DHI-N70

Dahua 3U VIDEO MATRIX PLATFORM

Series Overview

The Video Matrix Platform delivers a next-generation, telecom-grade video processing solution. In addition to being developed with a robust ATCA framework (Advanced Telecom Computing Architecture), this platform also has a modular design with a card-based structure that allows its input and output cards to be flexibly configured to suit your specific needs. This powerful platform efficiently acquires various types of signal sources, performs audio and video encoding, accesses network signals, and decodes and transmits videos to the video wall. It also features advanced functions such as matrix switching, plan management, video splicing, window roaming, and live video. Its versatility allows it to be effectively utilized in command centers, monitoring stations, conference rooms, exhibition halls and more locations.

Functions

Flexible Card Selection

Designed for easy card insertion, you can freely insert video input and output cards into the system without restrictions.

Stable Resolution Even at 4K

Supports acquiring and outputting signals at 4K@60 Hz, providing ultra-high resolution output through advanced video capture and splicing techniques.

LED Display Compatibility

The resolution can be customized for output ports, ensuring optimal compatibility with LED displays.

- Standard 19" 3U rack-mounted server with ATCA telecommunication-grade architecture. There are 8 slots for audio and video cards.
- Developed with a modular design, it is easy to insert cards and configure it to meet your needs.
- Offers redundant dual power supply, making it highly suitable for locations such as machine rooms.
- The embedded LINUX operating system is secure, reliable, stable, efficient, and user-friendly for developers and maintenance personnel.
- Supports input of up to 2 channels at 4K@60 Hz for UHD encoding, or 2 channels at 1080p@60 Hz for HD encoding.
- Supports up to 10 channels of 4K and 10 channels of 1080p signal output through HDMI ports, allowing for seamless splicing across up to 20 screens.
- Support decoding up to 240-channel HD videos at 1080p@25 fps.
- Decodes videos in 32 MP, 16 MP, 12 MP, 8 MP, 5 MP, 3 MP, 1080p, 720p, and D1.
- Supports the following standards: H.265, H.264, SVAC, MPEG4 and MJPEG.
- The device can be freely controlled through the webpage, desktop client, mobile client and network keyboard.
- Features splicing, scaling, video integration, roaming, window opening, and layering.
- Supports 1, 4, 6, 8, 9, 16, 25, and 36 splits. You can also customize the split windows.
- Up to 128 presets can be set for scenes. You can also customize the layout of each scene on the video wall.
- Supports setting the default background color for the video wall and offers subtitles. You can also easily turn the screen on and off as needed.

Scene

Suitable for command centers, monitoring centers, operation centers, digital exhibition halls and more scenes.

Technical Specification

System

Main Processor	64-bit high-performance octa-core processor
Operating System	Embedded Linux operating system
Bus	Dual bus for the network and serial ports
Cabinet	Standard sized cabinet with a dual power supply and intelligent temperature control fan.

Port

USB	2 × USB 3.0 ports
Network Port	2 × RJ–45 10/100/1,000 Mbps self-adaptive Ethernet ports
RS-232	2
RS-485	1
HDMI	4 input ports, including 2 HDMI 2.0 ports and 2 HDMI 1.3 ports. 20 output ports, including 10 HDMI 2.0 ports and 10 HDMI 1.3 ports.
Alarm Input Port	2 alarm input ports.
Alarm Output Port	1 alarm output port.
Audio Output Port	One 3.5 mm jack port
Type-C Port	1 Type C port

Function

Interoperability	ONVIF; RTSP; Dahua Private; Hikvision Private
Transmission Protocol	TCP; UDP; RTP; RTSP; RTCP
Max System Configuration	Supports up to 500 decoding channels, including 20-ch 32 MP@25 fps (only H265), 30-ch 24 MP@25 fps (only H265), 45-ch 12 MP@25 fps, 60-ch 8 MP@25 fps, 75-ch 6 MP@25 fps, 90-ch 5 MP@25 fps, 120-ch 4 MP@25fps, 155-ch 3 MP@25 fps, 240-ch 1080p@25 fps, 400-ch 720p@25 fps, and 500-ch D1@25 fps HD video decoding capability (window does not cross screens, AI rule display is not enabled, output resolution is 1080p, and scene performance data does not exceed network bandwidth limits). Supports 2-ch 4K@60 fps and 2-ch 1080p@60fps input. Supports 10-ch 4K@60 fps and 10-ch 1080p@60 fps output. Output supports an ultra-high and ultra-wide resolution, up to 4096 (HDMI OUT3 supports an ultra-wide resolution, up to 2048).
Network Signal Access	Supports accessing up to 1,024 network channels.
Screen Splicing	Full configuration supports splicing up to 20 screens.
Spliced Screen Function	Features splicing, scaling, video integration, roaming, window opening, and layering.
Equipment Management	Supports local and network signals, and custom signal groups.
SDK	Supports secondary development, and provides platform SDK.
Control Mode	Supports local GUI operations and connecting to the webpage, PC client, mobile client, and network keyboard.
Multi-screen Display	Supports 1, 4, 6, 8, 9, 16, 25, and 36 splits, and M × N custom split.

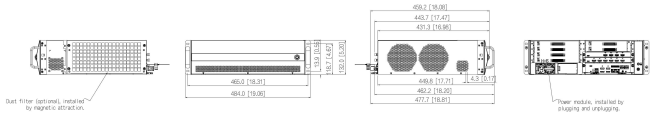
General

Power Supply	100–240 VAC; 50–60 Hz; 8 A; hot swapping
Power Redundancy	Supports redundant dual power supplies. Included: Single power supply Optional: Dual power supply
Power Consumption	≤ 140 W
Operating Temperature	-10 °C to +50 °C (+14 °F to +122 °F)
Operating Humidity	10%–90% (RH), non-condensing
Storage Temperature	-10 °C to +50 °C (+14 °F to +122 °F)
Storage Humidity	10%–90% (RH), non-condensing
Product Dimensions	484.0 mm × 477.7 mm × 132.0 mm (19.06" × 18.81" × 5.20") (L × W × H)
Packaging Dimensions	580.0 mm × 560.0 mm × 267.0 mm (22.83" × 22.05" × 10.51") (L × W × H)
Gross Weight	17.5 kg (38.58 lb)
Net Weight	14.69 kg (32.39 lb)
Series	N70
Type	Server

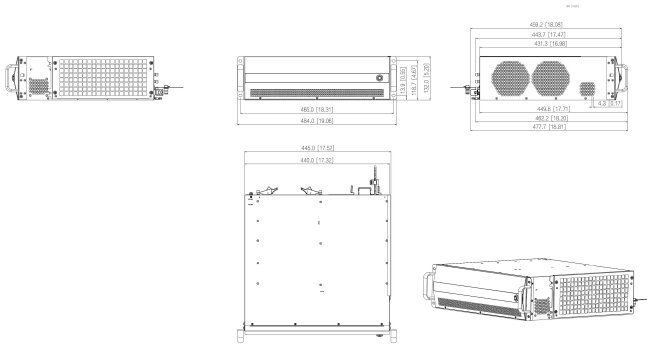
Ordering Information

Type	Model	Description
VIDEO MATRIX PLATFORM	DHI-N70	Dahua 3U VIDEO MATRIX PLATFORM

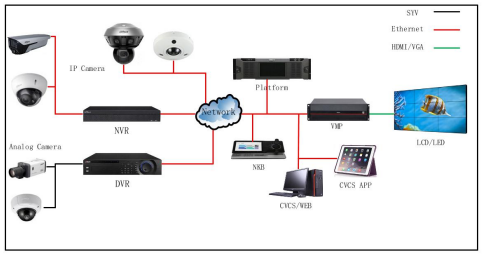
Installation



Dimensions (mm[inch])



Application



Panels

1	Power
2	Reset
3	Type-c port
4	Indicator light
5	USB 3.0 port
6	HDMI output
7	Alarm input, alarm output, standard RS–485 port
8	Network port (10/100/1000 Mbps Ethernet port)
9	RS–232 port of screen control
10	Audio out
11	Alarm clear
12	Ground

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