High Performance DSP Audio System

MARIAN Performance LINE: Highspeed hardware architecture, elaborate converter technology, uncompromising Audio quality!

Integrated hardware DSP mixer, ultra low latency design, 1 + 3 MIDI I/O combination and TDM SyncBus make the TRACE α the perfect partner for professional In-the-box productions and advanced software instruments.

Inputs and Outputs

- 1 x Stereo Analog I/O (balanced)
- 1 x Stereo Digital I/O (S/PDIF)
- 3 x MIDI Output
- 1 x MIDI Input

Features

- MARIAN TRACE highspeed hardware architecture
- Ultra low latency design
- MARIAN TDM sync bus
- Realtime level meters
- MIDI stream optimization, advanced MIDI filter
- Highspeed driver suite for Windows™ 2000/XP
- Integrated digital hardware DSP mixer (Total Recall)

MARIAN TRACE Systems • Features

UNEQUALLED AUDIO QUALITY

The hardware design focus was on providing superior audio performance and high resolution audio with sample rates up to 192 kHz.

The analog inputs and outputs provide balanced connectors - working also with unbalanced signals - and achieve an excellent SNR - up to 113 dB(A) - with a studio level of up to +18 dBu.

HIGH-SPEED HARDWARE ARCHITECTURE

Newly developed PCI- and DSP technologies enable ultra low latencies below one millisecond practically without CPU load – even when using all channels at the full bandwidth of up to 192 kHz!

A TRACE system is the perfect partner for performance intensive applications such as software instruments and complete in-the-box-productions.

DRIVER SUITE (ADVANCED MULTI-CLIENT)

The TRACE α provides a complete driver suite for Microsoft Windows XP/2000.

The continuously improved, multi client enabled drivers for ASIO 2.0, GSIF 2, MME, WM (Kernel Streaming) and non-emulated DirectSound guarantee ultra low latencies for all software environments.
Trace α

High Performance DSP Audio System

Technical Data

Analog Inputs:
- 2 x 1/4" TRS jack, balanced
- Input level (adjustable): +18 dBu, +15 dBu, +8 dBu and -6 dBV for 0 dBFS
- Impedance: 10 kOhm
- AD input leveling from -48 dB to +18 dB
- Frequency response @ 48 kHz: -0.5 dB; 20 Hz to 22 kHz
- Frequency response @ 96 kHz: -0.5 dB; 20 Hz to 44 kHz
- Frequency response @ 192 kHz: -1 dB; 20 Hz to 96 kHz
- SNR @ 192 kHz: 106 dB / 108 dB(A)
- THD+N @ -3 dBFS: < 0.002 % / < -94 dB
- Cross-talk attenuation: > 100 dB

Analog Outputs:
- 2 x 1/4" TRS jack, balanced
- Output level: +18 dBu, +15 dBu, +8 dBu and -6 dBV for 0 dBFS
- Impedance: 75 Ohm
- DA output leveling from -78 dB to 0 dB
- Frequency response @ 48 kHz: -0.5 dB; 20 Hz to 22 kHz
- Frequency response @ 96 kHz: -0.5 dB; 20 Hz to 44 kHz
- Frequency response @ 192 kHz: -1 dB; 20 Hz to 96 kHz
- SNR @ 192 kHz: 113 dB(A)
- THD+N @ -1 dBFS: < 0.001 % / < -100 dB
- Cross-talk attenuation: > 110 dB

Digital Inputs:
- 1 x SPDIF RCA (cable adapter)
- 1 x COAX digital SPDIF (internal)
- Input voltage: 0.2 Vrms
- Sample rates: 32 kHz to 192 kHz

Digital Output:
- 1 x SPDIF RCA (cable adapter)
- Output level: 0.5 Vrms with 75 Ohm
- galvanic isolated

MIDI:
- 3 x MIDI Output via break out cable / 5-pin connector
- 1 x MIDI Input via break out cable / 5-pin connector

MARIAN TRACE Systems • Features

DSP Mixer
The digital mixer – completely integrated in the TRACE hardware - operates with quick and flexible DSP functions allowing latency-free mixing of all signals to several stereo sums as well as the latency-free monitoring and routing of all inputs to all outputs. Thus, perfect monitor mixes can be set up quickly and played back on any output. The mixer can be configured optically – all inputs, outputs and many mixer sections can be either shown or hidden. All audio-, routing- and layout settings are easy to save and load within session files (total recall).

TDM SyncBus
Using the hardware based TDM SyncBus up to 4 TRACE audio systems can be connected to one synchronous main system, in which not only the same digital clock, but also absolute start/stop synchronization of all connected inputs/outputs is ensured.

For example, a TRACE system could be connected to one system with 84 channels in 192 kHz. The new TDM SyncBus spanning all installed TRACE cards enables the free routing of up to eight channels. That makes single channels or complete sub-mixes available to all TRACE cards within the main system. A TRACE-main system with inputs and outputs of any type – analog or digital – can thereby be used as router, patchbay, converter or splitter. Typical usage: Connecting an external reverb and/or effect units to one card making it available to all other cards.

5 year warranty
All TRACE systems are characterized by an easy installation and steadily controlled high quality of manufacturing. Marian grants a five year warranty on every member of the TRACE family.

MARIAN OHG
Digital Audio Electronics
Eisenacher Str. 72
04155 Leipzig
Germany

Tel.: +49-341-58932-25
Fax: +49-341-58932-12
E-Mail: info@marian.de
Web: www.marian.de