

1080p Penta-brid HDCVI DVR

16-Channel 1U Digital Video Recorder with Analytics+





WizSense Series devices combine Dahua's powerful Analytics+ with an intuitive and easy to use interface. WizSense devices offer Smart Motion Detection and Perimeter Protection functions that focus on human and vehicular images and ignore irrelevant images to capture important video while reducing false alarms. WizSense Series devices provide powerful general security for small to medium size businesses at a sensible price.

System Overview

The X52B Series HDCVI DVR offers high-definition recording on each HDCVI channel and a host of advanced features and functions. The X52B takes advantage of HDCVI technology for easy integration into existing video security systems while leveraging existing networks, cabling, and cameras. Penta-brid access technology seamlessly records video from HDCVI, AHD, TVI, CVBS, and IP sources simultaneously.

Functions

Perimeter Protection

Dahua Analytics+ includes Tripwire and Intrusion functions that offer custom tripwires based on object type for automation in limited access areas. Perimeter Protection requires less pixels to detect an object to deliver improved accuracy and decreased false alarms due to lights, weather, trees, or animals.

Smart Motion Detection

The Smart Motion Detection, a component of Dahua's Analytics+ technology, improves alarm accuracy and decreases the number of false alarms. The advanced SMD algorithm analyzes a scene for human or vehicle motion, while filtering out other motion due to trees, leaves, animals, weather, and triggers an alarm when detected.

AI Coding

The AI Coding function puts recording emphasis on human or vehicular objects in the video scene. This technology, based on constant bit rate (CBR), dynamically allocates increased bit rate to the target object while reducing the bit rate allocated to background objects. AI Coding reduces bit rate and storage requirements by up to 50% when compared to the H.265 video compression standard.

- 5M-N/1080p Recording Resolution on All HDCVI Channels
- Available with a 4 TB, 6 TB, 8 TB, or 10 TB Pre-installed Hard Drive
- Dual-stream Video Recording
- Al Coding Technology for High-quality Human/Vehicle Video
- Auto-detection and Auto-configuration of Video Inputs
- 16 + 8 IP Camera Channels, each channel up to 6 MP
- Maximum 128 Mbps Incoming Bandwidth
- Perimeter Protection and Smart Motion Detection (SMD)
- Long-distance Video Transmission
- Five-year Warranty*











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 90% when compared to the H.264 video compression standard.

HDCVI/AHD/TVI/CVBS Auto-detect

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

Long Distance Transmission

HDCVI technology guarantees real-time transmission over long distances without loss of video quality. HDCVI devices provide the same resolution as most IP network camera systems using existing RG-59, RG-6, or CAT 6 UTP cabling.

Pro Series | X52B3A Series

Technical Specification			
System			
Main Processor	Embedded Processor		
Operating System	Embedded LINUX		
Analytics+ Perimeter P	rotection ¹		
Performance	Human and Vehicle object classification Decreased false alarms from leaves, lights, animals Configure function on two (2) channels, or configure function on one (1) channel to use seven (7) channels for SMD Tripwire/Intrusion rules per channel		
Live View	Configure Rule and Object Inspection area Display object classification, event types, trigger time, image snapshot, and object types Export event playback 10 seconds prior to or after event		
Playback	Search by channel, time, event type, and target type Search event playback 10 seconds prior to or after event Snapshot capacity: 500,000		
Analytics+ Smart Motio	on Detection¹		
Performance	Detect motion based on object classification (human or vehicle) Decreased false alarms from leaves, lights, animals Configure functions on 16 channels, or configure functions on seven (7) channels to use one (1) channel of Perimeter Protection		
Preview	Configure and inspect detection area		
Playback	Search by channel, time, event type, and target type Search event playback 10 seconds prior to or after event		

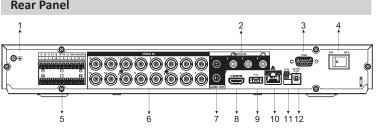
Interface				
Analog Camera Input		16 Channels, BNC		
HDCVI		5 MP, 4 MP, 1080p, 720p		
AHD		5 MP, 4 MP, 3 MP, 1080, 720p		
TVI		5 MP, 4 MP, 3 MP, 1080, 720p		
CVBS		NTSC		
IP Camera Input		16+8 Channels, each channel up to 6 MP (The recording rate is dependent on the maximum resolution and frame rate of the connected IP camera.)		
Audio		Input: Four (4) Channels, RCA Output: One (1) Channel, RCA		
Two-way Talk		Audio Input Channel 1 In/ Audio Output, RCA		
Recording				
Compression		Al Coding, Smart H.265+, H.265, Smart H.264+, H.264		
Recording Reso	lution	5M-N, 4M-N, 1080p, 1080N, 720p, 960H, D1, CIF		
Record Rate	Main Stream	5M-N at 10 fps 4M-N, 1080p at 15 fps 1080N, 720p, 960H, D1, CIF at 30 fps		
	Sub Stream	960H at 15 fps; D1, CIF at 30 fps		
Max. Incoming	Bandwidth	128 Mbps		
Bit Rate		32 Kbps to 6144 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.711u, PCM		
Audio Sample Rate		8 KHz, 16 bits per Channel		
Audio Bit Rate		64 Kbps per Channel		

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Display				Electrical			
Interface		One (1) HDMI (3840 x 2160) One (1) VGA (1920 x 1080)		Power Supply	12 VDC, 4 A		
Spot Output		HDMI: 1920 x 1080,1280 x 1024, 1280 x 720		Power Consumption	< 12 W, with	nout HDD	
Spot Output		VGA: 1920 x 1080,1280 x 1024, 1280 x 720		Construction			
Native Output	HDMI ²	3840 x 2160, 2560 x 1440, 1920 x 1080, 1280 x 1024, 1280 x 720		Dimensions			
Resolution VGA		1920 x 1080, 1280 x 1024, 1280 x 720		HDCVI DVR 1U, 375.0 mm x 278.40 mm x 53.0 mm (14.76 in. x 10.96 in. x 2.09 in.)			
Maximum Playback Decoding		16 Channels of 4 M-N at 15 fps 16 Channels of 1080p at 15 fps Eight (8) Channels of 1080p at 30 fps		with PFH101 Rack Mount Tray	482.6 mm x 287.15 mm x 53.0 mm (19.0 in. x 11.31 in. x 2.09 in.)		
becoung		Four (4) Channels of 4 M-N at 30 fps		Net Weight	1.80 kg (4.0	lb)	
Multi-screen Dis	nlav	IP extension mode disabled: 1/4/8/9 IP extension mode enabled: 1/4/8/9/16		Gross Weight	3.10 kg (6.8	0 lb)	
Widiti-screen Dis	ріау			Installation	Desktop or Rack-mount		
Fisheye Dewarp		Supported via Web Interface		Video Transmission	Distance		
On-screen Displa	ay	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording		RG-59/U Coax	720p: 1080p: 4K/4MP:	800 m (2624.67 ft) 500 m (1640.42 ft) 500 m (1640.42 ft)	
Network					720p:	1200 m (3937.01 ft)	
Interface		One (1) RJ-45 (1000 Mbps) Port		RG-6/U Coax	1080p: 4K/4MP:	800 m (2624.67 ft) 700 m (2296.59 ft)	
Network Functio	on	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)		CAT 6 UTP (balun required)	720p: 1080p: 4K/4MP:	450 m (1476.38 ft) 300 m (984.25 ft) 300 m (984.25 ft)	
Maximum User A	Access	128 Users		Environmental	,	,	
Mobile Operatin	ig System	IOS, Android		Operating Conditions	-10° C to +5	55° C (+14° F to +131° F), 0% to 90% RH	
Interoperability		ONVIF 16.12, CGI Conformant				· ·	
Video Detect	tion and	Alarm		Storage Conditions		'0° C (-4°F to +158° F), 0% to 90% RH	
Trigger Events		Recording, PTZ, Tour, Video Push, Email, FTP, Snapshot, Buzzer and Screen Tips		Third-party Support		cont Vision, AXIS, Bosch, Brickcom, Canon,	. CP
Video Detection		Motion Detection, MD Zones: 396 (22 × 18), Video Loss, Tampering, and Diagnosis		Third-party Support		olor, Honeywell, Panasonic, Pelco, Samsun , Videotec, Vivotek, and others	ng,
Alarm Input		16 Channels		Certifications			
Relay Output		Three (3) Channels			UL 62368-1		
Playback and	d Backup			Safety	EN 60950-1 IEC 60950-1		
Playback ³		1/4/9/16				Part 15 Subpart B	
Search Mode		Time/Date, Alarm, MD and Exact Search (accurate to 1 second)		Electromagnetic Compatibility (EMC)	EN 61000-3-2 EN 61000-3-3 EN 55032		
Playback Functio	on	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	,	· · · · · · · · · · · · · · · · · · ·	EN 50130 EN 55024		
Backup Mode		USB Device/Network					
Storage							
Internal HDD		Two (2) SATA Ports, up to 10 TB capacity for each disk					
Auxiliary Inte	erface						
USB		One (1) USB 2.0 Port and One (1) USB 3.0 Port					
RS485		One (1) Port for PTZ Control					

The Analytics+ functions are disabled when the additional IP channels are active.
 The output resolution for HDMI reduces to 1920 x 1080, 1280 x 1024, 1280 x 720 when the SMD function is enabled.
 The Playback split reduces to 1/4/9 when the SMD function is enabled.

Ordering Information				
Туре	Part Number	Description		
1080p HDCVI DVR with Analytics+	X52B3A4	16-Channel Penta-brid 1080p 1U, 4 TB Digital Video Recorder		
	X52B3A6	16-Channel Penta-brid 1080p 1U, 6 TB Digital Video Recorder		
	X52B3A8	16-Channel Penta-brid 1080p 1U, 8 TB Digital Video Recorder		
	X52B3A10	16-Channel Penta-brid 1080p 1U, 10 TB Digital Video Recorder		
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.)		
Rear Panel				



1	Ground	7	Audio Output (x1 RCA)
2	Audio Input (x4 RCA)	8	HDMI Output
3	VGA Output	9	USB Port
4	Power Switch	10	RJ-45 Ethernet Port (1000 Mbps)
5	Alarm Input (x16) Alarm Output (x3)	11	Power Input
6	Video Input (x16 BNC)	12	RS485 Port

