EXBOX.RAV

RAVENNA / MADI CONVERTER

AES67
SMPTE 2110-30 / 31

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EXBOX.RAV
is an Audio-over-IP to MADI converter running on DirectOut's well-proven RAVENNA (AES67 / ST 2110-30 / -31) implementation. It supports NMOS for stream and device discovery and connection management.

Four gigabit ports with an internal switch and PoE, plus three MADI ports in BNC, SC and SFP format offer bidirectional conversion and routing of 64 audio channels, with built-in SRC functions (FastSRC™) and automatic redundancy switching (EARS™).

The handy size of the popular EXBOX series (1/3 of 19''), combined with the rock-solid housing and redundant power supplies, makes EXBOX.RAV a compact and affordable solution to migrate baseband audio to IP.

Audio Streaming
Up to 32 streams with a total number of 64 audio channels are supported. The device complies with AES67, ST 2110-30 /-31, and supports all ST 2022-7 classes.

All-Round Functionality
EXBOX.RAV offers highest flexibility as it provides three MADI ports of different interface types:
- optical SC (single-mode or multi-mode)
- coaxial (BNC)
- SFP

The Small Form Factor Pluggable cage can be fitted with any SFP module suitable for the particular application.

FastSRC™
The FastSRC™ is a low latency sample rate converter, switchable for the audio network I/O, and ensures seamless exchange between MADI and IP when both sources are not synchronised.

Remote control
Device functions of EXBOX.RAV, such as the channel based routing matrix, FastSRC™ or EARS™ are accessible via globcon and a browser UI. NMOS standards IS-04 and IS-05 are supported for stream discovery and connection management.

Safe operation
The device can be powered by up to two external power-supplies as well as PoE (Power over Ethernet).

TECHNICAL DETAILS

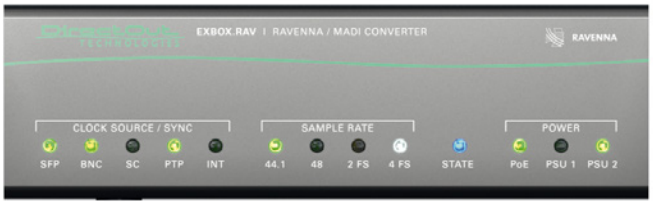
MADI Ports (I/O):	1 x SC-Socket multi/single-mode 1 x coaxial BNC, 75 Ω * 1 x SFP (empty cage without module) **
Network:	3 x RJ45 (1 Gbit/s) 1 x RJ45 (1 Gbit/s, PoE)
Sample Rates:	44.1, 48, 88.2, 96, 176.4, 192 kHz (+/- 12,5%)
MADI Formats (I/O):	48k Frame, 96k Frame, 56/64 channel, S/MUX
Sample Rate Converter:	FastSRC™ for RAVENNA I/O
Network-Layer:	3
Number of Streams:	32
Number of Channels (I/O):	64
Network Standards:	RAVENNA, AES67, SMPTE 2110-30/-31
External Control:	NMOS IS-04, IS-05
Power Supply:	2 x Hirose DC input (7- 24 V) 1 x RJ45, Power over Ethernet
Dimensions:	Width 140 mm Height 42 mm Depth 140 mm
Weight:	about 0.8 kg

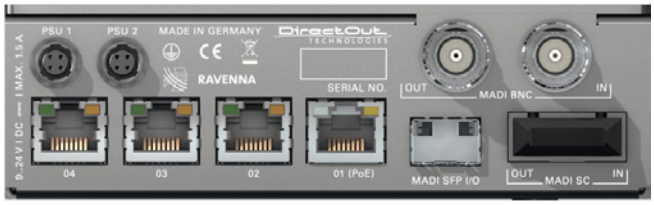
* BNC input is switchable to word clock input
** optional accessory: SFP modules (LC single-mode or multi-mode)

EARS™
Enhanced Automatic Redundancy Switching™ is a system to prevent interruption of the output signal. It uses either the proven BLDS™ technology or pilot tone triggering. A logic monitors the condition of the trigger signal on the RAVENNA input. In case of a failure it switches automatically to the backup input (RAVENNA or MADI).

Built-in Switch
Two independent NICs can be connected to four network ports of the built-in switch, supporting redundant audio streaming as per ST 2022-7.

Rack-Ready
Each EXBOX can be mounted into a standard 19''-rack by using the optional kit BOXMOUNT.XL. Up to three devices may fit side-by-side within 1 RU.





Remote Methods:

Network globcon NMOS

DirectOut TECHNOLOGIES