



ADI-6432R BNC

Bidirectional 64-Channel 192 kHz MADI <> AES-3id format converter

24 Bit / 192 kHz

1 x MADI I/O (optical and coaxial)

32 x AES-3id I/O (2 x 32 BNC)

1 x MIDI I/O

Com Port I/O (RS-232)

Word Clock I/O

The ADI-6432R BNC provides 64 channels of format conversion from MADI to AES-3id and vice versa. Based on RME's highly successful bidirectional MADI-AES/AES-MADI converter ADI-6432, the newly developed ADI-6432R BNC offers broadcasters ease of integration and fail-safe operation through the utilization of industry standard BNC connectors and dual redundant power supplies, while offering 64 channels of I/O capability. The BNC version targets broadcast and professional users who require AES-3id connections - coaxial 75 Ohm cables with up to 300m length. Typical applications include two ADI-6432R used as digital multicore, or one unit used as AES-3id frontend for the HDSPe MADI card. Up to 192 kHz at 24 bits is supported. Built in 2 height units the ADI-6432R BNC provides 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 controllable via MIDI
- Transfer of MIDI data via MADI
- Transfer of RS232 data via MADI
- Redundant power supply

AES-3id, an extension to the AES-3 standard also known as AES/EBU, carries the exact same data as the latter, but uses a different cable (75 Ohm unbalanced instead of 110 Ohm balanced) with different connectors (BNC instead of XLR) and lower voltage (1 Vpp instead of 4 Vpp). Therefore, the ADI-6432R BNC has 64 BNC connectors on its back.

As with every RME MADI converter, the ADI-6432R BNC provides both coaxial (BNC) and optical (SC plug to Multimode glass fiber) MADI connectors. 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 ADI-6432R 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.

As an option, the ADI-6432R is also available with Single Mode MADI connectors, which make the ADI-6432R BNC compatible to existing single-mode networks and to MADI signal distribution over extremely long distances (up to 10km).

Features

RME's SteadyClock lets the ADI-6432R 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 - can be improved and refreshed, and subsequently be used as reference clock at the unit's outputs. Intelligent Clock Control (ICC) Intelligent Clock Control (ICC)

Our unique SyncCheck and AutoSync technology has evolved into the new Intelligent Clock Control of the Hammerfall DSP system. HDSP is the only digital I/O-system worldwide capable of measuring and displaying

the frequency of all clock sources. Even word clock! Based on validity and current sample rate the system then decides which clock source should be used - fully automated and performed in hardware! With this the HDSP system offers the most easiest handling of the present clocks, although having a lot digital inputs, plus the most advanced support when configuring the clock setup. will retain the last valid sample frequency in case of a loss of the input signal.

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-6432R can be used as an extender for serial cables, with no effect on the audio functionality.

Features

Additionally the device can be fully remote controlled and configured via MIDI, and all status displays can be queried through MIDI. Each ADI-6432R can be given a separate ID, allowing separate remote controllability of various devices with only one MIDI channel.

The ADI-6432R is compatible to any MADI interface from other companies, like Sony, Merging, Lawo, Euphonix, Stagetec, Jünger, Audio Service, AMS and others.

Tech Specs

Input/Output MADI: 1 x BNC, 1 x optical

Input AES-3id: 32 x BNC (coaxial 75 Ohm)

Output AES-3id: 32 x BNC (coaxial 75 Ohm)

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, Word Clock In < 2 ns, AES-3id 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