



Oxygen™ HD CMI8788

- High performance audio Controller

- DTS® Interactive – a real-time 5.1 encoder that takes any 2 or more channel and encodes it into DTS bit stream.
- DTS® NeoPC - an up mix matrix that turns any 2 channel audio into 7.1 surround sound
- Independent Dolby® Digital Live (AC-3) 5.1 real-time encoding bit-stream to facilitate the connection with CE AV receiver
- Dolby® Pro-Logic IIx surround processor spreading stereo audio into 7.1 channel surround sounds
- Renowned Dolby® Headphone technology conveying 5.1 surround or 3D gaming sounds over stereo headphones
- Latest Dolby® Virtual Speaker solution bringing \ amazing virtual surround sound fields via general two speakers



Application

- Prosumer high-quality PCI sound card for retailer market
- Consumer sound card powered by Dolby® and DTS® technologies
- PC-based media center
- Professional PC musician application
- High-end motherboard requiring top audio quality
- Audio up-sell for PC systems
- Bundle selling with high-profile VGA cards



C-Media Audio Solutions

2005' High-end PCI Interface Audio Chip by C-Media

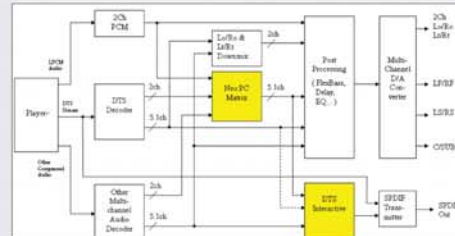
H/W Features:

- PCI 2.2 interface with bus mastering and burst modes
- Only one 24.576MHz oscillator is needed
- 4 synchronous I2S output data stream pairs within 1 flexible output DMA
- Programmable channel routing mechanism among the 4 I²S output pairs
- 4 synchronous I2S input data stream pairs spread in 3 input DMA's (for Dolby pro-audio applications)
- An alternatively multi-channel AC-link can support 2 AC97 codecs
- Programmable HW monitoring routing from I2S inputs to outputs.
- All I2S I/O pairs support 32-bit high-definition PCM data transfer and adjustable sample rate up to 192KHz
- Integrated 192k/24-bit S/PDIF transmitter with 1 dedicated S/PDIF OUT DMA
- Integrated 192k/24-bit S/PDIF receiver in recording DMA
- S/PDIF IN supports digital loop back path for transforming between optical and RCA connection
- A 48k/16-bit front panel DMA for AC97 codec
- 2-wire master serial bus or 4-wire SPI (serial port interface) to control I2S codecs
- 2-wire slave serial bus to communicate with micro control unit (MCU)
- Interrupt pin to inform external MCU to retrieve the data that system driver wants to pass out
- One MPU-401 MIDI UART port
- EEPROM control interface
- 6 GPI phone jack detection pins to distinguish if a cable is plugged in the jack
- Advanced device sensing technology is implemented to indicate whether a speaker or a headphone is plugged in the jack
- 9 direct access GPIO pins
- 3 bonding-option bits for 8 identification
- 128-pin LQFP high-quality thin package

S/W Features:

- DTS®Interactive - a real-time 5.1 encode technology of DTS® CONNECT logo program, to process audio sound into DTS®bit stream
- DTS® NeoPC - an up mixing matrix technology of DTS CONNECT logo program that turns stereo audio into 7.1 surround sound
- Independent Dolby®Digital Live (AC-3) 5.1 real-time encoding bit-stream to facilitate the connection with CE AV receiver
- Dolby®Pro-Logic IIx surround processor spreading stereo audio into 7.1 channel surround sounds
- Renowned Dolby®Headphone technology conveying 5.1 surround or 3D gaming sounds over stereo headphones
- Latest Dolby® Virtual Speaker solution bringing amazing virtual surround sound fields via general two speakers
- C-Media Xearphone Theater™ technology conveying 5.1 surround or 3D gaming sounds over stereo headphones
- C-Media FlexBass™ - LFE channel crossover frequency set-able from range 50 to 250Hz; large speaker select-able
- C-Media FlexSpeed™ - Audio sound speed accelerating and slow moving control
- C-Media Magic Voice™ popular feature for disguising your tone in online chatting
- C-Media Xear™ 3D 7.1 Virtual Speaker shifter technology
- C-Media unique Karaoke functions: Microphone Echo, Key-Shifting
- Individual 10-band EQ for each channel
- 27 global reverberation environments
- Play3D demo program
- Supports most industrial standards of PC 3D sound for gaming, including EAX™ 1.0 & 2.0, A3D™ 1.0, and DirectSound™
- Support 7.1 CH digital audio playback for WinXP, 2K, ME, 98SE (Microsoft DirectX V.9.0 above is required)
- Linux driver available (w/o Dolby and DTS technologies)

C-Media OxygenHD™ 8788: powered by DTS



Processing Options:

The C-Media OxygenHD 8788 driver allows a range of different processing options for stereo/ 5.1/ 7.1 channel audio.

- Input stage: DTS NeoPC or Multi-channel Stereo
- Output stage: C-Media Speaker shifter, DTS Interactive for digital output

