

Attachment

Key specifications of the MB86H57 and MB86H58 transcoder ICs

Functions	Transcode	Video	TS(MPEG-2 HD/SD) ⇒ TS(H.264 HD/SD), MP4(H.264 QVGA) TS(MPEG-2 HD/SD) ⇒ TS/PS(MPEG-2 SD) TS(H.264 HD/SD) ⇒ TS/PS(MPEG-2 SD)
		Audio	Audio transcode, Time stamp re-allocation
		PSI / Private PES re-multiplexing	
	Encode	Video	VBS ^{*1} ⇒ TS(H.264 HD/SD), TS/PS(MPEG-2 SD)
		Audio	ABS ^{*2} ⇒ MPEG-1 Audio Layer2, etc.
Thumbnails	JPEG Encode		
Video	Profile	H.264 High Profile /Level 4.0. H.264 Main Profile /Level 3.0. H.264 Baseline Profile /Level 3.1. MPEG-2 Video Main Profile / High-Level.	
	Interface	SMPTE274M/SMPTE296M-2001, ITU-R BT.656, external synchronous support	
Audio	Formats	Dolby [®] Digital(AC-3) ^{*3} , MPEG-2/4 AAC-LC/HE-AAC, MPEG-1 Audio Layer2, Linear PCM	
	Channels	Max. 5.1ch ^{*4}	
	Interface	I ² S, S/PDIF	
JPEG	Resolution	320x240, 320x192	
Stream	Format	MPEG-2 TS/PS, MP4, Video/Audio ES output	
	Interface	Stream (8bit parallel, serial), General purpose 16-bit interface, PCI, PCI Express, USB	
Host Interface		General purpose 16-bit interface, Serial, PCI, PCI Express, USB	
Security		AES, 3DES, MULTI2 (decode only)	
Peripherals		I ² C, SPI, Card	
Input Clock Frequency		27 MHz	
Operating Frequency		216MHz (internal memory interface: 243MHz)	
Power Consumption(incl. memory)		1.0W (target) (typ., 1.2V, for MPEG-2 HD ⇒ H.264 HD transcode)	
Package		MB86H57 : FBGA 650 pin, 15 sq.mm SiP(0.5 mm ball pitch) MB86H58 : FBGA 496 pin, 27 sq.mm SiP(1.0 mm ball pitch)	
Memory		512Mbit FCRAM X 1	
Process Technology		65nm	

*1. VBS: Video Baseband. Refers to uncompressed video data.

*2. ABS: Audio Baseband. Refers to uncompressed audio data.

*3. Dolby: Dolby is a registered trademark of Dolby Laboratories.

*4 The number of channels differs depending on the audio format.