

ADI-6432

Bidirectional 64-Channel 192 kHz MADI ↔ AES/EBU converter

Connectivity

- 1 x MADI I/O (optical and coaxial)
- 32 x AES/EBU I/O (8 x 26-pin D-sub), 64 ch. at 48 kHz
- MIDI I/O (5-pin DIN)
- Word Clock I/O (BNC)
- Com Port I/O (RS-232 via 9-pin D-sub)

The ADI-6432 converts all 64 channels of a single MADI stream to 32 AES/EBU ports and vice versa. The compact 2U device supports all 64 channels of the MADI format at up to 48 kHz, 32 channels at up to 96 kHz, and 16 channels at up to 192 kHz. Connected to the HDSP(e) MADI card, the ADI-6432 turns into a powerful external AES/EBU interface with up to 32 AES/EBU inputs and outputs. Two units can also serve as perfect digital multicore.

The 32 AES I/Os are available via standard D-sub connectors. 56- and 64- channel MADI formats, both 48k and 96k frame, will be accepted at the input, and can also be sent to the 6432's outputs. 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-6432 is of course full compatible to third-party MADI devices.

The front panel features a detailed display with a 97 LED matrix-array for sync, lock and the audio states of all I/Os. Several buttons having clear LED displays ensure an easy and valid configuration of the device. Especially in a professional application, exact display and control of all incoming and outgoing signals, including MIDI and RS232, becomes indispensable. Any error can be detected at a glance. The control keys can be locked to prevent accidental changing of settings.

SteadyClock, a digitally controlled hybrid clock developed especially for MADI, extracts the reference clock from the MADI signal, avoiding extra Word Clock cables. Its efficient jitter suppression allows any clock signal, including AES and Word Clock, to be cleaned up, refreshed and used as reference clock at the Word Clock output. In case of a failure of the input signal, the last valid sample frequency will be retained. The ADI-6432 provides Word Clock as Single, Double and Quad Speed signals, distributes 96 kHz Double Wire signals into the MADI data stream, but will also handle 96k frame (double MADI clock). SyncAlign and SyncCheck, ensures perfect synchronization across all channels, and easy detection of errors.

The ADI-6432 is fully MIDI remote controllable; via the built in MIDI connectors and/or MIDI over MADI. MIDI over MADI allows for 16 MIDI channels to be carried invisible along with the MADI data packages, together with the full 64 audio channels. RS232 over MADI allows for the ADI-6432 to be used as an extender for serial cables, supporting 9600, 19200, 38400 and 115200 Baud, with no effect on the audio functionality.

All settings will be retained even when the unit is switched off. In case of errors, the unit will switch the MADI input automatically, ensuring redundancy between optical and coaxial inputs in critical applications.

The ADI-6432 interfaces to TASCAM (RME) standard 25-pin AES/EBU equipped devices via TASCAM (RME) digital cables. The ADI-6432 AES-ports can also be combined with up to four BOB-32 breakout boxes, allowing compact XLR-connectivity. Please note that your Premium Line dealer offer ALVA Cableware cables also for other pinout standards.



The ADI-6432 offers AES/EBU / MADI interfacing in one compact unit, ensuring full MADI compatibility!

Specifications

- Input MADI: 1 x BNC, 1 x optical
- Input AES/EBU: 32 x, 4 x 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, 48, 88.2, 96, 176.4, 192 kHz, variable (sync/Word Clock)
- Sample rate range: MADI: 32 - 192 kHz, Word Clock: 27 - 200 kHz, AES: 28 - 200 kHz
- Jitter: Internal 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

Technologies

- MADI Multinorm
- MADI Quad Wire
- MADI Redundancy
- MIDI Remote
- MIDI over MADI
- RS-232 over MADI
- Intelligent Clock Control
- SteadyClock™
- SyncCheck™
- SyncAlign®

