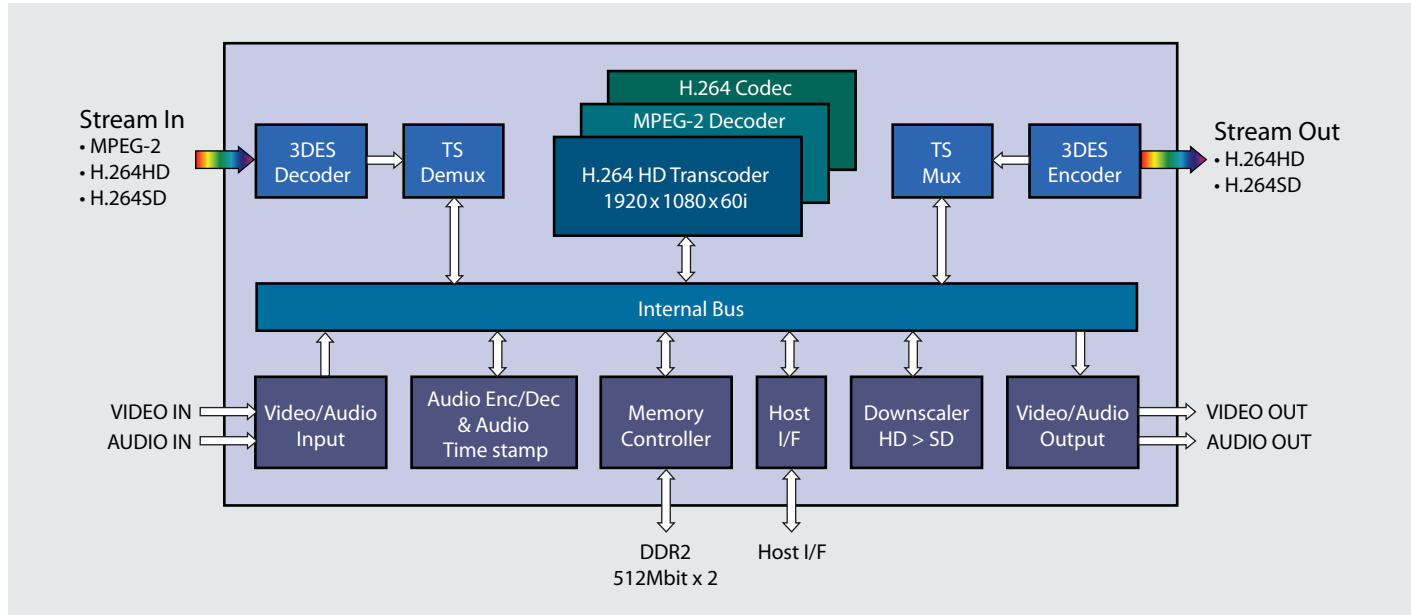


MB86H52 MPEG-2 HL to H.264 HD Transcoder/Codec



Description

The Fujitsu MB86H52 is a transcoder that can compress full HD (1920 dots x 1080 lines) MPEG-2 video data to H.264 data, a format which requires less than half the data size.

The transcoder functionality is based on the video-processing technology of the presently shipping full HD H.264 Codec (Encode / Decode) LSI product, the Fujitsu MB86H51.

The new product, which utilizes a proprietary, high-quality video technology developed by Fujitsu Laboratories, maintains the quality of the inputted MPEG-2 video data when transcoding to the H.264 format.

When the chip is used in recording equipment like hard disk recorders, the recording time can be lengthened by 2 to 5 times for the same hard disk storage capacity. The transcoded data size is reduced in the H.264 format, so it allows full HD video to be transmitted over narrow bandwidth networks.

This chip enables high-image-quality recording, playback, and transmission of full high-definition video over a wide range of consumer and industrial applications, such as digital video cameras (camcorders), hard disk digital video recorders (DVRs), home network devices, security cameras, and broadcasting equipment.

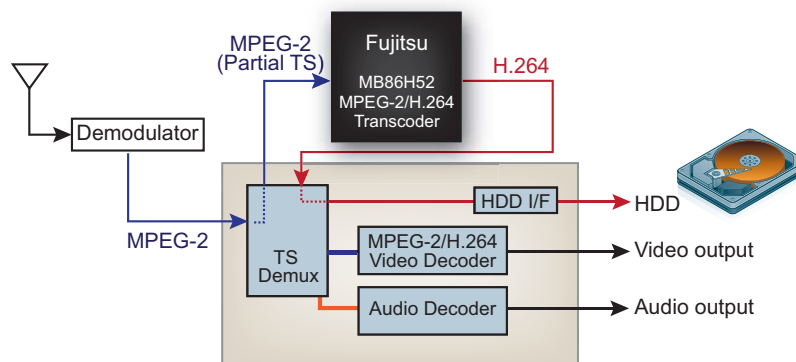
Features

- Transcoding MPEG-2 format HD video data to the H.264 format delivers the same video quality at less than half the data size.
- A full HD H.264 encoder compresses raw video up to 1920 dots x 1080 lines at 60 interlaced frames/sec.
- An HD H.264 decoder decompresses video-transport streams at up to the H.264 High Profile Level-4.0.
- The Fujitsu proprietary algorithm selectively applies low compression to critical details such as human faces or slow-motion zones. Therefore, high image quality for the critical zones can co-exist with maximum compression efficiency for non-critical zones.

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Applications

- Set-Top Boxes
- Personal Video Recorders
- PCTV Video Capture Cards
- Home Networks/DLNA
- Home Multimedia Gateway
- Video Distribution Servers



Sample HDD Recorder System Configuration

Specifications

Function	<i>Transcode</i>	Video	MPEG-2 HD → H.264 HD/SD, MPEG-2 SD → H.264 SD
		Audio	Time stamp re-allocation
	<i>H.264 Codec</i>	Video	VBS ¹ ↔ H.264 HD/SD
		Audio	ABS ² ↔ MPEG-1 Audio Layer 2, etc.
Video	<i>Spec</i>	MPEG-2 Video Main profile / High-level Decoder H.264 High profile / Level 4.0 Half-duplex Codec	
	<i>Resolution</i>	1920 x 1080 x 60i/50i, 1440 x 1080 x 60i/50i, 1280 x 720 x 60p/50p, 720 x 480 x 60i, 72 x 576 x 50i	
	<i>Interface</i>	SMPTE 274M / SMPTE 296M-2001, ITU-R BT.656	
Audio	<i>Format</i>	MPEG-1 Audio Layer 2, MPEG-2 AAC (LC profile), Linear PCM, Dolby® Digital (AC-3) ³	
	<i>Channels</i>	2 channels	
	<i>Interface</i>	LR serial	
System	<i>Format</i>	MPEG-2 TS CBR / VBR	
	<i>Stream Interface</i>	8-bit parallel or serial	
Host Interface	General 16-bit interface		
Input Clock	27MHz		
Operating Frequency	Internal: 216MHz, DDR2 IF: 324MHz		
Power Consumption	1.7W (typ., 1.2V, MPEG-2 HL to H.264 HD TRC)		
Package	PBGA 496 pin 27mm square (ball pitch 1.0mm)		

¹Video Baseband

²Audio Baseband

³Dolby is a registered trademark of Dolby Laboratories.

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