



VCD Decoder

GENERAL DESCRIPTION

The W9925QF is a high performance single-chip VCD decoder. It performs real-time decompression of ISO/IEC-11172 MPEG (Moving Picture Experts Group) streams, including system layer, audio and video data. It incorporates an 8-bit host interface and a CD interface which make it easy to use. Also, its versatile features help to build high-quality and cost-effective standalone VCD applications.

FEATURES

Integration

- MPEG system/audio/video decoding and synchronization
- CD-ROM decoding
- Glueless interface to 8051-series micro controllers
- Standard 4-Pin CD Interface
- On Screen Display
- TV timing generation

System Operations

- Fully supports VCD2.0, VCD1.1, Karaoke CD, CD-I FMV, and CDDA titles
- Digest function, provides quick overviews of contents in one disc or among discs, with audio output
- Versatile playback commands, including slow-motion, scan, pause, single frame, video clipping, freeze, and stop
- Provides fast forward play incorporating with speed-up audio
- Enhanced error recovery algorithms to overcome disc scratches and CD-drive errors
- Write/read pictures via host, allows writing Logos on display or capturing pictures from titles

Video Processing

- High quality video output of still pictures (704x480 or 704x576) with only 4M DRAM
- Provides vertical scaling which allows full screen display of 240(480)-line sources on PAL systems
- Provides filters to enhance image quality for SIF format data on full screen display

- User-programmable fade-in, fade-out effects and adjustable brightness

Audio Processing

- Provides voice cancellation mode for the purpose to remove the voice component in Karaoke titles
- Provides key control functions for Karaoke applications
- Digital volume control and various channel selection modes both in MPEG and CDDA playback

Physical

- Supports both Fast Page DRAM and EDO DRAM
- 8-bit YCbCr video output
- Provides programmable I/O pins for system control
- User-programmable power-saving mode
- Low power consumption: 0.5W at full speed operation
- 3.3V power supply
- 100-pin plastic QFP

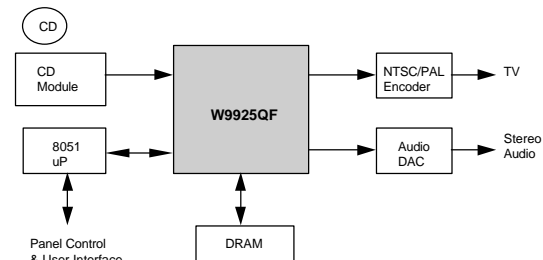


Figure 1.2 Application Example of W9925QF in Video CD Players