



VIA Vinyl Envy24HT-S PCI Audio Controller Chipset



With the evolution of the Multimedia PC, audio has become one of the essential features of the personal computer. Whether gaming, playing movies, listening to MP3s, or talking to friends over the internet, the VIA Vinyl Envy24HT-S Audio Controller provides the inputs and outputs for the complete media experience.

Key Features
» 24-bit/192kHz digital resolution support
» 20-bit/48kHz analog resolution support
» 8 outputs, 4 inputs
» Designed for multimedia soundcards

Benefits of VIA Vinyl Envy24HT-S

High audio performance

With up to 24 bit performance and 192kHz sampling rates, the VIA Envy24HT-S provides support for the latest audio content through its analog and digital interfaces.

Wide range of connection options

Up to 8 outbound streams and 4 simultaneous input streams allow for a wide range of connections that can fully support 5.1, 6.1, or even 7.1 channel surround sound audio. A direct access GPIO allows for easy use of expanded connection boards.

Multiple applications

Applications for the VIA Envy24HT-S include high fidelity audio on motherboard solutions, entry level soundcards, and even prosumer soundcard solutions.

Easy to integrate

Supporting I²S and AC-link inputs and outputs, the VIA Envy24HT-S can be easily combined with a wide range of codec or ADC/DAC solutions. The VIA EnvyHT-S also offers a full featured I²C interface, WDM drivers, and a software audio control center for easy manageability.

Description

The VIA Vinyl Envy24HT-S Audio Controller promises to bring 8-channel standards to the mainstream with Digital I/Os supporting 24-bit resolution/192KHz sampling rates, and analog I/Os support 20-bit/48KHz formats. The VIA Envy24HT-S also supports up to 8-channel outputs and 4-channel inputs, enabling support for the latest Dolby Digital EX and DTS ES Video soundtracks.

To connect with other devices, the VIA Envy24HT-S comes equipped with an integrated S/PDIF transmitter and IEC958 line driver that allows easy accurate transfer of PCM, DTS, and AC3 digital audio formats to items like stereos and portable audio devices. The Envy24PT also comes with a MIDI UART port, and a 16-bit GPIO port enabling a flexible approach to configuring audio interfaces.

Integrating 3 synchronous I²S/AC-link output and 2 synchronous I²S/AC-link input data stream pairs, the VIA Envy24PT makes possible a wide range of ADC/DAC connection options for a variety of applications. The VIA Envy24HT-S in combination with an AC '97 codec like VIA's Six-TRAC realizes an excellent balance of analog and digital audio connections. For higher end applications the VIA Envy24HT-S can be paired with high-end ADCs and DACs through the I²S interface enabling a professional 2-channel 24/96 solution.

Key Features

Sound Quality

- » Analog 20-bit/48KHz I/Os
- » Digital I/Os supporting 24-bit/192KHz I/Os
- » Bit-for-bit accurate transfers

Input/Output

- » 3 synchronous I²S / AC-link output data stream pairs
- » 2 synchronous I²S / AC-link input data stream pairs
- » Multi-channel AC-link supported alternatively
- » Integrated S/PDIF transmitter with IEC958 line driver
- » Digital loopback and stream routing mechanism
- » Peak meters on all streams
- » MPU-401 MIDI UART port
- » ACPI and PCI PMI support

Architecture

- » PCI 2.2 interface with bus mastering and burst modes

Easy System Integration

- » I²C subset interface peripherals control
- » 16-pin, direct access GPIO port
- » 24.576 and 22.5792 MHz crystal operation
- » Windows® WDM drivers

Package

- » 128-Pin PQFP (14 x 20mm body)

Power

- » 3.3V operating supply (5V tolerant I/O)

Block Diagram

VIA ENVY24HT-S Audio Controller Functional Block Diagram

