



*Shenzhen Mooncell Electronics Co., Ltd*

# **Video Splicer Series**

**V Series**

**Specifications**

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# Update Records

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File Version	Release Date	Update Records
V3.0	22/03/2023	On the basis of the U Series V3.2, modified the model name and updated the specifications.

# 1 Product Overview

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## Product Introduction

The V Series Video Splicing Processor represents Mooncell's latest cutting-edge solution for intelligent and cost-effective video signal processing. Housed in a modular 3U/5U/7U/14U standard chassis, it seamlessly integrates both digital and analog signal support. With its advanced capabilities, it delivers high-definition and fluid display of 4K@60Hz and lower resolution video signals across various spliced screens. Leveraging 4:4:4 color processing, it ensures an immersive visual experience with vibrant colors, crisp image quality, and lifelike details on large-scale displays.

## Application Scenarios

The V Series Video Splicing Processor fully caters to the ultra-high-definition application needs of command and dispatch centers, conference and presentation centers, exhibition and showcase centers, data operation and maintenance centers, broadcast and television centers, and more. Its advanced features and capabilities make it an ideal solution for these diverse scenarios, delivering seamless and high-quality video splicing performance.

# 2 Functions Introduction

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- Supports various input signals including DVI, HDMI1.3, HDMI1.4, HDMI2.0, DP1.2, VGA, SDI, and more.
- Each output card supports 10 Gigabit Ethernet ports for direct connection to LED screen receiving cards.
- Seamless switching between input signal sources.
- Supports PC scenes and the ability to save scene files.
- Allows for arbitrary layering of all signals, with multi-screen roaming and scaling.
- Supports irregular display screen splicing.
- Can modify the EDID of input interfaces.
- Supports hot backup of input signals.
- Enables scheduled scenes and scene rotation.
- Supports signal source cropping and local zooming.
- Features frame synchronization functionality.
- Maximum output width/height of 65536 pixels.
- Different resolutions can be used between different network ports.
- Supports intelligent resolution settings.
- Enables intelligent irregular splicing.
- Supports HDMI audio input.

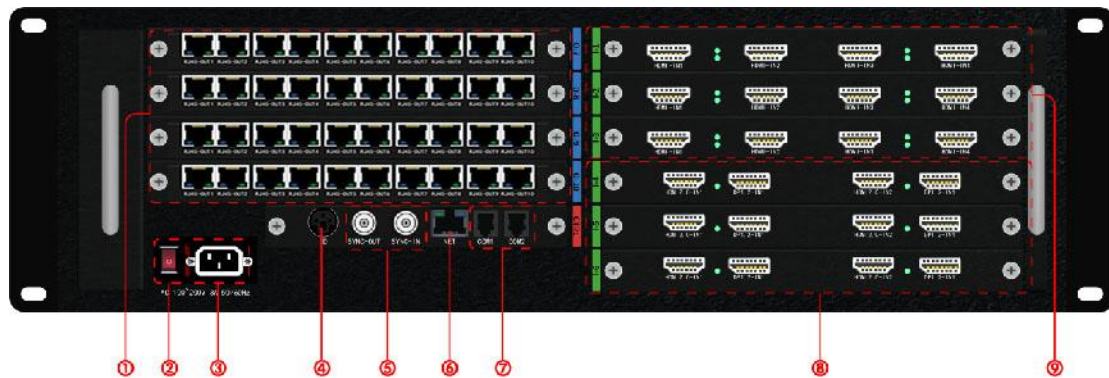
# 3 Product Appearance

## V300

### Front Panel



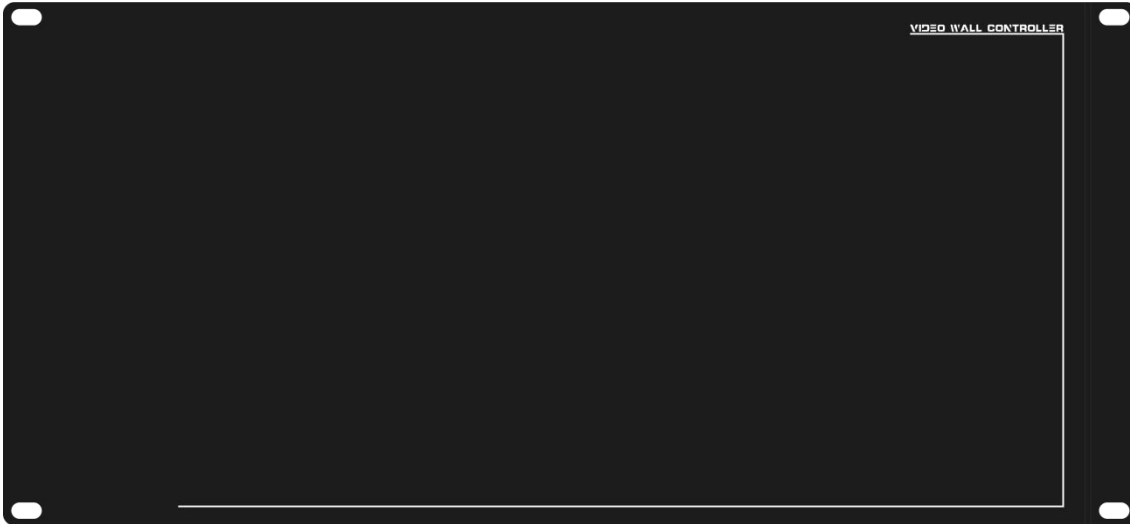
### Rear Panel



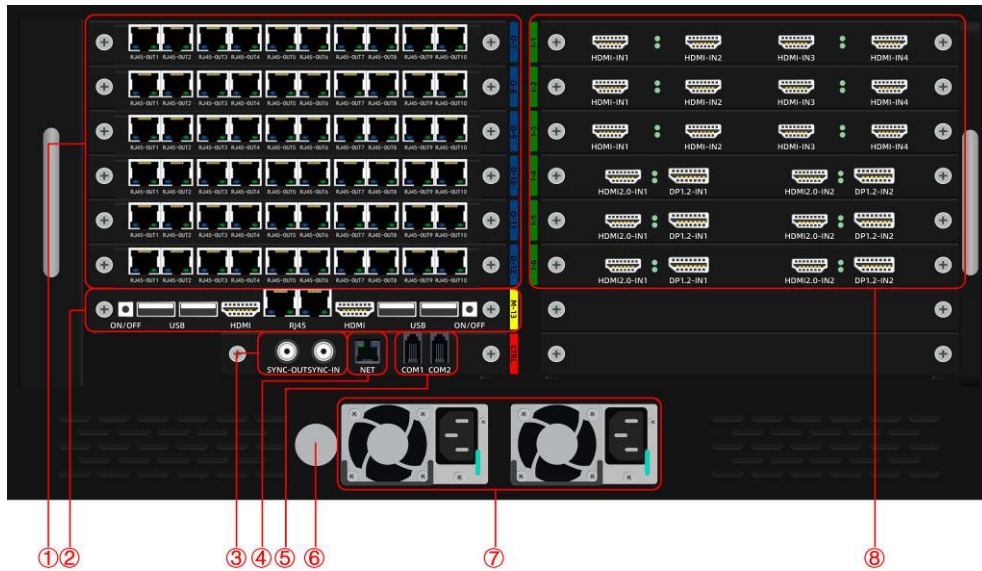
#	Illustration
①	Output Slots: 4 x RJ45 x10
②	Power On/Off
③	Power Socket
④	3D-IN Interface (Not Supported)
⑤	GenLock
⑥	RJ45
⑦	RS232
⑧	2K/4K Input Slots (Optional Cards: HDMI2.0x2/DP1.2x2/HDMI1.3x8/HDMI1.3x4/DVIx4/HDMI1.4x4/VGAx4/3G-SDIx4)
⑨	2K Input Slots (DVIx4/HDMI1.3x4/VGAx4/3G-SDIx4)

# V500

## Front Panel



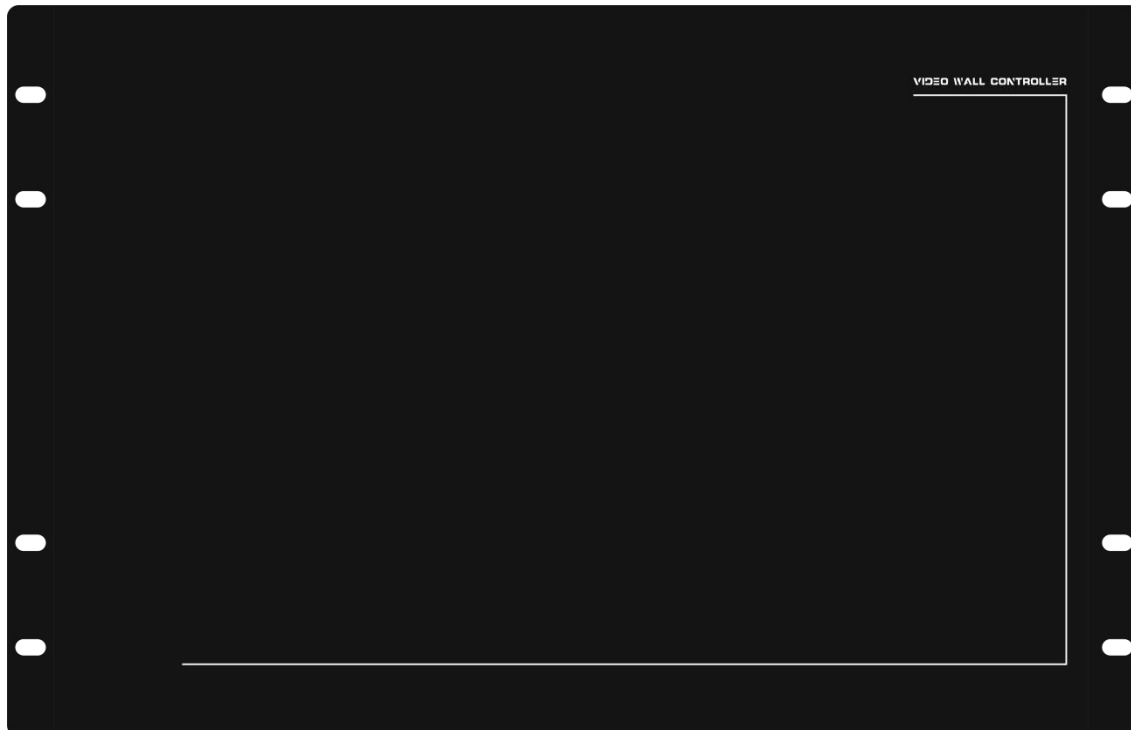
## Rear Panel



#	Illustration
①	Output Slots: 6 x RJ45 x10
②	Video Output Card
③	Genlock
④	RJ45
⑤	RS232
⑥	Power On/Off
⑦	Redundant Power Supply
⑧	Input Slots (2K/4K) (DVIx4/HDMI1.3x4/HDMI2.0x2/DP1.2x2/HDMI1.3x8/HDMI1.4x4/VGAx4/3G-SDIx4)

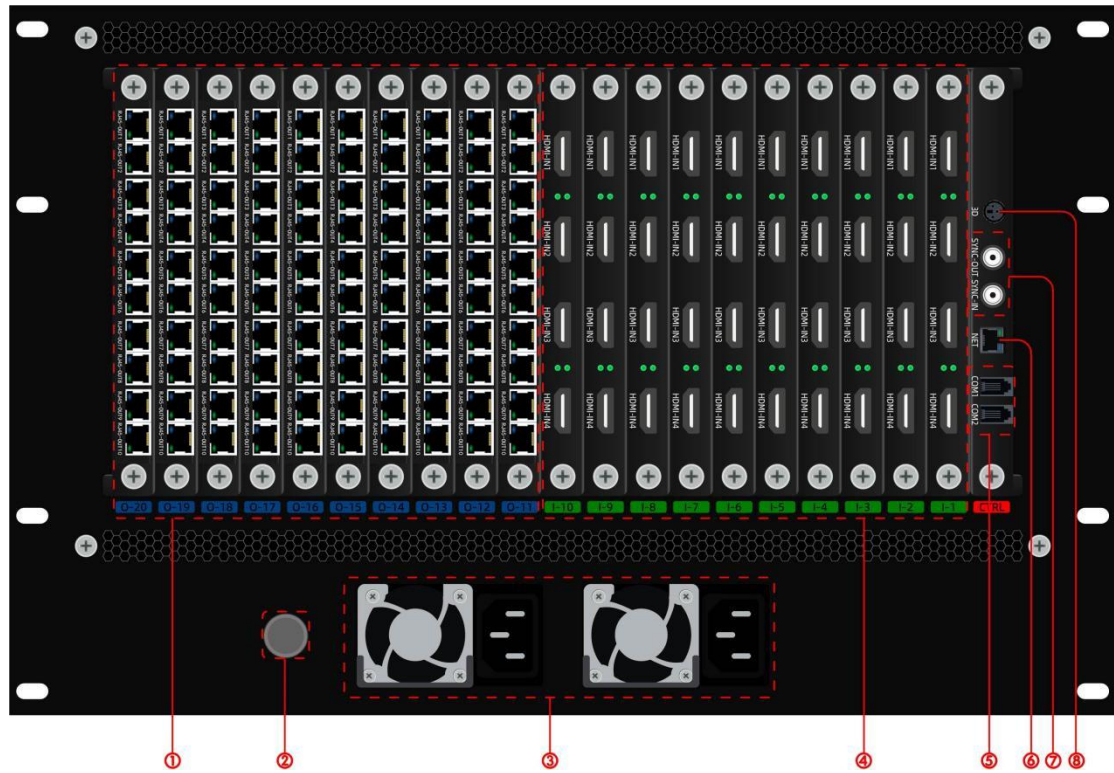
## V700

### Front Panel





## Rear Panel



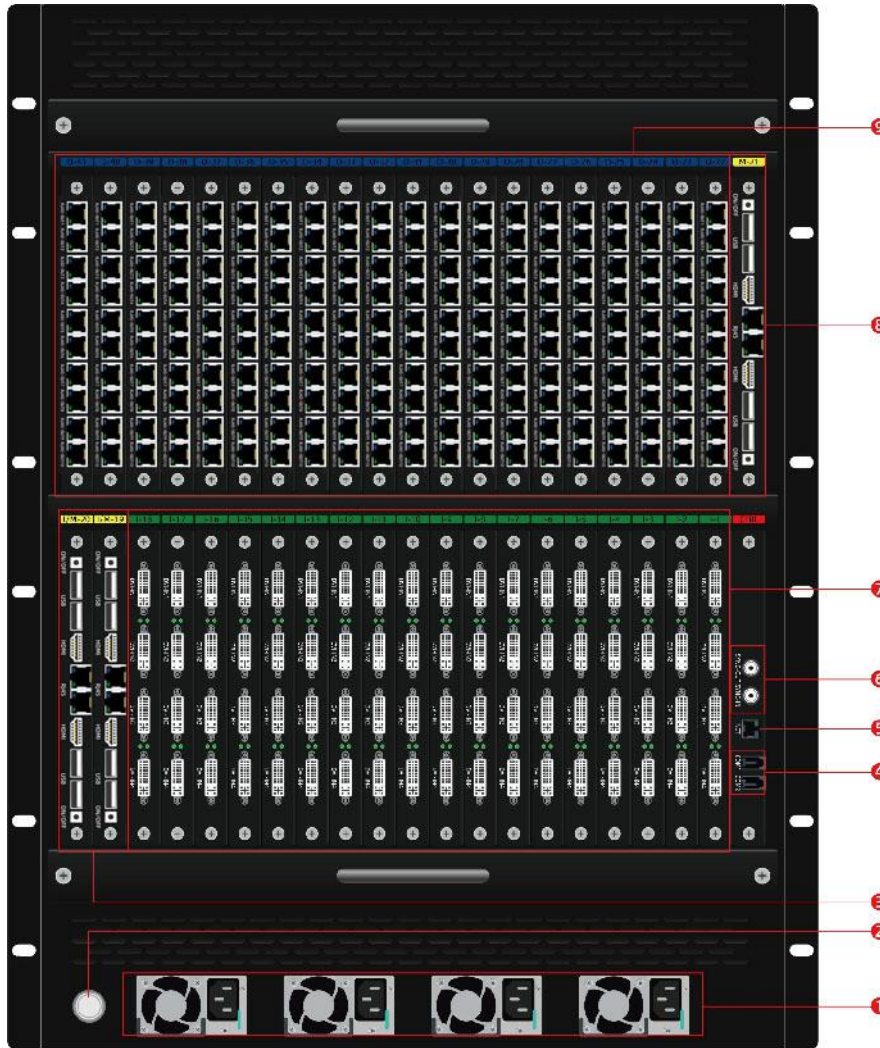
#	Illustration
①	Output Slots : 10 x RJ45 x10
②	Power On/Off
③	Power Socket
④	2K/4K Input Slots(Optional Cards: DVIx4/HDMI1.3x4/HDMI2.0x2/DP1.2x2/HDMI1.3x8/HDMI1.4x4/VGAx4/3G-SDIx4)
⑤	RS232
⑥	RJ45
⑦	GenLock
⑧	3D-IN (Not Supported)

# V1400

## Front Panel



## Rear Panel


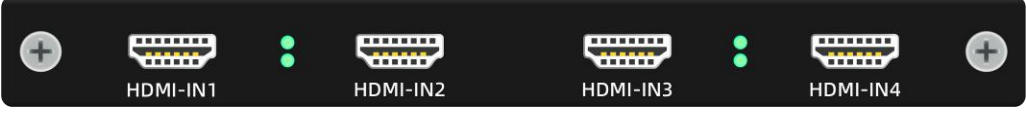
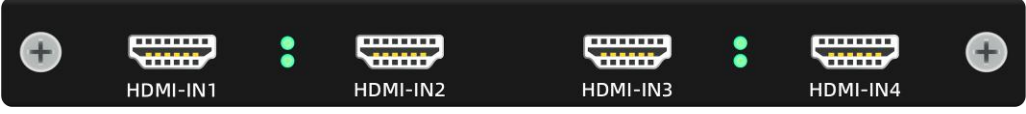


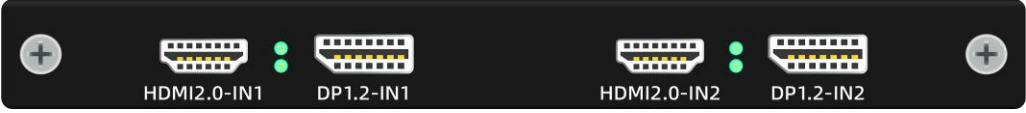
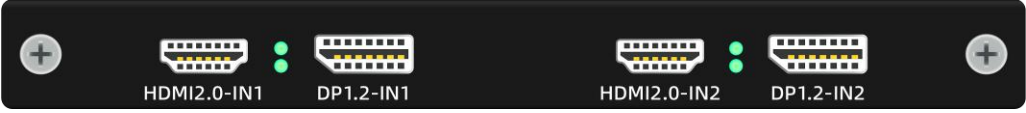

#	Illustration
①	Power Supply
②	Power On/Off
③	Video Output Card and Input Card Slots (Shared)
④	RS232
⑤	RJ45
⑥	GenLock
⑦	2K/4K Input Slots(Optional Cards: DVIx4/HDMI1.3x4/HDMI2.0x2/DP1.2x2/HDMI1.3x8/HDMI1.4x4/VGAx4/3G-SDIx4)
⑧	Video Output Slots
⑨	OUTPUT Slots : 20 x RJ45 x10



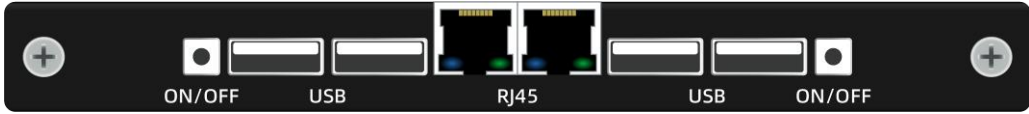
# 4 Product Specifications

<b>V Series Video Splicing Processor</b>				
<b>Product Model</b>	<b>V300</b>	<b>V500</b>	<b>V700</b>	<b>V1400</b>
<b>Chassis</b>	3U	5U	7U	14U
<b>Maximum Outputs</b>	2K-36x ; 4K@30HZ-24x; 4k@60HZ-6x	2K-48x; 4K@30HZ-24x; 4k@60HZ-12x	2K-80x; 4K@30HZ-40x; 4k@60HZ-20x	2K-160x; 4K@30HZ-80x; 4k@60HZ-40x
<b>LED OUTS</b>	40	60	100	200
<b>Loading Capacity/LED OUT</b>	650 Thousand			
<b>Maximum Image Layers</b>	32	48	80	160
<b>Maximum Loading Capacity</b>	26Million	39 Million	65 Million	0.13 Billion
<b>Widest/Highest Pixels/Port</b>	3840/3840			
<b>Audio</b>	It supports HDMI audio input			
<b>Video Output Card</b>	Not Supported	It supports 1 PCS	Not Supported	It supports 3 PCS
<b>Specs</b>				
<b>Chassis</b>	3U	5U	7U	14U
<b>Dimensions</b>	482.6×315×133mm (Length×Width×Height)	482.6×315×222.5mm (Length×Width×Height)	482.6×315×310mm (Length×Width×Height)	482.6×438×662.3mm (Length×Width×Height)
<b>Chassis Weight</b>	7.8Kg, Error: ±0.5kg	13.7Kg, Error: ±0.5kg	15.0Kg, Error: ±0.5kg	30.0Kg, Error: ±0.5kg
<b>Power Consumption</b>	204W	550W*2	550W*2	550W*4
<b>Voltage</b>	110~240V			
<b>Power Frequency</b>	50~60Hz			
<b>Heat Dissipation</b>	Fan			
<b>Operating Temperature</b>	0~50°C			


# Input Interfaces:

Interface Types	Signal Specs
<p><b>DVIx4</b></p>	 <p>Supports only VESA standard DVI-D digital signal;</p> <ul style="list-style-type: none"> <li>• Single port resolution supports a maximum of 2048×1152@60Hz and a minimum of 800×600@60Hz</li> <li>• Supports EDID customization</li> </ul> <p>Interface indicator light status explanation:</p> <ul style="list-style-type: none"> <li>• On: Input source is properly connected;</li> <li>• Off: No signal source connected or signal source is abnormal;</li> </ul>
<p><b>HDMI1.3x4</b></p>	 <p>EIA/CEA-861 standard, HDMI1.3×4 standard,</p> <ul style="list-style-type: none"> <li>• Single port resolution supports a maximum of 2048×1152@60Hz and a minimum of 800×600@60Hz</li> <li>• Supports EDID customization</li> </ul> <p>Interface indicator light status explanation:</p> <ul style="list-style-type: none"> <li>• On: Input source is properly connected;</li> <li>• Off: No signal source connected or signal source is abnormal;</li> </ul>
<p><b>HDMI1.4x4</b></p>	 <p>HDMI1.4 standard,</p> <ul style="list-style-type: none"> <li>• Supports 3840x2160@30Hz, 3840×1080@60Hz;</li> </ul>

	<ul style="list-style-type: none"> <li>• Supports EDID customization;</li> </ul> <p>Interface indicator light status explanation:</p> <ul style="list-style-type: none"> <li>• On: Input source is properly connected;</li> <li>• Off: No signal source connected or signal source is abnormal;</li> </ul>
<p><b>HDMI2.0x2</b></p>	 <p>HDMI2.0×2 standard,</p> <ul style="list-style-type: none"> <li>• Supports 3840x2160@60Hz, 4096×2160@60Hz, 1920×4800@60Hz, 7680×1080@60Hz;</li> <li>• Maximum width of 7680, maximum height of 4800;</li> <li>• Supports EDID customization;</li> <li>• Compatible with HDMI1.4 and HDMI1.3 video inputs;</li> </ul> <p>Interface indicator light status explanation:</p> <ul style="list-style-type: none"> <li>• On: Input source is properly connected;</li> <li>• Off: No signal source connected or signal source is abnormal;</li> </ul>
<p><b>DP1.2x2</b></p>	 <p>DP1.2×2 standard,</p> <ul style="list-style-type: none"> <li>• Supports 3840x2160@60Hz, 4096×2160@60Hz, 1920×4800@60Hz, 7680×1080@60Hz;</li> <li>• Maximum width of 7680, maximum height of 4800;</li> <li>• Supports EDID customization;</li> <li>• Compatible with DP1.1 video inputs;</li> </ul> <p>Interface indicator light status explanation:</p> <ul style="list-style-type: none"> <li>• On: Input source is properly connected;</li> <li>• Off: No signal source connected or signal source is abnormal;</li> </ul>
<p><b>HDMI1.3x8</b></p>	 <p>HDMI1.3 standard;</p> <ul style="list-style-type: none"> <li>• Maximum resolution for a single port: 2048×1152@60Hz, minimum resolution:</li> </ul>

	<p>800×600@60Hz.</p> <ul style="list-style-type: none"> <li>• Supports EDID customization;</li> <li>• Supports only RSB 4:2:2 color depth processing;</li> </ul> <p>Interface indicator light status explanation:</p> <ul style="list-style-type: none"> <li>• On: Input source is properly connected;</li> <li>• Off: No signal source connected or signal source is abnormal;</li> </ul>
<p><b>VGAx4</b></p>	 <p>VESA standard;</p> <ul style="list-style-type: none"> <li>• Supports 1920x1080@60Hz resolution;</li> </ul> <p>Interface indicator light status explanation:</p> <ul style="list-style-type: none"> <li>• On: Input source is properly connected;</li> <li>• Off: No signal source connected or signal source is abnormal;</li> </ul>
<p><b>3G-SDIx4</b></p>	 <p>3G-SDI interface, compatible with HD-SDI and SD-SDI standards.</p> <ul style="list-style-type: none"> <li>• Supports ST-424 (3G), ST-292 (HD), and SMPTE 259 SD standard video source inputs.</li> <li>• Maximum support for single-channel 1920×1080@60Hz video input.</li> <li>• Supports interlacing for 1080i/576i/480i.</li> </ul> <p>Interface indicator light status explanation:</p> <ul style="list-style-type: none"> <li>• On: Input source is properly connected.</li> <li>• Off: No signal source connected or signal source is abnormal.</li> </ul>
<p><b>Video Output Card</b></p>	 <ul style="list-style-type: none"> <li>• Supports up to 64 signal source video playback on the screen.</li> <li>• Maximum of 32 signal source video playback on a single network port.</li> <li>• USB interface is not currently available for external use.</li> </ul>

# Output Interfaces:

Interface Type	Signal Specs
<p><b>RJ45x10</b></p>	 <p>RJ45 Gigabit Ethernet port.</p> <ul style="list-style-type: none"> <li>• Maximum load of 650,000 pixels per port.</li> <li>• Load capacity is 650,000 pixels when the output color depth is 8-bit.</li> <li>• Load capacity is 300,000 pixels when the output color depth is 10-bit.</li> <li>• Compatible with the entire line of Mooncell receiving cards.</li> <li>• Supports custom protocol development for receiving cards.</li> </ul>

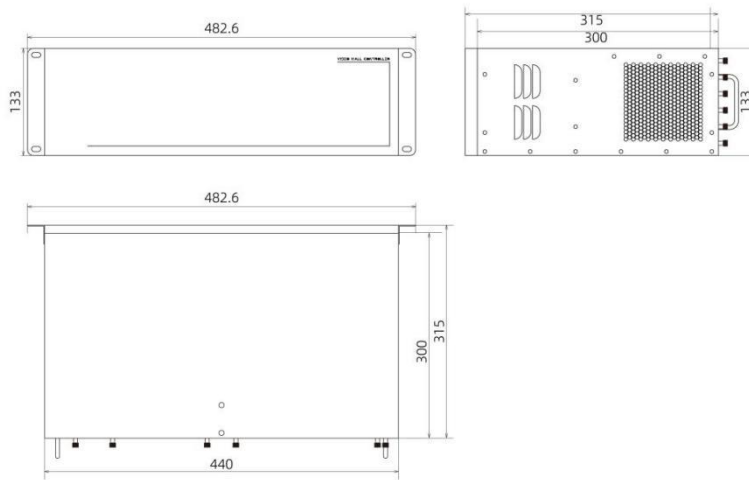


# 5 Product Parameters

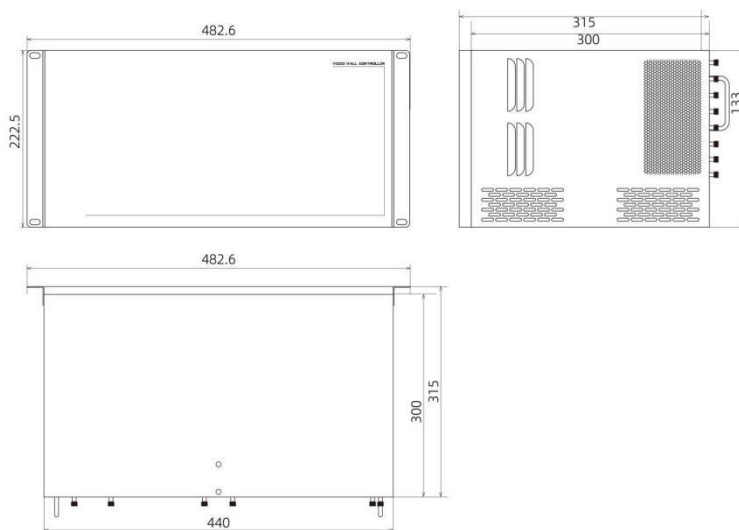
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## Product Dimensions

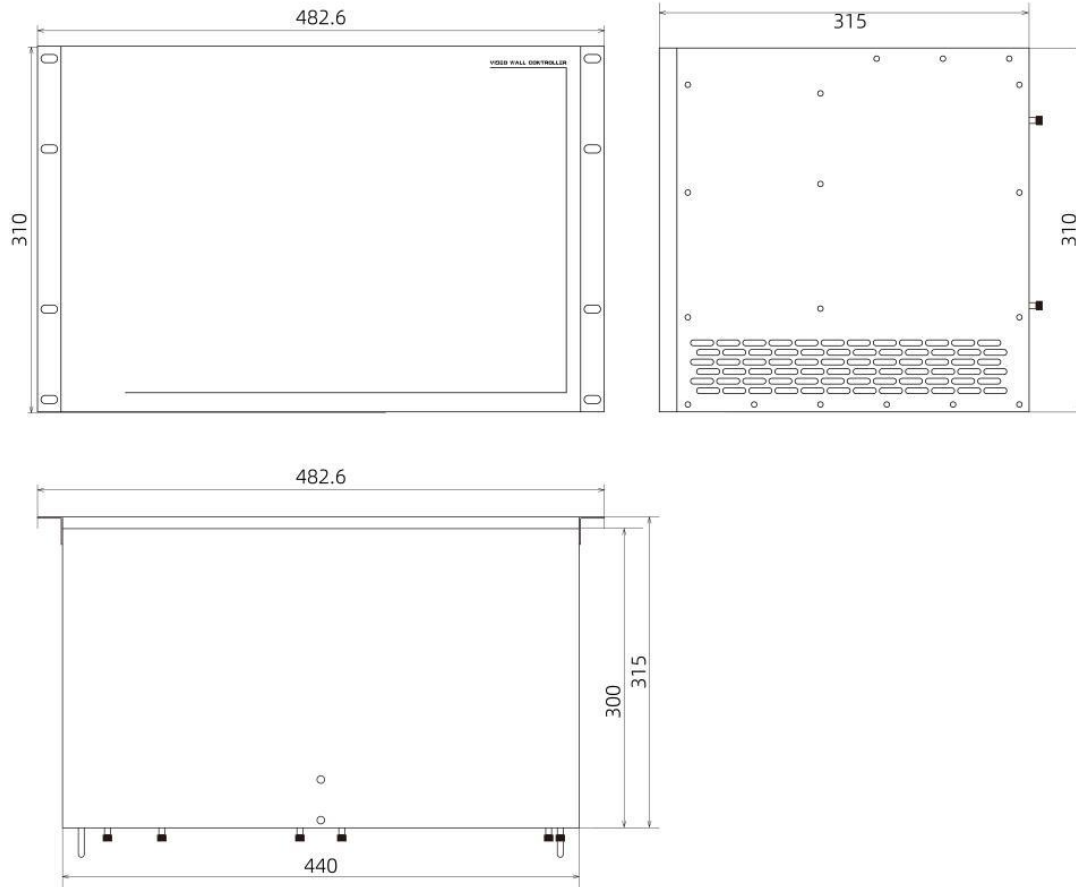
### V300



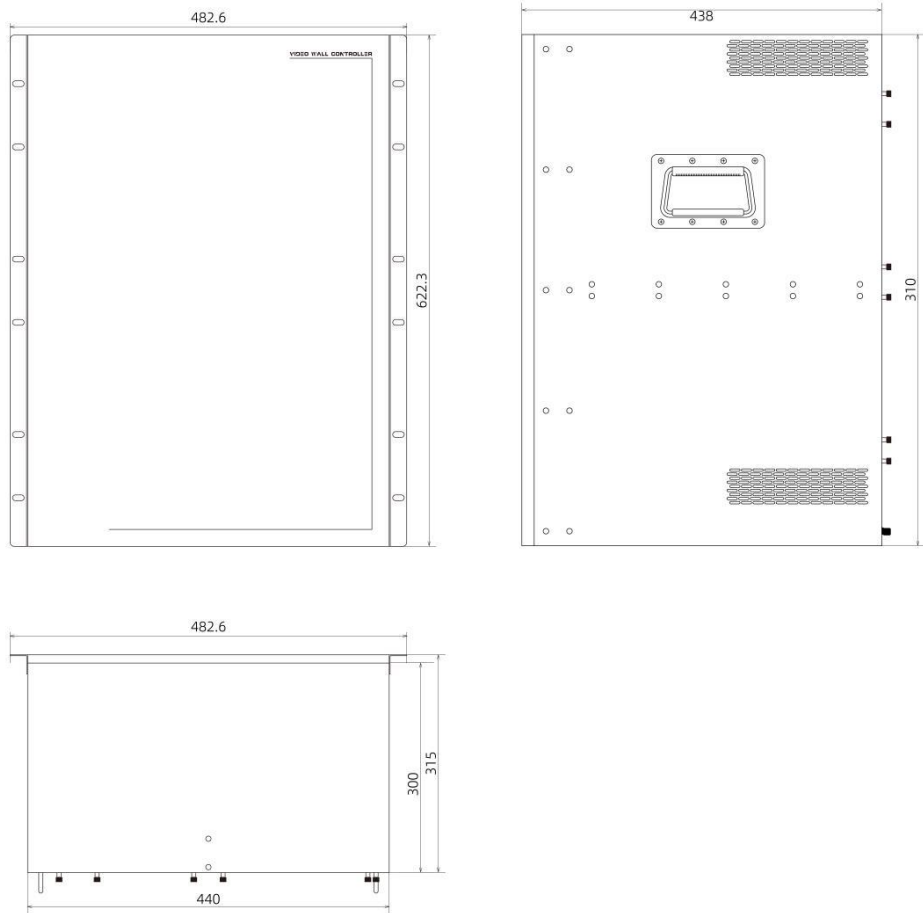
### V500



# V700



# V1400



## Please note the following precautions:

- High voltage danger: The operating voltage of this product is AC -100V to 240V.
- Do not allow liquids, metal fragments, or other conductive objects to enter the internal components of the device to avoid safety hazards.
- Please ensure that the device is used in a dry and clean environment.