Digital A/V Recorder/Player
Symphony™ Reference Design

Symphony Features

- Complete standalone MPEG-2 Audio/Video Recorder/Player Reference Design
- Includes: hardware development platform, software, firmware, schematics, BOM, Gerber files, and documentation
- Compliant to S-VCD and VCD specifications
- Real-time encoding and decoding of digital video in either MPEG-2 ML @ MP or MPEG-1
- Both NTSC and PAL video formats supported
- Real-time encoding and decoding of two channel digital audio in MPEG (Layers I and II), Dolby Digital, or PCM formats
- Supports recording and playback of CD-DA audio CDs
- Supports Karaoke functions
- Features the CS92210 MPEG-2 video codec for a high quality, cost effective solution
- Supports both VBR and CBR encoding
- Complete OSD/OGT support for developing easy to use GUIs
- Reference design includes details on front-panel design
- Compatible with all ATAPI and IDE drives, allows for wide range of choices for storage: HD, CD-RW, DVD-RAM or removable storage
- Includes all software for A/V multiplexing, demultiplexing and system control
- Low total BOM cost enables aggressive product pricing

The Symphony™ reference design is a platform that enables fast development of cost effective consumer digital video and audio record and playback products. Examples include: Personal Video Recorders, Time-Shift Digital VCRs, Recordable DVD Players and Recordable SVCD players. The Symphony design provides a complete standalone solution to record and playback of MPEG-coded audio/video bit streams. The design combines the computational power of a general purpose media processor with the high quality and cost effectiveness of the CS92210 MPEG-2 video codec.

The Symphony system consists of the CS92210 MPEG-2 video codec, a general purpose media processor, an FPGA for DMA and IDE interfaces, a Karaoke chip, memory, and audio/video interface logic.

The CS92210 performs MPEG video encoding and decoding. The general purpose media processor performs video decoding, audio encoding and decoding, audio/video multiplexing and demultiplexing, OSD/OGT, and system control. A small FPGA provides direct memory access (DMA) between the CS92210 and the media processor and integrates the IDE interface.
SYMPHONY

Features
MPEG-2 VBR Encoding
MPEG-2 CBR Encoding
MPEG-2 Video Decoding
A/V Mux/Demux
ATAPI Read/Write
Record SVCD and finalize
Playback SVCD
Record VCD and finalize
Playback VCD
Record CD-DA and finalize
Playback CD-DA
OSD Display

Deliverables
Symphony Hardware Platform
Media Processor System Applications Software
Firmware
Microcode
Device Drivers
Schematics
Bill Of Materials
Gerber Files
Technical Manual
CS92210 Data Sheet
CS92210 Product Brief
Start Up Guide

Functions
Play
Record
Pause
2x Fast Forward
Reverse
Goto Time____
Goto Track____
1/2 Speed Slow Forward
1/4 Speed Slow Forward
nx Fast Forward
A-B Repeat
Display Disc Digest/Thumbnails
Display Track Digest/Thumbnails

Interfaces
NTSC/PAL Video In
NTSC/PAL Video Out
Analog Audio In - Left, Right
Analog Audio Out - Left, Right
Two Mic Inputs
IDE Storage Interface
I2C Front Panel Interface

WORLDWIDE DISTRIBUTION

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