

USER MANUAL

***Xwave* 5.1 Channel Enhancement Module**

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The information in this document is subject
to change without notice

Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning:

Use only shielded cables to connect I/O devices to this equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Note:

The user may find the following booklet prepared by the Federal Communications Commission helpful:

" How to Identify and Resolve Radio-TV Interference Problems. "

**This booklet is available from the U.S. Government Printing Office,
Washington, DC 20402
Stock No. 004-000-00345-4.**

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DESCRIPTION

The QS7785 is a 3D audio processor IC that lets you upgrade your sound card's stereo output to 5.1 channel audio output. In addition you can connect your MIDI device directly to this daughter board.

Features

Hardware Features

- 3D synthesized surround sound for left and right speakers
- 3D stereo sound enhanced for left and right front speakers
- Center and subwoofer speaker outputs

System Requirements

Sound Card

- Sound Blaster 16 or compatible sound card required with a 16-pin feature connector.

Board Figure

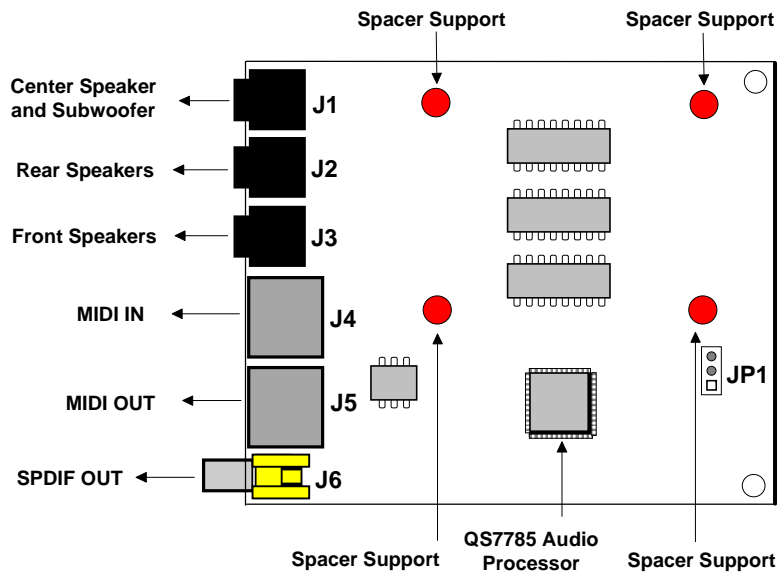


Figure - 1

Connectors

This Daughter Board includes six external connectors and one Jumper switch.

External Connectors

J1: Ø 3.5mm Phone Jack for **CENTER SPEAKER and SUBWOOFER**

J2: Ø 3.5mm Phone Jack for **REAR SPEAKERS**

J3: Ø 3.5mm Phone Jack for **FRONT SPEAKERS**

J4: External Connector for **MIDI INPUT**

J5: External Connector for **MIDI OUTPUT**

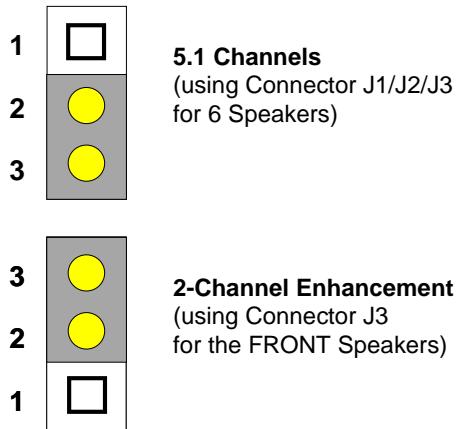
J6: External Connector for **SPDIF OUTPUT**

Internal Connectors

J1: 3-pin Jumper

Jumper Settings for JP1

This Daughter Board includes a 3-pin Jumper to select between “5.1 Channels” or “2-Channel Enhancement”.



HARDWARE INSTALLATION

Handling the Daughter Board

WARNING:

- ⚡ *Static electricity can damage your equipment. Do not take the card out of its static protective bag until you are ready to work with it.*

Follow these precautions when handling the board:

- Before you open the static protective bag, touch it to a metal expansion slot cover on the back of your computer. This drains static electricity from the package and from your body.
- Do not touch any exposed printed circuitry after opening the package.
- Keep other people from touching the board. They might have a static-electricity build-up.
- Limit your movement. Movement causes a build-up of static electricity.

Installing the Daughter Board

Follow the steps below to install the daughter board into your computer.

- 1.) Turn off the system and all peripheral devices.
- 2.) Disconnect the power cord and all peripheral devices from the system.
- 3.) Remove the system cover and identify two unused PCI slots.
- 4.) Unscrew both slot cover plates.
- 5.) Before you insert your PCI sound card into the PCI expansion slot connect the daughter board's 16-pin expansion connector to the upgrade connector of your sound card. Make sure the 4 plastic bolts are connected to the sound card properly.
(To install your sound card, please refer to your PC user's manual, and sound card's manual respectively for specific instructions.)
- 6.) Insert now your sound card with the daughter board into the two PCI expansion slots. Press down gently on the top edges of the sound card to ensure that all connecting points are seated securely.
- 7.) Anchor the board's mounting brackets using the screws removed earlier.
- 8.) Replace the cover of your PC and reconnect the power cord.

Connecting the right devices

- 1.) First attach the provided cable of your SUBWOOFER and CENTER SPEAKER to the 3.5mm Phone Jack **J1** on the daughter board.
- 2.) Secondly attach the provided cable of your REAR SPEAKERS to the 3.5mm Phone Jack **J2** on the daughter board.
- 3.) Then attach the cable of your FRONT SPEAKERS to the 3.5mm Phone Jack **J3** on the daughter board.
- 4.) Connect your MIDI IN cable to the MIDI IN connector **J4** on your daughter board.
- 5.) After this step connect your MIDI OUT cable to the MIDI OUT connector **J5** on your daughter board.
- 6.) Finally connect your Dolby Digital Surround Sound receiver to the S/PDIF connector **J6** on your daughter board.

NOTE: To avoid double processing of your audio source please turn off or disable all other effects of your audio source.
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