# ADI-6432



#### **Overview**

RME's ADI-6432 offers 64 channels of format conversion from MADI to AES and vice versa. Typical applications include two ADI-6432 used as digital multicore, or one unit used as AES/EBU frontend for the Hammerfall DSP MADI PCI card. Up to 192 kHz at 24-Bit are supported. Built with 2 units height there is enough space for all connectors and control elements. Of course the unit includes lots of typical RME-features:

- Support for up to 192 kHz with MADI and AES
- Unique status displays for MADI and AES
- SteadyClock for maximum jitter reduction and clock regeneration
- Completely remote controlable via MIDI
- Transfer of MIDI data via MADI
- Transfer of RS232 data via MADI

The compact unit with 19" width and 2 unit height serves as format converter MADI to/from AES (schematic view). MADI handles 64 channels of 24-Bit audio at sampling frequencies up to 48 kHz, 32 channels up to 96 kHz, and 16 channels up to 192 kHz. All channels are transferred across a single cable, either coaxial (BNC) or optical network cable. In both cases, cable lengths of more than 100 meters can be achieved. The AES/EBU channels are provided as 32 AES/EBU inputs and outputs via D-sub connectors. The ADI-6432 accepts 56 channels and 64 channels as well as 96k frame at its input, and can be set to generate those formats at its output.

#### Connectivity

1 x MADI I/O (optical and coaxial) 32 x AES/EBU I/O (2 x 4 SUB-D) 1 x MIDI I/O Com-Port I/O (RS-232) Word Clock I/O

#### Features

MADI Multinorm MADI Dual I/O MADI Quad Wire MADI Redundancy RME Remote Instant Memory MIDI over MADI RS-232 over MADI Intelligent Clock Control SteadyClock<sup>™</sup> SyncCheck<sup>™</sup> SyncAlign<sup>™</sup> Multisync



0	NTELIGENT RUOR SOUTIONS		MAD / AES INPUT SYNC AND AUDO STATE   1 3 5 7 1 1 15 12 12 12 12 20 21 10 10 12 12 12 20 21 10 <th>Advance Berecto MAD F</th> <th></th> <th>C</th>							Advance Berecto MAD F		C	
	MADI INPUT INPUT STATE BNC BRROR O OPT 0 64 DH DBK 0 DBK 0					96K 🔴				COM STATE PX 0 TX 0	LOCK KEYS LOCKED D D Seect		
0	energy Charles - Andrew - Andr		100 <b>0</b> 100									LOWER TO	0

#### Features

RMEs SteadyClock lets the ADI-6432 use MADI without an additional word clock connection, and guarantees excellent clock quality in every situation. Due to the highly efficient jitter reduction, any clock signal – even AES and word clock – can be improved and refreshed, and subsequently be used as reference clock at the word clock output. Intelligent Clock Control (ICC) will retain the last valid sample frequency in case of a loss of the input signal.

The ADI-6432 supplies word clock in Single, Double und Quad Speed, distributes Double Wire 96 kHz signals into the MADI data stream, and even supports the double MADI sample rate (96K frame). The SyncAlign® and SyncCheck® technologies known from other RME products ensure perfect synchronization and clear detection of errors. Also multiple units can be stacked and operated sample-aligned, using word clock. All settings are stored when the unit is switched off.

A fully automatic input selection between optical and coaxial input offers a useful redundancy mode for critical applications. Extensive status displays give information about lock and sync states, audio content and the physical quality of the incoming signal.

The front panel features an exciting and detailed Sync and Audio State display with 97 LEDs. Furthermore there are lots of buttons with clear LED function display. Especially in a professional application, exact display and control of all incoming and outgoing signals, including MIDI and RS232, becomes indispensable. Errors can be detected at a glance. The control keys can be locked to prevent accidental changing of settings.



### SERIAL/MIDI Extender

16 MIDI channels can be transferred invisibly across MADI, at the full count of 64 audio channels. The same applies to RS232: Be it 9600, 19200 or 115200 Baud, thanks to a 9-pin COM port, the ADI-6432 can be used as an extender for serial cables, with no effect on the audio functionality.

Additionally the device can be fully remote controlled and configured via MIDI, and all status displays can be queried through MIDI. Each ADI-642 can be given a separate ID, allowing separate remote controllability of various devices with only one MIDI channel.

The ADI-6432 is compatible to MADI interfaces of companies like Sony, Merging, Lawo, Euphonix, Stagetec, Jünger, Audio Service, AMS and others.

## **Tech Specs**

Input MADI: 1 x BNC, 1 x optical Input AES/EBU:  $32 \times 4 \times \text{per D-sub connector, transformer balanced, highly sensitive input stage (< 0.3 Vpp), SPDIF compatible$ Output AES/EBU: 32 x, 4 x per D-sub connector, transformer balanced, 4 Vpp Input word clock: BNC, Signal Adaptation Circuit (functional from 1.2 Vpp) Output word clock: BNC, low impedance driver stage, 4 Vpp into 75 Ohms, short-circuit-proof MIDI input and output: via two 5-pin DIN jacks COM port: RS232 via 9-pin D-sub, 9600/19200/115200 Baud Sync sources: MADI, AES, word clock, internal Varipitch: by input signal or word clock Sample frequencies: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz, variable (sync/word clock) Sample rate range: MADI: 32 - 192 kHz, word clock: 27 kHz - 200 kHz, AES: 28 kHz - 200 kHz Jitter: Internal clock < 1 ns, external clocks < 1 ns Jitter: Interne Clock < 1 ns, Word Clock In < 2 ns, AES/EBU In < 2 ns Jitter suppression: >30 dB (2.4 kHz) Jitter sensitivity: all PLLs operate error-free even at 100 ns Power supply: Internal switching mode PS, 100V - 240V AC, 20 Watt Dimensions: (WxHxD) 483 x 88 x 200 mm Warranty: 2 years





Am Pfanderling 60 . 85778 Haimhausen . Germany Tel.: +49-08133-91810 Fax: +49-08133-9166