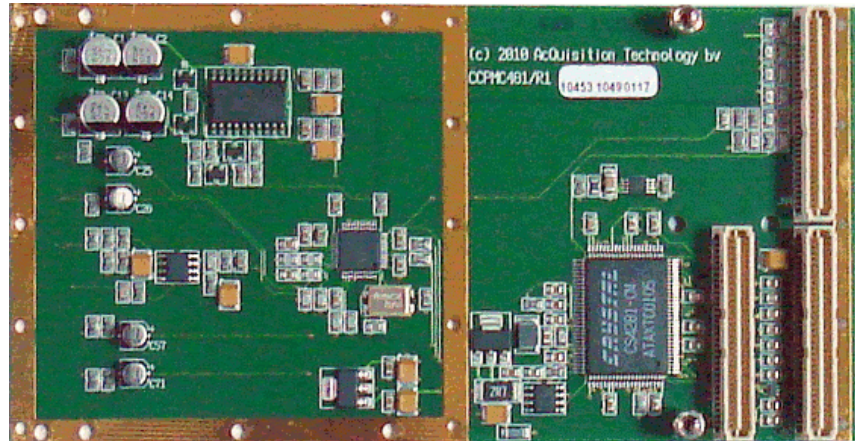


ccPMC481

## Conduction Cooled Audio PMC Card



A conduction cooled PMC audio card with rear I/O based on the Crystal CS4281 CrystalClear™ PCI Audio Interface controller and the Crystal CS4299 CrystalClear™ SoundFusion™ Audio Codec '97. The PMC481 features four audio connections via the front panel using 3.5mm stereo connectors.

Optional the audio connections can be made via the rear I/O of the ccPMC481 using the:

- > PIM481-J (PMC I/O Module, with four 3.5mm stereo connectors) or the
- > PIM481-DSUB ((PMC I/O Module, with D-sub for rear I/O).

The PIM481-J and PIM481-DSUB can be mounted on a rear transition module (RTM). Pictures of these I/O modules can be found on our website.

The audio interface consists of a line input, a microphone input, a line output and a speaker output with an oncard stereo amplifier. To prevent that the onboard amplifier shortly draws a too high current from the +12V supply the PMC481 has an onboard current limiter which limits the current to (a little less than) 500mA.

Driver support for the Crystal CS4281 is included in commonly used operating systems, like Windows (up to XP), Linux and VxWorks (refer to OpenSound).

### Features:

- > Single PMC slot (IEEE 1386.1-2001) with front I/O and rear I/O
- > Optional PIM481-J or PIM-DSUB (VITA 36) for rear I/O connections
- > Crystal CS4281 CrystalClear™ PCI Audio Interface controller
- > Crystal CS4299 CrystalClear™ SoundFusion™ Audio Codec '97
- > PCI interface: PCI 2.1 compliant, 33MHz, 32-bit interface, 3.3V and 5.0V signalling supported, 5V and 12V supply
- > 4 audio connections via front or optional PIM faceplate: Line In (stereo), Line Out (stereo), Microphone In (mono), Speaker Out (stereo)
- > On-board amplifier with current limiter
- > Driver support for the Crystal CS4281 is included in commonly used operating systems, like Windows (up to XP), Linux and VxWorks (refer to OpenSound).

**PCI Bus Compliance**

- \* PCI 2.1 compliant
- \* PMC: IEEE 1386.1-2001 compliant
- \* 33MHz, 32-bit interface
- \* 3.3V or 5.0V PCI signalling
- \* 5V and 12V supply voltage
- \* PIM: VITA 36 compliant

**Controller**

- \* Crystal CS4281 CrystalClear™ PCI Audio Interface controller
- \* Crystal CS4299 CrystalClear™ SoundFusion™ Audio Codec '97

**Audio Interface**

**Line In**

- \* Stereo Line Input, standard 3.5mm jack. Dynamic range for line in is 2Vrms
- \* Microphone: the microphone jack (standard 3.5mm) is designed for electret (condenser) microphones that need phantom power on the jack's ring terminal. The jack's ring terminal provides filtered 2.5V for powering the mic. Input voltage range with the 20dB boost off is 125mVrms, with the 20dB mic boost enabled the range is 12.5.Vrms

**Audio Interface**

**Line Out**

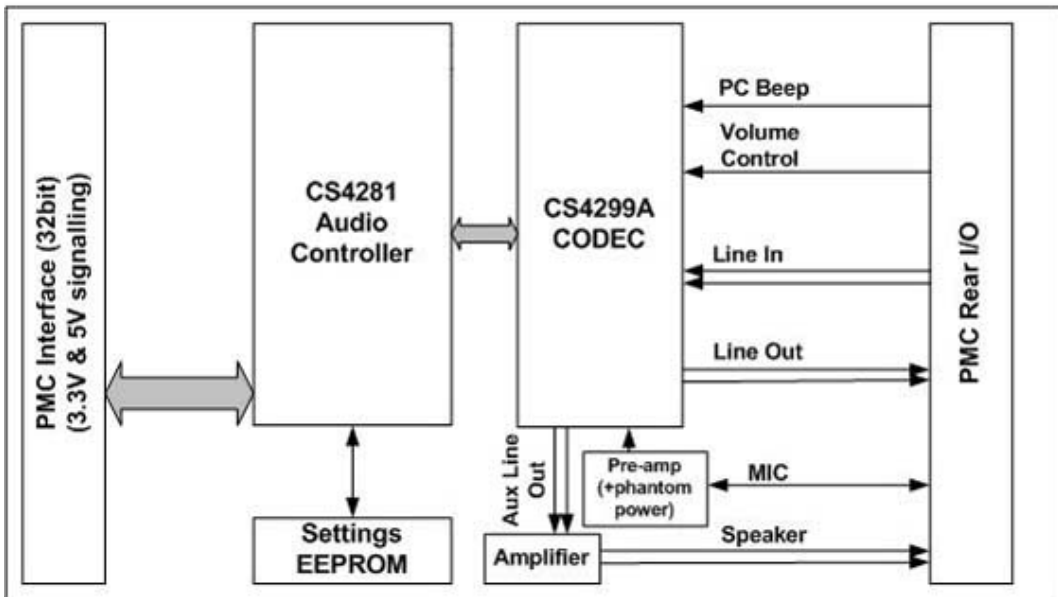
- \* Line and Speaker Out (Aux)
- \* Line Out: Stereo Line Output, standard 3.5mm jack. Output is 1Vrms into 10K load
- \* Speaker Out: Stereo Speaker Output, standard 3.5mm jack. Output upto 1.5W per channel into a 4 or 8 W load, but should be kept less than this over long periods unless the system has above average cooling
- \* The +12V supply has an onboard current limiter (500mA) to prevent short circuit during live insertion of jack plug

**Software**

- \* Driver support for the Crystal CS4281 is included in commonly used operating systems, like Windows (up to XP), Linux and VxWorks (refer to OpenSound).

**Ordering Information**

- \* **ccPMC481/T01** Conduction Cooled PMC Audio Card with rear I/O (ext. temperature -40°/+85°C, ruggedized), uncoated
- \* **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 D-sub for rear I/O



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