

ADI-4 DD

8-Channel 96 kHz AES.ADAT format converter



I/O Connectivity

- 4 x AES/EBU I/O (1 x XLR, D-sub)
- 2 x ADAT I/O (optical)
- 1 x SPDIF (optical, instead of the 2nd ADAT I/O)
- 1 x Word Clock I/O

All in all the ADI-4 DD shows an unsurpassed flexibility together with a sensational price point. It is a perfect interface solution in all areas, from the advanced studio work up to broadcast applications.

RME's ADI-4 DD is a cost-efficient AES to ADAT and ADAT to AES converter. Support for up to 96 kHz and built-in jitter suppression is just two of several outstanding features. Built into a space-saving half-rack enclosure the ADI-4 DD features a lot of the advanced technology of the ADI-192 DD.

The device essentially consists of two converters: four AES/EBU inputs to double ADAT outputs, and double ADAT inputs to four AES/EBU outputs. The double ADAT ports enable full 8 channel support, from 32 kHz up to 96 kHz (S/MUX). The unit provides one XLR I/O directly. A 25-pin D-sub connector allows for the use of industry standard AES/EBU I/O breakout cables. Setting an internal connector easily changes the D-sub 25-pin connector to match the pinout of Tascam (Digidesign), Yamaha and Euphonix cables. The AES output signal can be set to Professional or Consumer subcode. Channel 1/2 can also be received and output optically (TOSLINK).

LEDs of different colours clearly display the status of incoming and outgoing signals as well as of internal operations.

SyncCheck® not only shows the locking status of an input signal, but also the synchronicity of multiple inputs. Furthermore RME's SyncAlign™ technology prevents accidental misalignment errors of ± 1 sample between the AES/EBU inputs.

RME's SteadyClock™ technology guarantees an excellent performance in all clock modes. Its highly efficient jitter suppression enables the ADI-4 DD to refresh and clean up any clock signal, and to provide the incoming clock signal as reference clock at its word clock output. Additionally, Intelligent Clock Control (ICC) will maintain the last sample rate detected as valid in case of fault and loss of the input signal.

The device can be stacked without limit. All devices will be sample synchronous by using word clock. All settings are stored at power-off.

Application examples:

- AES/EBU frontend for RME's digital I/O cards (ADAT optical I/O)
- Serves as 8-Channel AES and ADAT I/O for all digital mixing desks with ADAT or AES ports
- Allows to operate up to 4 SPDIF or AES devices
- Converts between AES-3, SPDIF and SPDIF optical
- Removes jitter from AES-3 and ADAT signals

Conversion modes (selection):

- 8-Channel AES to ADAT optical converter (96 kHz)
- 2-Channel AES to 8-Channel ADAT splitter (96 kHz)
- 8-Channel ADAT to AES converter (96 kHz)
- 2-Channel AES to 8-Channel AES splitter (96 kHz)
- 4-Channel AES Double Wire to AES Single Wire converter (96 kHz)
- 4-Channel AES Single Wire to AES Double Wire converter (96 kHz)

Specifications

- Input AES/EBU: 1 x XLR, 4 x via DB-25 connector, transformer balanced, highly sensitive input stage (< 0.3 Vpp), SPDIF compatible
- Output AES/EBU: 1 x XLR, 4 x via DB-25 connector, transformer balanced, 5 Vpp
- Input ADAT optical: 2 x TOSLINK, 24-bit, Bitclock PLL
- Output ADAT optical: 2 x TOSLINK, 24-bit
- SPDIF Optical: Second ADAT port can be switched to serve as SPDIF I/O
- Input word clock: BNC, Signal Adaptation Circuit (functional from 1.2 Vpp input signal)
- Output word clock: BNC, low-impedance driver stage, 4 Vpp into 75 Ohms, short-circuit-proof
- Sync sources: ADAT optical, AES/EBU, word clock
- Varipitch: by input signal or word clock
- Sample rates: 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, variable (Sync/word clock)
- Sample rate range: AES, word clock: 27 kHz-105 kHz, ADAT 33 kHz - 57 kHz
- Jitter: Internal clock < 1 ns, word clock In < 2 ns, ADAT In < 2 ns
- Jitter sensitivity: all PLLs operate even at 100 ns Jitter without problems
- Jitter suppression: > 30 dB (2.4 kHz)
- Power Supply: Operates with voltages ranging from 7-30V DC oder AC, allowing operation with practically any power source, including batteries
- High-quality switching power supply included, for worldwide operation at 100-240 Volt



ADI-4 DD