low sensitivity and wider view angle
- 8 megapixel, superior clarity to distinguish minor details



Panoramic

The new HDCVI 4K series offer panoramic cameras for the first time over existing coaxial cable which enable a cost-effective solution for large scene surveillance with a simple upgrade from legacy infrastructure.

- Multi-sensor model offers 180° panoramic view & 3x2MP image simultaneously
- 8MP Fisheye with 360° panoramic view and 10 modes dewarping on XVR or VMS, the perfect choice for large scene surveillance



Starlight+

Performance under low illumination is the common challenge of the surveillance industry. The HDCVI 4K series adopts up to 4/3" large sensor and advanced image processing technology to ensure the high performance even under ultra-low light conditions.

- Large aperture combined with big pixel size (4.63μm) to ensure the Starlight+ performance
- Excellent full color image quality even under low illumination conditions



▲ Normal



▲ Starlight+

HDCVI 4.0 4K

HDCVI-4K for superior video capture with up to 8MP resolution

HDCVI 4.0 IoT

HDCVI-IoT: for integrated multi-dimensional sensing (Internet of Things)

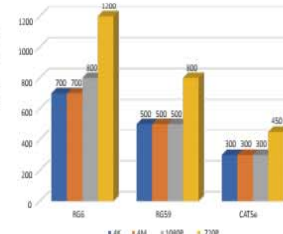
HDCVI 4.0 AI

HDCVI-AI to transfer HDCVI-video into searchable structured contents (Artificial Intelligence based on deep learning)

Seamless Upgrade

How to upgrade the existing coaxial infrastructure to protect your investment and enjoy the newest technologies and innovations is the goal of HDCVI development. The new HDCVI 4K series supports multi-signal transmission, easy Plug & Play principle and backwards compatibility etc to keep the beauty of traditional analog system.

- Video/Audio/Data/Power 4 signal in one cable, up to 200m PoC(Power over Coax) with RG59 cable for 4K & 4M, greatly simplify installation and maintenance
- Up to 500m 4K video transmission over RG59 cable, realize seamless upgrade from existing analog infrastructure, no additional wiring or re-cabling required
- Backwards compatible with existing cameras to protect your investment



Coax cable
UTP cable

4K HDCVI Camera Line-up



4K HDCVI WDR Box Camera
DH-HAC-HF3805G



4K HDCVI WDR IR-Bullet Camera
DH-HAC-HFW3802E-Z-VP



4K HDCVI Multi-Sensor IR-Bullet Camera
DH-HAC-PFW3601-A180



4K HDCVI WDR IR-Dome Camera
DH-HAC-HDBW3802E-Z



4K HDCVI IR-Fisheye Camera
DH-HAC-EBW3802

RECOMMENDED MODELS

DH-HAC-HF3805G



- Type 4/3 8MP prime sensor, ultra-sensitivity and wider FOV
- 4K Starlight+ performance, superior clarity over day & night
- Standard M43 mount, compatible with AF lenses
- HDMI out for direct previewing & recording
- Multi-interface, alarm in & out, audio in
- Industrial thermal design, ensuring the stability
- DC 12V & AC 24V input

DH-HAC-HFW3802E-Z



- Type 1/2 8MP sensor, 4K superior clarity
- 3.3mm-11mm prime motorized lens with auto iris
- Max. 100m IR coverage, Smart IR technology adopted
- IP67 weather-proof & IK10 vandal-proof
- Multi-interface, alarm in & out, audio in
- 5-way button & CVBS test-out for on-site tuning
- DC 12V & AC 24V input

DH-HAC-HDBW3802E-Z



- Type 1/2 8MP sensor, 4K superior clarity
- 3.7mm-11mm prime motorized lens with auto iris
- Max. 50m IR coverage, Smart IR
- IP67 weather-proof & IK10 vandal-proof
- Multi-interface, alarm in & out, audio in
- 5-way button & CVBS test-out for on-site tuning
- DC 12V & AC 24V input

DH-HAC-PFW3601-A180



- 180° panoramic view, stitched by Dahua's advanced algorithm
- 4ch HDCVI simultaneously outputs (1 Pano+3 Individual)
- 4K & 4MP HDCVI panoramic output optional
- Pano+Zoom mode optional with e-scan feature
- Max. 20m IR coverage, Smart IR
- IP67 weather-proof & IK10 vandal-proof
- Multi-interface, alarm in & out, audio in
- DC 12V or AC 24V input

DH-HAC-EBW3802



- Type 1/2 8MP sensor, 4K superior clarity
- 2.5mm Fisheye lens, 360° panoramic view
- Max. 10m IR coverage, Smart IR technology adopted
- IP67 weather-proof & IK10 vandal-proof
- Multi-interface, alarm in & out, built-in mic & audio in port
- CVBS test-out for on-site tuning

DHI-HCVR7104/08H-4K DHI-HCVR7204/08AN-4K



- 4/8ch all channel up to 4K@15fps encoding
- H.264+ Smart codec, up to 70% of storage saving
- 4K HDMI output, point to point display for 4K UHD cameras
- HDMI/VGA dual output
- Backward compatible with all existing HDCVI cameras
- Max. 4+2/8+4 channels IP inputs (up to 8MP)
- 1/2 SATA, 1*1000Mbps Ethernet port
- IVS and face detection functions supported

