



Audio Live

Audio Router for Live Multistream IP Audio Processing

Audio Live is an immensely powerful audio router providing high-density audio stream- and channel-based routing in a compact 1 RU turnkey solution.

Audio Live from Grass Valley is designed for modern, real-time IP workflows. It offers 2,048 channel processing capability for SMPTE ST 2110-30/SMPTE ST 2110-31/RFC3190/AES67 audio streams.

Audio Live can be configured as an asymmetric router rather than a traditional square router, offering far greater flexibility. Input audio streams should be synchronous, but when this is not possible, Audio Live offers the ability to synchronize up to 16 asynchronous inputs streams.

Audio Live offers an input realignment buffer, enabling various upstream transmission delays present on each input stream to be compensated for and aligned with the designated reference stream.

The reference stream can be manually forced or an automatic mode can be used. Timestamps are then used to synchronize all the flows and provide flow control at the output. From a timestamp perspective, Audio Live is completely transparent.

Additional channel delay can be added to the input and output channels if required, with ranges between 2 and 5 seconds before the audio router, depending on the system input and output channel configuration.

KEY FEATURES

- Flexible asymmetric router
- Independent input and output routing configurations
- 11 different routing configurations
- Stream and channel swapping
- 2048 x 2048 audio channel routing
- Certified by Grass Valley engineering
- Hardware and software supported by Grass Valley

SPECIFICATIONS

Routing Configurations

32 streams x 64 channels
 64 streams x 64 channels
 64 streams x 32 channels
 128 streams x 16 channels
 192 streams x 8 channels
 8x64, 32x16, 128x8 channels
 8x64, 64x16, 64x8 channels
 16x64, 16x16, 96x8 channels
 16x64, 32x16, 64x8 channels
 16x64, 56x16, 32x4 channels
 8x64, 96x16 channels

Audio

Minimum stream latency: 2 ms (for co-timed input streams)

Maximum input stream tolerance to ref.: Up to 5s

Maximum input stream delay: Up to 5s

Maximum output stream delay: Up to 5s

Input Configuration	Input Timestamp Tolerance
32x64	1s
64x64	1s
64x32	1s
128x16	1s
192x8	20 ms
8x64, 32x16, 128x8	20 ms
8x64, 64x16, 64x8	20 ms
16x64, 16x16, 96x8	100 ms
16x64, 32x16, 64x8	100 ms
16x64, 56x16, 32x4	100 ms
8x64, 96x16	100 ms

Input Streams

Synchronous SMPTE ST 2110-30/SMPTE ST 2110-31/AES67/ RFC3190 (PTP timestamps required in extended headers, RTP & PTP timestamps must be locked)

Supports various packet times per stream (provided the packet size is within 1500 MTU)

Up to 16 asynchronous streams can be synchronized to the reference stream

Packet redundancy (-7 style)

Packet reordering

Streams can have independent packet timing of 125 μ s, 250 μ s, 500 μ s, 1 ms & 4 ms (nominated input reference stream should be \leq 1 ms)

Output Streams

Synchronous SMPTE ST 2110-30/SMPTE ST 2110-31/RFC3190/ AES67

Packet redundancy (-7 style)

Packet timing:

\leq 32 channels, 12 samples per channel per packet (250 μ s)

$>$ 32 channels, 6 samples per channel per packet (125 μ s)

Supported Audio Format

PCM via encapsulation

Routing

2048 x 2048 channel router

Channel and stream swapping

Control

Standard RollCall Interface

IP Routing Controller (spigot and internal cross point configuration)

Monitoring

Standard RollCall logging and reporting

Form Factor

1 RU

Linux 64-bit (RAID-1)

700W/750W redundant PSU

Synchronization

Auto, user defined primary/secondary input streams

Input timestamp realignment to ref

Connectivity

Dual 10 GbE Interface

ORDERING

9822000

Audio Live Turnkey Solution (10 Gb) 1x Audio Live license + hardware

Complete solution to enable 2048x2048 audio routing of AES67 IP streams. Includes dual 10 GbE SFP+ network interface card

DS-PUB-2-0734B-EN



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