CONFIGURATION AND HARDWARE

USER   MANUAL

May 1997

DESCRIPTION

This is a 16-bit PC stereo sound card using the YMF-71x chipset with the Bundle Software "SOFT SYNTH" Software Wavetable.

This Plug-and-Play sound card is comprised of the following optional functions: IDE CD-ROM interface, 3D sound effect and a Hardware Wavetable (Upgrade) function. This lets you add an IDE CD-ROM drive and stereo audio to your personal computer system.

Features

- Compatible with Plug-and-Play ISA 1.0a.
- Compatible with PC game and Windows Sound System.
- Built-in 16-bit Sigma-Delta Stereo CODEC.
- Programmable sampling rate from 5.5 kHz to 48 kHz for recording and playback.
- 64-step master volume control.
- Dual DMA with FIFO for Full-Duplex.
- Support IMA ADPCM, A-Law, μ-Law compression and decompression.
- Support DMA demand mode.
- MPU-401 compatible MIDI interface.
- Built-in OPL3 (FM-Synthesizer).
- Built-in 6-channel stereo mixer [Line, AUX1, Synth (AUX2), SB, CODEC, Mic]
- Built-in 5-channel analog input [Line, AUX1 (CD), AUX2 (External Synthesizer), Mic, Mono-In].
- Standard IBM PC joystick interface.
- Support ATAPI IDE CD-ROM drive.
- Transfer rate up to 2M Bytes per second.

Built-in high power amplifier (Option)

Bundle Software: "SOFT SYNTH" Software Wavetable (Option)

- Maximum 32 voices (may be less than 32 voices depending on CPU performance and the effect of other loading)
- 128 instruments and drum kits.
- Stereo/Mono output waveform.
- Compatible to General MIDI level 1.
- Software enable/disable reverb effect.
- Work under Win 3.1/Win 95 environment.

**3D Sound Effect** (Option)

- Producing a wide sound image from normal stereo input.
- No encoding of input signals is required.

❖ **Built-in QS1000 Hardware Wavetable** (Option)

    ❖ 32-voice polyphony
    ❖ 128 General MIDI instruments plus 80-piece drum kit.
    ❖ No TSR General MIDI support through MPU-401 MIDI Port.
    ❖ Substractive sound synthesis.
    ❖ Advanced Time variable filter and amplitude control (ATFA).
    ❖ Built-in CPU data memory and TTL interface.
    ❖ Dynamic voice assignment.

❖ Card Figure
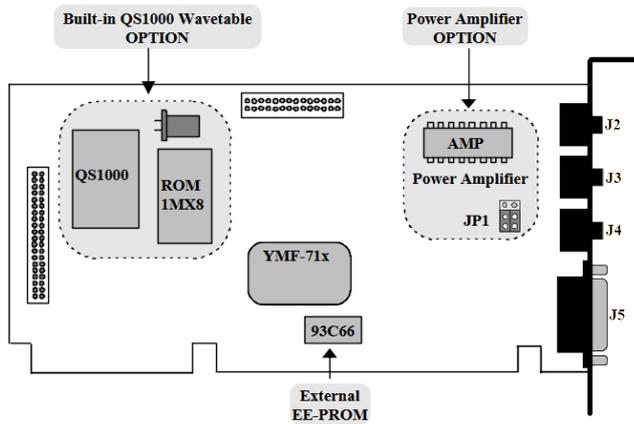
PnP Sound Card Function
with optional

- 3D (included in the chipset)
- Wavetable
- Power Amplifier
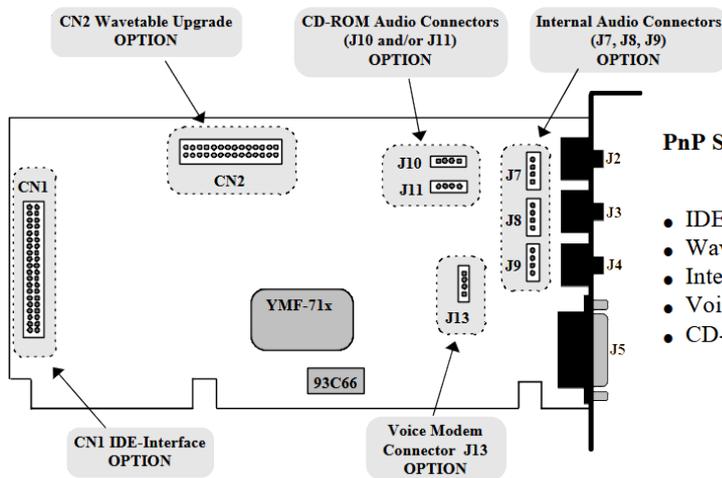
PnP Sound Card Connectors
with optional

- IDE Interface
- Wavetable Upgrade
- Internal Audio Connectors
- Voice Modem Connector
- CD-ROM Audio Connectors

Connectors and Jumper

This Sound Card includes up to eight internal Connectors, three external Jack Ports, one external MIDI/Joystick Connector, and one Jumper Switch.

Standard Connectors:

J2:............φ3.5mm Phone Jack for **SPEAKER OUT/LINE OUT.**

J3:............φ3.5mm Phone Jack for **LINE IN.**

J4:............φ3.5mm Phone Jack for **MIC IN.**

J5:............Connector for **MIDI/JOYSTICK.**

Optional Connectors:

CN1:........40-pin Connector for **IDE CD-ROM.**

CN2:........26-pin Connector for **WAVETABLE UPGRADE.**

J7:............Internal Connector for **SPEAKER OUT/LINE OUT.**

J8:............Internal Connector for **LINE IN.**

J9:............Internal Connector for **MIC IN.**

J10:..........Connector for **IDE CD-ROM AUDIO-IN. (ATAPI)**

J11:..........Connector for **IDE CD-ROM AUDIO-IN. (JST)**

J13:..........Connector for **VOICE MODEM.**

JP1:.........Jumper for switching between **SPEAKER OUT/ LINE-OUT.**

Audio Connectors:

J10: IDE   □ ○ ○ ○   L: LEFT CHANNEL SIGNAL
                   G: GROUND
      L G G R   R: RIGHT CHANNEL SIGNAL

J11: IDE   □ ○ ○ ○   L: LEFT CHANNEL SIGNAL
                   G: GROUND
      R G L G   R: RIGHT CHANNEL SIGNAL

Audio Output Jumper Settings for JP1:

Audio	Settting
SPEAKER OUT with Power Amplifier (Default)	1 ○ ○ 4 ○ ○ 3 ○ ○ 6
LINE OUT without Power Amplifier	1 ○ ○ 4 ○ ○ 3 ○ ○ 6

HARDWARE INSTALLATION

Step 1. Turn off the system and all peripheral devices.

Step 2. Disconnect the power cord and all peripheral devices from the system.

Step 3. Remove the system cover and identify an unused 16-bit slot.

Step 4. Unscrew the slot cover plate, plug in the Sound Card and tighten it with the screw.

Step 5. If you have speakers or amplifiers, plug the cable into the J2 Jack on the back of the Sound Card.

If you do not want to connect a CD-ROM device to the Sound Card, or if your Sound Card has no IDE CD-ROM Connector, go directly to Step 8.

OPTION: To install an ATAPI IDE CD-ROM drive follow the steps above then do the following:

Step 6. Plug one end of the 40-pin flat ribbon cable into CN1 on the Sound Card. Pin 1 of the ribbon cable is usually denoted with a red stripe.

Step 7. Plug the other end of the 40-pin ribbon cable into the back of the CD-ROM drive and connect the power plug from your system power into the CD-ROM drive power connector.

Step 8. Depending on what type of CD Audio cable you have, connect **J10** or **J11** on the Sound Card and the Audio output at the back of the CD-ROM drive. Make sure **pin 1** of **J10** or **J11** is connected to the leftmost pin of the CD-ROM Audio output.

Step 9. Put back the system cover, reconnect the system power cord and all peripheral devices. Check and make sure all connections are correct before you turn on the system.

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