

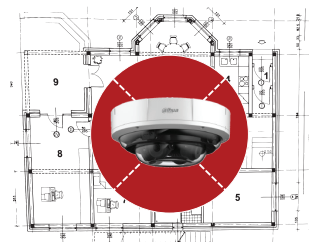
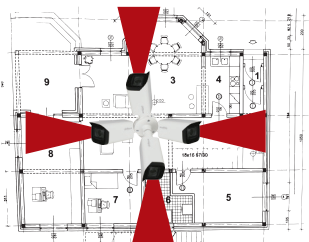


IP PANORAMIC SOLUTION QUICK GUIDE

Dahua panoramic cameras provide 180° or 360° views that provide wide-area video surveillance for increased situational awareness. Fisheye and Multi-sensor cameras replace multiple single-sensor cameras providing easier installation and a higher return on investment. This Quick Guide presents the specifications for all components necessary to create your own network panoramic surveillance system from Dahua.

2x2MP Dual Sensor Configurations		Fisheye
Stairwell Configuration 	Hallway Configuration 	Single Sensor 360°
8x2MP Multi-sensor	4x2MP Multi-sensor Dome	4x2MP Multi-sensor Bullet
360° Stitched 	180° Stitched 	180° Stitched
Unstitched Multi-flex Configurations		
180° View <p>Position all four sensors toward the front of the track for a 180° overview. Best when required to mount where a lens may be obstructed.</p>	270° View <p>Position three of the sensors toward the front of the track and one to the back for a 270° overview. Best when required to mount where a lens may be obstructed.</p>	360° View <p>Position sensors evenly around track for a full 360° overview. Best for applications that will be mounted in an open area without obstruction.</p>
<p>The IR LEDs and lenses are fixed to the same bracket, so when the lenses move so do the LEDs.</p>		

Go from this:



To this:

- Quicker installation
- Fewer cameras and cable
- One VMS license
- Lower total cost of ownership

<p align="center">DH-IPC-EBW81242N</p> 	<p align="center">N68BR4V</p>  	<p align="center">N55CS5</p>  	
<p>12MP 360° IR Fisheye</p> <p>UltraSeries</p> <ul style="list-style-type: none"> • 1/1.7-in. STARVIS™ CMOS • 12MP at 30 fps • 1.98 mm Fixed Lens • Multiple Dewarping Modes • Triple-stream Encoding • Smart H.265+, H.265, Smart H.264+, H.264 • Built-in Microphone • Digital Wide Dynamic Range • Max IR Distance 10 m (33 ft) • Analytics+ (People Counting, Queue Management) IVS • IP67 and IK10 • Best for lowlight small applications where high resolution details are required 	<p>6MP 360° IR Fisheye</p> <p>UltraSeries</p> <ul style="list-style-type: none"> • 1/1.8-in. STARVIS™ CMOS • 6MP at 30 fps • 1.3 mm Fixed Lens • 0.005 lux Color • Multiple Dewarping Modes • Triple-stream Encoding • Smart H.265+, H.265, Smart H.264+, H.264 • Digital Wide Dynamic Range • Max IR Distance 10 m (33 ft) • IVS: Motion, Tripwire, Intrusion, Scene Change, Abandoned/Missing Object, Heat Map • IP67 and IK10 • Best for lowlight small applications that require tight intergration with numerous VMS platforms 	<p>5MP 360° Panoramic Fisheye</p> <p>ProSeries</p> <ul style="list-style-type: none"> • 1/2.7-in. CMOS • 5MP at 30 fps • 1.4 mm Fixed Lens • Built-in Microphone • Multiple Dewarping Modes • Smart H.265+, H.265, Smart H.264+, H.264 • True Wide Dynamic Range (120 dB) • Analytics+ (People Counting) IVS (Tripwire, Intrusion, Abandoned/Missing Object, Heatmap) • IP67 • Best for well lit small applications 	
<p align="center">N55CT5</p>  	<p align="center">DH-IPC-HDBW4231FN-E2-M</p> 	<p align="center">DH-IPC-PFW8840N-A180</p>  	
<p>5MP 360° Panoramic Fisheye</p> <p>ProSeries</p> <ul style="list-style-type: none"> • 1/2.7-in. 5MP STARVIS™ CMOS • 5MP at 30 fps • 1.4 mm Fixed Lens • Built-in Microphone • Multiple Dewarping Modes • Triple-stream Encoding • Smart H.265+, H.265, Smart H.264+, H.264 • True Wide Dynamic Range (120 dB) • Maximum IR Distance 10 m (33 ft) • Analytics+ (People Counting) IVS (Tripwire, Intrusion, Abandoned/Missing Object, Heat Map) • Best for indoor lowlight small applications 	<p>2 x 2MP IR Dual-sensor Dome Camera</p> <p>ProSeries</p> <ul style="list-style-type: none"> • Two (2) Independent 1/2.8-in. STARVIS™ CMOS • 2MP at 30 fps • 2.8 mm Lenses • Basic Starlight Technology 0.009 lux Color • Dual-stream Encoding per Sensor • H.265, H.264, MJPEG (Sub stream only) • True Wide Dynamic Range (120 dB) • Max IR Distance 20 m (66 ft) • Intelligent Video System: Motion, Tripwire, Intrusion, Scene Change, Abandoned/Missing Object, Facial Detection • IP67 and IK10 • Best for Hallways and corridors 	<p>2MP IR 180° Panoramic Bullet</p> <p>UltraSeries</p> <ul style="list-style-type: none"> • Four (4) 1/2.8-in. CMOS Sensors • 4096 x 1800 at 30 fps • 2.8 mm Lenses • Starlight+ Technology • Analytics+ (Vehicle Density, Crowd Density) IVS (Tripwire, Intrusion) Triple-stream Encoding • Smart H.265+, H.265, Smart H.264+, H.264, MJPEG • Digital Wide Dynamic Range • Max IR Distance 30 m (98 ft) • IP67 and IK10 • Best for wide area surveillance 	
<p align="center">DH-IPC-PDBW8840N-A180</p>  	<p align="center">DH-PSDW81642M-A360</p>  	<p align="center">DH-IPC-PDBW5831N-B360</p> 	<p align="center">DH-IPC-PDBW82041N-B360</p>  
<p>2MP IR 180° Panoramic Dome</p> <p>UltraSeries</p> <ul style="list-style-type: none"> • Four (4) 1/2.8-in. CMOS Sensors • 4096 x 1800 at 30 fps • 180° Panoramic View • 2.8 mm Lenses • Starlight+ Technology • Triple-stream Encoding • Smart H.265+, H.265, Smart H.264+, H.264, MJPEG • Digital Wide Dynamic Range • Max IR Distance 30 m (98 ft) • Analytics+ (Vehicle Density, Crowd Density) IVS (Tripwire, Intrusion) • IP67 and IK10 • Best for wide area surveillance 	<p>8 x 2MP Panoramic + 4MP PTZ</p> <p>UltraSeries</p> <ul style="list-style-type: none"> • Panoramic Camera: Eight (8) 1/1.8-in. 2MP CMOS Sensors with Eight (8) 5 mm Lenses for a 360° Panoramic View • PTZ Camera: One (1) 1/1.8-in 4MP CMOS Sensor with One (1) 5.6 mm to 223 mm Lens • 8192 x 1800 at 30 fps (Panoramic) plus 2560 x 1440 at 30 fps (PTZ) • Starlight Technology 0.008 lux Color • Triple-stream Encoding • Max IR Distance 400 m (1312.34 ft) • PTZ with Zoom Priority for Optimal IR Coverage at Any Zoom Level • Intelligent Video System (IVS) with Smart Track, Crowd and Vehicle Density • IP66 • Best for wide area surveillance 	<p>Multi-Flex Quad-sensor Dome Camera</p> <p>UltraSeries</p> <ul style="list-style-type: none"> • Four (4) 1/2.8-in. 2MP STARVIS™ CMOS Sensors • Four (4) 2.7 mm to 12 mm Motorized Zoom Lenses • Dual-stream Encoding, per sensor • 1920 x 1080 at 30 fps per Sensor • Ultra-wide Dynamic Range (140 dB, channel 1 only) • Intelligent Video System: Motion, Tripwire, Intrusion, Scene Change, Abandoned/Missing Object • Sensors Independently Positionable and Configurable • Enhanced Starlight Technology 0.005 lux Color • Smart H.265+, H.265, Smart H.264+, H.264, H.264B, H.264H, MJPEG (sub stream) • Max IR Distance 30 m (98 ft) • IP67 and IK10 • Best for medium to large intersecting areas for wide coverage 	<p>Multi-Flex Quad-sensor Dome Camera</p> <p>UltraSeries</p> <ul style="list-style-type: none"> • Four (4) 1/2.7-in. 5MP CMOS Sensors • Four (4) 2.8 mm to 12 mm Motorized Zoom Lenses • Triple-stream Encoding per sensor • FlexStream Consolidates Video from All Channels into a Single Stream • 2592(H) x 1944(V), per Sensor • Wide Dynamic Range on all Channels • Intelligent Video System: Abandoned/Missing Object • Analytics+ (Perimeter Protection, Face Detection) • Sensors Independently Positionable and Configurable • Enhanced Starlight Technology 0.005 lux Color • Smart H.265+, H.265, Smart H.264+, H.264, H.264B, H.264H, MJPEG (sub stream) • Max IR Distance 30 m (98 ft) • IP67 and IK10 • Best for medium to large intersecting areas for wide coverage

DISPLAY	NETWORK VIDEO RECORDERS		
DHL49	DHI-NVR5216-16P-I 4TB	N54B3P	N54A4P
	 4K ULTRAHD WizMind	 4K ULTRAHD	 4K ULTRAHD
49-in. Full-HD LCD Monitor	16CH ePoE NVR	16CH 4K ePoE NVR	24CH 4K PoE NVR
<ul style="list-style-type: none"> High Fidelity Digital Processing, Brilliant and Vivid Video Built-in 3D COMB Filter and 3D Noise Reduction Supports HDMI, DVI, VGA, CVBS Inputs, Supports Video Loop Infrared, RS232 Double-mode, Supports Remote PC Control Brightness Smart Detection and Power-saving Mode Tamper-proof Metal Housing, No Radiation Professional Thermal Design to Extend Equipment Lifespan Built-in Power, Low-energy Consumption, Ultra-quiet 	UltraSeries <ul style="list-style-type: none"> Analytics+ NVR, 320Mbps 160Mbps when Analytics+ function is enabled, (16 channel IP Video Inputs) 16 Ports PoE, 8 ports ePoE 16CH IP cameras: 2CH @12MP, 4CH @ 8MP and 16CH @ 2MP Includes perimeter protection, Analytics+ search and license plate recognition with compatible LPR cameras 4TB included 	ProSeries <ul style="list-style-type: none"> Smart H.265+, Smart H.264+ Decoding Maximum 320 Mbps Incoming Bandwidth Up to 12MP Resolution Preview and Playback 4 SATA III Ports, up to 10TB per port 16 PoE Ports (8 of which are ePoE Ports) 4CH@8MP, 16CH@1080P 120 W Total Rated PoE Power, 25.5 W maximum per port IVS Recording on all IP Channels 	ProSeries <ul style="list-style-type: none"> Smart H.265+, Smart H.264+ Decoding Maximum 320 Mbps Incoming Bandwidth Up to 12MP Resolution Preview and Playback Supports IPC UPnP 24 PoE/PoE+ Ports HDMI/VGA Simultaneous Video Output 220 W Total Rated PoE Power, 25.5 W maximum per port 3D Intelligent Positioning (Dahua cameras) IVS Recording on all IP Channels
SWITCHES		MANAGEMENT SOFTWARE	
DH-PFS3010-8ET-96	DH-PFS4218-16ET-240	SmartPSS	DSS
			
8-port Fast Ethernet PoE Switch	16-port Managed Gigabit Switch	Smart Professional Surveillance System	Digital Surveillance Management Center
<ul style="list-style-type: none"> Layer 2 Commercial Switch Long-distance PoE (LD PoE) Transmits Power and Data 250 m (820 ft) Conforms to IEEE802.3, IEEE802.3u and IEEE802.3X Conforms to IEEE802.3af and IEEE802.3at Two (2) 10/100/1000 Mbps Uplink Ports Supports Hi-PoE (60 W) MAC Auto-learning and Aging; 16K MAC Address Capacity MDI/MDIX Self-adaptation Metal Enclosure 	<ul style="list-style-type: none"> Layer 2 Managed PoE Switch Supports the IEEE802.3af, IEEE802.3at, and Hi-PoE Standards Two (2) 1000 Base-X (Combo Port) Two (2) 10/100/1000 Base-T (Combo Port) 240 W PoE Budget 250 m (820 ft) PoE Transmission PoE Management, PoE Setting, Event Statistics, Green PoE Supports Hi-PoE (60 W) High Lightning Protection Design Non-blocking Video Transmission 	<ul style="list-style-type: none"> Efficient Device Management Manage up to 64 Devices over a Maximum of 256 Channels Supports H.265 and H.264 Dual Video Compression Codecs Live Video Monitoring and Playback Configure Video Wall Layout and Scheme Configure NVR Recording PTZ Camera Control Intelligent Video System (IVS) with People Counting and Heat Map 	<ul style="list-style-type: none"> Complete Organization, Device, and Event Centralized Management Manages up to 20,000 channels with DSS Pro. Supports H.265 and H.264 Dual Video Compression Codecs Support for Video Wall Configuration and Display Live Video Monitoring and Playback PTZ Camera Control and Smart Track Intelligent Video System (IVS) with Business Analysis
MOBILE APPLICATION	STORAGE		
DMSS	PFM113	PFM114	STx000VX000X
			
	128 GB Micro SD Card	256 GB Micro SD Card	Skyhawk Series Hard Drives
<ul style="list-style-type: none"> IOS and Android Relay Out Functionality MJPEG Video Decoding Multi-language Interface (Chinese, Dutch, English, French, German, Italian, Portuguese, Russian, and Spanish) 	<ul style="list-style-type: none"> All IP cameras on this guide offer an SD Card Slot up to 128 GB Cost-effective TLC Storage Medium High-transmission Speed Waterproof, Shockproof, and X-ray Proof High and Low Temperature Resistance 	<ul style="list-style-type: none"> All IP cameras on this guide offer an SD Card Slot up to 256 GB Cost-effective TLC Storage Medium High-transmission Speed Waterproof, Shockproof, and X-ray Proof High and Low Temperature Resistance 	<ul style="list-style-type: none"> Designed for 24/7 Surveillance-optimized Applications Firmware Optimized for Continuous Recording; 90% Write and 10% Read / year Engineered for Workloads up to 180 TB/ year Capacity Up to 10 TB, Supports 64 Cameras per Drive Low Power Consumption and Startup Current Tarnish-resistant Components to Minimize Environmental Effects

MOUNT ADAPTERS						CEILING MOUNTS	
PFA100	PFA105	PFA110	PFA106	PFA108	PFA710	PFB300C	DH-PFB300C-SG
CEILING MOUNTS		POLE MOUNTS				JUNCTION BOXES	
PFB710C	PFB110W	PFA152-E	DH-PFA153	PFA150	DH-PFA150-SG	PFA120	DH-PFA120-SG
JUNCTION BOXES			WALL MOUNTS				CORNER MOUNT
PFA136	PFA137	DH-PFA132-E	PFB203W	PFB303W	DH-PFB303W-SG	PFA710W	PFA151
PARAPET MOUNT	WALL MOUNT	POWER ADAPTERS			FISHEYE/PTZ INTEGRATED MOUNT		
PFB303S	PFB710W	DH-PFM321D-US	A24-3A	DH-PFM320D-US	DH-PFB410W		
		12 VDC, 1 A Power Adapter <ul style="list-style-type: none"> N55CS5 N55CT5 N68BR4V H-IPC-EBW81242N DH-IPC-HDBW-4231FN-E2-M 	24 VAC, 3 A <ul style="list-style-type: none"> DH-IPC-PDB-W5831N-B360 	12V 2A <ul style="list-style-type: none"> DH-IPC-PF-W8840N-A180 DH-IPC-PDB-W8840N-A-180 DH-IPC-PDB-W82041N-B360 			

MOUNTING APPLICATIONS						
MODEL	Wall Mount	Ceiling Mount	Pole Mount	Corner Mount	Parapet Mount	Junction Box
N68BR4V	PFB302S + PFA100	PFA100 + PFB300C	PFA100 + PFB300C + PFA150	N/A	N/A	N/A
N55CS5	PFB203W	PFB220C + PFA106	PF302W + PFA152-E	N/A	N/A	PFA136
DH-IPC-EBW81242N	PFB302S + PFA100	PFA100 + PFB300C	PFA100 + PFB300C + PFA150	N/A	N/A	DH-PFA132-E
N55CT5	PFB203W	PFB110W	PFB203W + PFA152-E	N/A	N/A	N/A
DH-IPC-PFW8840N-A180	DH-PFA120-SG	N/A	DH-PFA120-SG + DH-PFA150-SG	DH-PFA120-SG + PFA151	N/A	DH-PFA120-SG
DH-IPC-PDBW8840N-A180 <i>*PFA111 included with camera</i>	PFA111* + DH-PFB303W-SG	PFA111* + DH-PFB300C-SG	PFA111* + DH-PFB303W-SG + DH-PFA150-SG	PFA111* + DH-PFB303W-SG + PFA151	PFA111* + PFB303S	DH-PFA120-SG
DH-PSDW81642M-A360	PFB710W	PFB710C	PFB710W + DH-PFA153	N/A	N/A	N/A
DH-IPC-HDBW4231FN-E2-M	PFB203W	PFA137	PFB203W + PFA152-E	N/A	N/A	N/A
DH-IPC-PDBW5831N-B360 DH-IPC-PDBW82041N-B360	PFA108 + PFA111 + PFB303W	PFA108 + PFA111 + PFB300C	PFA108 + PFA111 + PFA150	PFA108 + PFA111 + PFA151	PFA108 + PFA111 + PFB303S	PFA120

* Accessory included with the camera.

† Accessory included with camera, but not available for individual purchase.