Grass Valley

DATASHEET

AMPP Edge Plus

Agile Compute Node for AMPP OS Workflows

Run powerful AMPP OS media services exactly where your media flows originate.

Competition for audience attention has never been greater. Viewers move seamlessly between live broadcasts, streaming platforms, social media and on-demand services. They expect compelling storytelling, immediate access to content and consistent production quality regardless of how that content is delivered.

For media production companies this creates a new operational reality. Media flows originate everywhere. Production teams operate across venues, facilities and distributed locations. Processing resources must scale quickly and adapt to changing production demands.

Traditional infrastructure was designed for fixed facilities and rigid workflows. As production becomes increasingly distributed, that model introduces operational friction. Processing resources remain tied to specific locations, infrastructure becomes difficult to scale, and production teams cannot always place compute capacity exactly where it is needed.

AMPP® OS was designed to eliminate this friction by enabling a distributed media infrastructure where media flows, compute resources and operational control work across cloud environments, data centers and edge locations without changing workflows.

AMPP Edge Plus provides the compute platform that extends the AMPP OS ecosystem to the edge of the media network, allowing organizations to acquire, process and distribute media flows where they originate, while remaining fully connected to the wider AMPP OS environment.

Bringing Distributed Media Infrastructure to the Edge

Modern media producers must be able to operate across many varied environments. Media flows may originate at a venue, be processed in centralized production hubs, and be distributed globally through cloud infrastructure. AMPP OS enables this flexibility by providing a unified platform that orchestrates media services across a distributed infrastructure.

Media flows acquired through SDI or SMPTE ST 2110 connectivity can be processed locally on the AMPP Edge Plus appliance and shared across the AMPP OS ecosystem, where additional services or compute resources may be available.

Because AMPP OS operates across environments, production teams can place processing resources wherever they deliver the most operational value. Some services may run in centralized facilities, others may run in cloud environments, and others may run directly at the edge where media flows originate. This creates a continuum of scale that allows media production companies to operate efficiently across small productions, large live events, and globally distributed production environments.

The result is a distributed media infrastructure that adapts to operational needs while maintaining consistent workflows and operational control.

Key Benefits

High performance edge processing

AMPP Edge Plus combines powerful CPU resources with GPU accelerated processing to support demanding media services close to where media flows originate.

Operational flexibility

AMPP OS workflows operate across cloud, data center and edge environments without changing workflows or operational models.

Reduced operational friction

Validated hardware configurations eliminate integration complexity and enable predictable deployment outcomes.

Scalable infrastructure

Multiple nodes combine through AMPP Grid into a shared compute fabric that scales with production demands.

Integrated media connectivity

Supports SDI and SMPTE ST 2110 environments, enabling seamless integration between traditional and IP-based infrastructures.

AMPP Edge Plus Overview

AMPP Edge Plus is a high-performance 2 RU appliance designed to run AMPP OS-based services in on-prem environments. It combines modern CPU architecture with GPU-accelerated processing to support demanding media workflows at the edge of the network.

Each configuration is built around validated combinations of compute, storage and factory-integrated I/O — ensuring predictable performance, interoperability and deployment reliability.

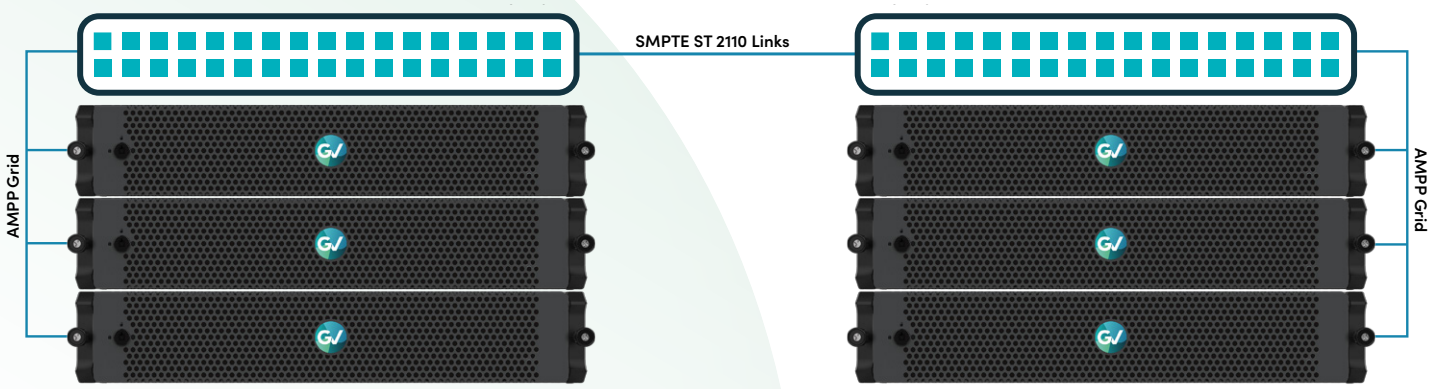
Multiple AMPP Edge Plus nodes can operate together through **AMPP Grid**, allowing compute resources and media flows to operate as a shared processing fabric across the AMPP OS ecosystem.

Each AMPP Edge Plus node is a fixed and validated building block, while the system it participates in remains fully dynamic.

As a result, production environments can evolve from localized deployments to globally distributed workflows while maintaining a consistent operational model.

AMPP Grid

AMPP Grid provides data center scalability by allowing multiple nodes to work in unison as a single pool of compute. The total I/O of the system grows as more AMPP Edge Plus devices are added. Systems connected with AMPP Grid can grow incrementally, adding a node at a time to effectively manage cost. AMPP Grid can be used with Linux OS only. To build a system with AMPP Grid in different locations, SMPTE ST 2110 links between those locations are required.



Key Features

- GPU-accelerated edge compute – Enables advanced AMPP OS workflows and AI-driven processing
- Native AMPP OS integration – Unified operation across cloud, data center and edge
- AMPP Grid compute fabric – Scalable shared processing across multiple nodes
- Storage-first configuration model – Aligns infrastructure with media workflow behavior
- Factory-integrated I/O – Validated performance and interoperability across SDI and SMPTE ST 2110
- Distributed media infrastructure – Media flows operate seamlessly across environments
- Continuum of scale – Supports deployments from single nodes to global infrastructures
- Distributed collaboration – Enables remote and multi-site production workflows
- Ecosystem integration – Operates within the Grass Valley Media Universe

Example Workflows

Remote Monitoring and Distributed Collaboration

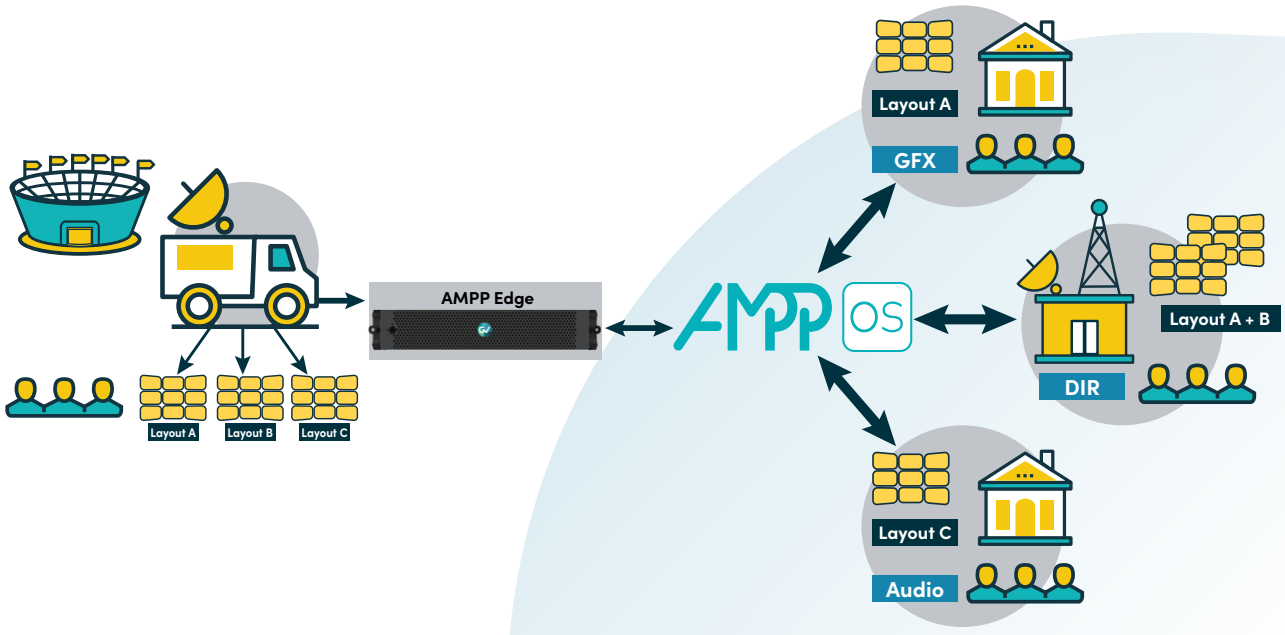
Media flows acquired at the edge can be shared across AMPP OS for monitoring and collaboration, enabling distributed teams to operate in real time.

Distributed Media Routing

Media flows can move between nodes or environments and be delivered locally via SDI or SMPTE ST 2110, enabling unified distributed operations.

Edge Media Processing

Processing services run locally while remaining part of a distributed system, allowing workloads to scale and adapt dynamically.



Designing Your AMPP Edge Plus Deployment

Designing a distributed media infrastructure is not about selecting a server. It is about aligning compute, storage and connectivity with how media flows behave.

AMPP Edge Plus introduces a structured approach to system design, where validated configurations ensure predictable performance, while enabling flexible deployment across distributed environments.

Choose your options:

Base	Media Storage	I/O
• AMPP Edge Plus Appliance	• Diskless • Small • Medium • Large • Extra Large	• AMPP Grid • SDI • SDI & AMPP Grid • SMPTE ST 2110 • SMPTE ST 2110 & AMPP Grid

1. Select Your Media Storage:

Storage defines how media flows behave within the system. It determines how long content can be retained, how many concurrent streams can be supported, and which workflows, such as ingest, replay or buffering, can be executed locally.

Configurations range from diskless compute nodes optimized for processing, to high-capacity systems designed for sustained ingest, replay and content handling workflows.

AMPP Edge Plus
- Diskless appliance
- SKU: **AMPP-G25-PL**

AMPP Edge Plus – Media Storage Small
- Appliance with 1.6 TB usable media storage, RAID-1
- SKU: **AMPP-G25-PLS**

AMPP Edge Plus – Media Storage Medium
- Appliance with 11 TB usable media storage, RAID-5
- SKU: **AMPP-G25-PLM**

AMPP Edge Plus – Media Storage Large
- Appliance with 22 TB usable media storage, RAID-5
- SKU: **AMPP-G25-PLL**

AMPP Edge Plus – Media Storage Extra Large
- Appliance with 48 TB usable media storage, RAID-5
- SKU: **AMPP-G25-PLX**

2. Choose Factory-Integrated I/O:

Each AMPP Edge Plus configuration includes factory-integrated I/O options that are fully validated by Grass Valley.

These configurations ensure predictable performance, interoperability, and reliability across SDI and SMPTE ST 2110 environments without requiring additional system integration or tuning.

AMPP Grid
- Dual 100 GbE
- SKU Suffix: **G**

SDI I/O
- 16x SDI ports
- SKU Suffix: **S16**

SDI I/O & AMPP Grid
- 16x SDI ports and AMPP Grid
- SKU Suffix: **S16G**

SMPTE ST 2110 IP I/O
- SMPTE ST 2110 I/O Dual 100 GbE
- SKU Suffix: **IP1**

SMPTE ST 2110 IP I/O & AMPP Grid
- SMPTE ST 2110 I/O Dual 100 GbE and AMPP Grid
- SKU Suffix: **IP1G**

Example SKU for AMPP Edge Plus Appliance with Small Media Storage and SMPTE ST 2110 I/O: **AMPP-G25-PLS-IP1**

I/O Options	SKU Suffix	AMPP Grid	SMPTE ST 2110	SDI	Notes
AMPP Grid Only	G	✔	✘	✘	Includes a Network Interface Card (NIC) with 2x 100 GbE ports (QSFP56) for AMPP Grid I/O
SDI I/O – 16 Ports	S16	✘	✘	✔	Includes a total of 16 bi-directional 3G-SDI ports, 8 of which also support 12G-SDI
SDI I/O – 16 Ports + AMPP Grid	S16G	✔	✘	✔	Includes a total of 16 bi-directional 3G-SDI ports, 8 of which also support 12G-SDI, and a NIC with 2x 100 GbE ports (QSFP56) for AMPP Grid I/O
SMPTE ST 2110 I/O	IP1	✘	✔	✘	Includes a Network Interface Card (NIC) with 2x 100 GbE ports (QSFP56) for SMPTE 2110 I/O
SMPTE ST 2110 IP I/O + AMPP Grid	IP1G	✔	✔	✘	Includes a NIC with 2x 100 GbE ports (QSFP56) for SMPTE 2110 I/O, and an additional NIC with 2x 100 GbE ports (QSFP56) for AMPP Grid I/O

Warranty and Support Tiers

AMPP Edge Plus is supported through a structured set of warranty and support tiers, allowing media production companies to align service levels with operational criticality and deployment scale.

Standard Warranty

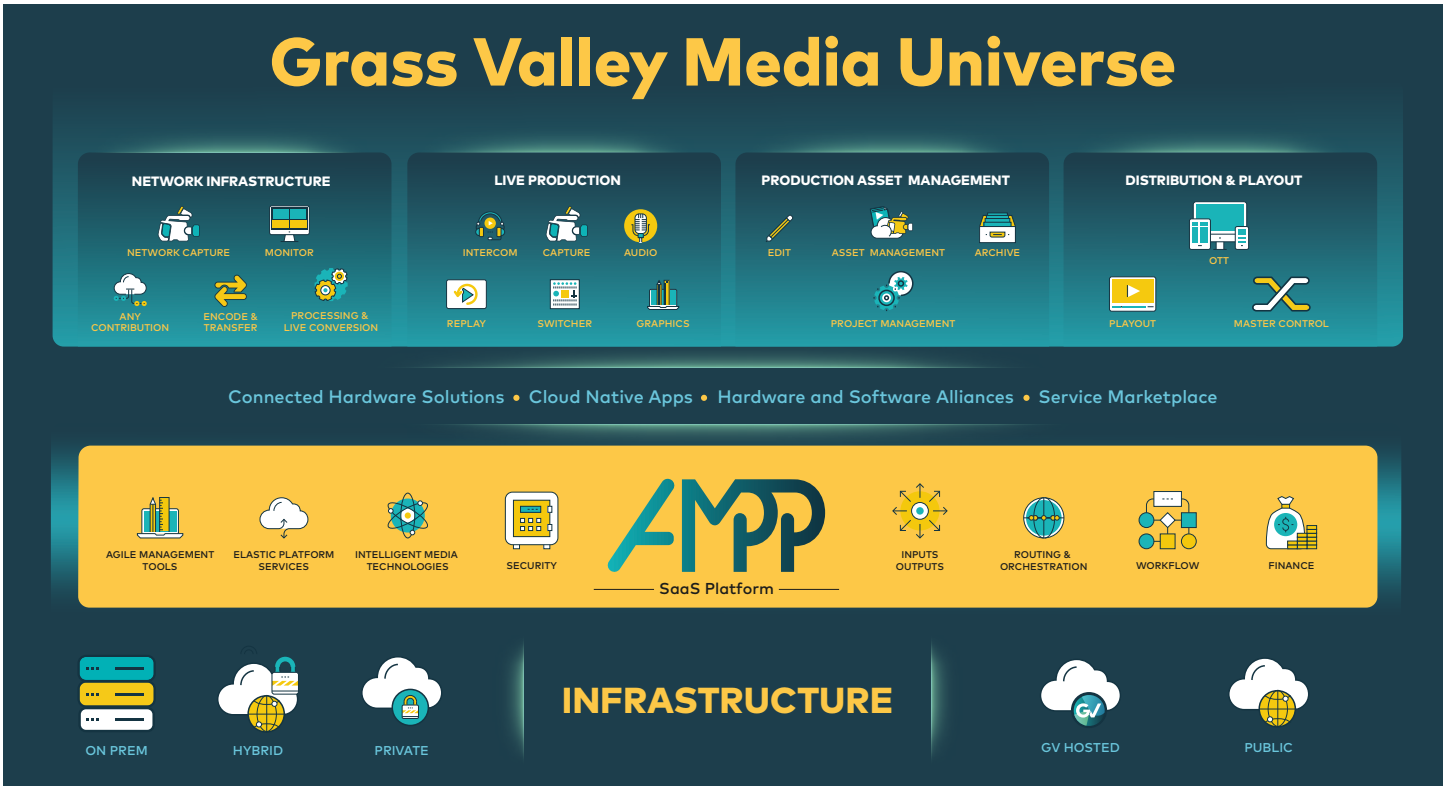
- AMPP Edge Plus is delivered as a standard Grass Valley appliance
- Includes 1-year hardware warranty coverage
- Warranty and hardware support provided directly by Grass Valley

Extended Support Options

- AMPP Hardware Prime Support available as an optional support agreement
- Extends coverage beyond the standard warranty period
- Includes enhanced response times and prioritized support handling
- Optional multi-year agreements available to align with long-term deployments

Support and Service Model

- Grass Valley acts as the single point of contact for all support requests
- Centralized support model ensures consistent service experience across deployments
- Requests are managed and routed within the Grass Valley support organization for resolution



Part of the Grass Valley Media Universe

AMPP Edge Plus is designed to operate as part of the Grass Valley Media Universe.

The Grass Valley Media Universe connects hardware platforms, AMPP OS-based services, partner technologies, and open infrastructure standards into a unified production ecosystem. This allows media production companies to design workflows that match their operational needs instead of forcing those workflows into a single architectural model.

Within this ecosystem, AMPP OS provides the distributed media infrastructure that allows media flows and processing services to operate across cloud environments, data centers, and edge locations.

AMPP Edge Plus extends that infrastructure to the edge of the media network by providing high performance compute resources where media flows originate.

What makes the Grass Valley Media Universe unique is that it does not assume a single way of building production infrastructure. Some workflows may operate entirely on software-defined infrastructure. Others may rely on dedicated hardware platforms. Many production environments combine both.

The Grass Valley Media Universe is designed to support this full spectrum of operational models.

AMPP Edge Plus integrates seamlessly into this environment, enabling edge processing within AMPP OS workflows while remaining compatible with IP-based systems, traditional infrastructures and hybrid production environments. This allows media production companies to evolve their infrastructure at their own pace, aligning investments with operational value while maintaining a consistent production model.

NVIDIA Blackwell GPU Architecture

AMPP Edge Plus leverages the latest NVIDIA Blackwell GPU architecture to accelerate high-density media processing and AI-driven workflows. Blackwell introduces significant improvements in parallel processing efficiency, memory bandwidth and AI inference performance, enabling real-time handling of complex media flows such as multistream processing, advanced graphics and AI-assisted operations. This allows media production companies to scale processing capacity without increasing system complexity, supporting both current workloads and emerging AI-driven production use cases within the same infrastructure.

Specifications

Hardware Platform

Form Factor: 2 RU appliance

CPU: Dual Intel Xeon 6700 platform

GPU: NVIDIA RTX Pro 6000 BSE

Memory: 256 GB RAM

Operating System: Ubuntu Server 24.04 LTS

Onboard Networking: Dual 1/10/25GbE SFP28

Power Supply: Dual, fully redundant (1+1) hot-plug 3200W Titanium PSU (200–240 VAC only)

Physical Dimensions

2 RU

772.13 mm (30.39 in.) depth with bezel

758.29 mm (29.85 in.) depth without bezel

Typical Power Consumption

Typical System Draw: ~1100 W

Expected Peak System Draw*: ~1700 W

Note: In a 1+1 redundant PSU configuration, power load is shared across both power supplies during normal operation

* Typical peak power draw under standard operating conditions. Actual power consumption may vary depending on workload and system configuration.

Recommended Hardware Specification

You may purchase equipment for the operation of the AMPP platform independently. The equipment should meet the specified requirements listed in the table below:

Component	Recommended Hardware Components
CPU	Dual Intel Xeon 6
GPU	NVIDIA RTX Pro 6000 BSE
RAM	At least 256 GB 6400 MT/s DDR5 (all DIMM channels fully populated)
SSD drive for OS	At least 480 GB, mixed use

If you choose to use your own hardware, Grass Valley are not responsible for any incompatibilities or platform-related errors.

Compatible QSFP Modules for IP and Grid Cards on AMPP Edge Plus, including IP1, IP1G, S16G, and G variants

GVTR-100G-SR4-G

Optical Module QSFP28 100GBase-SR4 850 nm MPO12 MMF OM4 100m

GVTR-100G-LR4-G

Optical Module QSFP28 100GBase-LR4 LWDM 1295-1309 nm LC Duplex SMF 10 km

GVTR-100G-FR4-G

Optical Module QSFP28 100GBase-FR4 CWDM 1271-1331 nm LC Duplex SMF 2 km

GVTR-100G-DR1-G

Optical Module QSFP28 100GBase-DR1 1311 nm LC Duplex SMF 500m

This product may be protected by one or more patents. For further information, please visit: **www.grassvalley.com/patents**

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