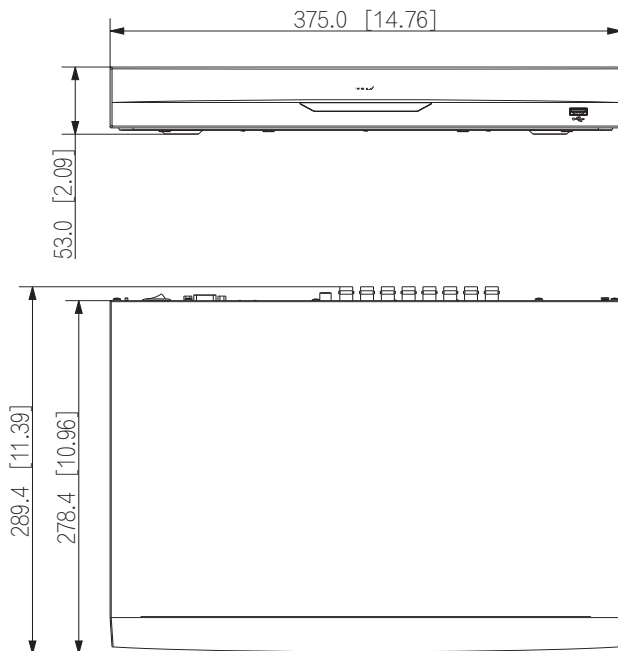


# 16 Channels Penta-brid 4K-N/5MP 1U 2HDDs Digital Video Recorder

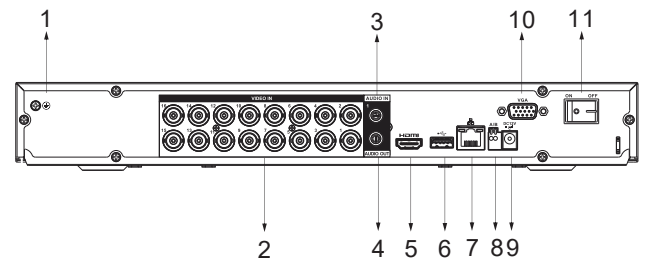


- H.265+/H.265 dual-stream video compression.
- Supports Full-channel AI-Coding.
- Supports HDCVI/AHD/TVI/CVBS/IP video inputs.
- Max 32 channels IP camera inputs, each channel up to 8MP; Max 128 Mbps incoming bandwidth.
- Up to 8 channels video stream (analog channel) Perimeter Protection
- Up to 16 channels video stream (analog channel) SMD Plus.
- Up to 2 channels video stream (analog channel) human face recognition.
- IoT & POS functionalities.

## Dimensions (mm[inch])



## Panels



- |                           |                            |
|---------------------------|----------------------------|
| 1 Ground                  | 2 VIDEO IN                 |
| 3 AUDIO IN, RCA Connector | 4 AUDIO OUT, RCA Connector |
| 5 HDMI Port               | 6 USB Port                 |
| 7 Network Port            | 8 RS-485 Port              |
| 9 Power Input             | 10 VGA Port                |
| 11 Power Switch           |                            |

## Technical Specification

### System

Main Processor	Industrial-grade processor
Operating System	Embedded Linux
Operating Interface	Web; Local GUI

### Perimeter Protection

Perimeter Performance AI by Recorder (Number of Channels)	Advanced Model: 2 channels, 10 IVS for each channel General Model: 8 channels, 10 IVS for each channel
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### Face Detection

Face Attributes	Gender; age group; glasses; expressions; face mask; beard
Face Detection Performance of AI by Recorder (Number of Channels)	2 channels (up to 12 face images/s)

### Face Recognition

Face Database Capacity	Up to 10 face databases with 20,000 face images in total. Name, gender, birthday, address, certificate type, certificate No., countries&regions and state can be added to each face picture
Face Recognition Performance of AI by Recorder (Number of Channels)	2 channels

### SMD Plus

SMD Plus by Recorder	16 channels: Secondary filtering for human and motor vehicle SMD Plus, reducing false alarms caused by leaves, rain and lighting condition change
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### Audio and Video

Analog Camera Input	16 channel BNC: adaptive access by default; HDCVI, AHD, TVI and CVBS access can be configured.
Camera Input	1. CVI: 4K, 6MP, 5MP, 4MP, 1080P@25/30fps, 720P@50/60fps, 720P@25/30fps. 2. TVI: 4K, 5MP, 4MP, 3MP, 1080P@25/30fps, 720P@25/30fps. 3. AHD: 4K, 5MP, 4MP, 3MP, 1080P@25/30fps, 720P@25/30fps.
IP Camera Input	Up to 32 channels of IPC access 16 IP channels by default + 16 channels (analog channels are converted to IP channels) incoming bandwidth: 128 Mbps, recording bandwidth: 128 Mbps and outgoing bandwidth: 128 Mbps *After IP channels are added beyond the existing channels, the AI Function (IVS, SMD, FACE) will be disabled.
Encoding Capacity	Main stream: All channels 4K@(1-7fps); 6MP@(1-10fps); 5MP@(1-12fps); 4K-N/4MP/3MP@(1-15fps); 4M-N/1080P/720P/960H/D1/CIF(1fps-25/30fps); Sub stream: 960H@(1fps-15fps); D1/CIF@(1 fps-25/30fps)
Dual-stream	Yes
Video Frame Rate	PAL: 1 fps-25 fps. NTSC: 1 fps-30 fps.
Video Bit Rate	32 kbps-6144 kbps per channel
Audio Sampling	8 kHz, 16 bit

Audio Bit Rate	64 kbps
Bit Rate Type	Video stream and composite stream.
Video Output	1 HDMI ,1 VGA HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 *Simultaneous/heterogeneous video sources output for VGA and HDMI is configurable.
Multi-screen Display	When IP extension mode not enabled: 1/4/8/9/16 When IP extension mode enabled: 1/4/8/9/16/25/36
Third-party Camera Access	Onvif, Panasonic, Sony, Axis, Arecont, Pelco, Canon, Samsung

### Compression Standard

Video Compression	AI Coding; H.265+; H.265; H.264+; H.264
Audio Compression	G.711A; G.711u; PCM

### Network

Network Protocol	HTTP; HTTPS; TCP / IP; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; P2P
Mobile Phone Access	iOS, Android
Interoperability	ONVIF 21.06, CGI
Browser	Chrome, IE9 or above, Firefox
Network Mode	Single-address mode

### Recording Playback

Record Mode	General, motion detection; intelligent; alarm; POS
Recording Playback	When the AI Function (IVS, FACE) is not enabled:1/4/9/16 When the AI Function (IVS, FACE) is enabled:1/4/9
Backup Method	USB device and network
Playback Mode	Instant playback, general playback, event playback, tag playback, smart playback (face and motion detection)

### Storage

Disk Group	Yes
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### Alarm

General Alarm	Motion detection, video loss, tampering, and local alarm
Anomaly Alarm	No disk, storage error, low space, offline, IP conflict, MAC conflict
Intelligent Alarm	Face detection, face recognition, perimeter protection
Alarm Linkage	Record, snapshot (panoramic), IPC external alarm output, access controller, voice prompt, buzzer, log, preset, email

### Ports

Audio Input	1-channel RCA (external) 16-channel BNC (coaxial audio)
Audio Output	1, RCA
Two-way Talk	Yes (share the same audio input with the first channel)
HDD Interface	2 SATA ports, up to 16 TB for a single HDD, the maximum HDD capacity varies with environment temperature
RS-485	1
USB	2 (1 front USB 2.0 port, 1 rear USB 3.0 port)