

## 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

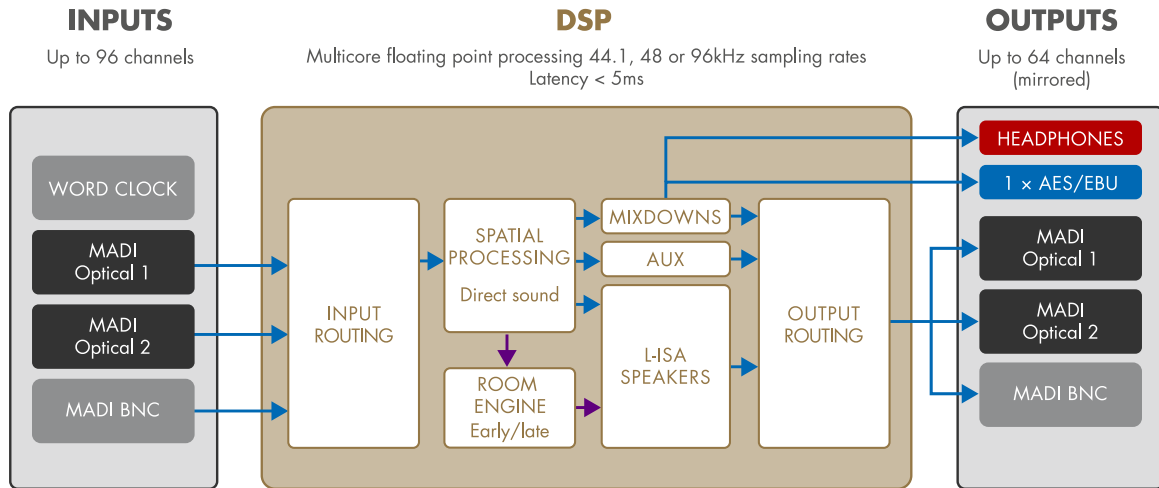


3D

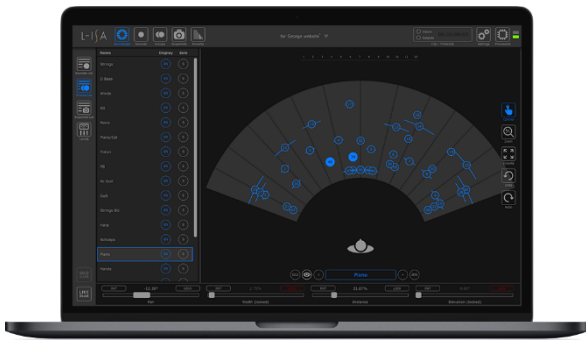


PRECEDENCE SAFEGUARD

# I/O & DSP ARCHITECTURE



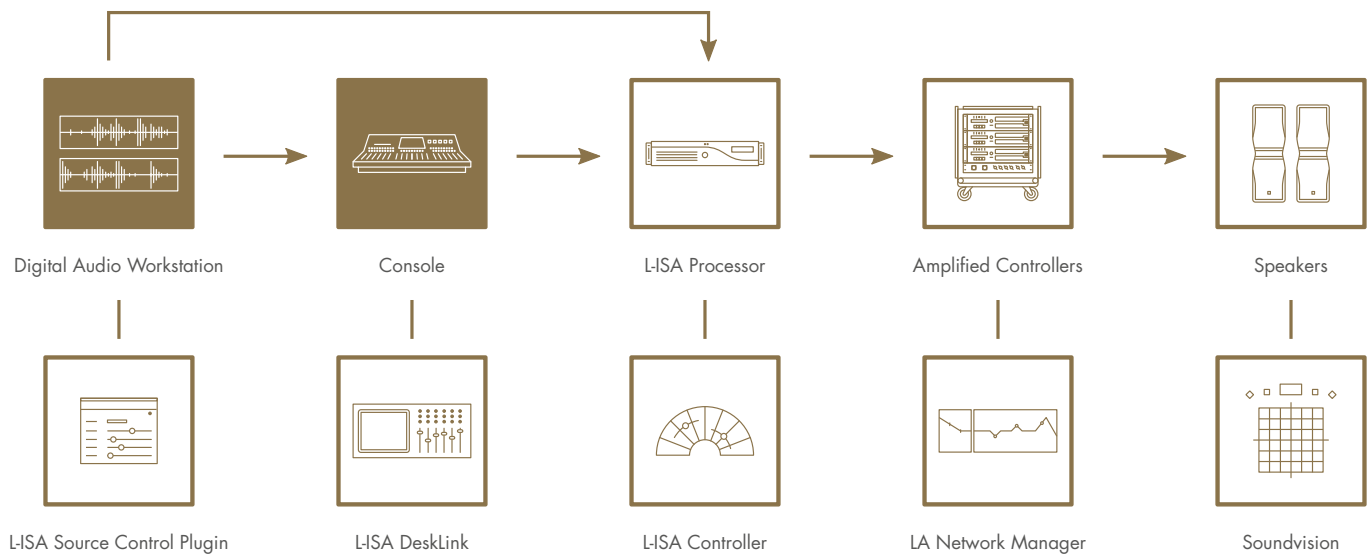
## L-ISA CONTROLLER SOFTWARE



- Windows 7+ / 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

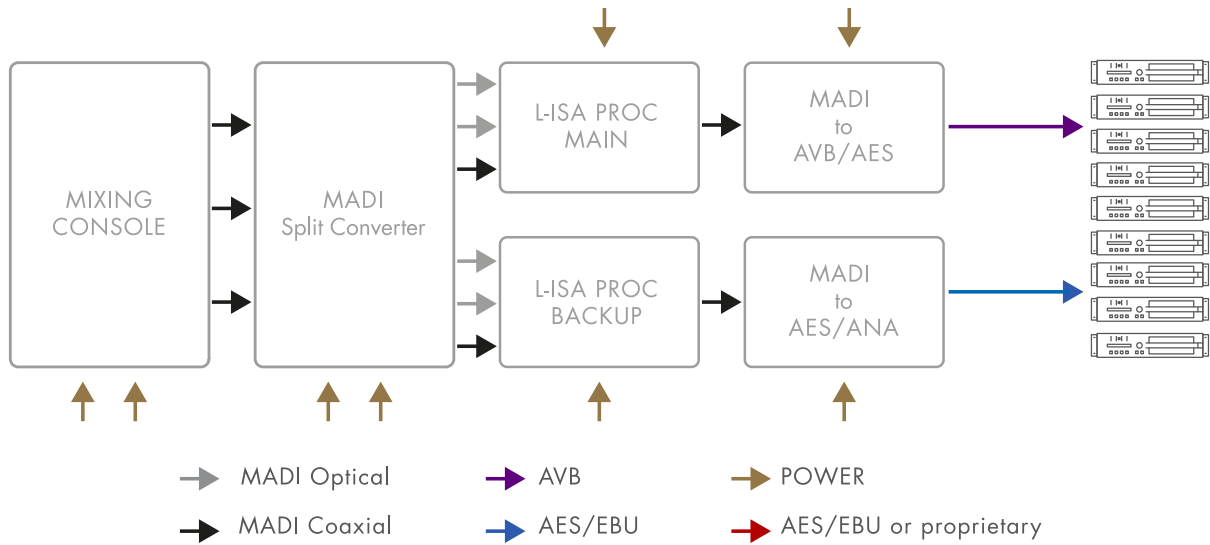
## WORKFLOW

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.

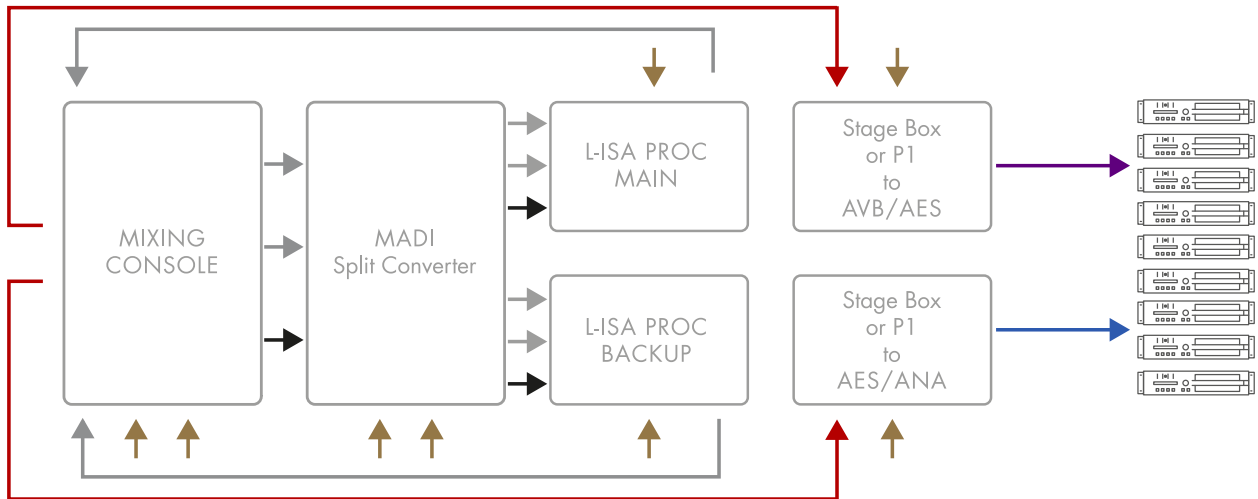


# AUDIO SIGNAL DISTRIBUTION

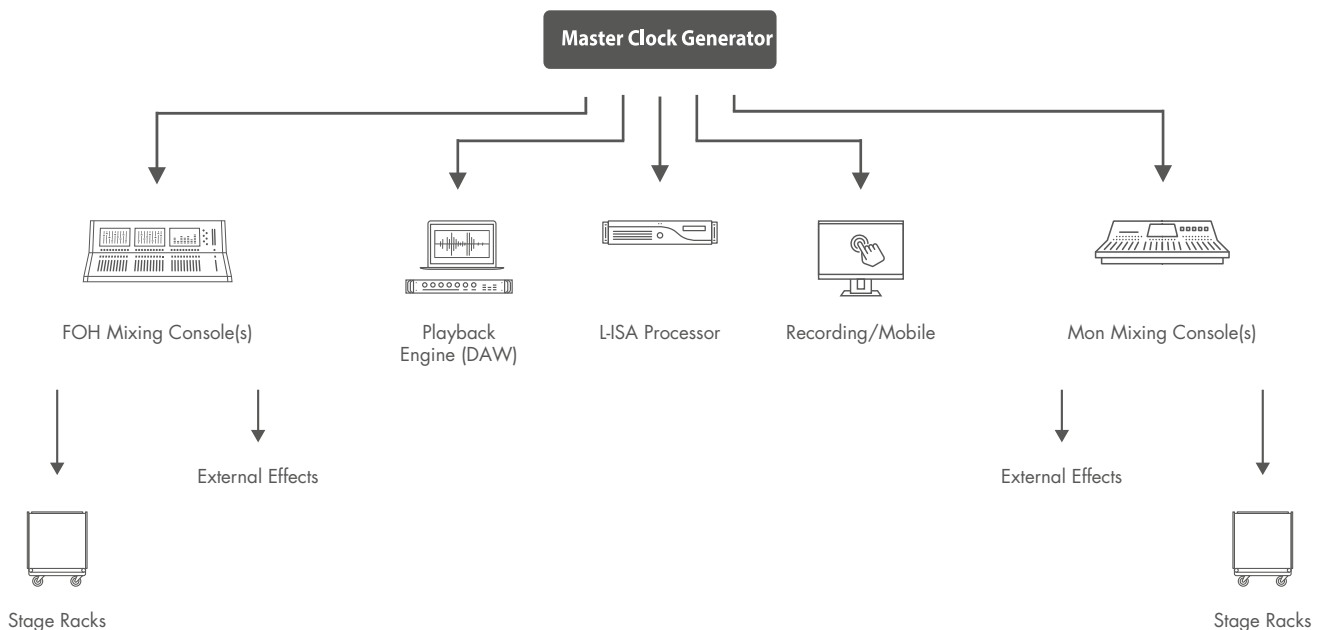
## L-ISA Processor as "In-Line" device



## 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

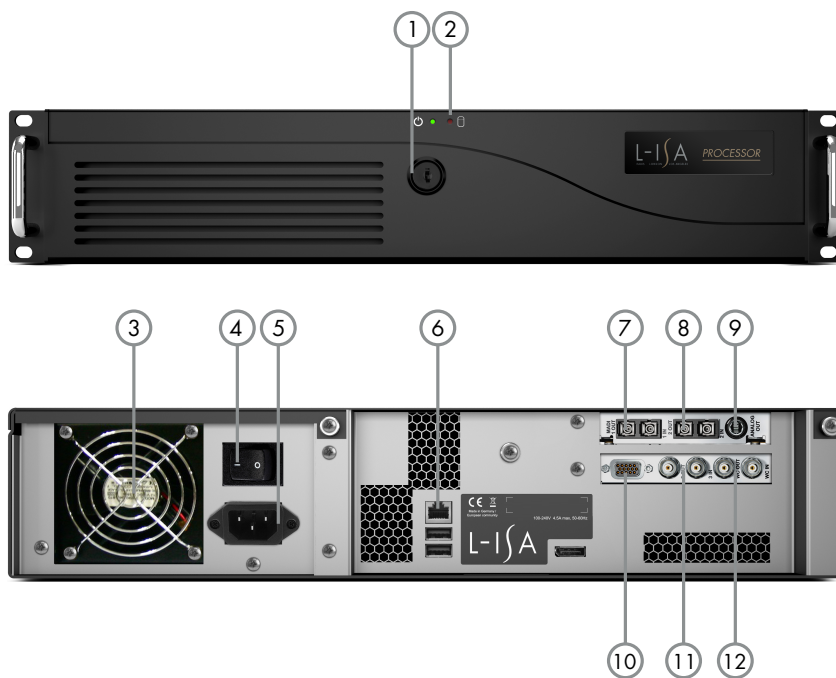
Word Clock In (BNC)

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



1. Power switch
2. Status LED
3. Fan grill
4. Mains switch
5. IEC mains inlet
6. RJ45 Ethernet connector
7. MADI 1 i/o (optical)
8. MADI 2 i/o (optical)
9. Stereo headphones out (6.3 mm TRS)
10. Stereo AES/EBU out (breakout XLR)
11. MADI 3 i/o (BNC)
12. Word Clock i/o (BNC)

## 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