# PHILIPS Avenger  PCI SOUND CARD

## Hardware Configuration User Manual

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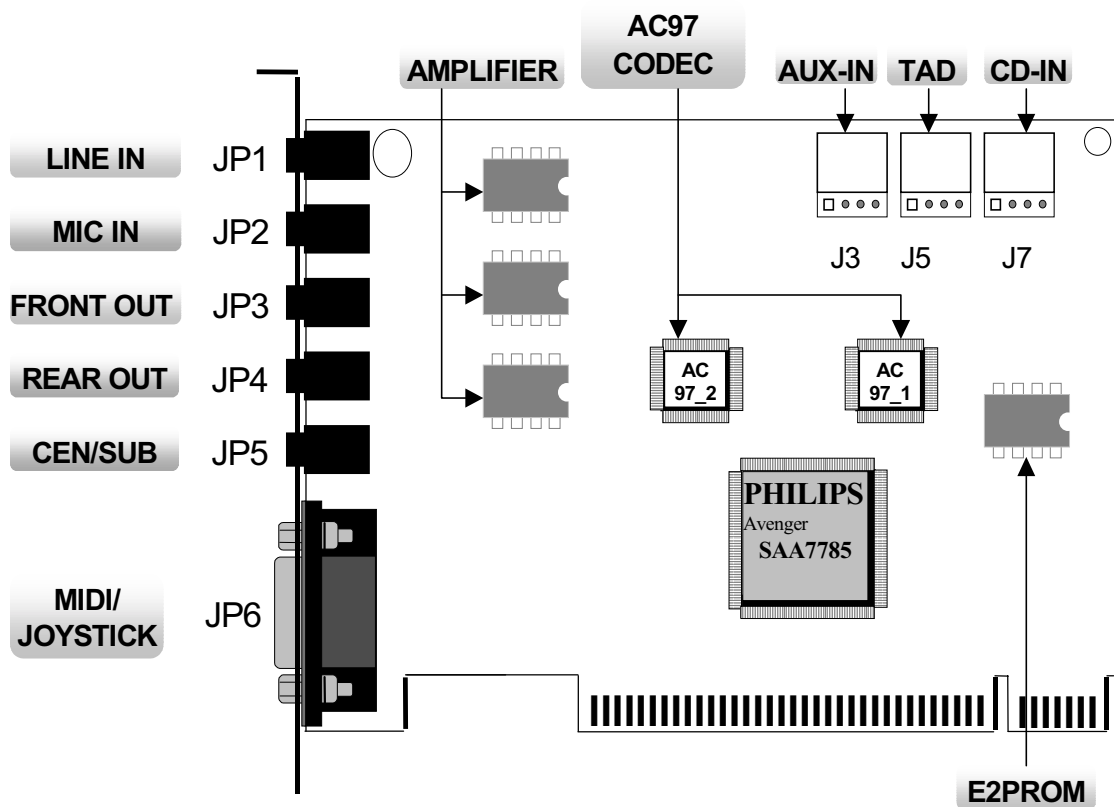# TABLE OF CONTENTS

# 1. Description

The PHILIPS Avenger SAA7785  PCI audio accelerator is a highly integrated PCI solution for the multimedia PC. The high bandwidth PCI bus is utilized to deliver advanced PC audio features, such as DirectSound acceleration and HRTF3-D positional audio.

The Avenger SAA7785 implements multi-stream DirectSound and DirectSound3D acceleration with digital mixing, sample rate conversion, and HRTF 3-D filtering. It includes a programmable audio digital signal processor and provides simultaneous support for multiple audio streams. With its built-in DSP core, the Avenger SAA7785  uses its dedicated DMA engine to handle complex signal processing tasks with a bus-mastering PCI interface.

## 1.1 Features

- High-performance single-chip PCI audio acceleration.

- Integrated high-fidelity AC'97 codec.

- Multi-stream DirectSound and DirectSound 3D acceleration.

- Sensaura CRL Positional 3D.

- High-quality sample rate conversion and digital mixing.

- DirectMusic support.

- Real-time effects processing.

- Compliance with APM 1.2, ACPI 1.1, and PPMI 1.1

- 3.3 volt digital operation with 5V-tolerant inputs.

- Compliant with PCI 2.1 specification.

- SoundBlaster® and SoundBlaster® Pro compatible.

- Microsoft® Windows Sound System compatible.

- Meets PC98/PC99 and WHQL specifications.

- Supports Win95/98/Me, NT4.0 and Windows2000.

# 2 Card Figure



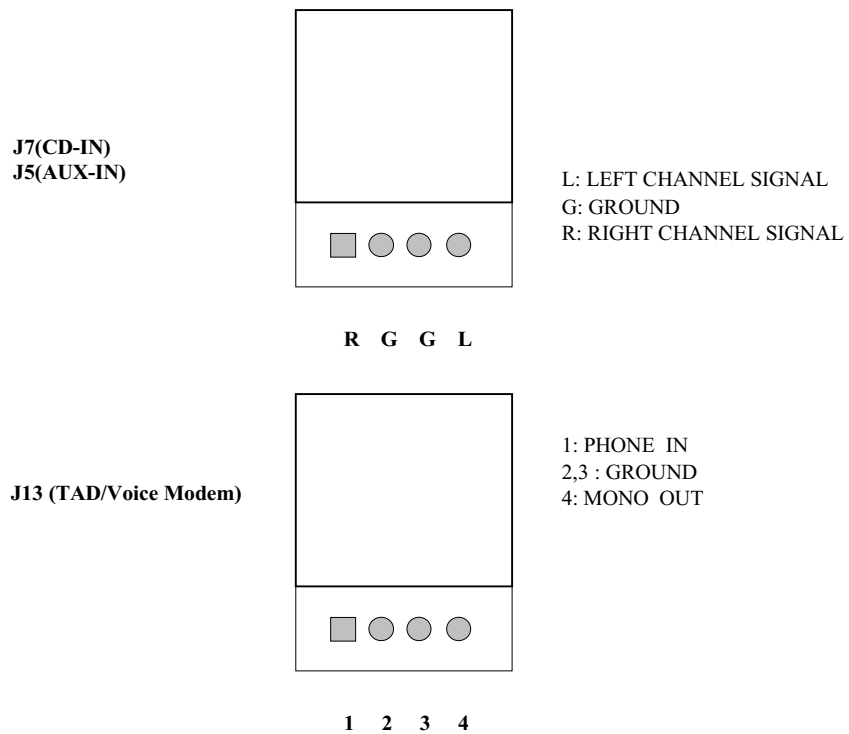## 2.1. Connectors for "Avenger SAA7785 U3x"

### 2.1.1. External Connectors:

JP1:...................∅ 3.5mm Phone Jack for **LINE IN**

JP2:...................∅ 3.5mm Phone Jack for **MIC IN**

JP3:...................∅ 3.5mm Phone Jack for **FRONT OUT**

JP4:...................∅ 3.5mm Phone Jack for **REAR OUT**

JP5:...................∅ 3.5mm Phone Jack for **Cen/Sub OUT**

JP6:...................Connector for **MIDI/JOYSTICK**

### 2.1.2. Internal Connectors:

J3:.....................Connector for **TAD/VOICE MODEM.** (ATAPI)

J5:.....................Connector for **AUX IN** (ATAPI)

J7:.....................Connector for **CD AUDIO IN** (ATAPI)

## 2.2. Audio Connectors Pin Assignment:

**J7(CD-IN)**
**J5(AUX-IN)**

L: LEFT CHANNEL SIGNAL
G: GROUND
R: RIGHT CHANNEL SIGNAL

**R   G   G   L**

**J13 (TAD/Voice Modem)**

1: PHONE  IN
2,3 : GROUND
4: MONO  OUT

**1    2    3    4**

# 3   Installing the Sound Card

1. Power off the system and all peripheral devices. Unplug all power cords from the

    power utility outlets.

2. Momentarily touch the chassis of the system unit with your bare hand to discharge

    any static electricity.

3. Remove the cover from the system unit.

4. Locate a free PCI expansion slot and remove its cover plate. Retain the screw.

5. Carefully remove the sound card from the anti-static envelope and install it into the expansion slot.

6. Secure the sound card with the screw removed earlier.

7. Attach any CD-ROM Audio to the sound card.

8. Put back the system unit cover.

9. Attach all external devices to the sound card.

10. Plug all power cords into power utility outlets.

11. Power on the system and install the appropriate software driver.