

CS16K

Media Server

Specification V1.0



Revision history

Version	Release Date	Description
V1.0	Oct, 2022	Initial release.

Overview

CS16K is a professional media server with powerful playback and control capabilities, high stability, and great scalability. Based on robust hardware, it is optimized for media playback of two 8K videos and output eight 4K@60Hz videos. With the built-in GrandShow, a professional playback and control software, the server is capable of decoding and playing different formats of contents. Specially, various styles of screens can be realized, such as screen split, special-shaped screen splicing and recombination, etc. In addition, other features are also supported including multiple layers, multiple scenes, and seamless switching between scenes, and more. All these capabilities and functions can greatly meet the demands from the video playback and control.

Features

Output

- Supports 8x DP1.4 outputs – up to 4K@60Hz for each
- Supports pixel-to-pixel display up to 16384×4320@60Hz

Function

- Supports playing various contents such as videos, images, texts, webpages, streaming media, etc.
- Supports edit, preview, switching, saving, and copying of multiple scenes.
- Supports functions such as freeze, background image display and scene switching
- Supports decoding and playback of HDR video
- Supports display content rotation at any angle; and various styles of screens, such as screen split, special-shaped screen splicing and recombination, etc
- Supports real-time monitoring of system status, as well as alert of failure and anomaly
- Supports PVW program edit mode and PGM mode for output contents monitoring
- Supports capturing of NDI signals
- Supports redundancy backup
- Supports Pad control for visualized operations, such as screen monitoring and scene switching
- Supports control via third party devices for scene switching, screen adjustment and volume adjustment, etc.
- Supports programs and effects edit on the timeline
- Support monitoring and logs.
- Support scheduled commands, such as software opening, closing, restart, as well as server shut down, restart, playback, pause and stop.
- Support window effects, including Color Wheel, Feather, Spherize, Invert Colors, Kaleidoscope, Keying, Marquee, Mask, Mosaic, Night Vision, Relief, Sharpen, Splash Screen, Twirl, etc.
- Support transition effects on timelines, such as, Fade, Left Move and Right Move, Top Move and Bottom Move.

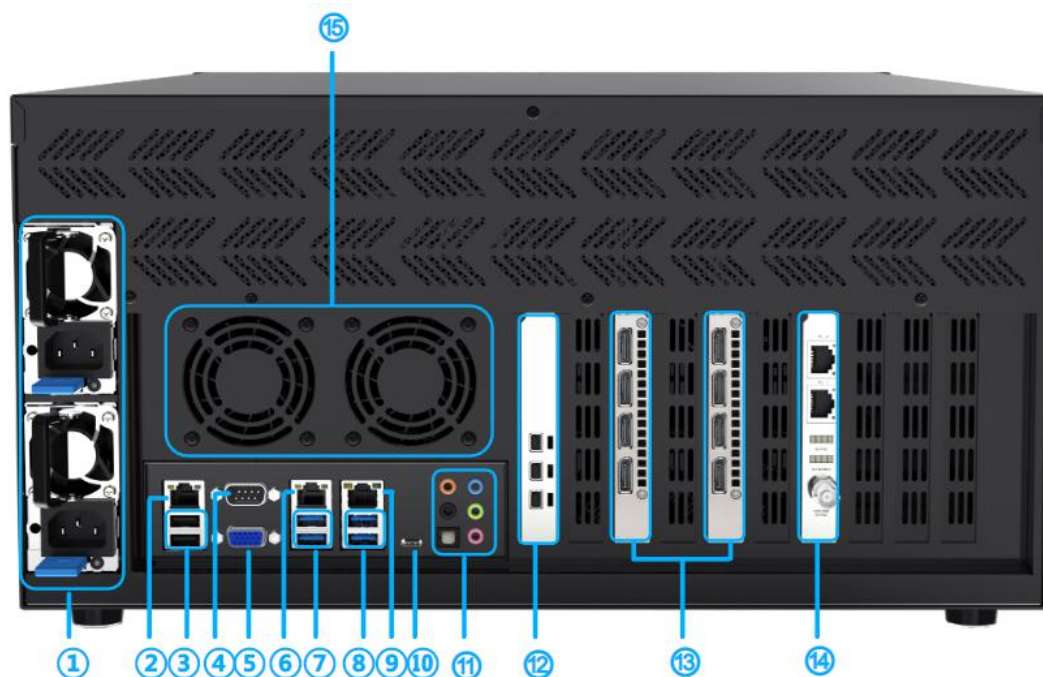
Hardware

Front



No.	Item	Description
1	Power switch	Power on or off.
2	USB port	2x USB 3.0 ports

Rear



No.	Item	Description
1	Power	1300W, Redundant backup
2	LAN1	1Gb LAN port
3	USB 2.0	2x USB 2.0 ports
4	COM	1x COM port
5	VGA	VGA video port
6	IPMI LAN	Remote management port
7	USB 3.2 Gen 1	2x USB 3.2 ports
8	USB 3.2 Gen 1	2x USB 3.2 ports
9	LAN2	10Gb LAN port
10	Type-C	Type-C port
11	Audio	7.1 audio output ports
12	3x Mini DP	Video output ports
13	8x DP	Video output ports
14	SYNC II Synchronization card	For synchronous display between devices
15	Fan	2x fans

Application scenarios



Specification parameters

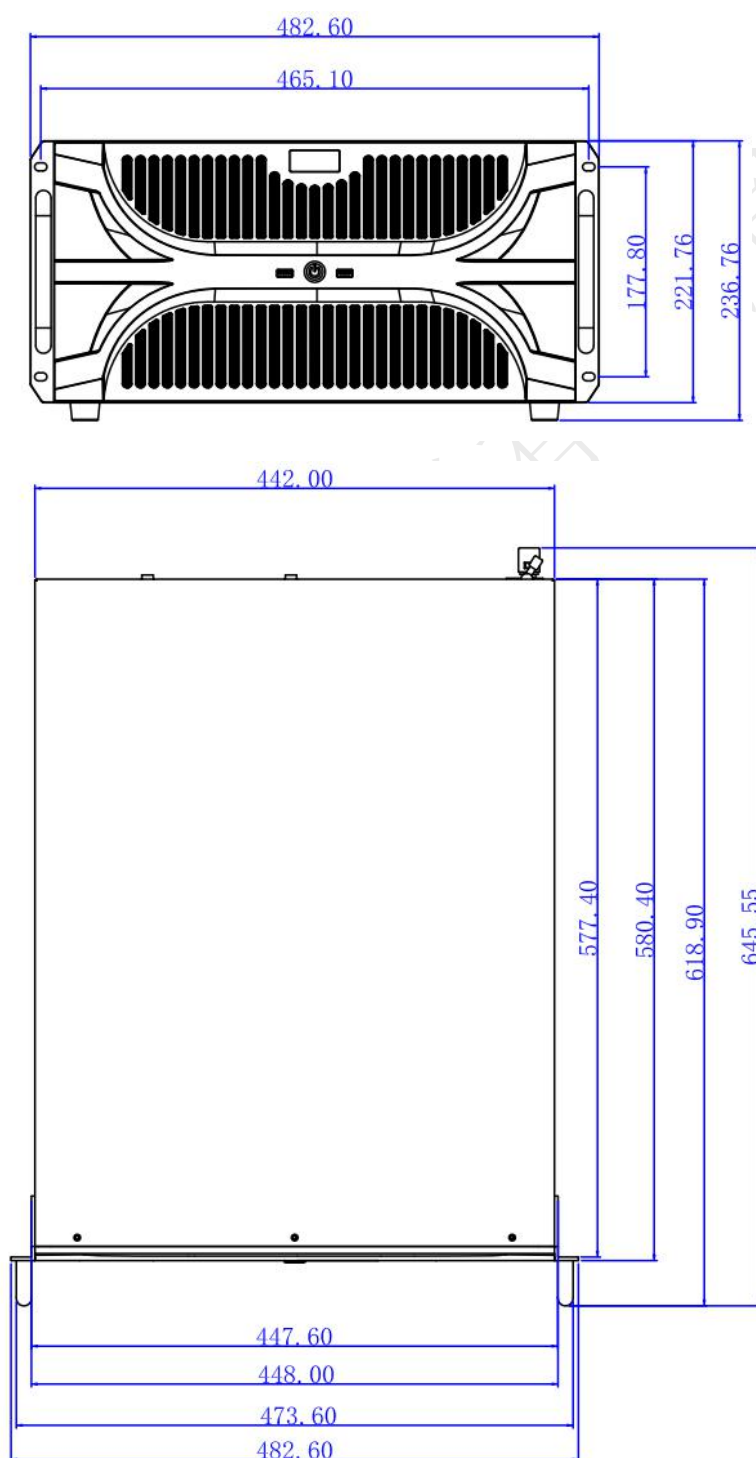
Model		CS16K
Chassis		5U
Operation interface port		3x Mini DP (up to 4096×2304@60Hz)
CPU		Intel® 16 cores, 32 threads
RAM		128G
SSD		1TB M.2 high speed SSD
Capture card (optional)		SDI or DVI port
Graphics card		2x 16G Quadro® professional Graphics
Video output		8x DP1.4
Maximum resolution of each port		4096×2160@120Hz
Maximum resolution		16384×4320@60Hz
Audio		3.5mm audio input and multichannel output
Network bandwidth		1GbE & 10GbE
Software		GrandShow
Operating environment	Temperature	0°C~55°C/32°F~131°F
	Humidity	0%RH~85%RH, non-condensing
Storage environment	Temperature	-40°C~70°C/-40°F~158°F
	Humidity	0%RH~95%RH, non-condensing
Electrical specification	Power supply	200-240V~8A, 50/60Hz
	Power	700W
Physical specification	Dimensions (W×H×D)	482.6mm×236.76mm×577.4mm

Dimensions

Unit: mm

Tolerance: $\pm 0.1\text{mm}$

Chassis:



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