

## **GENERAL DESCRIPTION**

The W9910IF, Winbond MPEG AUDIO DECODER (MAD), is a single-chip audio decoder. This is a companion chip to the W9920 MPEG-1 Video Decoder. It implements the international standard, the ISO #11172, proposed by ISO MPEG (Motion Picture Experts Group) for layer1 and layer2. The chip accepts an MPEG-1 audio data stream at a 32KHz, 44.1KHz, or 48KHz sampling rate. The W9910IF Audio Decoder produces reconstructed 16-bit PCM output data with real-time CD-quality audio.

## **FEATURES**

- Conforms to ISO CD 11172 MPEG standard
- Real-time decompression of Layer1 and Layer2
- MPEG audio frame data input
- Mono, Dual Channel, Stereo, Joint Stereo, Original PCM Playback Mode supported
- CD-quality, 16 bits resolution with 32KHz, 44.1KHz, 48KHz sample rate
- Serial PCM 2's complement output
- · Left/Right channel mute control
- · Four output combinations on both channels
- On-chip support for audio-master synchronization
- Variable bitstream format between frame, changeable on-the-fly
- · Software Volume level control
- On-chip 16 bits ISA bus interface
- Central 16bits CPU with on-chip ROM, RAM supporting single cycle operation
- Up to 36 MHz operating frequency, central CPU @18 Mhz
- · Built-in power down mode
- Additional programmable clock output for external switching capacitor filter
- · Additional general purpose digital control output
- Winbond advanced 0.8 um CMOS technology
- Standard 80-pin QFP package

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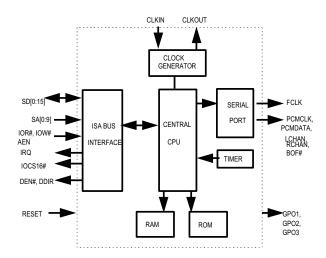
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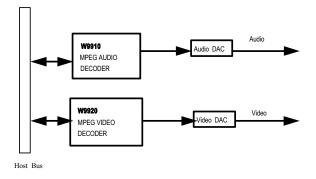
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## **ARCHITECTURE**



## **APPLICATIONS**

- CD-ROM based multimedia, VIDEO-CD player
- Video Games
- Multimedia PC



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