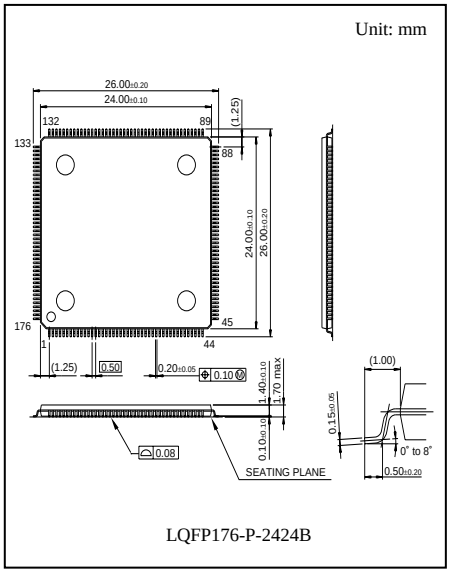
DATA SHEET

Part No.	MN82832
Package Code No.	LQFP176-P-2424B

SEMICONDUCTOR COMPANY
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

MN82832

3-Dimension Y/C Separation LSI



LQFP176-P-2424B

■ Overview

MN82832 is a system LSI which incorporates processing necessary for high-quality televisions in a one chipconfiguration.
High-efficiency 3-dimensions Y/C separation and color demodulation corresponding to an NTSC/PAL system, plus various functions of the digital YUV output are built in. It is most suitable as a television use LSI providing high-quality processing and multi-processing.

■ Features

- Input (A/D input Y: 10-bit, C/U/V: 8-bit)
  Composite video signal
  YC signal
  YUV signal
- Analog Output (D/A output Y: 10-bit , C/U/V: 8-bit)
  YC signal
  YUV signal
- Digital Output (Y: 10-bit, C/U/V: 8-bit)
  YC signal
  YUV signal (4 : 2 : 2 rate or 4 : 2 : 0 rate)
- Main functions
  - ・3 dimension Y/C separation with full 10-bit operation (16M-bit or 64M-bit SDRAM)
    (Non-standard: 3 frame average type YNR , 5 dB improvement of S/N ratio)
  - ・Clamp control(Clamp current source included)
  - ・Color demodulation (NTSC/PAL-BGHI, M, N)
  - ・Sync separation
  - ・ID -1 detection
  - ・DD conversion (burst lock clock ⇒ line lock clock)
  - ・Horizontal/vertical aperture correction
  - ・10-bit A/D converter (1-ch.)
  - ・8-bit A/D converter (1-ch.)
  - ・10-bit D/A converter (1-ch.)
  - ・8-bit D/A converter (2-ch.)
  - ・IIC bus control

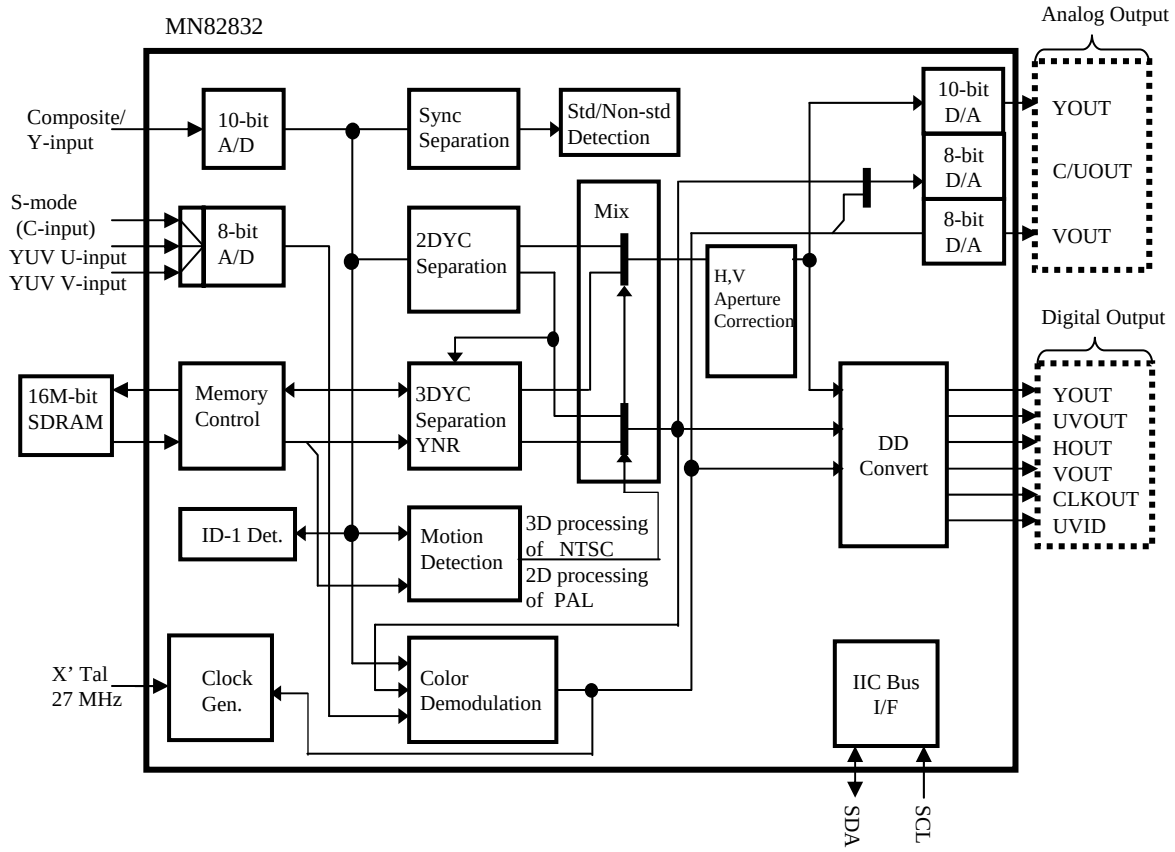
■ Specifications

- ・Clock frequency 4 fsc (first half processing part)
  4 (8) fsc or 13.5 (27) MHz (latter half processing part)
  16 fsc (SDRAM-I/F part)
- ・Supply voltage 3.3 V ± 0.165 V
- ・Package 176-pin LQFP (□ 24mm, 0.5mm pitch)

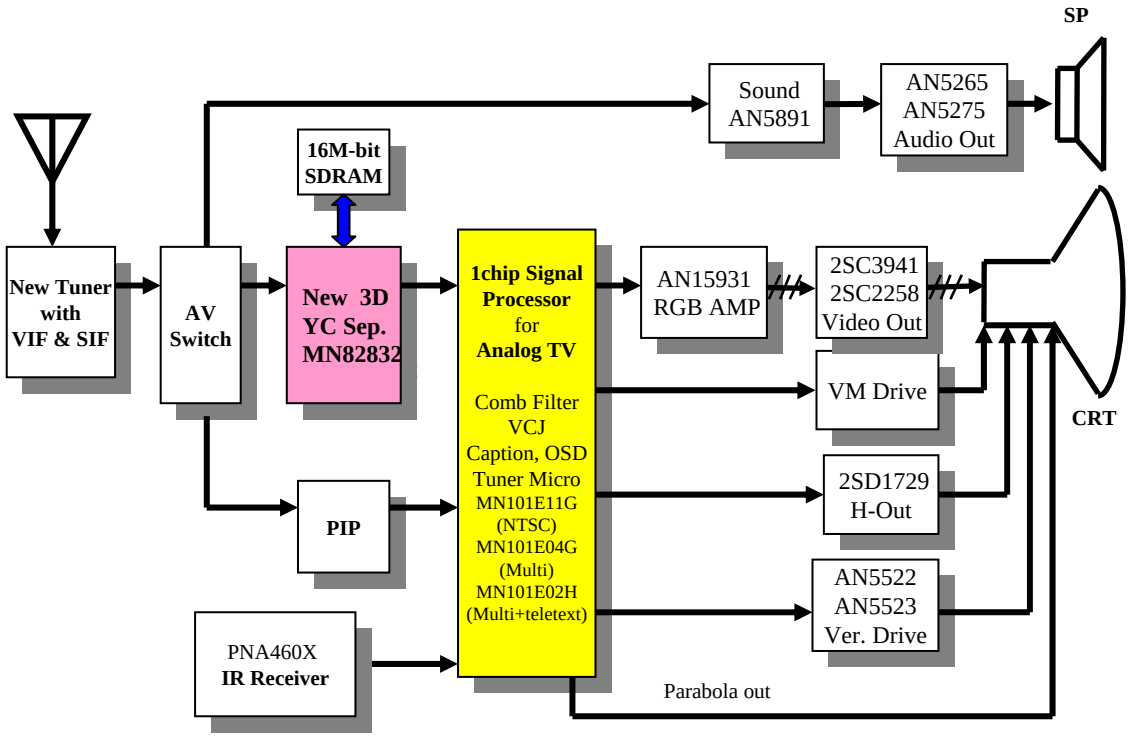
■ Applications

CRT Televisions, LCD Televisions, PDP Televisions, TV Capture Cards, Monitors with Built-in TV Tuner

■ Block Diagram



■ Application System of MN82832 (Middle Class with PIP)



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