

PMC487 Audio PMC card



The PMC487 is an 8 channel PMC audio card with front and rear I/O for use in embedded computer applications based on the Cmedia CMI8768. This is a single-chip PCI audio controller with integrated codec, full duplex 8 channel DAC and 2 channel ADC, 96k/16bit playback and 48k/16bit recording support.

The Integrated SPDIF transmitter can deliver 5.1 Dolby® Digital/DTS®, or 6.1/7.1 Dolby® Digital Surround EX/DTS ES soundtracks and up-to-96kHz high-definition audio stream to an external receiver.

The audio interfaces via the PMC487 front panel consist of a line input, a microphone input, a front line output and a speaker output with an on-board stereo amplifier; all using 3.5mm stereo connectors.

Optionally the audio connections can be made via the rear I/O of the PMC487 using the PIM481-J (PMC I/O Module, with four 3.5mm stereo connectors) or the PIM481-DSUB (PMC I/O Module, with 15-pin DSUB connector). The PIM481-J and PIM481-DSUB are to be mounted on a rear transition module. Both the front and rear I/O of the PMC487 are compatible with the PMC481 audio card.

A special PIM with SPDIF interface is available for the PMC487. More PIM modules may become available in the future.

The PMC487 is available in temperature range -20 .. +70°C.

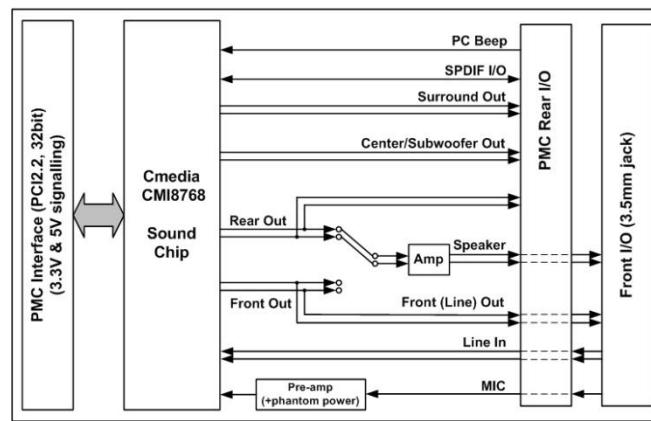
Driver support for the Cmedia CMI8768-series are included in commonly used operating systems, like Windows and Linux.

Features

- > Single slot PMC (IEEE 1386.1-2001) with front I/O and rear I/O
- > PCI interface rev.2.2, 33MHz, 32-bit, supports 3.3V and 5V signalling
- > Optional PIM (VITA 36) for rear I/O connections
- > Cmedia CMI8768 8 channel PCI integrated sound chip
- > Four audio connections via front panel
- > Front or rear line out selectable by solder jumper to speaker output
- > Driver support available in commonly used operating systems

Features

PCI bus compliancy	Audio chipset	Audio interfaces
<ul style="list-style-type: none"> PMC specification IEEE Std 1386.1-2001 PCI specification 2.2 compliant 5V and 3.3V signalling voltage (V/I/O) supported 33MHz, 32-bit PCI databus Uses 5V and 12V power supply 	<ul style="list-style-type: none"> Cmedia CMI8768 8CH single sound chip with embedded codec Full-duplex 8CH DAC/2CH ADC Supports 96k/16bit playback and 48k/16b recording Signal-to-Noise Ratio (SNR) typical 100dB Integrated S/PDIF transmitter supports 44.1kHz/48kHz/96kHz* sample-rate, 16bit resolution Built-in earphone buffer at front-out channel (32Ω load) <p>(* only available in supported drivers)</p>	<ul style="list-style-type: none"> Line out front (stereo) Speaker out (stereo 4-8 ohm) with on-board amplifier, selected by solder jumper Line out rear (stereo) * Line out surround (stereo) * Line out center + bass * Line in (stereo) Aux in (stereo) * Microphone in (mono) with phantom power supply SPDIF in/out * Speaker in (PC Beep) * <p>(* only through rear I/O with appropriate PIM)</p>
Speaker output amplifier	Environmental	Ordering information
<ul style="list-style-type: none"> Efficient class-D operation Output power: <ul style="list-style-type: none"> 2 W / channel @ 8Ω load * 3.5 W / channel @ 4Ω load * Single-ended outputs THD+N typical 0.04% (1 kHz, 5W) SNR typical 92 dB * First order high-pass output filter: 40Hz (-3dB) @ 8Ω load Thermal and short-circuit protection with auto recovery <p>(* see manual for details and current limiting)</p>	<ul style="list-style-type: none"> Operating temperature of components: -20 .. +70°C (extended) Storage temperature: -40 to +85°C Humidity: 10% to 90% relative humidity for operating and storage RoHS compliant 	<ul style="list-style-type: none"> PMC487/T01 8-channel high performance PMC audio card with front and rear I/O, extended operating temperature range -20 to +70°C PIM481-J/T01 PMC I/O Module with four 3.5mm audio jacks for rear I/O PIM481-DSUB/T01 PMC I/O Module with DSUB for rear I/O PIM487-SPDIF/T01 PMC I/O Module with SPDIF interface



Block diagram



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