



# LED Phantom media player Server Specification



Hunan Bowan Technology Co., Ltd.

## Update history

version	Release date	Update instructions
V1.0.0	2021-9-7	The first official release
V1.1.0	2021-9-27	Correct support media format

## Overview

The Phantom media player Server is an LED multimedia server (include software) developed and produced by Hunan Bowan Technology Co., Ltd. It is an integrated broadcast control server specially designed for multimedia fields such as multimedia exhibition halls, banquet halls, and stage performances. The product has powerful functions, flexible and convenient operation, high stability .

The Phantom media player Server can not only complete the pixel-to-pixel display of the large screen, but complete the display of a variety of special-shaped screens, it also has a professional program arrangement function for stage performance.

## Features

- 4 DP outputs, pixel-to-pixel display on super large screen
- 1 DVI monitor output port
- Smooth playback of 7680×4320 resolution video
- Support hardware decoding, super rendering ability, excellent playback performance
- Unlimited channels, automatic splicing and fusion
- Support projection correction fusion
- Support geometric deformation function, showing the effect of creative display
- Support multiple connections, realizes the cascading of multiple devices with large screens
- Support MIDI keyboard and DMX device control
- Support time code receiving and sending, realizing integrated control of sound and light
- Support saving and calling of templates for screen management, which is convenient for on-site arrangement
- Support spout reception, cooperate with interactive projection, interactive material on the screen
- Pre-editing , you can edit the plan without affecting the output
- Virtual screen simulation and central management,
- Special effects to reshape the material, a variety of special effects can be combined freely
- Unlimited output channels, automatic splicing and fusion
- Interaction between master and backup mode plans
- Support multiple video and audio output separately (optional)
- Automatic backup when editing plans to prevent data loose
- Support DVI, SDI signal capture and management (optional)
- NDI signal receive and send out function to let signal share between devices and software
- PPT animation, webpage and streaming media playback
- The humanized neon light on the rear panel can illuminate the interface while rendering the atmosphere

- Free layout of functional window modules, multiple layouts can be saved
- Plan jump, time clipping, shortcut keys, etc.
- Screen cloning, material playback is fully synchronized
- Control commands support remote command control under UDP protocol
- Humanized panel design, real-time monitoring of operating status
- Support linkage control with splicer and console to realize scene switching

## Panel description



	Function Description
①	Full-color LCD performance monitoring screen
②	Power button
③	USB3.0*2



## Port specifications

Input port (optional)		
Type	quantity	Specifications
SDI	2	Maximum support 1080P@60Hz
DVI	2	1.3 standard, maximum resolution 1920×1080@60Hz
Audio	1	Microphone input

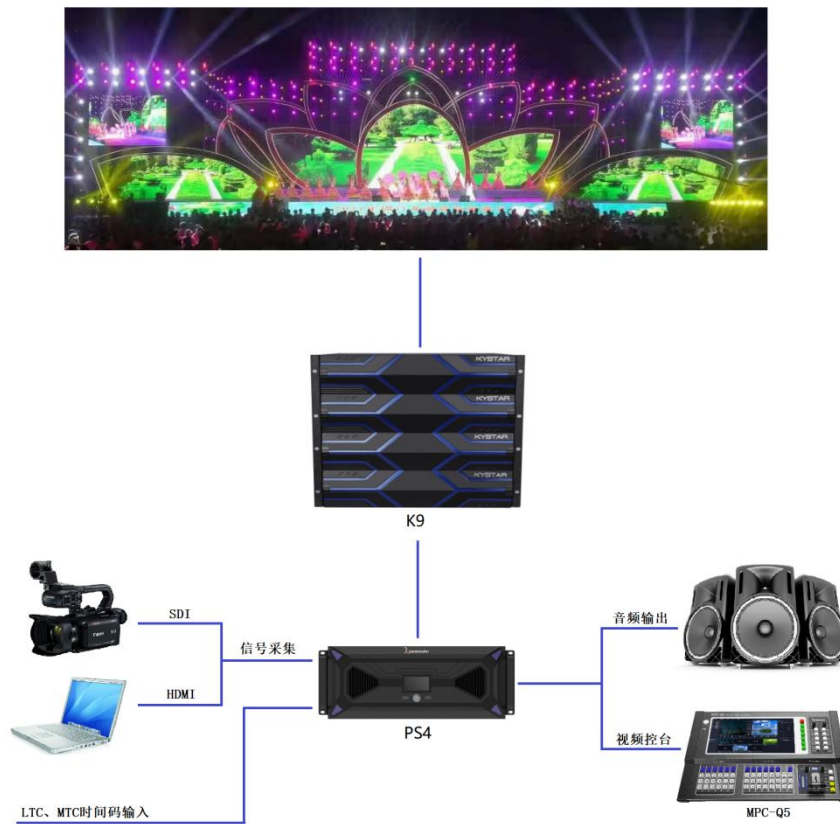
Output port		
Type	quantity	Specifications
DP	4	Maximum resolution 3840×2160@60Hz
DVI-Monitor	1	Maximum resolution 1920×1080@60Hz
Audio	3	Canon audio output, internal isolation

Control port		
Type	quantity	Specifications
RJ-45	1	1000M
Audio	4	USB3.0×4

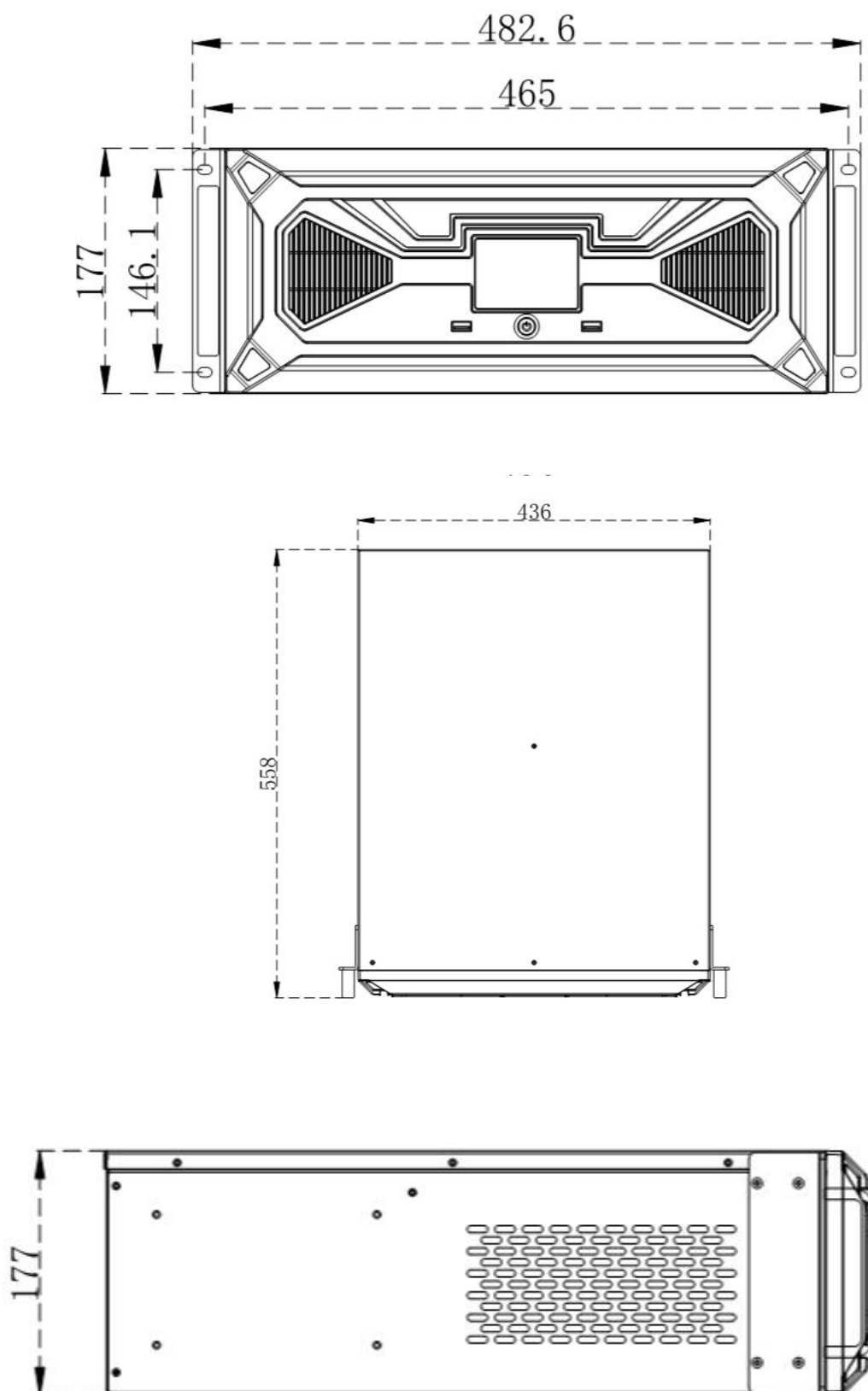
Hardware configuration (standard configuration)	
Processor	Intel Core octa-core high-frequency processor
Motherboard	ASUS High Performance motherboard
RAM	DDR4 16G High-speed memory
SSD	512G M.2 High-speed solid state drive (scalable)
Graphics card	5G Professional graphics card
Capture card	Kommander custom DVI/SDI capture card (optional)
Power supply	Server power supply
Audio	Canon audio output, internal isolation
Chassis	Kommander custom chassis

Machine Specification	
Power supply	100-240V AC~50/60Hz 0.6A
Operating temperature	0-45°C
Size	483 (W) ×177 (H) ×558 (D) mm
weight	15KG
Power consumption	650W

## Topological graph



## Size





## Supported hardware decoding parameters

Supported hardware decoding parameters	
4k resolution	Format: H264、H265, Resolution limit: wide maximum 4096 , height 4096
8k resolution	Format: H265、Vp9, Resolution limit: wide maximum 8192., height 8192
Code format	AVC, HEVC, VP8, VP9, mpeg-1, mpeg-2
Package format	mp4、mov
color space	color space: yuv444、yuv422、rgb can' t hardware decoding
Color depth	8bit

## Supports media formats

Type	Format
Video	MP4、AVI、MKV、WMV、FLV、MOV、ASF、MPEG、MPG、TP、TS、MTS、M2TS、VOB、RMVB、RM、RAM、DIVX、EVO、OGM、M1V、M4V、MPE、3GP、WEBM、KRAWF、KTESTF
Picture	JPG、JPEG、GIF、BMP、PNG、TIF、TIFF、ICO
Audio	MP3、MP2、MPA、AAC、OGG、WAV、WMA、APE、AC3、FLAC、M1A、M2A、M4A、RA、DTS、DTSHD

## Material making Reference

### Video making Reference

Material	Frame rate	Type	Code format	Pixel format	Graphics card	Remark
		JPG		YUV420/YUV444		Recommended width height within 16K, super long pictures, suggested discount production
		JPG		YUV420/YUV444		If the resolution is greater than 4K, video is recommended
1080P	30FPS	MP4	H264	YUV420	P2000	Recommended 10M
	60FPS	MP4	H264	YUV420	P2000	Recommended 20M

4K	30FPS	MP4	H264	YUV420	P2000	Recommended 40M
	60FPS	MP4	H264	YUV420	P2000	Recommended 80M
		MOV	HAP		P2000	HAP,The rate is immutable,It is recommended to align the width and height to integer multiples of 16
8K	30FPS	MP4	H265	YUV420	RTX4000	Recommended 80M
	60FPS	MP4	H265	YUV420	RTX5000	Recommended 160M
	30FPS	MOV	HAP		RTX5000	The rate is immutable,It is recommended to align the width and height to integer multiples of 16

If the material exceeds 8K, advised to split it into multiple files

### Audio making Reference

Code format	Format	Rate	Remark
ACC	S16	44100/48000	If there are more than eight channels, advised to split it into multiple files