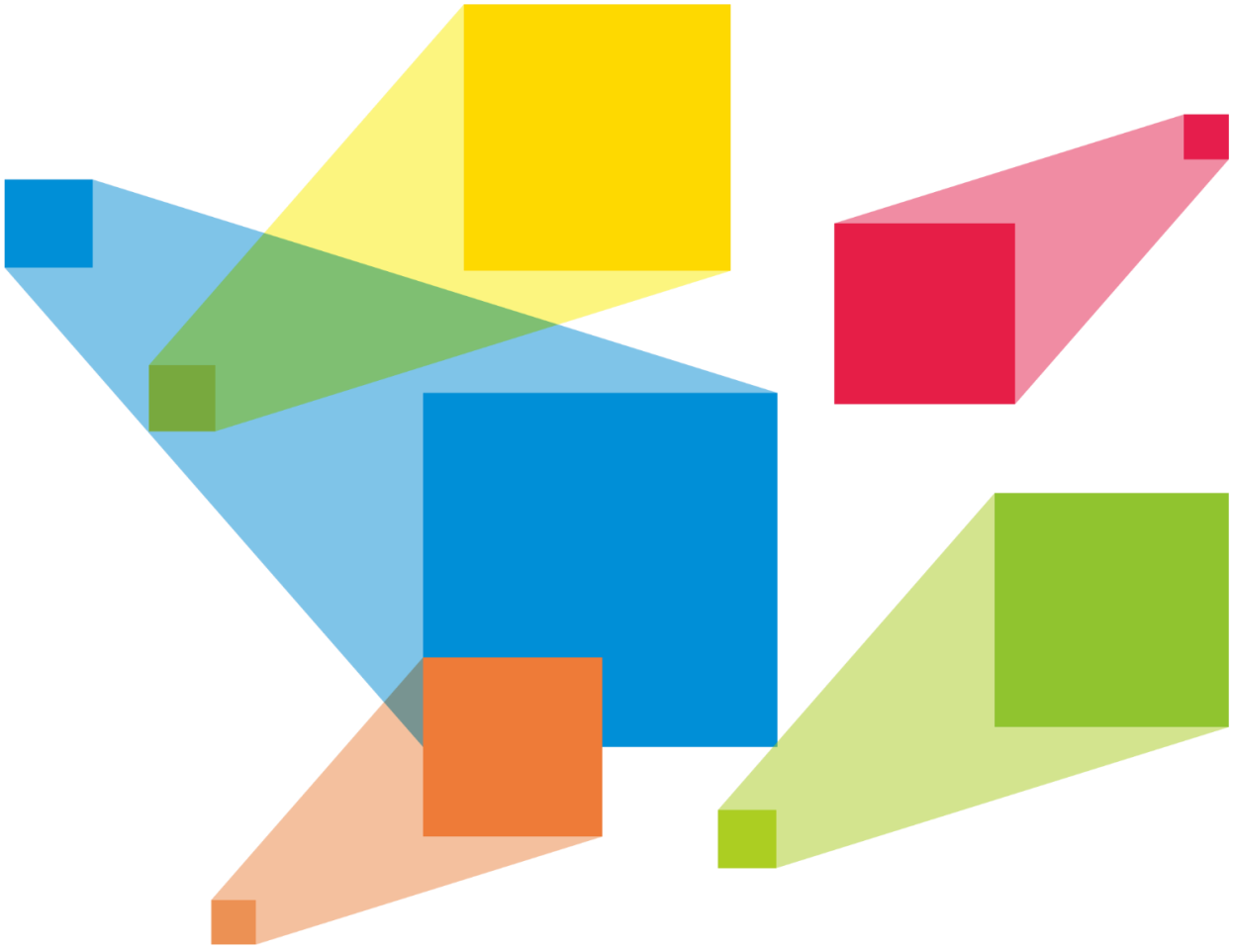
ET4S-G

Media Server



Specifications

Change History

Version	Release Date	Description
V1.4.1	2026-06-08	• Added the HDR format requirements. • Updated the certifications. • Changed the HPGA4000 graphics card to HPG4000Ada. • Updated the P2000 specifications. • Updated the operating system. • Updated the input power.
V1.4.0	2026-04-10	• Updated the rear panel description. • Updated the product selection section. • Updated the optional items section. • Updated the media file types and formats.
V1.3.0	2026-01-09	• Added the capture card section. • Updated the features section. • Updated the product selection section. • Updated the multimedia playback and control software.
V1.2.1	2025-10-16	Changed HPG4500 Ada graphics card to HPG4500a.
V1.2.0	2025-08-31	• Changed MPG2200 graphics card to P2000. • Changed HPG4000 graphics card to HPGA4000. • Changed HPGA5000 graphics card to HPG4500 Ada.

Introduction

The ET4S-G is a media server developed by NovaStar, which is specifically designed for multimedia exhibition halls, banquet halls, stage performances and other creative fixed installation scenarios. The ET4S-G provides an excellent pixel-to-pixel display with ultra-high definition, diversified mosaic creativity and outstanding media arrangements for professional stage performances. Built-in with intuitive and user-friendly media playback and control software, the ET4S-G enables simplified stage display management and best-in-class human-machine interaction.

Certifications

CE, FCC, IC, CB, KC

If the product does not have the relevant certifications required by the countries or regions where it is to be sold, please contact NovaStar to confirm or address the problem. Otherwise, the customer shall be responsible for the legal risks caused or NovaStar has the right to claim compensation.

Features

- A single device supports up to 8K×4K output capacity, ultra-high resolution video decoding and pixel-to-pixel display
- Splitting, reorganization, and rotation of multiple outputs, enabling loading of irregular displays and achieving creative mosaic display
- Dividing output into up to 64 partitions, accommodating ultra-wide screens and rapid mapping adjustments
- HDR output support
- Hardware decoding support
- NDI sources, website page sources, sources from capture devices, streaming media sources and text sources support
- External LTC and MTC timecode input support, ensuring the precision and synchronization of playback control
- Multi-screen management and control
- Unlimited number of layers
- Adjustable layer size and priority
- Layer keying, blurring, opacity, mask and cropping adjustments
- Visualized program arrangement and management
- Live and pre-edit modes
  - The program editing and playback are in sync in live mode
  - Edit the programs before displaying them on the screen in pre-edit mode

- Media library management, including videos, pictures, Office files, audios and image sequences

  Up to 1080p PowerPoint files are supported; laser pointer control for PowerPoint playback is supported.
- Media file grouping and sorting
- Media file batch import
- Media collection configurations
- Playback progress management
- Program jumping and auto jumping settings
- Crossfade on program switching
- One-click FTB
- Auto startup of built-in software on system power on
- Auto program playback on software startup
- Controlled via NovaStar's Visual Intelligent Control Platform (VICP), enabling a highly efficient and user-friendly control experience

Appearance

Note

All product pictures shown in this document are for illustration purpose only. Actual product may vary.

Front Panel

No.	Area	Function
1	Power button	Turn on or turn off the device.
2	USB	2x USB 3.0 • Connect to the mouse and keyboard. • Insert a USB drive for importing media files.

Rear Panel

No.	Area	Description
1	Power button	• ON: Power on the device. • OFF: Power off the device.
2	Power	Connect to a power source. 100—240V~, 50/60Hz
3	CONTROL	• ETHERNET: RJ45 connector, 2.5 Gbps, for networking • CONTROL UI: HDMI connector for connecting a monitor to display the software interface. Max output resolution: 2K×1K@60Hz
4	USB	4x USB 3.0 Connect to the mouse, keyboard or USB drive.
5	AUDIO	XLR audio output connector • R: Right channel output for XLR audio • L: Left channel output for XLR audio
6	AUDIO	3.5 mm external audio connector • C/SUB: Center/Subwoofer, for center channel and subwoofer audio output

No.	Area	Description
		• LINE IN: A line input connector used to connect external audio devices, allowing audio signals from external device to be fed into the audio system or amplifier • LINE OUT: A line output connector for sending audio signals from the audio system to other devices • MIC: A microphone input connector for connecting a microphone, capturing sound, and transmitting it into the audio system • REAR: A rear channel audio connector used for connecting rear or surround speakers
7	OUTPUT	4x DP 1.4 • Up to 4x 5120×2880@60Hz outputs • Four connector mosaic output, with a total mosaic width or height limit of 16384 pixels • Single connector width: 480 to 8192 pixels • Single connector height: 300 to 8192 pixels Note • The graphics card does not support irregular mosaic layouts. The mosaic layout must be 1×2, 1×3, 1×4, 2×2, 2×1, 3×1 or 4×1. • The output resolutions of the graphics card connectors that are used for mosaic must be the same.
8	SYNC	Sync connector, available when work with the optional sync card

Product Selection

The media server is available in different mainframe models. Please refer to the configuration information in the table below for your selection.

Model	Graphics Card	Sync Card	Capture Card
ET4S-G(P2) Mainframe	1x P2000 • Playback of 1 layer of 8K×4K@30fps or 3 layers of 4K×2K@60fps SDR video (hardware-decoding) • Memory: 5 GB • Type: GDDR 5 • Bit width: 160-bit	No support	Optional, select at most 1 For detailed information, please refer to Optional Items.

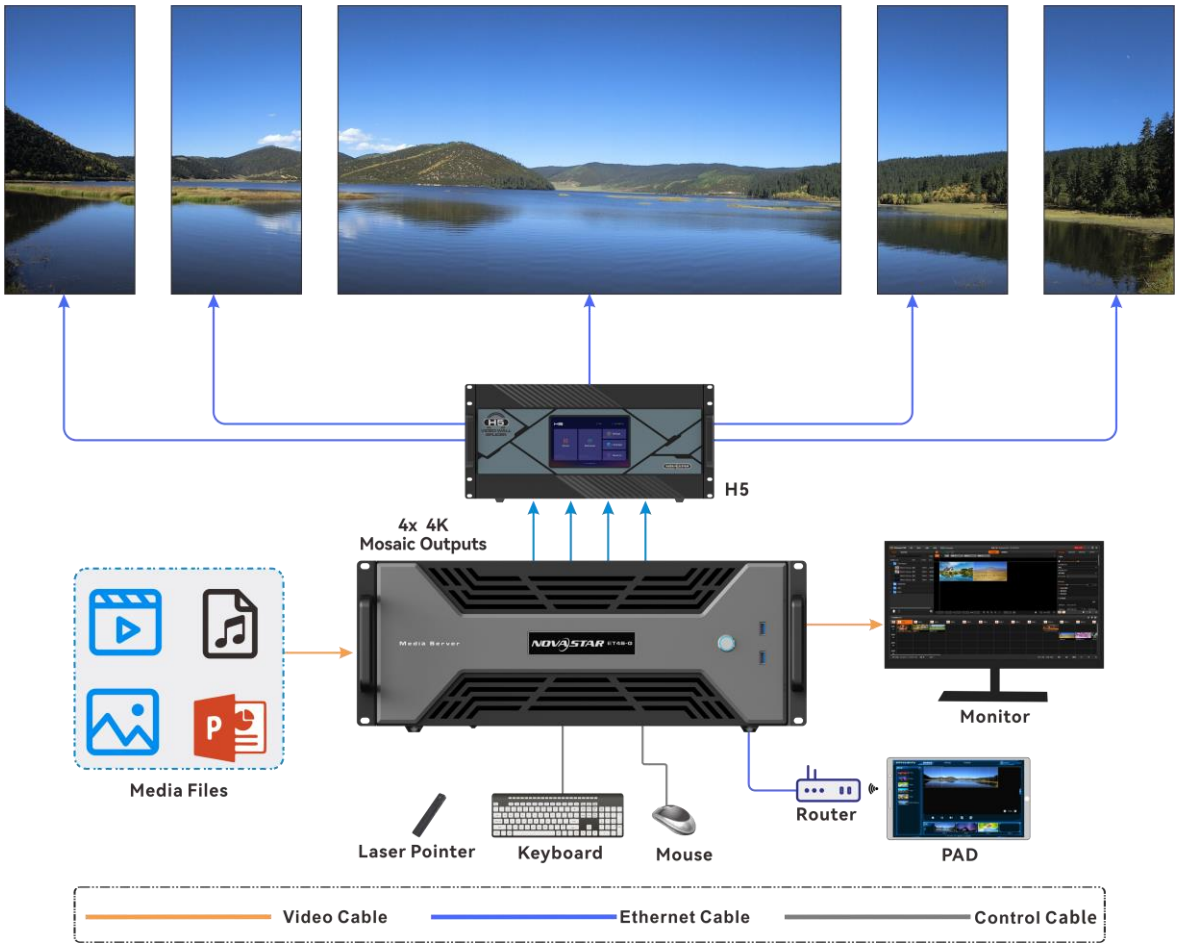
Model	Graphics Card	Sync Card	Capture Card
ET4S-G(A4) Mainframe	1x HPG4000Ada • Playback of 1 layer of 8K×4K@60fps SDR video (hardware-decoding) • Memory: 20 GB • Type: GDDR 6 • Bit width: 160-bit	Optional, select at most 1 Required for multi-server mosaic synchronization, and a sync card must be configured.	

Optional Items

Products mentioned in this section require separate purchase. Please refer to the specification information in the table below for selection.

Type	**Description**
Sync card 2	 • 2x RJ45 Accept a frame lock signal and output the signal. • 1x BNC Accept an external sync signal. • LED indicators Indicate the statuses of the sync signal connections.
4-Channel HDMI 2K60 Capture Card	 4x HDMI • Max resolution of single connector: 1920×1080@60Hz • Support for simultaneous access to 4 video inputs.
ET4S_2-Channel HDMI 4K60 Capture Card	 2x HDMI 2.0 • Max resolution of single connector: 4096×2160@60Hz • Support for simultaneous access to 2 video inputs.

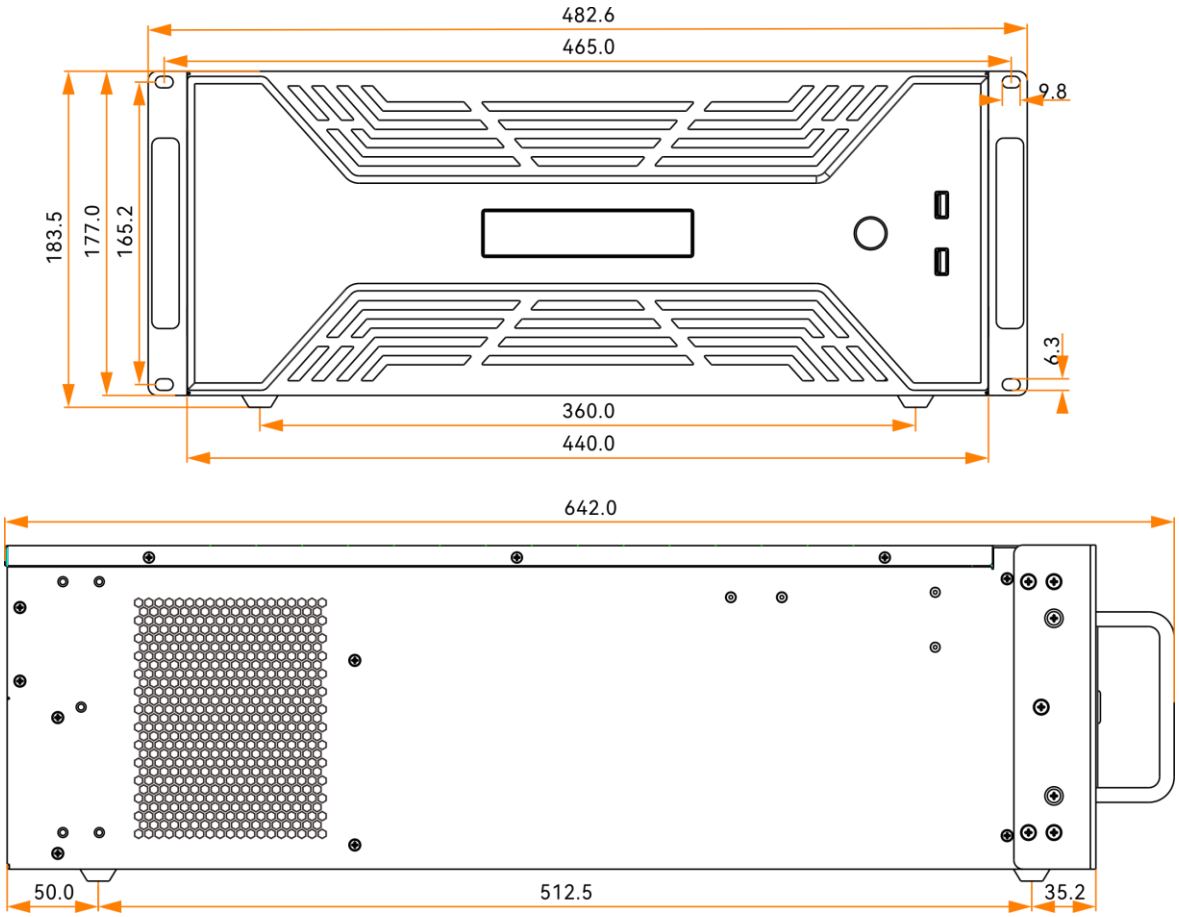
Applications



Note

- This product can only be placed horizontally. Do not mount vertically or upside-down.
- The product can be mounted in a standard 19-inch rack capable of withstanding at least four times the total weight of the mounted equipment. Four M5 screws should be used to fix the product.

Dimensions



Tolerance: ±0.5 Unit: mm

Specifications

Hardware/Software

CPU	12th Intel Gen Core Processor
Memory	32 GB DDR5 high-speed memory
HDD	• System disk: 256 GB high-speed SSD • Storage disk: 1 TB high-speed SSD (default), with optional additional 1 TB or 4 TB drives
Motherboard	High-performance server grade motherboard
Power Supply	750 W
Cooling	Silent fan for high-frequency processors
Keyboard & Mouse	Keyboard and mouse suit
OS	Windows 11 Pro 25H2
Built-in software	Kompass FX3 Pro Professional Edition with license dongle

General

Electrical Characteristics	Power connector	100–240V~, 50/60Hz
	Max power consumption	500 W
Operating Environment	Temperature	0℃ to +40℃
	Humidity	0% RH to 80% RH, non-condensing
Storage Environment	Temperature	–10℃ to +60℃
	Humidity	0% RH to 95% RH, non-condensing
Physical Specifications	Dimensions	482.6 mm × 183.5 mm × 642.0 mm
	Net weight (bare device)	17 kg
Packing Information	Packing box	805 mm × 625 mm × 300 mm
	Accessories	1x Power cable 4x DP cables

		1x HDMI cable 1x Keyboard and mouse suit 1x Safety Manual 1x Certificate of Approval

Media File Types and Formats

Media Types

The media server supports video decoding for common encoding formats including H264 (AVC), H265 (HEVC), MPEG-4/2, and WMV. The multimedia playback and control software only supports HDR10 video playback based on PQ (SMPTE ST2084) and does not support HLG or other HDR formats.

Type	Format
Video	avi, asf, wmv, flv, mkv, mov, 3gp, mp4, mpg, mpeg, ts, m4v, webm, nvf, m2ts
Image	jpg, bmp, gif, png, jpeg, ico
Audio	wav, mp3, wma, ape, aac, flac, ogg, dts, amr, alac
Office	ppt, excel, word, pdf
Image sequence	bmp, jpg, png, dpx, dds, tga, tiff

Note

Recommended video coding formats:

- 4K < resolutions ≤ 8K, width or height ≤ 8192 pixels: H.265 (HEVC) or VP9 recommended
- Resolutions ≤ 4K: H.264 (AVC) recommended
- When the video size exceeds 8K, it is recommended to split the video into multiple files for playback.

Video Source Specifications

- In single media server setup, the recommended frame rates and bitrates are as followings:

Type	Standard Frame Rate	Bitrate	High Frame Rate	Bitrate
4320 (8K)	24 Hz, 25 Hz, 30 Hz	75 to 90 Mbps	48 Hz, 50 Hz, 60 Hz	110 to 135 Mbps
2160 (4K)		35 to 45 Mbps		53 to 68 Mbps
1440 (2K)		16 Mbps		24 Mbps
1080p		8 Mbps		12 Mbps

- In multi-media server setup, the recommended frame rates and bitrates are as followings:

Type	Frame Rate	Video Bitrate	Video Coding
4320 (8K)	60 Hz	30 Mbps	H.265
2160 (4K)	60 Hz	30 Mbps	H.264

Note

If frame synchronization output is not required in a multi-media server setup, please refer to the recommended frame rates and bitrates for single media server setup.

Image Sequence Specifications

Type	Frame Rate	Hard Drive Read Speed
All	1 to 120 Hz	Up to 4 GB/s

Notes and Cautions

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Others

This is Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

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Statement

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