





### Technical Specification

#### X82R3N4 16-channel HDCVI DVR with Analytics+

##### System

Main Processor	Embedded Processor
Operating System	Embedded LINUX

##### Analytics+ Perimeter Protection<sup>1</sup>

Performance	<ul style="list-style-type: none"> <li>Human and Vehicle object classification</li> <li>Decreased false alarms from leaves, lights, animals</li> <li>Configure Perimeter Protection on six (6) channels</li> <li>10 Tripwire/Intrusion rules per channel</li> </ul>
Live View	<ul style="list-style-type: none"> <li>Configure Rule and Object Inspection area</li> <li>Display object classification, event types, trigger time, image snapshot, and object types</li> <li>Export event playback 10 seconds prior to or after event</li> </ul>
Playback	<ul style="list-style-type: none"> <li>Search by channel, time, event type, and target type</li> <li>Search event playback 10 seconds prior to or after event</li> <li>Snapshot capacity: 500,000</li> </ul>

##### Analytics+ Smart Motion Detection<sup>1</sup>

Performance	<ul style="list-style-type: none"> <li>Detect motion based on object classification (human or vehicle)</li> <li>Decreased false alarms from leaves, lights, animals</li> <li>Configure functions on 16 channels</li> </ul>
Preview	<ul style="list-style-type: none"> <li>Configure and inspect detection area</li> </ul>
Playback	<ul style="list-style-type: none"> <li>Search by channel, time, event type, and target type</li> <li>Search event playback 10 seconds prior to or after event</li> </ul>

##### Interface

Analog Camera Input	16 Channels, BNC
HDCVI	8MP, 6MP, 5MP, 4MP, 1080p, 720p
AHD	8MP, 5MP MP MP
TVI	8MP, 5MP, 4MP, 3MP, 1080p, 720p
CVBS	NTSC
IP Camera Input <sup>2</sup>	16+16 Channels, each channel up to 8MP
Audio	Input: One(1) Channel, RCA Output: One (1) Channel, RCA
Two-way Talk	Audio Input Channel 1 In/ Audio Output, RCA

##### Recording

Compression	AI Coding, Smart H.265+, H.265, Smart H.264+, H.264
Recording Resolution	
Record Rate	Main Stream: 8 MP at 15 fps; 6 MP/5 MP at 20 fps; 4K-N, 4MP, 3MP, 1080p, 720p, 960H, D1, CIF at 30 fps
	Sub Stream: 960H, D1, CIF at 30 fps
Max. Incoming Bandwidth	128 Mbps
Bit Rate	32 Kbps to 8192 Kbps per Channel
Record Mode	Manual, Schedule (Regular, Continuous), MD (Video Detection: Motion Detection, Video Loss, Tampering), Alarm, Stop
Record Interval	1 to 60 minutes (default: 60 minutes), Pre-record: 1 s to 30 s, Post-record: 10 s to 300 s
Audio Compression	G.711a, G.711Mu, PCM
Audio Sample Rate	8 KHz, 16 bits per Channel
Audio Bit Rate	64 Kbps per Channel

##### Display

Interface	One (1) HDMI (3840 x 2160) One (1) VGA (1920 x 1080) One (1) BNC
Spot Output	HDMI or VGA, configurable (HDMI: 1920 x 1080, 1280 x 1024, 1280 x 720 VGA: 1920 x 1080, 1280 x 1024, 1280 x 720)
Native Output Resolution	HDMI: 3840 x 2160, 2560 x 1440, 1920 x 1080, 1280 x 1024, 1280 x 720
	VGA: 1920 x 1080, 1280 x 1024, 1280 x 720
Maximum Playback Decoding	 Four (4) Channels of 4MP, 3MP, 1080p, 720p at 30 fps One (1) Channel of 8MP at 30 fps
Multi-screen Display	IP extension mode disabled: 1/4/8/9/16 IP extension mode enabled: 1/4/8/9/16/25/36
Fisheye Dewarp	Supported via Web Interface
On-screen Display	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording

##### Network

Interface	One (1) RJ45 (1000 Mbps) Port
Network Function	HTTP, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm Server, P2P, IP Search (Supports Dahua IP cameras, DVRs, NVS)
Maximum User Access	128 Users
Mobile Operating System	IOS, Android
Interoperability	ONVIF 16.12, CGI Conformant

##### Video Detection and Alarm

Trigger Events	Recording, PTZ, Tour, Video Push, Email, FTP, Snapshot, Buzzer and Screen Tips
Video Detection	Motion Detection, MD Zones: 396 (22 x 18), Video Loss, Tampering, and Diagnosis

##### Playback and Backup

Playback	1/4/9/16
Search Mode	Time/Date, Alarm, MD and Exact Search (accurate to 1 second)
Playback Function	Play, Pause, Stop, Rewind, Fast Play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Shuffle, Backup Selection, and Digital Zoom
Backup Mode	USB Device/Network

##### Storage

Internal HDD	Two (2) SATA Ports, up to 10 TB capacity for each disk Kit ships with a 4 TB Hard Disk Drive
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##### Auxiliary Interface

USB	One (1) USB 2.0 Port and One (1) USB 3.0 Port
RS485	One (1) Port for PTZ Control

1. The Analytics+ functions are disabled when the additional 17 to 32 IP channels are active. If channel 15 and 16 connect to an IP camera, the Analytics+ functions can be used on analog channels 1 to 14.  
2. The recording rate is dependent on the maximum resolution and frame rate of the connected IP camera.

**X82R3N4 Technical Specification, continued**

Electrical

Power Supply	12 VDC, 5 A
Power Consumption	< 32 W, without HDD

Construction

Dimensions	
HDCVI DVR	1U, 375.0 mm x 332.0 mm x 53.0 mm (14.76 in. x 13.0 in. x 2.09 in.)
with PFH101 Rack Mount Tray	482.6 mm x 287.0 mm x 53.0 mm (19.0 in. x 11.30 in. x 2.09 in.)
Net Weight	2.40 kg (5.40 lb)
Gross Weight	4.0 kg (8.80 lb)
Installation	Desktop or Rack-mount

Video Transmission Distance

RG-59/U Coax	720p:	800 m (2624.67 ft)
	1080p:	500 m (1640.42 ft)
	4K/4MP:	500 m (1640.42 ft)
RG-6/U Coax	720p:	1200 m (3937.01 ft)
	1080p:	800 m (2624.67 ft)
	4K/4MP:	700 m (2296.59 ft)
CAT 6 UTP (balun required)	720p:	450 m (1476.38 ft)
	1080p:	300 m (984.25 ft)
	4K/4MP:	300 m (984.25 ft)

Environmental

Operating Conditions	-10° C to +55° C (+14° F to +131° F), 0% to 90% RH
Storage Conditions	-20° C to +70° C (-4° F to +158° F), 0% to 90% RH

Third-party Support

Third-party Support	Dahua, Arecont Vision, AXIS, Bosch, Brickcom, Canon, CP Plus, Dynacolor, Honeywell, Panasonic, Pelco, Samsung, Sanyo, Sony, Videotec, Vivotek, and others
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Certifications

Safety	EN 60950-1 IEC 60950-1
Electromagnetic Compatibility (EMC)	CFR 47 FCC Part 15 Subpart B EN 61000-3-2 EN 61000-3-3 EN 55032 EN 50130 EN 55024

**Ordering Information**

Type	Part Number	Description
4K HDCVI Security System	C868E124A	
	• A81AJ22	8 MP HDCVI IR 2.8 mm Fixed Lens Eyeball Camera (x12)
	• X82R3N4	16-Channel Penta-brid 4K, 1U, 4 TB Digital Video Recorder (x1)
Camera Accessories, optional	PFA106	Mount Adapter (For use with PFB305W wall mount)
	PFA13A-E	Junction Box (For use alone or with PFA152-E pole mount)
	PFA150	Pole Mount (For use with PFA106 and PFB305W)
	PFA151	Corner Mount (For use with PFA106 and PFB305W)
	PFA152-E	Pole Mount (For use with PFB204W wall mount)
	PFA200G	Gang Box Adapter
	PFB204W	Wall Mount (For use alone or with PFA152-E pole mount)
	PFB220C	Ceiling Mont (For use with PFA106)
	PFB305W	Wall Mount (For use with PFA106)
	DH-PFM321D-US	12 VDC, 1 A Power Adapter
DH-PFM800-4K	4K Passive HDCVI Balun	
DVR Accessory, optional	PFH101	Rack Mount Tray 482.60 mm x 281.20 mm x 43.7 mm (19.0 in. x 11.07 in. x 1.72 in.)

**Package Contents** (individual devices ship with the following:)

Product	Material
HDCVI Cameras	Printed Manual Printed Regulatory Guide Plastic Wall Anchors with Screws (x3) Mounting Template
Storage Device	Quick Network Guide Printed Manual Printed Regulatory Guide Mouse Adapter Power Adapter with Power Cord Ethernet Cable, RJ45 Alarm Cable Molex Units (x3) Screws (x4)

**Camera Accessories**

Optional:



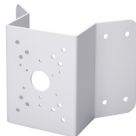
PFA106  
Mount Adapter



DH-PFA13A-E  
Junction Box



PFA150  
Pole Mount



PFA151  
Corner Mount



PFA152-E  
Pole Mount



DH-PFA200G  
Gang Box Adapter



PFB204W  
Wall Mount



PFB220C  
Ceiling Mount



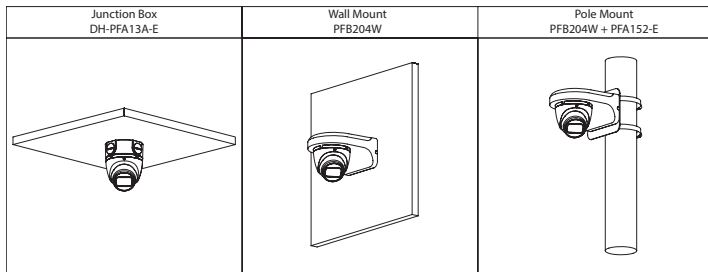
PFB305W  
Wall Mount



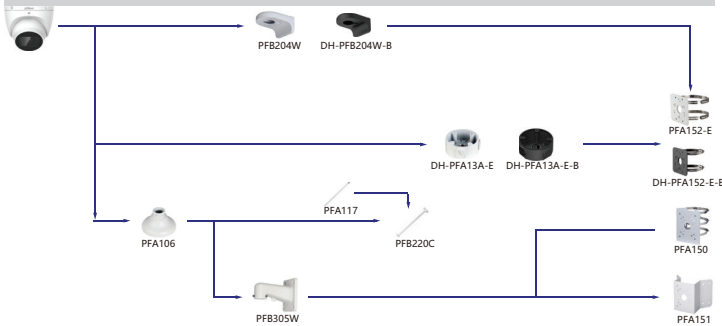
DH-PFM321D-US  
12 VDC, 1 A Power  
Adapter



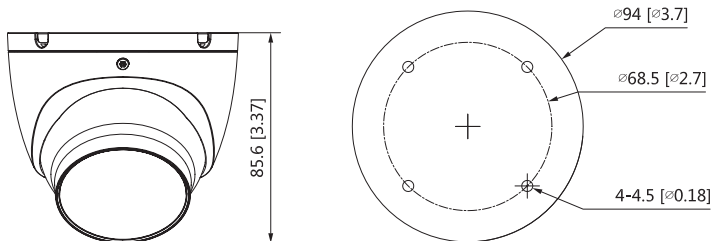
DH-PFM800-4K  
Passive HDCVI Balun



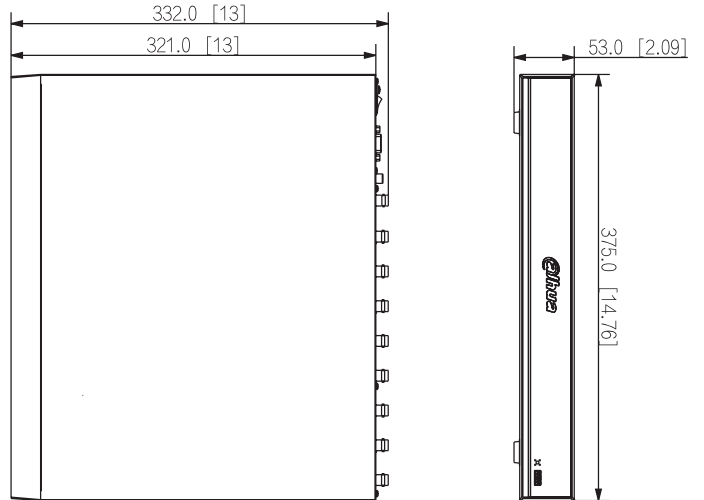
**A81AJ22 Mounting Diagram**



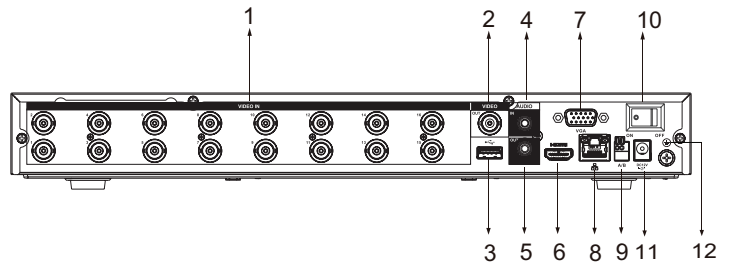
**A81AJ22 Dimensions (mm/in.)**



**X82R3N4 Dimensions (mm/in.)**



**Rear Panel**



1	Video Input (x16 BNC)	7	VGA Output
2	Video Output (x1 BNC)	8	RJ45 Ethernet Port (1000 Mbps)
3	USB Port	9	RS485 Port
4	Audio Input (x1 RCA)	10	Power Switch
5	Audio Output (x1 RCA)	11	Power Input
6	HDMI Output	12	Ground