

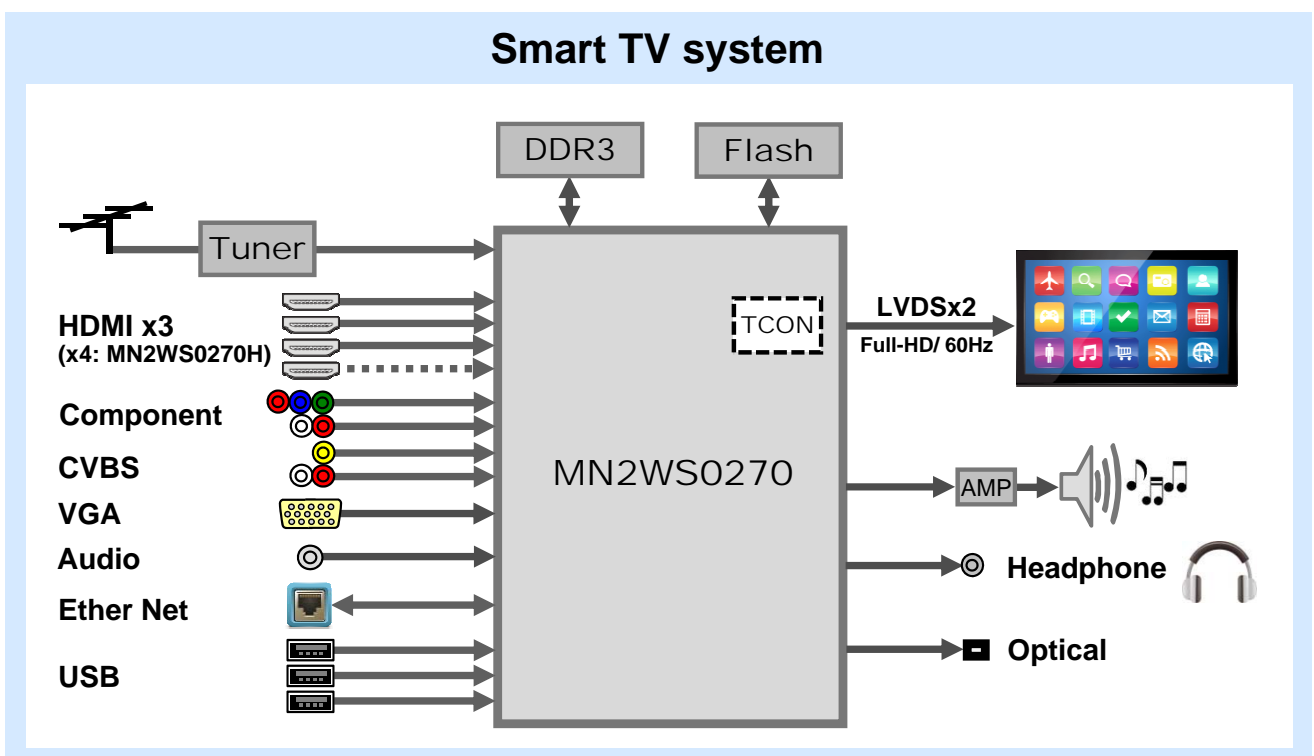
System LSI for world-wide Smart TV system MN2WS0270E/ H (Standard/ High-performance type)



■ Features

- Suitable for standard Smart TV solution
- Integrated flexible TCON and Ethernet-PHY to reduce BOM cost
- Integrated high performance CPU (ARM® Cortex®-A9) and GPU

■ Applications



■ Specifications

■ SoC

- Package: BGA (21x21mm)
- Number of balls: 526
- Ball pitch: 0.8mm
- Power: 1.1/ 1.5/ 3.3V

■ CPU

- ARM® Cortex®-A9
- Up to 600-MHz operation
(Up to 800-MHz: MN2WS0270H)
- Instruction / Data caches: 32 / 32-KB

■ UniPhier® processor (IPP3)

- Up to 600-MHz operation
- Instruction / Data caches: 64 / 64-KB

■ General purpose peripherals

- Timers x17 (WD x1, 16-bit x12, 8-bit x4)
- UART x6
- SPI x1
- I²C x4
- IC card x2
- NAND flash x1
- eMMC flash x1

■ Media I/F

- USB2.0 x3-ports
- SD/SDIO x1-port

■ Video I/O

- Analog input: CVBS x1, RGB/YPbPr/YC x3
- HDMI x3-ports (ver. 1.4a)
(4-ports: MN2WS0270H)
- LVDS x2-links (LVDS, mini-LVDS)

■ Audio I/O

- Analog input: Stereo x4
- Digital input: I²S x1, SPDIF x1
- Analog output: Stereo x1, HP x1
- Digital output: I²S x2, SPDIF x1

■ Graphics processor

- 2D/3D accelerator
- OpenGL ES1.1 compliant
(OpenGL ES1.1/2.0: MN2WS0270H)

■ Standby microcontroller

- 32-bit microcontroller

■ Low power consumption

- Power voltage control technology
- Low power in standby-mode

■ Integrated World-wide DTV Demodulator

- ISDB-T/S
- ATSC / QAM (Cable)
- DVB-T/C (Supports CI/CI+)

■ Integrated high performance Multi-format Video Decoder supports (*1)

- MPEG-1, MPEG-2
- MPEG-4 AVC (H.264)
- VC-1
- DivX 3/4/5/6
- AVS
- Real Video 8/9/10
- VP8
- JPEG

■ Integrated Audio Processor supports (*1)

- MPEG-1 Layer 2/3
- MPEG-2 Layer 2/3
- MPEG-2 AAC (SBR)
- Dolby Digital, Dolby Digital Plus
- DTS, DTS-HD
- WMA 8/9, WMA pro
- Vorbis
- FLAC
- G.726
- WAV, IMA-ADPCM
- DRA
- LPCM

■ Integrated Video Processor

- 3D processor with 2D-to-3D converter
- High quality IP convertor and Noise reducer
- Super-resolution

■ Memory subsystem

- DDR3 (1333Mbps)
- 2 channels, 16-bit width of each channel

*1: To use some of these formats, you may have to acquire a license or perform a software development. In addition, some combinations of audio/video formats may have a limitation to use.

For details, please contact our service representative.

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