

MPEG1 Audio Encoder/Multiplexer Product Brief

PRODUCT FAMILY

The Z1200 is a family of MPEG Audio encoders and decoders developed by Emblaze Semiconductor for a variety of applications. These devices, based around a powerful DSP core perform real-time encode and/or decode of MPEG audio streams using the Psycho-Acoustic model II for highest quality audio at the lowest possible bitrates. In addition, the devices can perform MPEG Audio/Video System stream multiplexing and demultiplexing. The Z1200 devices are perfect companion chips to Emblaze Semiconductor's Z1011-MPEG1 Video Encoder for applications requiring both video and audio compression.

Future versions of the family will support more advanced audio algorithms such as: AC-3, MP3, AAC etc.

FEATURES

- Real time encoding of MPEG1 streams compliant with ISO/IEC 11172-3 Layer II standard.
- Real time MPEG1 System stream Multiplexing compliant with ISO/IEC 11172-1
- DSP algorithm implements Psycho-Acoustic model II, resulting in top quality audio at lower bitrates.
- Supports all major sampling rates: 32 KHz, 44.1 KHz and 48 KHz.

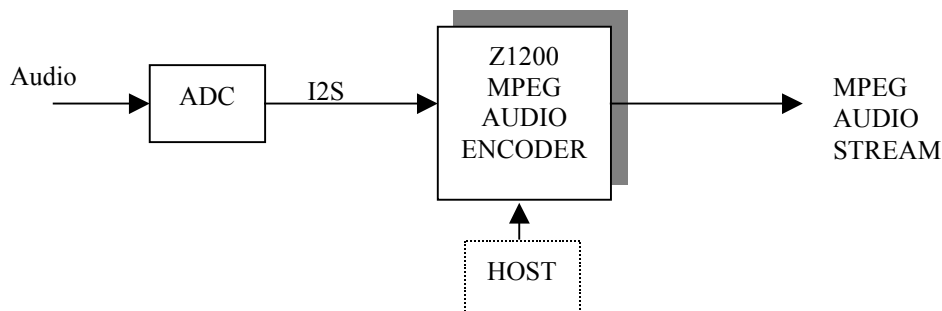
- Outputs compressed MPEG audio at all bitrates specified by ISO/IEC 11172-3 standard: 32, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 and 384 Kbits/sec.
- Supports encode and decode of Mono, Stereo and Dual Channel audio streams.
- Supports multiple audio stream formats: I2S, EIAJ, right and left justified input and output
- Operates from common audio clocks: 24.576MHz, 16.9344MHz, 12.288MHz and 11.2896 MHz
- Host based or standalone operation
- 3.3 volts power supply
- Standard 144-pin plastic package

Z1210 Software Modules

- Z1210J – MPEG Audio Encoder/Multiplexer including CD formatting and scrambling
- Z1210U – MPEG Audio Encoder only

APPLICATIONS

- Hard disk based digital VCRs
- Recordable VideoCD
- Security/surveillance systems
- Flash memory based, portable audio recorders/players



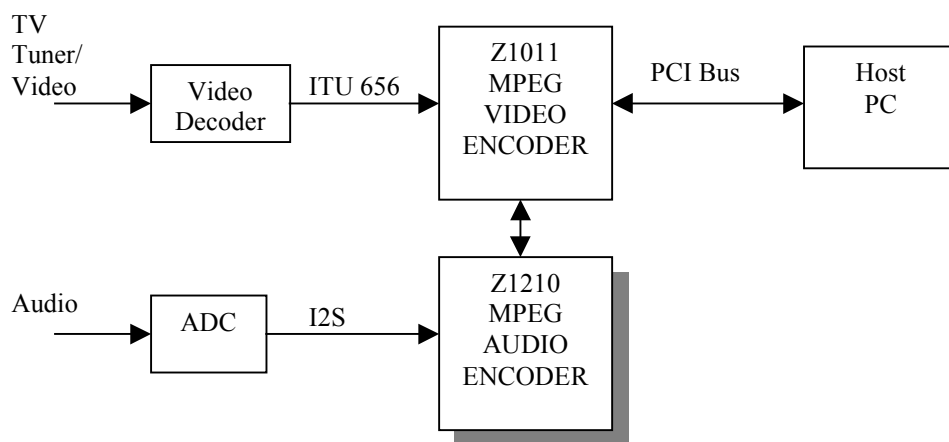
APPLICATIONS

The Z1210 MPEG Audio Encoder is best used in conjunction with Emblaze Semiconductor's Z1011 (W99200) MPEG Video Encoder for several applications:

1. A PC based TV Tuner/Capture card using the PCI or USB buses
2. Standalone hard disk or CD-RW based Audio/Video recorder

Combining audio and video compression in hardware, results in high-quality, robust A/V synchronization with no CPU overhead for audio/video capture applications.

APPLICATION EXAMPLE 1



APPLICATION EXAMPLE 2

