# HD Audio PCI-e Audio Device

#### Introduction

Model No: SC808

The SC808 is a high-end stereo sound card base on CMEDIA's latest native PCI-e technology audio DSP CM8888 for 24-bit/192KHz audio processing. It uses high quality components such as WM8741 DAC, TI LM4562 OP and precision layout as well, let your desktop PC to deliver



unparalleled audio quality for music playback. Built-in 128dB SNR DAC and powerful headphone OP amps, you can easily hear the sound detail. Moreover, customer could swap the OPs to get different audio performance and quality. SC808 provides few configurations for different kind of listening experience, the first is for stereo music scenario, which focuses on stereo output and vary output interface as well. For example: Stereo RCA Output to amplifier speaker; Headphone output with amp for high impedance headphone, and SPDIF Coaxial and Optical to Hi-Fi AV receiver. Another is for multimedia entertainment scenario. It provides 8 channel outputs and Microphone Input from bundled daughter board.

The bundled Control Panel Software provides many features such as environment effects, flex bass II, Xear Audio Brilliant and Xear Dynamic Bass, Smart Volume etc., to get the flexibility of audio listening. Moreover, SC808 comes with a daughter board for Microphone input and 8 channel outputs as swell. It also built-in HD Audio connectors can support headset interface from system case. Compliance with UAA (Universal Audio Architecture), it means you can directly use this board under Windows 8 or Windows 7 without installing any drivers. With the highest audio quality and flexible connection of SC808, it's really the best companion to generate a Hi-Fi PC System!

#### Features

- Uses CMEDIA CMI8888 high end 32-bit Audio Processor with native PCI-e Technology
- Uses Wolfson WM8741 high performance DAC and TI LM4562 OP for Stereo Output, plus standalone Headphone amplifier to support high impedance headphone.

- Swap OP design for changeable audio performance
- Uses 1% high precision resistors to reduce the noise of differential amplifier
- Uses Nichicon KZ capacitors to reduce coupling distortion by low resistance and high stability
- Uses Nichicon Polymer capacitors and four layers PCB, fully separates the power and ground level to provide clear and stable power for analog audio outputs and reduces the noise.
- Uses Metalized Polypropylene capacitors to reduce the audio signal loss.
- Direct PC power support to avoid noise interference from Bus power
- Use separate relays for Phone Out and RCA Out, to achieve anti-pop and unique audio path, thus result in the clarity audio.
- Coaxial output with Digital Audio Transmission Transformers, to separate the Ground Noise.
- DAC output with fourth order activate filter and differential output for smooth and fine audio output.
- Stereo Sound board uses high quality components and precision layout can reduce noise and improve the cross talk.
- Direct Coupling Amplifier circuitry avoids bass loss
- Built-in anti-pop design for multi-channel output.
- Bundle latest Xear® 3D Audio
  - Speaker configuration, volume control and sample rate selection
  - Equalizer, Environment Effect,
     Virtual Speaker Shifter, Xear Audio
     Clarity,

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Flex Bass II, Xear Dynamic Bass,

Xear SingFX, Xear Surround Headphone or Xear Surround Speaker.

## **Specification**

- 24-bit/192kHz High Resolution Stereo Out and option Multi-Channel output when connects to daughter board.
- Provides RCA Stereo Line-Out and 6.3mm Stereo Phone Out; manual adjust from bundled software.

- Headphone Amplifier with 75mW
   Output Power
- Supports S/PDIF Coaxial and Optical Outputs
- Optional with external headset through connector or real 7.1 Output through daughter board.
- Measured SNR: 124dB
- Measured THD+N: -108 dB
- Measured Stereo Cross-Talk: -120dB
- Built-in Sound Effects for varied listening experience.
- Virtual 7.1 Surround Sound feature
- Compatible with Windows 8, 7 and XP
- Compliant with PCI Express 1.1
- Size: Main Board: 12 x 168 (mm); Weight = 209g; Daughter Board: 12 x68 (mm); Weight =48g.
- Interface = PCI-e



Main Board



Daughter Board (Optional use with bundled cables)

## **Requirements**

- Available PCI-e slot
- Intel<sup>®</sup> Pentium 4 or AMD<sup>®</sup> processor equivalent and above.
- Intel, AMD or 100% compatible motherboard
- 2GB System Memory
- 100MB of free hard disk space
- Windows 8 / 7 / XP
- CD-ROM/DVD-ROM drive for installation

### <u>Contents</u>

- SC808 main board and daughter board
- Connection cables x 2
- Quick Installation Guide
- Installation CD
  - Xear Audio Center
  - Drivers for Windows 8/7/XP
  - User's Manual (English)