

Penta-brid 1080p DVR

16-Channel 12 TB Penta-brid 1080p 1U Digital Video Recorder



- Embedded Processor
- Smart H.264+ / H.264 Dual-stream Video Compression
- Offers 720p (real-time) and 1080p (15 fps) Resolutions
- 16 HDCVI/AHD/TVI/CVBS Channels
- 16 + 8 IP Channels, up to 5 MP per Channel
- Max. 96 Mbps Incoming Bandwidth
- Built-in Smart Search
- Intelligent Video System (one IP channel)
- Two (2) SATA HDD Ports, up to 12 TB of Storage



System Overview

Dahua, a global leader in security systems, introduces XVR technology - the perfect affordable solution to upgrade existing video surveillance systems while leveraging existing networks, cabling, and cameras. XVR technology utilizes Penta-brid access technology to seamlessly record video from HDCVI, AHD, TVI, CVBS, and IP sources simultaneously.

The XVR offers advanced options such as built-in motion detection algorithms, and customized recording modes. XVR technology is the ideal solution for actively monitoring and recording video feeds in wide range of applications including public venues, retail stores, transportation hubs and access ways, personal property and homes, and educational institutions.

Camera Connections

Record and monitor video from analog/CVI camera inputs and IP camera inputs simultaneously. The X22A series supports a maximum of 24 channels, with up to 16 channels of HDCVI/AHD/TVI/CVBS inputs and up to an additional 8 channels of IP inputs. The flexibility of the XVR allows all 24 channels to record input from IP cameras, or from a combination of input from analog and IP sources (not to exceed the maximum number of analog cameras allowed per XVR). In addition, the XVR supports a maximum of 16 local live-view channels and 16 playback channels.

Flexible Recording

The XVR offers a variety of configurable recording options and schedule that saves HDD space and active monitoring time. The XVR monitors incoming video and can be programmed to record if motion is detected or if an alarm is triggered. The XVR can also be programmed to record on a schedule or at different intervals. The recording options and schedules can be set for each individual camera or copied to all cameras.

Functions

Spot Output

The XVR features Spot Output, allowing an operator to view a secondary monitor assigned to select cameras or video inputs in a high-security area.

Smart H.264+

The Smart H.264+ video compression standard can reduce bit rate and storage requirements by up to 70% without having to invest in new cameras.

HDCVI/AHD/TVI/CVBS Auto-detect

The XVR automatically recognizes the incoming signals of each attached camera without any setup, making installation easy and operation convenient.

5 MP Resolution

The XVR supports 5 MP resolution (2560 x 1920) on IP camera inputs for recording and live viewing.

Intelligent Video System (IVS)

IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for Tripwire violations, intrusion detection, and abandoned or missing objects. A device with IVS quickly and accurately responds to monitoring events in a specific area. The camera also offers tamper detection by recognizing a dramatic scene change and generating a warning message to inspect the camera.

Smart Search

Smart Search allows an operator to specify a region in the playback video to search for a motion detection event, saving time and manpower.



Technical Specification	
System	
Main Processor	Embedded Processor
Operating System	Embedded LINUX
Display	
Interface	One (1) HDMI, One (1) VGA
Spot Output (Video Matrix)	HDMI or VGA Interface, configurable
Resolution	1920 × 1080, 1280 × 1024, 1280 × 720, 1024 × 768
Multi-screen Display	1/4/8/9/16/25
On-screen Display Options	Camera Title, Time, Video Loss, Camera lock, Motion Detection, and Recording
Video Detection	
Trigger Events	Recording, PTZ, Tour, Alarm Out, Video Push, Email, FTP, Snapshot, Buzzer, and Screen Tips
Video Detection	Motion Detection, MD Zones: 396 (22 × 18), Video Loss, Tampering, and Diagnosis
Playback and Backup	
Playback	1/4/9/16
Search Mode	Time / Date, Alarm, Motion Detection, 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 6 TB capacity for each disk
HDD Mode	Single
Auxiliary Interface	
USB	One (1) USB 2.0 Port One (1) USB 3.0 Port
RS485	One (1) Port, for PTZ Control
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

Audio and Video			
Camera Inputs	Model	Analog Inputs	IP Inputs
	X22A3AN	16	16+8
Resolution		1080p at 15 fps per channel	Up to 5 MP per channel
Audio Connections	Model	Audio IN	Audio OUT
	X22A3AN	1	1
Two-way Talk	Reuse Audio In (Channel 1) / Out, RCA		
Recording			
Compression	Smart H.264+ / H.264		
Resolution	1080p, 720p, 960H, D1, HD1, BCIF, CIF, QCIF		
Record Rate			
Main Stream	1080p at 1 to 15 fps or 1080N, 720p, 960H, D1, HD1, BCIF, CIF, QCIF at 1 to 30 fps		
Sub Stream	D1, CIF, QCIF at 1 to 30 fps		
Bit Rate	1 Kbps to 6144 Kbps per Channel		
Record Mode	Manual, Schedule (Regular, Continuous), Motion Detection (Video detection: Motion Detection, Video Loss, Tampering), Alarm, and Stop		
Record Interval	1 to 60 minutes (default: 60 minutes) Pre-record: 1 s to 30 s Post-record: 10 s to 300 s		
Network			
Interface	One (1) RJ-45 Port (1000 M)		
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)		
Max. User Access	128 users		
Mobile Operating System	IOS and Android		
Interoperability	ONVIF 2.4.1, CGI Conformant		
Electrical			
Power Supply	12 VDC, 5 A		
Power Consumption	< 15 W, without HDD		
Environmental			
Operating Conditions	-10°C to +55°C (+14°F to +131°F), 86 to 106 kpa		
Storage Conditions	0°C to +50°C (+32°F to +122°F), 0 to 90% RH		
Construction			
Dimensions	1U, 375.0 mm × 285.0 mm × 55.0 mm (14.70 in. x 11.20 in. x 2.20 in.)		
Net Weight	2.35 kg (5.20 lbs), without HDD		
Gross Weight	3.20 kg (7.05 lbs)		
Installation	Desktop installation		
Certifications			
Safety	Conforms to UL Standard		
Electromagnetic Compatibility (EMC)	FCC Part 15 Subpart B ANSI C63.4 – 2014 ICES 003		

Intelligence

IVS triggers an alarm and takes a defined action for the following events:

Standard Features

- Tampering with the camera.
- Error writing to an onboard Micro SD card.
- Error sending or receiving data over the network.
- Unauthorized access to the camera.

Premium Features

Motion	An object moves through any part of the scene.
Tripwire	A target crosses a user-defined line.
Intrusion	A target enters or exits a defined perimeter.
Scene Change	A person or object moves the camera to change the scene or covers the camera to obscure the scene.
Abandoned/Missing Object	A target leaves an object in designated area, or a target removes an object from the same designated area.

Ordering Information

Type	Part Number	Description
Penta-brid DVR	X22A3N	16 Analog/CVI Inputs, 16 + 8 IP Inputs, 0 TB
	X22A3N1	16 Analog/CVI Inputs, 16 + 8 IP Inputs, 1 TB
	X22A3N2	16 Analog/CVI Inputs, 16 + 8 IP Inputs, 2 TB
	X22A3N3	16 Analog/CVI Inputs, 16 + 8 IP Inputs, 3 TB
	X22A3N4	16 Analog/CVI Inputs, 16 + 8 IP Inputs, 4 TB
	X22A3N6	16 Analog/CVI Inputs, 16 + 8 IP Inputs, 6 TB

Dimensions (mm)

