

3D Y/C Separation, TBC, and Frame Synchronizer Functions Built into Single Chip

Video Digital Conversion LSI MN673744(HL)

■ Overview

Analog video signals, such as NTSC and PAL analog video signals, are input into the MN673744(HL) and converted into Rec.656 output signals that meet international standards of digital video signals.

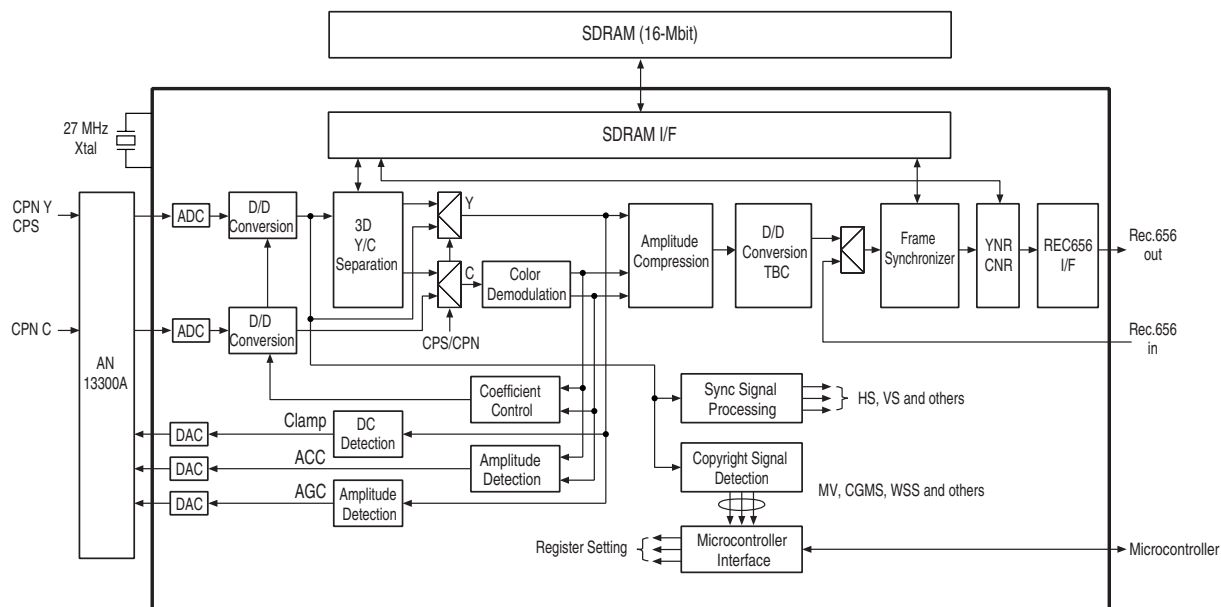
■ Feature

- Improved processing precision of both 2D and 3D Y/C separation : 9 bits
- A single clock fixed at 27 MHz is used from the A/D conversion to Rec.656 output stages.
- A time base corrector (TBC) with a function of velocity error correction is provided to ensure the correct time axis on the whole screen.
- A frame synchronizer is provided to convert all input signals into standard signals perfectly.
- It requires a single SDRAM (capacity: 16-Mbit; clock frequency: 108 MHz) externally.

■ Applications

- Disc recorders with hard discs or DVDs employed, screen displays such as TV and PDP units, and PCs with AV functions.

■ Block Diagram



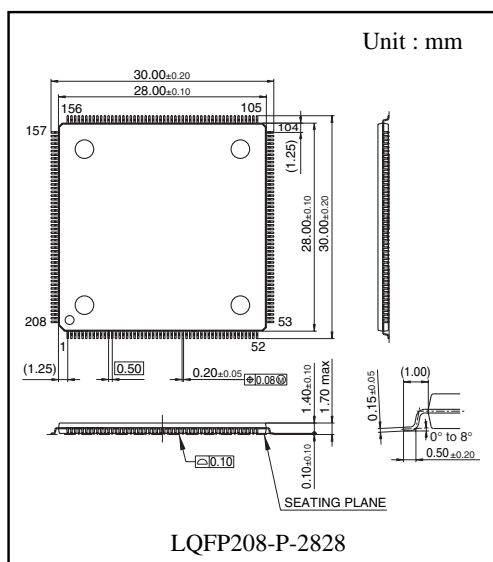
Products and specifications are subject to change without notice. Please ask for the latest Product Standards to guarantee the satisfaction of your product requirements.

Semiconductor Company, Matsushita Electric Industrial Co., Ltd.

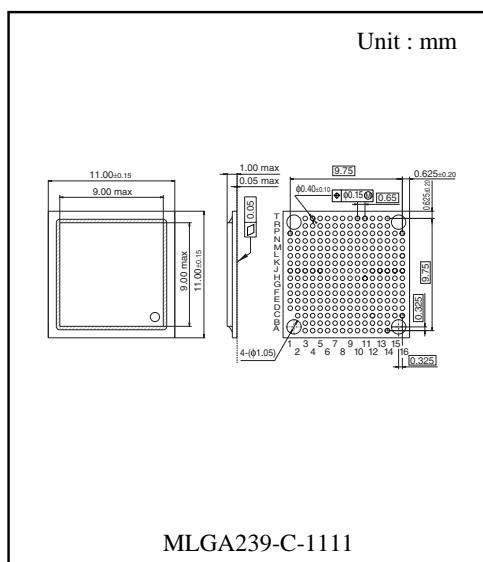
■ Specifications

Function	Movement adaptive 3D Y/C separation, 3D noise reduction processing, TBC processing, and frame synchronizer processing
Analog input	Composite signal and Y and C signals input (2 lines)
Digital I/O	ITU-R and BT.656 (1 line each)
Operating supply voltage	3.3 V ± 0.3 V (I/O, analog block) 1.8 V ± 0.15 V (Internal digital block)
Power consumption	0.55 W max.
Package	208-pin LQFP with 28 mm square (MN673744HL) 239-pin C-CSP with 11mm square (MN673744)

■ Package



MN673744HL



MN673744

■ Support Tools

- Evaluation board
- Register control program
- Specifications and Product Standards