

THE HEART OF L-ISA IMMERSIVE HYPERREAL SOUND

The L-ISA Processor is a hardware solution that is exclusively dedicated to spatial audio processing, providing state of the art object-based mixing to the most demanding immersive audio productions.

Combining a powerful multi-core architecture with a compact form factor, the L-ISA Processor is the audio heart of each L-ISA system. It offers spatial processing and room simulation for up to 96 audio objects based on speaker positioning information and mixing parameters (pan, width, distance, elevation, aux send) and provides up to 64 audio outputs to L-Acoustics amplified controllers. The L-ISA Processor is remotely and uniquely controlled by the L-ISA Controller software.



SPATIAL PROCESSING

In an object-based mixing approach, the properties of each sound object are defined independently from the loudspeaker layout – so the entire mix can be faithfully scaled from the studio to a wide variety of venue and system configurations.

The L-ISA Processor provides five parameters to the mixing engineer for each sound object:


PAN

controls horizontal location


WIDTH

controls perceived size, from point source to panoramic


DISTANCE

controls perceived proximity (and applies the appropriate reverberation algorithm)


ELEVATION

controls vertical location


AUX SEND

provides a classic post-distance auxiliary bus send

PATENT-PENDING OBJECT-BASED ROOM ENGINE

The L-ISA room engine, accessible via the DISTANCE mixing parameter, allows users to naturally re-create different room acoustics within the same venue or show. Specifically designed for object-based audio and variable space configurations, the engine uses multi-channel 3D processing to diffuse energy across many loudspeakers, eliminating audible electronic processing.


FULLY ADJUSTABLE

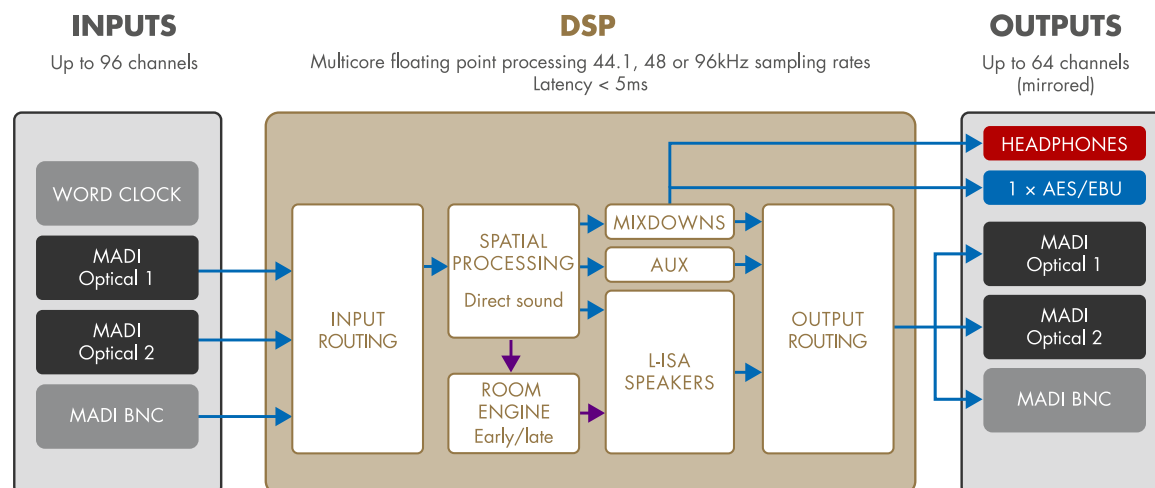
FRONTAL

SURROUND

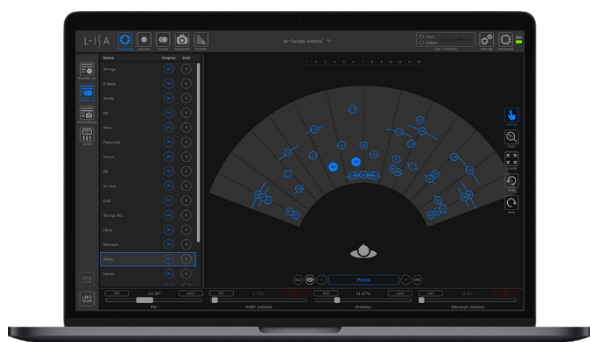
3D

PRECEDENCE SAFEGUARD

I/O & DSP ARCHITECTURE



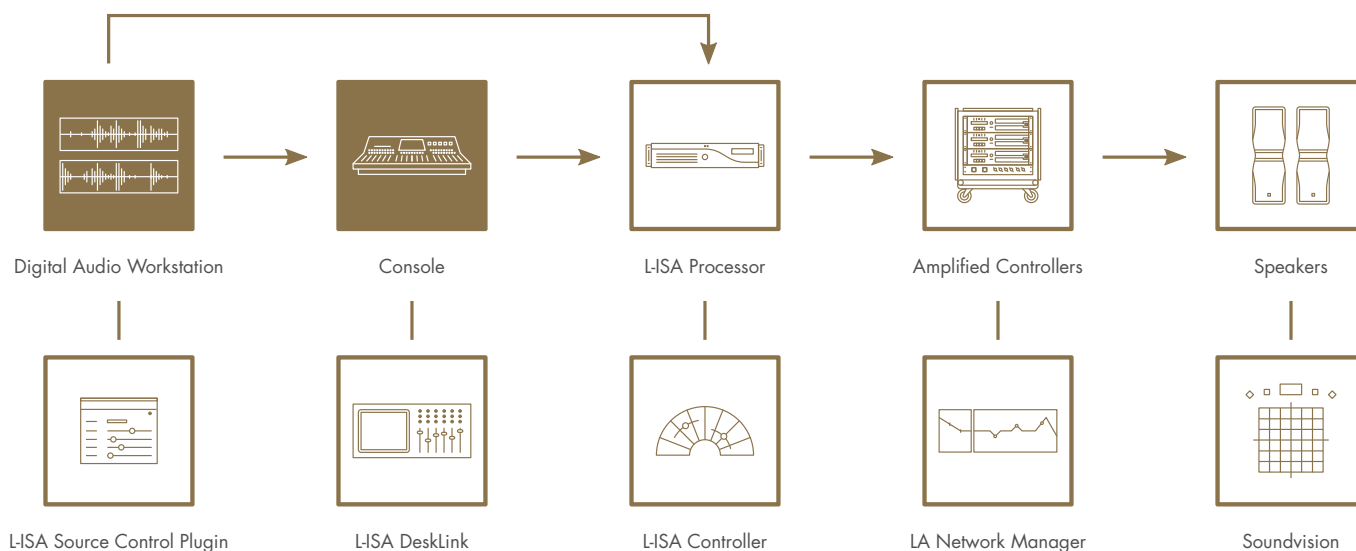
L-ISA CONTROLLER SOFTWARE



- Windows 10+ / macOS 10.12+
- Online or offline setup/programming
- Control up to 96 objects
- Speaker layout import from Soundvision
- Advanced Grouping features
- Advanced Snapshot features
- Remote control from DeskLink enabled mixing consoles
- Automation via VST/AAX L-ISA plugin
- External control via OSC
- Dynamic source positioning via certified tracking systems

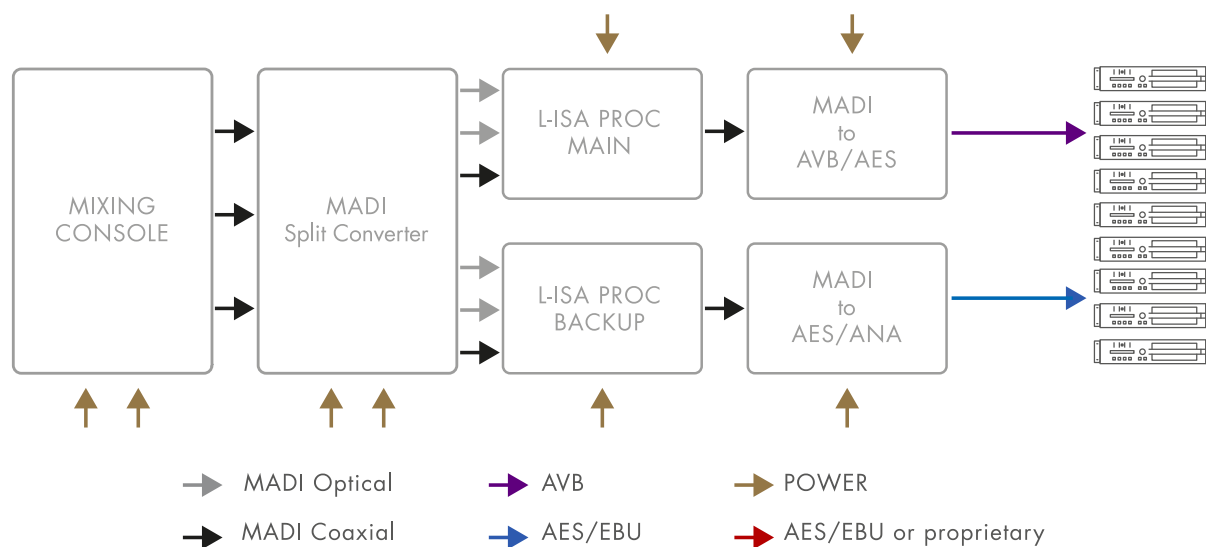
WORKFLOW

The L-ISA Processor can sit at the heart of a pre-production, post-production or live workflow, thanks to control integration into major Digital Audio Workstations or mixing consoles.

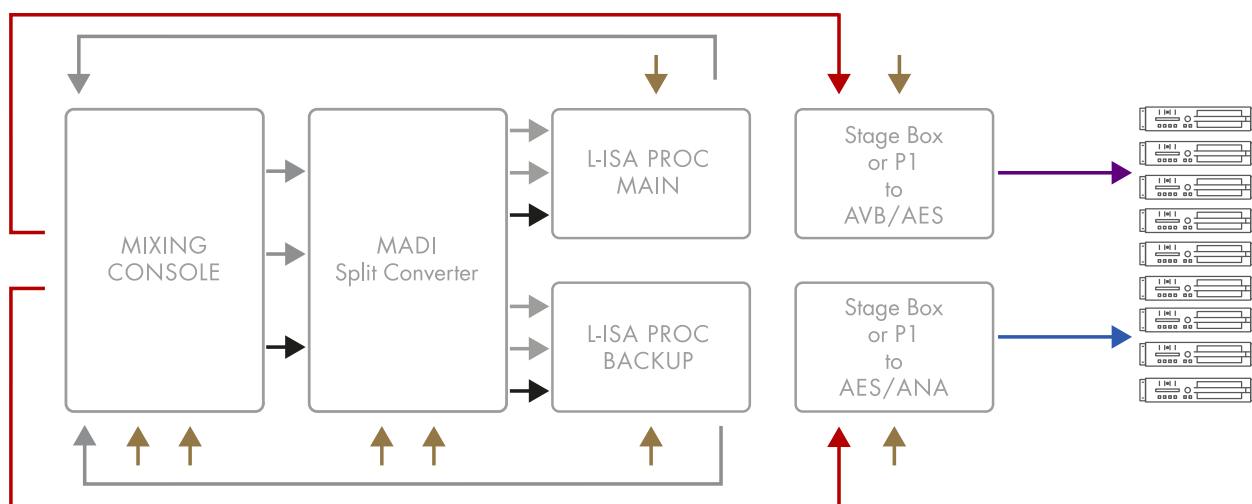


AUDIO SIGNAL DISTRIBUTION

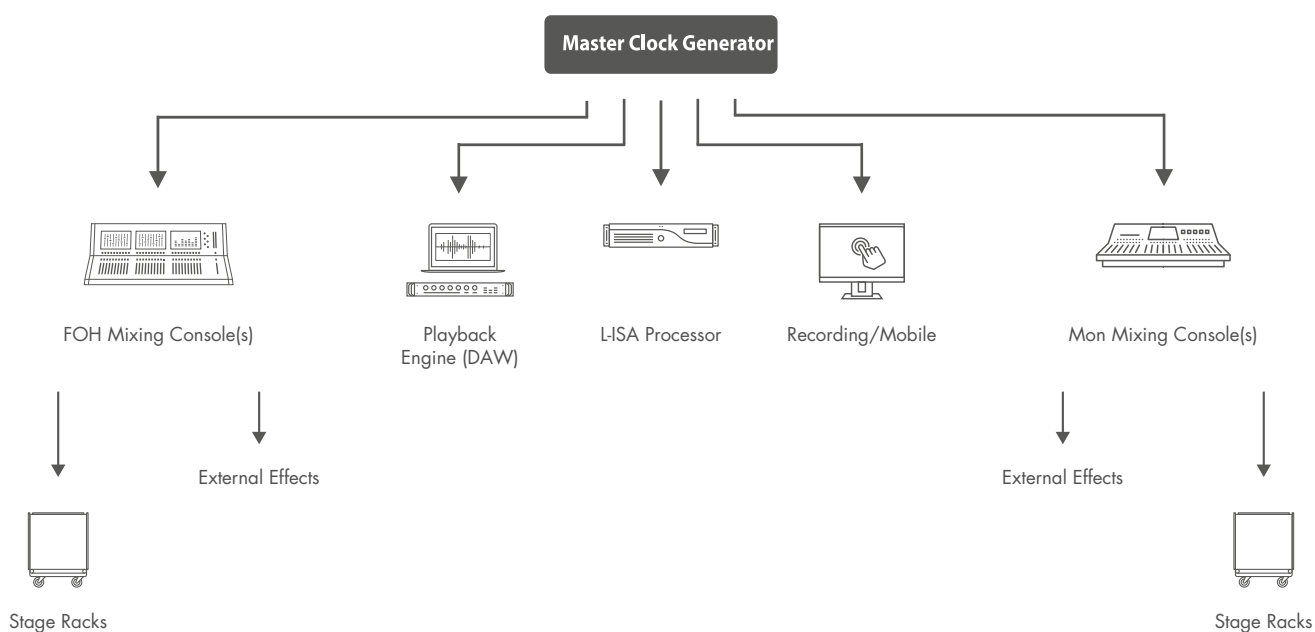
L-ISA Processor as "In-Line" device



L-ISA Processor as "Insert" device



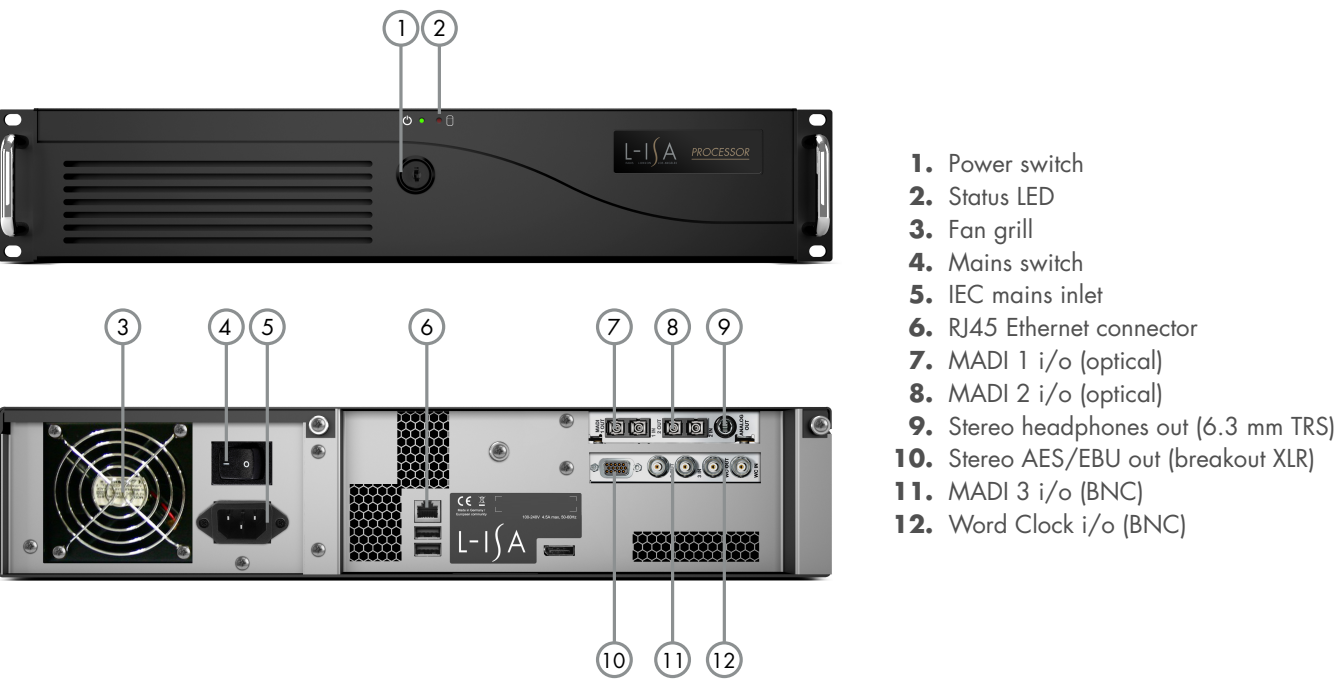
AUDIO CLOCK DISTRIBUTION



CONNECTIONS

- **Audio inputs**
Sampling rate 44.1 kHz and 48 kHz:
MADI optical 1: inputs 1 to 64
MADI optical 2: inputs 65 to 96
Sampling rate 96 kHz:
MADI optical 1: inputs 1 to 32
MADI optical 2: inputs 33 to 64
MADI BNC 3: inputs 65 to 96
- **Audio outputs**
MADI optical 1 / MADI optical 2 / BNC: redundant outputs 1-64 (48 kHz) / 1-32 (96 kHz)
1 automatic stereo headphone downmix (analog, 6.3 mm TRS, 75 Ohms)
1 automatic stereo downmix (AES/EBU, XLR)
- **Audio Clock sources**
Word Clock In (BNC)
MADI optical in (1, 2) / BNC in (3)
- **Network**
1 Gb/s Ethernet port (RJ45) for remote control and monitoring from L-ISA Controller

FRONT AND REAR PANELS



PHYSICAL

H/W/D	88 mm (2U) × 482.6 mm × 350.8 mm 3.5" (2U) × 19" × 13.78"
Weight (net)	8.9 kg / 19.6 lb
Finish	black
IP	IP20