



Overview

RME's ADI-8 QS is an 8-channel hi-end AD/DA converter with an unrivalled bunch of features. The device combines excellent analog circuit design with outstanding low latency AD/DA converter chips of the latest generation. Along with the integrated SteadyClock, the QS offers an AD- and DA-conversion of the highest quality.

Analog and digital limiters, 4 hardware reference levels up to +24 dBu, AES/EBU and ADAT I/O (optional MADI I/O) at up to 192 kHz, remote control via MIDI, digital input and output trimming for full level calibration, volume control for all 8 analog outputs, either separately or globally, digital thru-mode, operation over a wide voltage range and many more features make the QS truly unique.

The ADI-8 QS is RME's reference - highest performance in every detail, at an unbeaten price/performance ratio!

The most important features of the QS:

- 8-channel AD converter, fully symmetrical design, 117 dBA
- 8-channel DA converter, DC-coupled signal path, double balanced output, 120 dBA
- Low latency conversion: only 8 samples of delay!
- 4 x AES/EBU I/O via D-sub, 8 channels @ 192 kHz
- 2 x ADAT I/O, 8 channels @ 96 kHz
- Digital input/output trim, range 6 dB per I/O
- Analog and digital limiter for AD-conversion
- 16 LED level meters with 7 LEDs each
- Included remote control for store/recall, volume and DIM
- SyncCheck, unique technology to check clock synchronisation
- All settings are stored permanently
- Fully remote controllable

Connectivity

- 8 x Analog I/O (up to +24 dBu)
- 4 x AES/EBU I/O (8 channels @ 192 kHz)
- 2 x ADAT I/O (8 channels @ 96 kHz)
- MIDI I/O
- Word Clock I/O
- optional MADI I/O (164 MADI Card)
- external Remote Controller (Volume, DIM, Preset)

Features

- Remote over MIDI
- MIDI over MADI
- Intelligent Clock Control
- ADAT S/MUX und S/MUX4
- TotalRemote™
- FlexGain™
- 64 Option Slot™
- SteadyClock™
- SyncCheck™
- incl. Remote Controller
- cascadable



Features

The 1 U height device offers an outstanding AD/DA conversion from/to AES/EBU and ADAT (MADI optional), at up to 192 kHz. The balanced inputs and outputs use RME's circuit design, therefore guarantee outstanding noise and distortion values. Four different input and output levels each are available, offering a perfect adaptation to the analog domain. The latest generation AD/DA converters provide samplers up to 192 kHz with a SNR of 120 dBA.

Due to its efficient jitter reduction, SteadyClock(TM) guarantees pristine sound quality independently from the quality of the external clock signal. Additionally Intelligent Clock Control (ICC) Intelligent will retain the last valid sample frequency in case of a loss of the input signal.

The technologies known from other RME products like SyncCheck® ensure perfect synchronization and clear detection of errors. Multiple units can be stacked and operated sample-aligned, using word clock. All settings are stored when the unit is switched off.

The QS can be fully remote controlled and configured via MIDI, and all status displays can be queried through MIDI. Each QS can be given a separate ID, allowing separate remote controllability of various devices with only one MIDI channel.

An included hardware remote allows to control the monitoring volume directly from the working place. A reference volume once saved can be recalled anytime, and of course we did not forget to add a DIM function (-20 dB).

Low Latency

In the QS RME uses a high-class AD converter from Cirrus Logic, offering exceptional Signal to Noise and distortion figures. But the biggest difference to all other ADCs out there is its innovative digital filter, achieving for the first time a delay of only 12 samples in Single Speed (0.25 ms), 9 samples in Double Speed (0.09 ms), and 5 (!) samples in Quad Speed (0.026 ms).

These values are less than a quarter of those available from even much more expensive devices. They represent an important step in further reducing the latency in the computer-based recording studio. At DS and QS the added latency can simply be ignored. The DA-converter offers similar conversion in the range of 5 to 10 samples, turning analog digital monitoring into real analog-style monitoring!

Optional: I64 MADI Card

The I64 MADI Card provides the QS with a 64-channel MADI input and output. Coaxial and optical output operate in parallel to the AES/EBU and ADAT output, therefore deliver the same data.

The I64 MADI Card features an optical as well as a coaxial MADI input. The input is switched automatically, according to where a valid input signal is detected. Full redundancy is ensured by the automatic input switching, immediately changing to the other input in case of loss of the input signal.

The MADI input will operate as an optional clock source (Clock section, OPTN), as signal source of the DA-converter and as thru-input. Since each QS uses only 8 channels, up to 56 channels can be passed through.

When multiple devices are connected serially, the MADI I/O of each QS causes a delay of 3 samples. Therefore at the MADI output of the last device, the data of all upstream devices are delayed. The problem of this offset is solved by the function **Delay Compensation**.



Technical Specifications

Input AD: 1/4" TRS jack and 25 pin D-sub, servo balanced, completely symmetrical audio path

Output AD: 4 x AES/EBU, 2 x ADAT optical, optional MADI

Input DA: 4 x AES/EBU, 2 x ADAT optical, optional MADI

Output DA: 1/4" TRS jack servo balanced, up to +21 dBu. 25 pin D-sub, balanced, up to +24 dBu. DC-coupled audio path

Dynamic Range AD: 117 dBA

THD AD: < -110 dB (< 0,00032 %)

THD+N AD: < -104 dB (< 0,00063 %)

Crosstalk AD: > 130 dB

Dynamic Range DA: 120 dBA unmuted

THD DA: < -104 dB (< 0,00063 %)

THD+N DA: < -102 dB (< 0,0008 %)

Crosstalk DA: > 110 dB

Input level for 0 dBFS: +24 dBu, +19 dBu, +13 dBu, +4.2 dBu, each adjustable by 6 dB in steps of 0.5 dB via Digital Input Trim

Output level for 0 dBFS: +24 dBu, +19 dBu, +13 dBu, +4.2 dBu, each adjustable by +/- 6 dB in steps of 0.5 dB

Output level global: 0 down to -96 dB in 48 steps

Sample rates: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz, variable (sync/word)

Frequency response AD/DA, -0.1 dB: 10 Hz - 23.2 kHz (sf 48 kHz)

Frequency response AD/DA, -0.5 dB: < 5 Hz - 44.6 kHz (sf 96 kHz)

Frequency response AD/DA, -1 dB: < 5 Hz - 63.4 kHz (sf 192 kHz)

Power supply: Internal switching mode ps, 100 V-240 V AC

Dimensions (WxHxD) 483 x 44 x 200 mm

Warranty: 2 years



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