

ET4S-G

Media Server



Specifications

Change History

| Version | Release Date | Description |
|---------|--------------|---|
| V1.4.0 | 2026-04-10 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> Changed MPG2200 graphics card to P2000. Changed HPG4000 graphics card to HPGA4000. Changed HPGA5000 graphics card to HPG4500 Ada. |
| V1.1.0 | 2024-11-30 | <ul style="list-style-type: none"> Updated the product selection section. Added the optional items section. |
| V1.0.0 | 2024-10-31 | First release |

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, RoHS

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 inputs, ensuring precise and synchronized playback control
- Multi-screen management and control
- No limit on the number of layers
- Adjustable layer size and priority
- Layer keying, blurring and opacity adjustment
- 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, PowerPoint files and audios
 - The PowerPoint files supports 1080P resolution and can be controlled with a laser pointer.
- Configuration and playback of frame sequences in bmp, tiff, tga, jpg, and png formats
- 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 <ul style="list-style-type: none"> • Connect to the mouse and keyboard. • Insert a USB drive for importing media files. |

Rear Panel



| No. | Area | Description |
|-----|--------------|---|
| 1 | Power button | <ul style="list-style-type: none"> ON: Power on the device. OFF: Power off the device. |
| 2 | Power | Connect to a power source. 100—240V~, 50/60Hz |
| 3 | CONTROL | <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> R: Right channel output for XLR audio L: Left channel output for XLR audio |
| 6 | AUDIO | 3.5 mm external audio connector <ul style="list-style-type: none"> C/SUB: Center/Subwoofer, for center channel and subwoofer audio output 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 |

| No. | Area | Description |
|-----|--------|--|
| | | <ul style="list-style-type: none"> REAR: A rear channel audio connector used for connecting rear or surround speakers |
| 7 | OUTPUT | 4x DP 1.4 <ul style="list-style-type: none"> 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 <div style="background-color: #f0f0f0; padding: 5px;">  Note </div> <ul style="list-style-type: none"> 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 | Reserved |




Product Selection

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

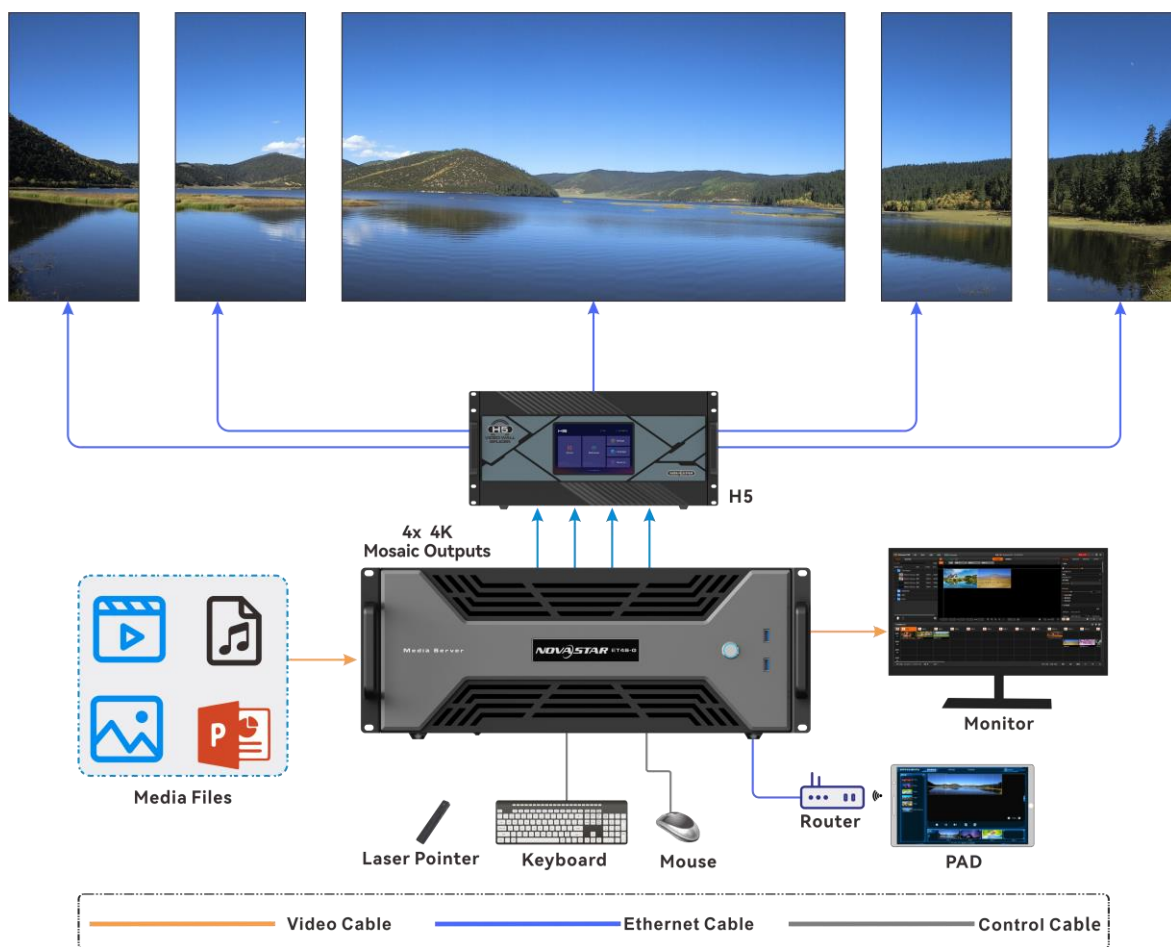
| Model | Graphics Card | Sync Card | Capture Card |
|-------------------------|---|---|--|
| ET4S-G(P2) Mainframe | 1x P2000 <ul style="list-style-type: none"> Playback of 1 layer of 8K×4K@30fps or 3 layers of 4K×2K@60fps SDR video (hardware-decoding) Memory: 5 GB Type: GDDR 5X Bit width: 128-bit | No support | Optional, select at most 1 For detailed information, please refer to Optional Items . |
| ET4S-G(A4) Mainframe | 1x HPGA4000 <ul style="list-style-type: none"> Playback of 1 layer of 8K×4K@60fps SDR video (hardware-decoding) Memory: 16 GB Type: GDDR6 Bit width: 256-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 |  <p>The image shows a metal sync card with two RJ45 ports on the left, two sets of LEDs labeled 'LINK' and 'SYNC', and a BNC connector on the right. The BNC connector is labeled 'HOUSE SYNC'.</p> <ul style="list-style-type: none"> • 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 |  <p>The image shows a metal capture card with four HDMI ports labeled HDMI1, HDMI2, HDMI3, and HDMI4.</p> <p>4x HDMI</p> <ul style="list-style-type: none"> • Max resolution of single connector: 1920×1080@60Hz • Support for simultaneous access to 4 video inputs. |
| ET4S_2-Channel HDMI 4K60 Capture Card |  <p>The image shows a metal capture card with two HDMI ports labeled HDMI.</p> <p>2x HDMI 2.0</p> <ul style="list-style-type: none"> • Max resolution of single connector: 4096×2160@60Hz • Support for simultaneous access to 2 video inputs. |

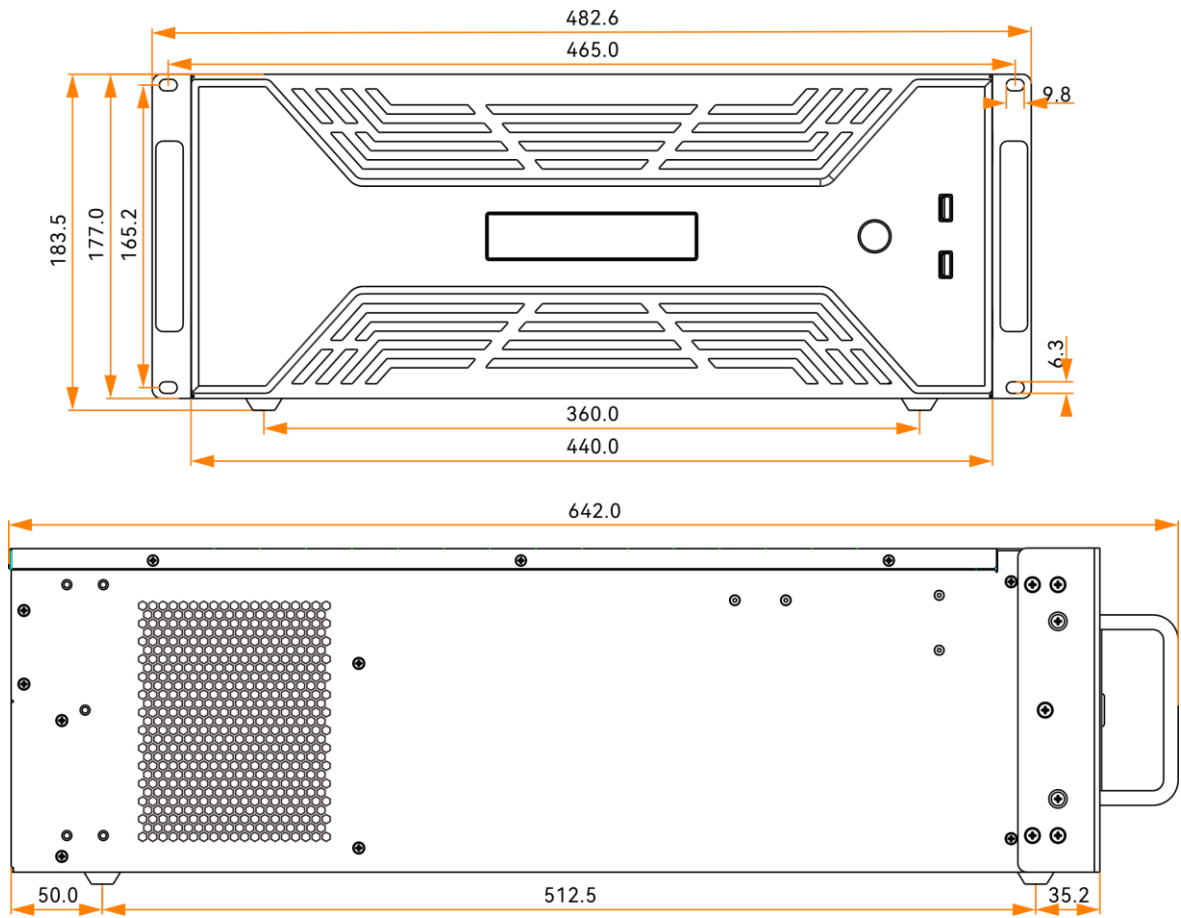
Applications



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 | <ul style="list-style-type: none"> • 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 10 Enterprise LTSC |
| Built-in software | Kompass FX3 Pro software with licensing dongle |

General Specifications

| | | |
|----------------------------|-----------------------|---------------------------------|
| Electrical Characteristics | Power connector | 100–240V~ 10–5A 47–63Hz |
| | Max power consumption | 500 W |
| Operating Environment | Temperature | 0°C to +40°C |
| | Humidity | 0% RH to 80% RH, non-condensing |
| Storage Environment | Temperature | –10°C to +60°C |
| | Humidity | 0% RH to 95% RH, non-condensing |
| Physical Specifications | Dimensions | 482.6 mm × 183.5 mm × 642.0 mm |
| | Net weight | 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 the decoding of various common video coding formats, such as H.264 (AVC), H.265 (HEVC), MPEG-4/2 and WMV.

| 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

Notes For Battery

- The battery is not intended to be replaced.
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery can result in an explosion.
- Leaving a battery in an extremely high temperature surrounding environment can result in an explosion or the leakage of flammable liquid or gas.
- A battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.

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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