

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

■ Overview

MN82832 is a system LSI which incorporates processing necessary for high-quality televisions in a one chip configuration.

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

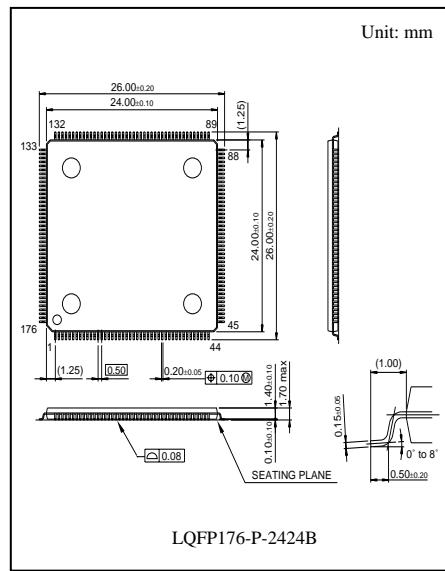
- Input (A/D input Y: 10-bit, C/U/V: 8-bit)
 - Composite video signal
 - YC signal
 - YUV signal
- Analog Output (D/A output Y: 10-bit, C/U/V: 8-bit)
 - YC signal
 - YUV signal
- Digital Output (Y: 10-bit, C/U/V: 8-bit)
 - YC signal
 - YUV signal (4 : 2 : 2 rate or 4 : 2 : 0 rate)
- Main functions
 - 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 \Rightarrow 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

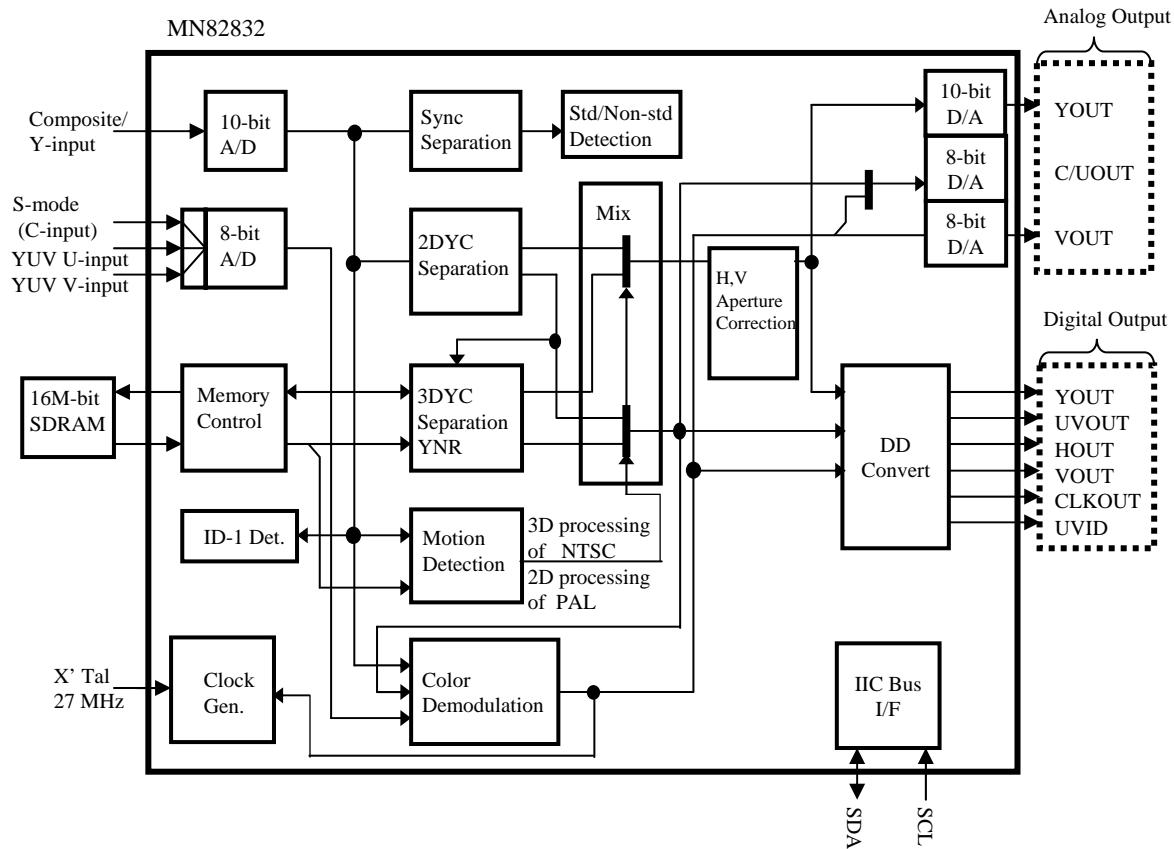
- Clock frequency 4 fsc (first half processing part)
4 (8) fsc or 13.5 (27) MHz (latter half processing part)
16 fsc (SDRAM-I/F part)
- Supply voltage $3.3 \text{ V} \pm 0.165 \text{ V}$
- Package 176-pin LQFP (\square 24mm, 0.5mm pitch)

■ Applications

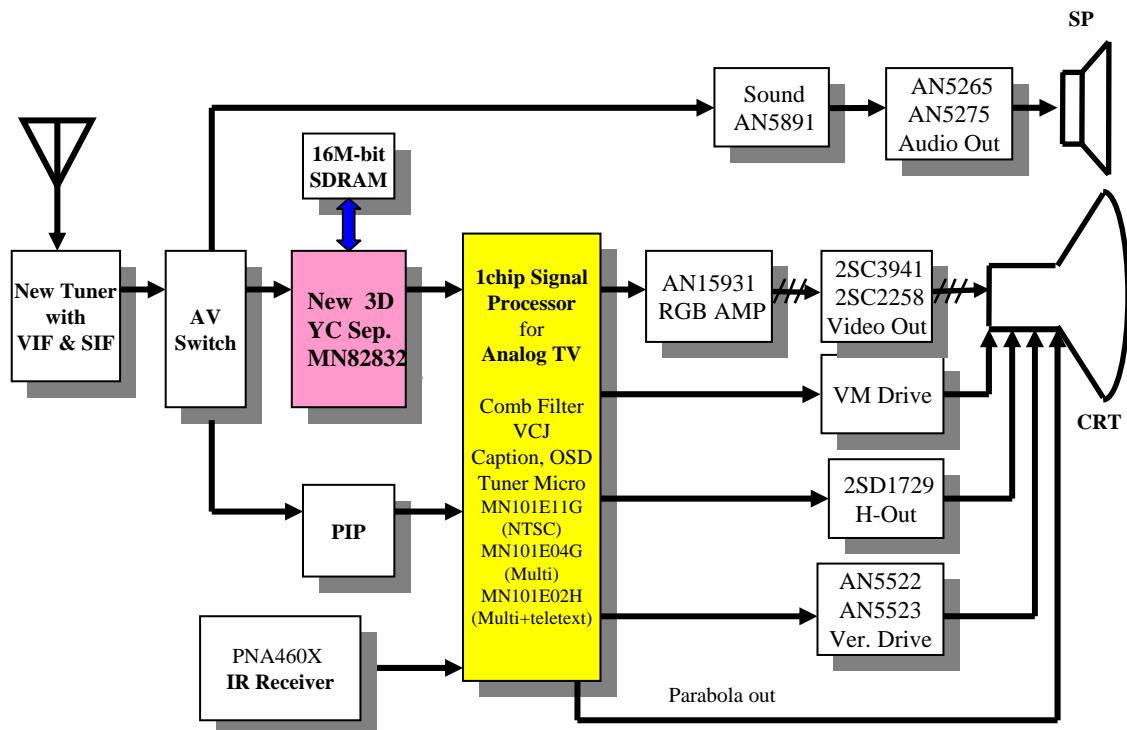
CRT Televisions, LCD Televisions, PDP Televisions, TV Capture Cards, Monitors with Built-in TV Tuner



■ Block Diagram



■ Application System of MN82832 (Middle Class with PIP)



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