



瑞众科技
RUIZHONG TECHNOLOGY

xR Virtual Production Rendering Server

P6-MUHD



Specifications Document

Revision History

Release version	Release Date	Update Notes
V1.0	2023-09-13	• First release

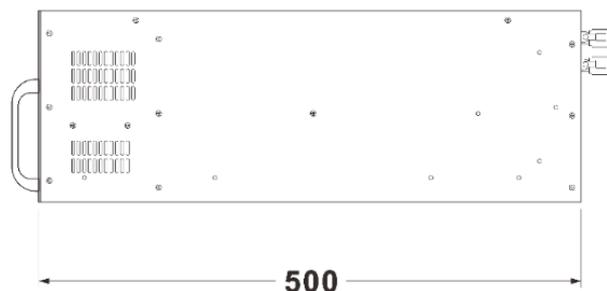
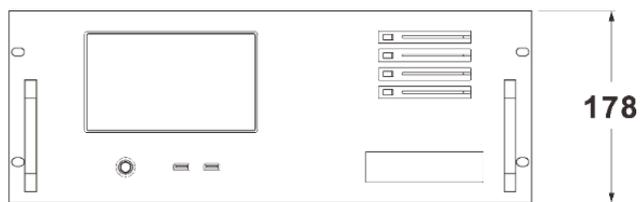
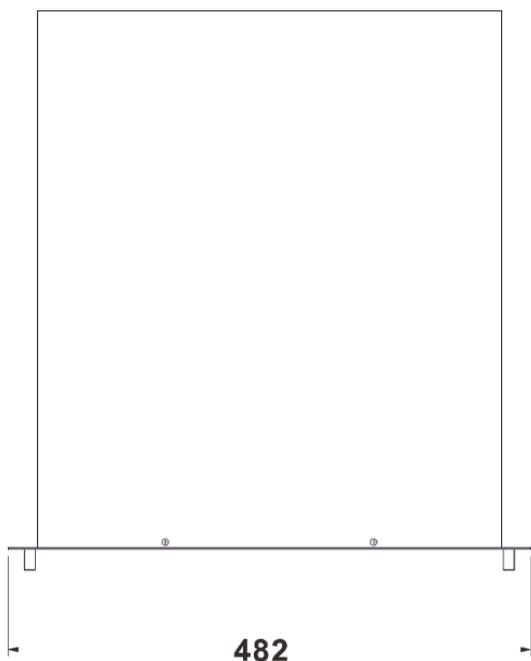
Product Introduction

The P6-MUHD xR Rendering Server provides rendering, compositing, and streaming services for xR virtual production. It features state-of-the-art NVIDIA GPUs, supporting leading engines such as UE5. With powerful GPU rendering capabilities, it delivers photorealistic quality and lifelike lighting effects, offering robust application support for xR virtual production.

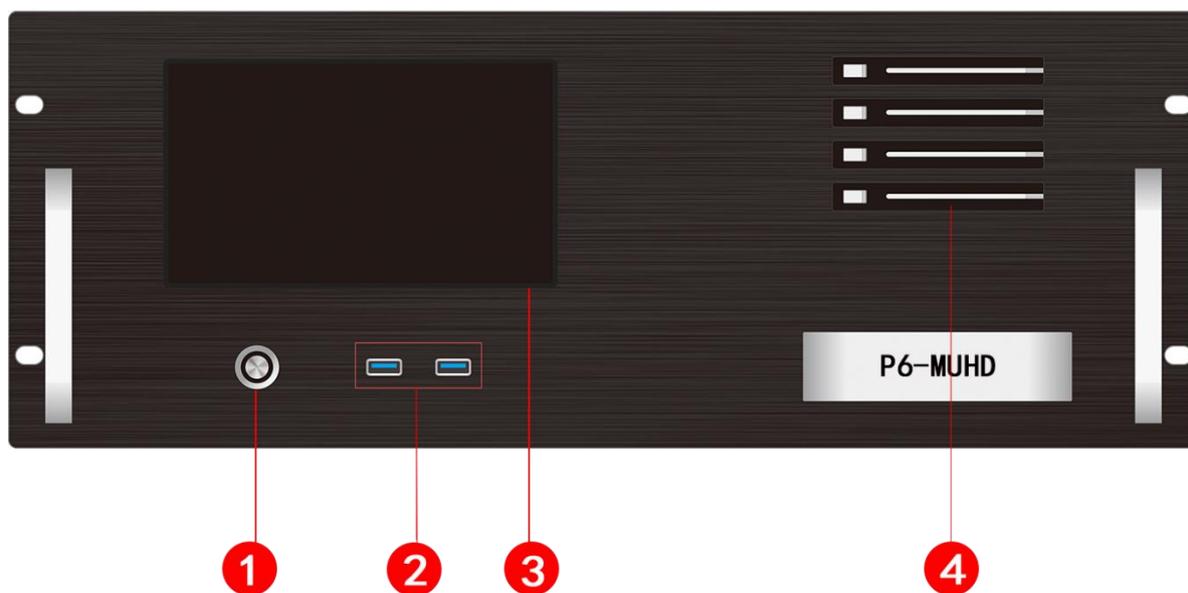
Product Features

- Unlimited SDI/NDI Input/Output port expansion;
- Unlimited SRT I/O port expansion;
- Unlimited SMPTE 2110 I/O port expansion;
- Support professional camera tracking system;
- Supports independent zoom/focus encoders;
- Synchronously fuse real and virtual camera movements;
- Support virtual production based on LED large screen;
- Network expansion;
- Multi-machine expansion;
- Multi-GPU expansion.

Product Dimensions

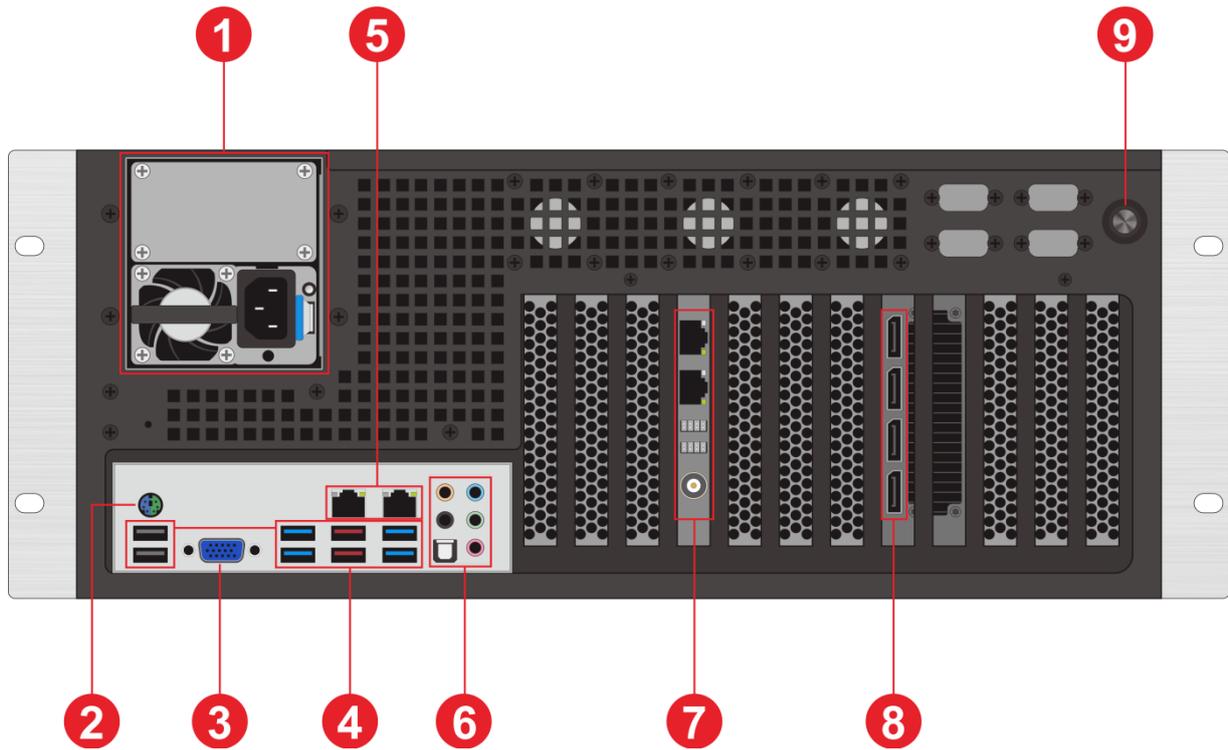


Product Appearance



Front Panel

Index	Interface	Quantity	Illustrate
1	Power on and off button	1	• Power on and off button
2	USB	1	• Type-A USB3.0 *2
3	7-inch touchscreen display	1	• Display system information, hardware monitoring, temperature detection, output port status
4	Front hard drive enclosure	4	• 2.5-inch SATA HDD can be installed



Back Panel

Serial number	Interface	Quantity	Illustrate
1	Power input	1	<ul style="list-style-type: none"> • Power input • 110V-240V 50/60Hz • Alternating current
2	PS/2	1	<ul style="list-style-type: none"> • Connect a PS/2 device
3	VGA	1	<ul style="list-style-type: none"> • Connect a VGA display • For setting up the system only
4	USB	8	<ul style="list-style-type: none"> • 8×Type-A
5	RJ45	2	<ul style="list-style-type: none"> • 2×Gigabit self-adaptive RJ45 ports
6	Audio	1	<ul style="list-style-type: none"> • Standard 3.5 audio port
7	Sync card	1	<ul style="list-style-type: none"> • 2×RJ45 ports for cascading between sync cards • 1×BNC port for connecting external frame synchronization signals
8	DP1.4 port	4	<ul style="list-style-type: none"> • 4 DP1.4 ports • Capable of outputting 4 channels of 4K video signals
9	Reset button	1	<ul style="list-style-type: none"> • Bios reset button • Pressing resets the server

Device Hardware/Software

Hardware Parameters	
CPU:	INTEL XEON W2255(10 cores, 20 threads)
Memory:	64GB DDR4 RECC server error correction memory
Storage:	4TP*2 Raid0, Raid11, with support for hot-swappable hard drives
Graphics Card:	Nvidia Quadro RTXA6000 professional graphics card
Frame Sync Card:	Nvidia Quadro SYNCII
Power Supply:	2000W power supply (can be upgraded to 1+1 redundant backup)
Chassis:	4U hot-swappable chassis
Radiator:	Air-cooled heat dissipation
Software	
Operating system:	Windows 10 Pro
power supply	
Input Power:	110-220V AC ~50hz
Maximum Power:	2000W

Equipment Specifications

Electrical Specifications:	110-240V~ 6A 50/60Hz ;2000W maximum power
Installation Specifications:	4U rack-mounted installation (considering on-site conditions).
Dimensions:	500mm (length) × 482mm (width) × 178mm (height)
Operating environment:	Temperature: 5-35°C (40°-95°F), Humidity: 5%-95% (non-condensing)
Storage environment:	-10°C~+60°C ;0%RH~95%RH, (non-condensing)
Package size:	678mm (length) × 548mm (width) × 265mm (height).
Accessories:	Power Cable*1, Ethernet Cable*1, Mouse and Keyboard Set*1, Wireless Network Adapter*1, DP Cable*8, MiniDP to HDMI Cable*1, MiniDP to DVI Cable*1, Activation Label*1 (Attached to the Front Panel of the Chassis), Inspection Report*1, Test Report*1, Certificate of Conformity*1, Packing List*1

Features

1. **Powerful rendering capability:** Support real-time 2D/3D rendering, post-processing, special effects, color grading, LUT, and advanced 3D graphics functions, such as HDR, depth of field, shadows, reflections, refractions, etc.
2. **Unreal Engine Real-time Rendering Support:** Support DLSS, ray tracing, RTXGI, and other technologies.
3. **Virtual Studio features:** Include advanced chroma keying, multiple editable motion paths for virtual cameras, customizable virtual cameras, and broadcast control interfaces..
4. **Live Actor Interaction:** Provide virtual lighting for live actors, as well as real-time casting of shadows, reflections, and refractions.
5. **Device Compatibility:** Support the use of object tracking systems to achieve the purpose of camera tracking, such as Antilatency, OptiTrack, Qualisys, HTC Vive and other devices.
6. **High-Definition Rendering:** Support rendering at any resolution up to 8K.
7. **Multi-platform Live Streaming:** You can directly stream to platforms supporting RTMP such as Bilibili, Douyin and others.
8. **Flexible Programming Interface:** Provide node-based graphical programming interface and real-time scene editing, as well as curve-based real-time timeline and animation editing.
9. **Multiple control methods:** Support all events and rendering parameters through touch screen, mouse, keyboard, GPIO, MIDI, DMX/ArtNet.
10. **Customization capability:** 3D objects and scenes with materials and animations can be imported via COLLADA or FBX format, and custom materials/post-processing shaders can be created in the node-based editor.
11. **Multi-language Support:** Support Chinese and English switching.

Packing list

Product	Quantity	Specification	Unit
Host	1	P6-MUHD	Unit
Power Cord	1	1.8 meters	Strip
HDMI Cable	1	2 meters	Strip
DP Cable	4	2 meters	Strip
Wireless Network Card	1	USB wireless network card	piece
Keyboard and Mouse	1	Dual delphinium USB keyboard mouse	Set
Certificate of Compliance	1		Copy
Inspection Report	1		Copy
Functionality Checklist	1		Copy
Packing list	1		Copy

i Illustrate

When using the equipment, please ensure it is placed horizontally. Do not invert or place vertically.

This product can be installed in a standard 19-inch equipment rack. The weight-bearing requirement for the rack is at least four times the weight of all equipment inside. Please use four M5 panel screws for secure installation.

Affirmations and Warnings

This is a Class A product. In a residential environment, this product may cause radio interference. In such cases, users may need to take practical measures to address the interference.

Disclaimer

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