SARA II Premium Rendering Engine

The SARA II Premium Rendering Engine harnesses Spatial Sound Wave (SSW) technology, developed by the Fraunhofer Institute for Digital Media Technology IDMT, and makes fully object-based, sophisticated immersive audio accessible for the end-user.

Key Features

- Powerful, ease of use
- Minimum 32 configurable audio objects
- Minimum 64 output channels
- Wordclock
- LTC Timecode
- Robust 3RU rack-mount housing
- Ultra-low noise cooling
- Redundant Solid State Drives
- A range of redundancy options
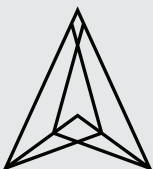- Web-browser based control

CPU-based with a Linux ecosystem, each SARA II engine offers up to 64 MADI or 128 Dante configurable network pathways at 48kHz/24bit resolution. All paths are assignable to at least 32 audio input channels that can be rendered to up to 128 independently processed sound source outputs (point-source or plane-wave). True object-based immersive audio is achieved with 40 synchronisation updates per second, per object, to ensure absolute accuracy, plus advanced algorithms applied to fast moving objects to prevent audible errors. Latency is a mere 5ms.

Reliability and ease of operation is ensured by SARA II's built-in webserver. This provides browser-based access to an easy-to-operate graphical user interface, with simultaneous control from up to 10 devices, ranging from mixing consoles, digital audio workstations and Windows, Linux or Mac operating systems, to tablets and phones running either Android or iOS. Control via third-party systems or MIDI is achieved via Open Sound Control (OSC).

Constructed in a rugged 19-inch, 3U casing with an internal, expandable 120GB SSD drive and full redundancy, SARA II is ready for the road or the rack, with the power and intelligence to make sophisticated spatial sound a scalable, accessible reality for sound engineers.

ASTRO SPATIAL AUDIO

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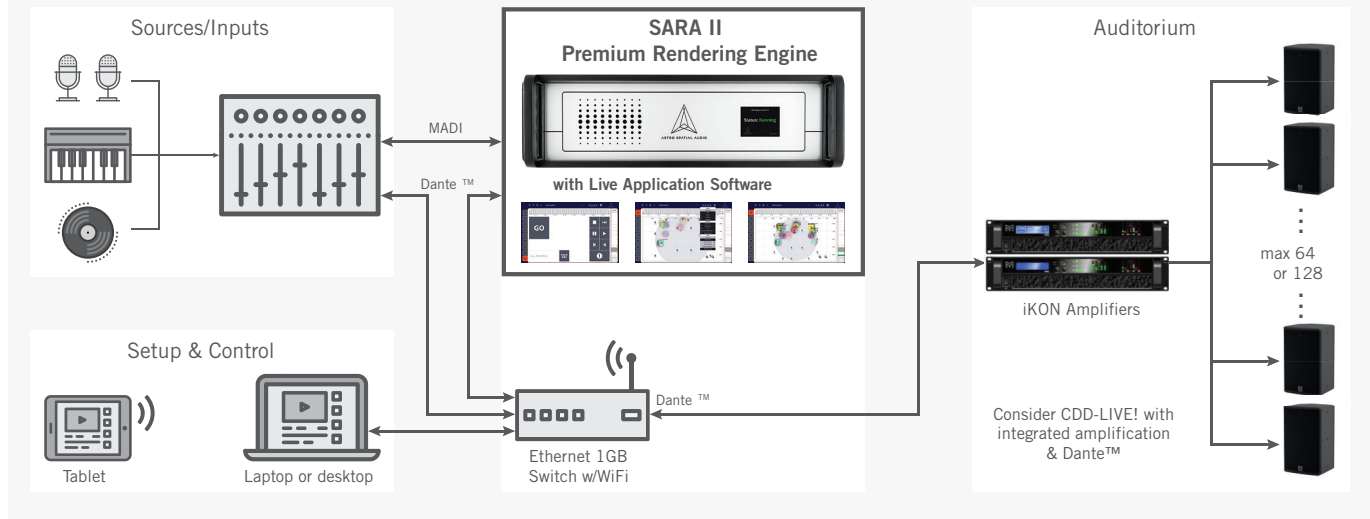All information is Copyright © 2018 Martin Audio Ltd.

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SARA II Premium Rendering Engine

System Design Overview

Typical system diagram for 3D Spatial Audio in a Live Application

Technical Specifications

Audio and control

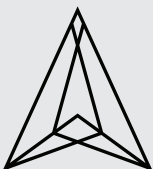|	
Audio inputs	32 standard (expandable)
Audio outputs	64 standard (expandable)
Sample rate	24 bit @ 48 kHz
Latency	<5 ms
External Control	Open Sound Control (OSC) for MIDI, RS232 and GPIO
Front panel display	2.8" TFT LCD color touch screen
Standard: MADI	1 x Optical (SC) and coaxial (BNC)
Option: Dante™	1 x RJ45 Gigabit Ethernet LAN port
Wordclock	Selectable internal / external (BNC)
Network	1 x Gigabit on Ethercon Neutrik NE8
Maintenance only	1 x VGA, 1024 x 768 or higher
	2 x USB 3.0, 1 x RJ45 Gigabit Ethernet

Storage

RAM	16 GB
Internal storage	2 x 120 GB Solid State Drives
Redundancy	RAID 1 SSD (internal) / Optional parallel SARA II Engines

Power Supply

Input voltage	100 – 240 Vac, 50-60 Hz, 6.3 A max
Max Output	450 W
Connector	Neutrik PowerCon NAC3MPA-1
Option	Redundant PSU, 2 x 500 W, 8 A with audible and visual warnings

General

Housing	19" Rackmount, 3 RU
Dimensions	WxDxH 482 x 550 x 132 mm (19" x 21.7" x 5.25")
Weight	11.9 kg (26 lbs) plus cables
Operating System	Linux CentOS

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