

DATA SHEET

Part No.	MN673747 MN673747HL
Package Code No.	MLGA239-C-1111 LQFP176-P-2424B

SEMICONDUCTOR COMPANY
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

MN673747, MN673747HL

Digital Conversion LSI

■ Overview

MN673747, MN673747HL digital conversion LSI converts analog video signal inputs of NTSC/PAL (Y/C, composite video), SECAM (composite video) and Y/Cb/Cr (component) signals into ITU-R BT.656 format signals (international standard for digital video signal transfer) before output.

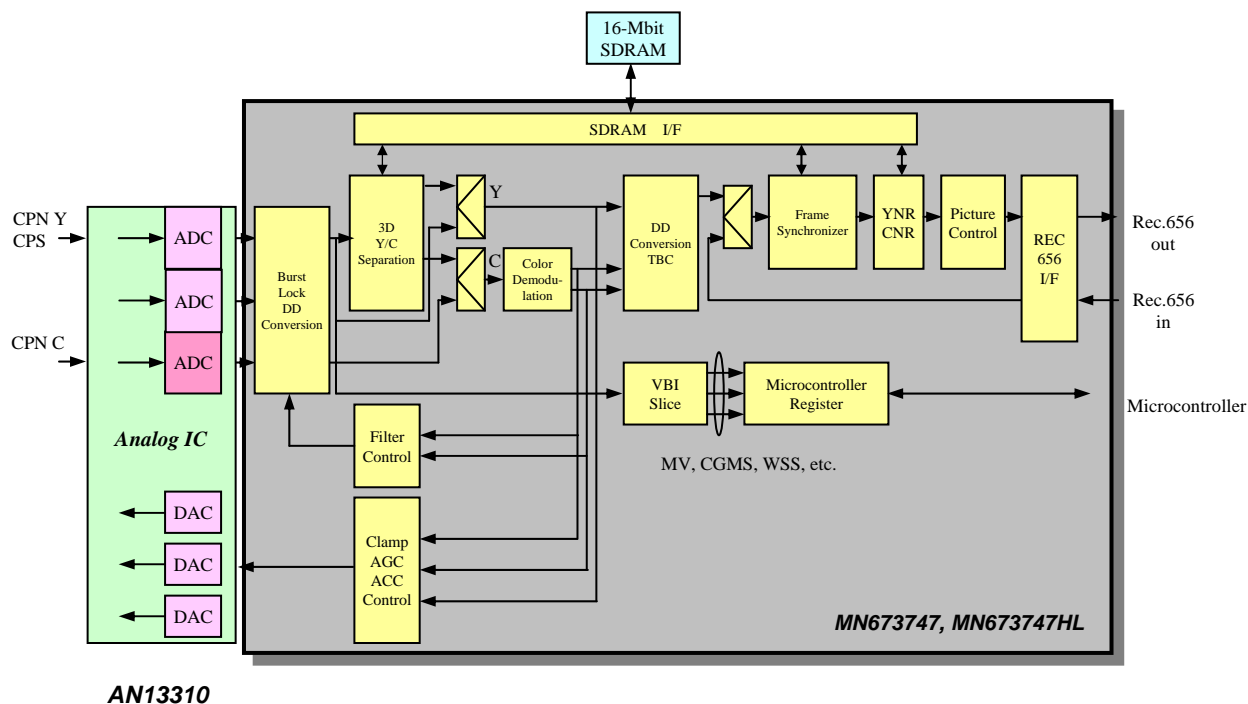
■ Feature

- Increased Y/C separation (2D and 3D) accuracy of 9 bits.
- All processes from A/D conversion to Rec. 656 output handled at single fixed clock frequency of 27MHz.
- Velocity error/jitter correction used for TBC (Time Base Corrector) ensures accurate time axis correction for the full screen.
- Frame synchronizer standardizes input signals.
- All functions achievable using a single external SDRAM (16-Mbit, 108MHz clock frequency).
- Microcontroller buss and I²C buss for control buss interface (common usage).

■ Applications

DVD recorders, multimedia PCs, HDD-equipped products and TV/PDP display units

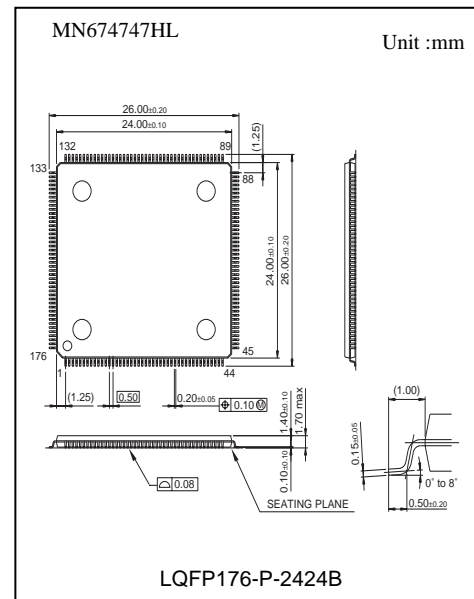
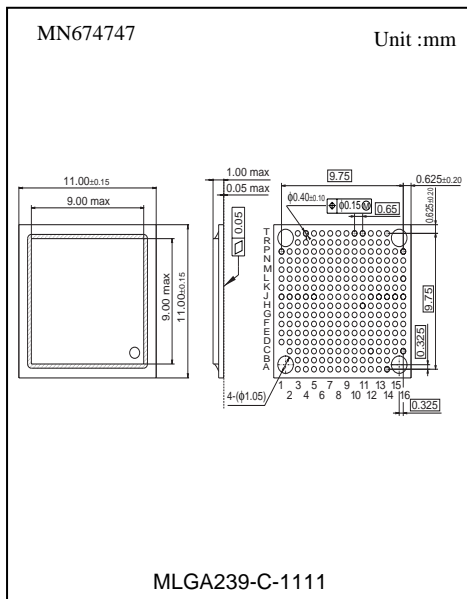
■ Block Diagram



■ Specifications

Functions	Motion-adaptive 3D Y/C separation, TBC,
	3D noise reduction, DD conversion,
	frame synchronization
Analog Input	Composite signals and Y/C, Y/Cb/Cr signals
Digital Input/Output	ITU-R BT.656 × 1
Process	0.15 μm 4-layer AL
Operating Frequency	108.0 MHz max. (27 MHz system clock)
Power Supply Voltage	3.3 V ± 0.3 V (analog block)
	3.3 V ± 0.3 V (digital input/output block)
	1.8 V ± 0.15 V (internal digital block)
Package	239-pin, 0.65 mm-pitch □ 11 mm C-CSP
	176-pin, 0.5 mm-pitch □ 24 mm LQFP

■ Package



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