



Product Information

CH1-SOUND • *CompactPCI*® Six Channel Audio Accelerator

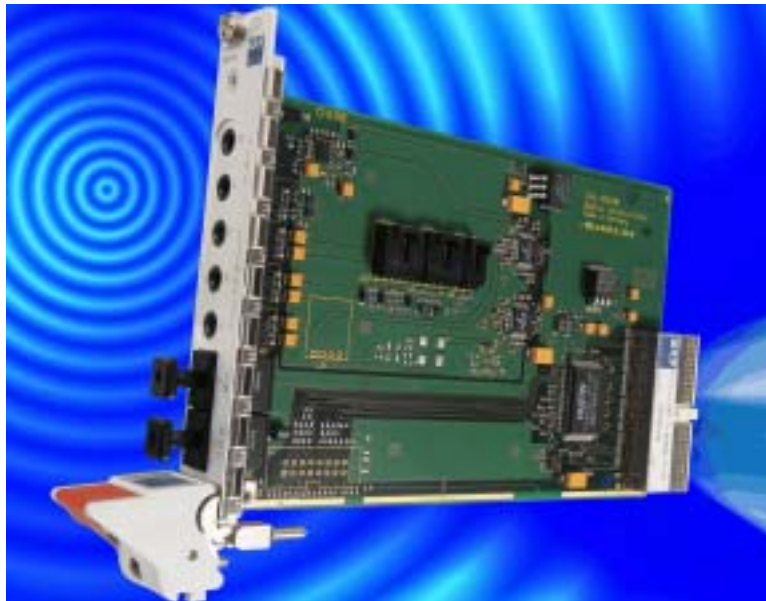
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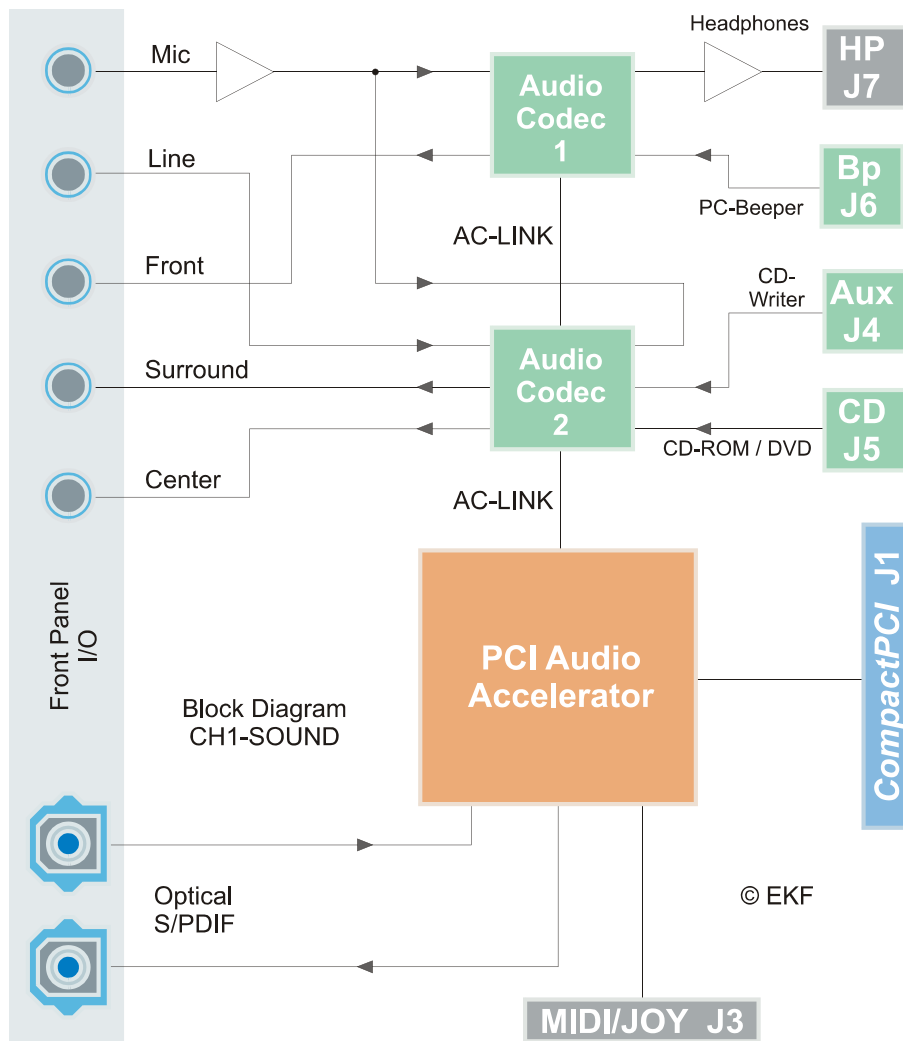
The CH1-SOUND is a high performance audio accelerator add-in card for *CompactPCI*® systems. The 3U board exceeds the Microsoft® PC 99 audio performance specifications and complies with the Intel® AC' 97 spec.

The CH1-SOUND provides a complete suite of analog and digital I/O connections. The board contains three stereo outputs for front L/R, surround L/R and center/low frequency speakers. The optical S/PDIF interface is compatible with consumer devices such as stereo receivers and MiniDisc recorders.

The sound card features a 420MIPs high speed DSP audio processor, and two audio codecs. The codecs include stereo 20-bit DACs and stereo 18-bit ADCs, allowing for recording, mixing and playback of voice and music at the highest quality level.

The CH1-SOUND is a perfect solution to industrial range CPCI systems with need for high performance audio I/O, e.g. passenger information systems or computer telephony applications.





Features

- 420MIPs DSP architecture
- Hardware acceleration for Microsoft DirectSound® and DirectSound3D® positional audio
- Sensaura™ 3-D, 2 or 4 channel audio
- EAX™ enhanced environmental audio
- Unlimited-voice wavetable synthesis
- Acoustic echo cancellation, acceleration for Netmeeting™
- 10 Band graphic equalization
- S/PDIF Digital input and output support for PCM and AC3 encoded 5.1 channel formats
- PC 98/99 and AC '97 compliant

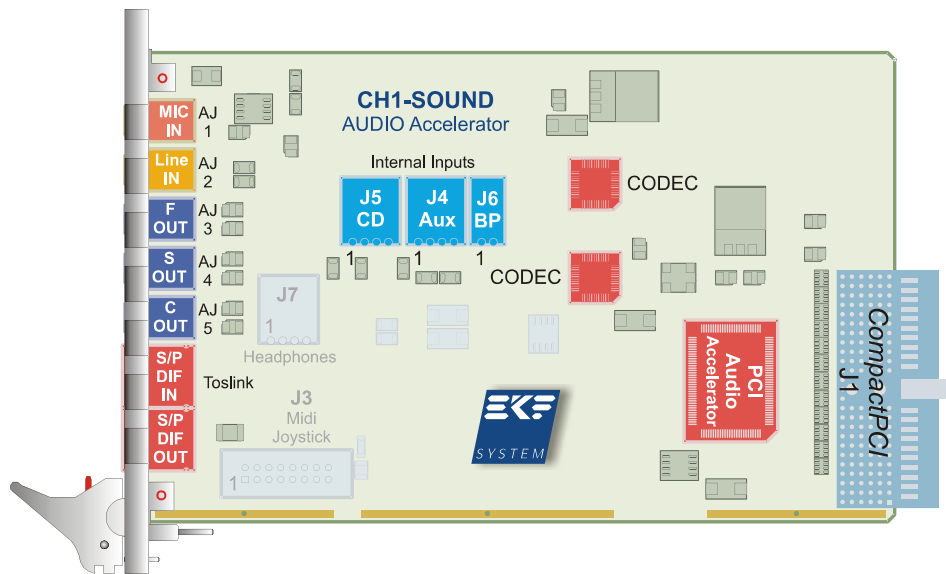
EKF offers drivers for Linux from kernel 2.2.17 off, and Windows 95/98/ME, NT4 and Windows 2000 (all available by download). The CH1-SOUND is also compatible to existing legacy software.

For 6U CPCI systems, a mechanical kit is available that expands the CH1-SOUND front panel to the 6U height (CR9-ADAPT).



Technical Specifications		
Board	Dimensions	3U Eurocard (100x160mm ²), front panel width 20.3mm (4HP), mechanics constructed with respect to EMC requirements, ejector lever
AUDIO	Audio Processor	PCI Audio Controller, 420 MIPS DSP processor architecture, hardware acceleration for Microsoft DirectSound® and DirectSound3D® positional audio, Sensaura™ 3-D, 2 or 4 channel audio, EAX™ enhanced environmental audio, unlimited-voice wavetable synthesis, acoustic echo cancellation, acceleration for Netmeeting™, 10 Band graphic equalization, S/PDIF digital input and output support for PCM and AC3 encoded 5.1 channel formats, dual AC '97 codec interface, DirectInput™ joystick interface and MPU-401 MIDI I/O, PC 98/99 and AC '97 compliant, legacy support
	Audio Codecs	Primary and secondary AC '97 codecs, controlled via AC Link by the audio accelerator, 20-bit Stereo DACs, 18-bit Stereo ADCs, pseudo differential CD input, exceed PC 99 and AC '97 specifications
	Front Panel Stereo Audio Jacks 3.5mm	1. Mic input, phantom power 2V as required by PC 99 on the middle contact, suitable for Electret microphones (Mono), low noise amplifier 18dB on-board (input voltage 0.125V _{rms}) 2. Line input, 2V _{rms} max., Stereo 3. Line output speakers L/R, 1V _{rms} 4. Line output Surround speakers L/R, 1V _{rms} 5. Line output Center/LFE speakers, 1V _{rms}
	Front Panel Connectors Digital Audio	1. S/PDIF input, optical digital audio interface, Toslink receiver, 22-48kHz data sampling rate 2. S/PDIF output, optical digital audio interface, Toslink transmitter, data sampling rate 48kHz
	On-Board Connectors	1. CD Stereo input, 4-position Molex shrouded header J5, pseudo differential input 1V _{rms} 2. Auxiliary Stereo input (AUX), 4-position Molex shrouded header J4, 1V _{rms} 3. PC Beeper input (BP), 2-position Molex shrouded header J6, Mono 4. Optional Midi/Joystick interface, 16-position shrouded header J3 (by default not stuffed) 5. Optional Stereo headphones output, 32..600 Ohm, 1.25V _{rms} @ 150 Ohm, short circuit proof, Stereo, 4-position Molex shrouded header J7 (components by default not stuffed; as an option, the headphones output can be wired to the front panel audio jack AJ2, replacing the Line In function)
CompactPCI® Bus	Connector J1	32-Bit, 33MHz, DMA bus master (133MB/s) 3.3V or 5V interface
Power Requirements	Connector J1	+5V ±5% 0.5A max. +3.3V ±0.3V 0.2A max. +Vio (5V/3.3V) ±0.3V 0.1A max. +12V ±5% 0.1A max.
Temperature Humidity	Commercial Version	Operating temperature 0-70°C Humidity 5-90% non condensing
Drivers	Download	Windows 95/98/ME, NT4, Windows 2000 Linux 2.2.17-19, 2.2.4x, Redhat 7.0, Redhat 7.1

subject to change w/o notice



CH1-SOUND * Component Assembly Drawing

Ordering Information		
Alias	Ordering No.	Short Description
SOUND	CH1-1-SOUND	3U <i>CompactPCI</i> 6-channel high performance audio controller, complete suite of analog I/O connections, AC3 5.1, dual AC '97 Codec, digital optical S/PDIF input/output
SOUND	CH1-4-SOUND	Similar to CH1-1-SOUND, functionally limited to analog Stereo speaker output, microphone input, Stereo line input
	CR9-1-ADAPT	Mechanical kit, expands front panel to 6U
	580.40.01001.01	TosLink fiber optic cable 1m, 2 x TosLink ODT connectors, suitable for S/PDIF ports

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