MADI / AES Technology . Made by RME

RME

M-32 DA M-16 DA

32/16-Channel 192 kHz MADI/ADAT to Analog converter

Connectivity

M-32 DA: 32 x Analog Out (balanced TRS and 25-pin D-sub, up to +24 dBu)

M-16 DA: 16 x Analog Out (balanced TRS and 25-pin D-sub, up to +24 dBu)

1 x MADI I/O (optical and coaxial) 32 ch. @ 96 kHz, 16 ch. @ 192 kHz

4 x ADAT In (TOSLINK) 16 ch. @ 96 kHz (S/MUX), 8 ch. @ 192 kHz (S/MUX4)

MIDI I/O (5-pin DIN)

Word Clock I/O (BNC)

T he M-series converters have been conceived and optimised for professional studio, stage, and broadcast applications. Combinations of the M-16 DA and M-32 DA converters realize setups with 16, 32, 48, or 64 channels, according to your individual application or budget. The unit's unique set of features includes three hardware reference levels up to +24 dBu, MADI I/O and ADAT input up to 192 kHz, 6.3mm TRS and D-sub outputs, remote control via MIDI, and operation across a wide range of mains voltages, all packed into a 2U enclosure.

Reference Converter. RME's M-32 DA is a 32-channel high-end DA converter, easy to operate yet having a comprehensive feature set. The unit combines excellent analog circuit design from the ADI-8 QS and DMC-842 with the latest converter chips and RME's superior SteadyClock, resulting in a state-of-the-art DA conversion, with outstanding S/N and THD specs.

Analog Outputs. The units have separated driver stages for the TRS and D-sub outputs. The servo-balanced TRS jacks will work up to +21 dBu. When selecting +24 dBu the balanced D-sub connector outputs will provide the higher output level while TRS stays at the +19 dBu setting.

Technologies. SteadyClock™ guarantees perfect sound quality through efficient jitter suppression, making the device completely independent from the quality of external clock signals. Intelligent Clock Control not only displays every clock status by means of flashing LEDs, but will also retain the last valid input sample rate in case of failure of the external source. Other renowned RME technologies like SyncCheck allow quick detection of clock problems. Both converters have optical and coaxial MADI inputs. In case of failure of an input signal, the source is switched immediately, if a valid signal is present on the other input. All settings are retained when the unit is powered off.

Remote Control. All M-series converters are fully remote controllable and configurable via MIDI. Each unit's complete status can be monitored, including all the front panel's displays. Individual IDs can be set for each unit, realizing separate controllability of several units with a single MIDI channel. Control software for Mac and PC is supplied for comfortable remote control, operating also with MIDI via MADI. The unit can work as MIDI Extender via MADI as well.

ADAT. The M-32 AD's four ADAT inputs provide simple connectivity with other studio equipment. A combination with RME's HDSPe RayDAT makes a perfect partnership, allowing the transfer of 32 channels from a Mac or PC with regular optical Toslink cables at an unbeatable price.

Stacking. The MADI input serves not only as audio source and optional external clock source, but also as MADI pass-through input. Since the M-32 DA converts only 32* channels of the MADI signal, all channels of the input signal are fed back to the output. Additional M-32 DA or M-16 DA can be connected to convert the remaining signals, in any combination up to a maximum of 64 channels: One M-32 DA with one or two M-16 DA or up to four M-16 DA. And as MADI can cover long distances up to 2 km, even the same channels can be converted in several different (electrically separated) locations, with comfortable and unambiguous front panel channel selection.

Features

- 32-channel* DA converter, double balanced output, 118 dBA
- 19" enclosure with only 2 units height
- 32* LED level meters with 6 LEDs each
- SteadyClock™ - prestine sound quality independently from the quality of the external clock signal
- SyncCheck® - unique technology to check clock synchronization
- Noise suppression on power-on and power-off at the analog outputs
- All settings are stored permanently
- Fully remote controllable via MIDI and MADI

*** M-16 DA: 16 channels**

The M-16 DA is fully identical to the M-32 DA, with these exceptions:
- only one 16-channel DA board fitted
- no fan
- lower power consumption, 40 Watts

Specifications

- Output DA: 1/4"TRS jack servo balanced, up to +21 dBu. 25 pin D-sub, balanced, up to +24 dBu.
- Dynamic Range DA (SNR): 114 dB RMS unweighted, 118 dBA
- THD DA: < -104 dB (< 0.00063%)
- THD+N DA: < -100 dB (< 0.001%)
- Frequency response DA, -0.5 dB: 5 Hz - 22 kHz (sf 48 kHz)
- Frequency response DA, -0.5 dB: < 5 Hz - 34 kHz (sf 96 kHz)
- Frequency response DA, -1 dB: < 5 Hz - 50 kHz (sf 192 kHz)
- Input level for 0 dBFS: +24 dBu, +19 dBu, +13 dBu
- Sample rates: 44.1, 48, 88.2, 96, 176.4, 192 kHz, variable (Sync/WC)
- Jitter: Typical < 1 ns for internal, Word Clock, ADAT and MADI input
- 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, 60 Watt
- Dimensions: (WxHxD) 483 x 88 x 200 mm