

## **Overview**

RME presents the world's most versatile PCI Audio Interface - the Hammerfall DSP 9632.

This card makes the dream of an All-In-One solution for every possible application come true. As usual, RME has not made any compromises: Latest 192 kHz AD- and DA-converters with more than 110 dB signal to noise ratio, all inputs and outputs simultaneously operational, easy-to-install optional hi-quality analog expansion boards, the famous TotalMix, a newly developed sensational clock section with maximum jitter suppression of external clock signals – all this combines into a 'soundcard' that the world has been waiting for so long.

# Connectivity

1 x Analog I/O (192 kHz)

1 x ADAT I/O (at 96 kHz over S/MUX)

1 x SPDIF I/O (192 kHz)

1 x MIDI I/O

1 x Phones-Output

TotalMix

Expansion Boards (optional)

### **Features**

ADAT S/MUX

 $TotalMix^{\text{TM}}$ 

Intelligent Clock Control

Bitclock PLL

SteadyClock™

SyncCheck™

SyncAlign™

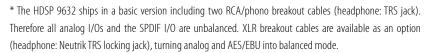
DigiCheck

 $ZLM^{TM}$ 

#### **Features**

The HDSP 9632 provides unique features:

- Balanced stereo analog in- and output, 24-Bit/192kHz, > 110 dB SNR
- Optional analog expansion boards with 4 balanced in- or outputs
- All analog I/Os capable of 192 kHz, constant number of available channels
- 1 ADAT digital I/O, supporting 96 kHz S/MUX operation
- 1 SPDIF digital I/O, 192 kHz-capable
- 1 Breakout cable for coaxial SPDIF\*
- Up to 16 I/Os can be used simultaneously!
- 1 Stereo headphone output, parallel to the analog out, additional level settings
- 1 MIDI I/O with 16 channels of hi-speed MIDI via breakout cable
- DIGICheck, RMEs unique metering- and analysing tool
- HDSP Meter Bridge: freely scalable level meters, peak- and RMS calculation directly in hardware
- TotalMix: 512 channel Mixer with 40 Bit internal resolution



HDSP 9632 debuts SteadyClock (TM), a newly developed clock technology, combining professional features like maximum jitter suppression at full varipitch capabilities and software controlled sample rates.



## Settings

Just click on the hammer symbol in the systray of the taskbar and the settings dialog of the HDSP 9632 comes up. The clear structured, easy to understand window plus the unique informative status windows for input signal, clock mode and sample rate make your work with Hammerfall DSP to a real pleasure.

When working with several digital sources it is not only necessary to know if these are properly locked, but also if they are totally synchronized. RMEs exclusive SyncCheck® checks all input signals and displays their actual state, and thanks to our Intelligent Clock Control (ICC) concept you have all clocks and states under control – with ease.

The optional 9632 Word Clock Module provides a galvanically isolated word clock input and two word clock outputs via BNC jacks. Compared to the well-known DIGI96/8 series, the HDSP 9632 not only offers a further improved analog interface, but also all the features of the award-winning Hammerfall DSP series: All inputs and outputs simultaneously available, MIDI I/O and TotalMix, the DSP-based realtime mixer/router. Hardware updates through software and driver updates are risk-free thanks to the Secure BIOS Technology.

In short: The HDSP 9632 is the ultimate audio interface for PC or Mac, digital or analog.

## **Tech Specs**

Supported sample frequencies: Internally 32, 44.1, 48, 64, 88.2, 96, 176.4, 192 kHz. Externally 28 kHz - 200 kHz

8 buffer sizes/latencies available: 1.5 ms, 3 ms, 6 ms, 12 ms, 23 ms, 46 ms, 93 ms, 186 ms

All settings changeable in realtime

Automatic and intelligent master/slave clock control

Enhanced Mixed mode: All inputs and outputs simultaneously operational

TMS (Track Marker Support): Supports CD/DAT start-IDs and the read out of CD subcode

Unique status windows for record and playback, showing mode and sample rate

DIGICheck, RMEs unique metering and analysing tool

Digital inputs and outputs ground-free transformer coupled

3-stage hardware level control for analog inputs and outputs

Servo-balanced analog input and output, DC-coupled signal path

192 kHz / 24-Bit converters. SNR 110 dB RMS unweighted, 113 dBA

Maximum input and output level (0 dBFS @ HiGain): +19 dBu

Low impedance headphone output (75 ohm), stepless output level through software faders

Headphone Speaker Protection minimizes noise during power on/off

Enhanced Mixed Mode: Alle Inputs and Outputs gleichzeitig nutzbar

**Super low jitter design**: < 1 ns in all clock modes

## Optional Add-Ons

An easy to handle ribbon cable connects the newly developed optional AI4S-192 and AO4S-192. These analog expansion boards having one bracket with 4 stereo TRS jacks offer the same performance as the on-board stereo analog I/O of the HDSP 9632: up to 192 Khz, balanced and 3 different reference levels. With this a maximum of 6 inputs and/or outputs can be achieved. HDSP 9632 also supports the existing Expansion Boards (EXB). An internal ADAT input and an internal ADAT output allow for up to 14 analog inputs, 14 analog outputs, or the usage of a TDIF interface, directly inside the computer. HDSP 9632 supports also the other Expansion Boards. The internal ADAT input and the internal ADAT output provide up to 14 analog inputs, 14 analog outputs or one TDIF I/O direct into the system. Examples for some incredible combinations:

- WCM: One Word Clock Module for one input and two outputs, 24-Bit/192kHz, > 110 dB SNR
- WCM + TEB: Word Clock module and TEB for one additional TDIF Port
- 4AI + 4AO: 4 analog inputs and analog outputs
- 4AI + 4AO + TEB: 4 analog I/Os and one TEB
- AEB: with the AEB-4I/8I/4O/8O for up to 14 analog I/Os

Our recommendation for a killer combo: HDSP 9632 + WCM + AI4S-192 + AO4S-192 + TEB = all usable at the same time, one PCI(e) Slot and 4 additional slots

