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System LSI for extremely low-cost 2K Just-TV MN2WS0290

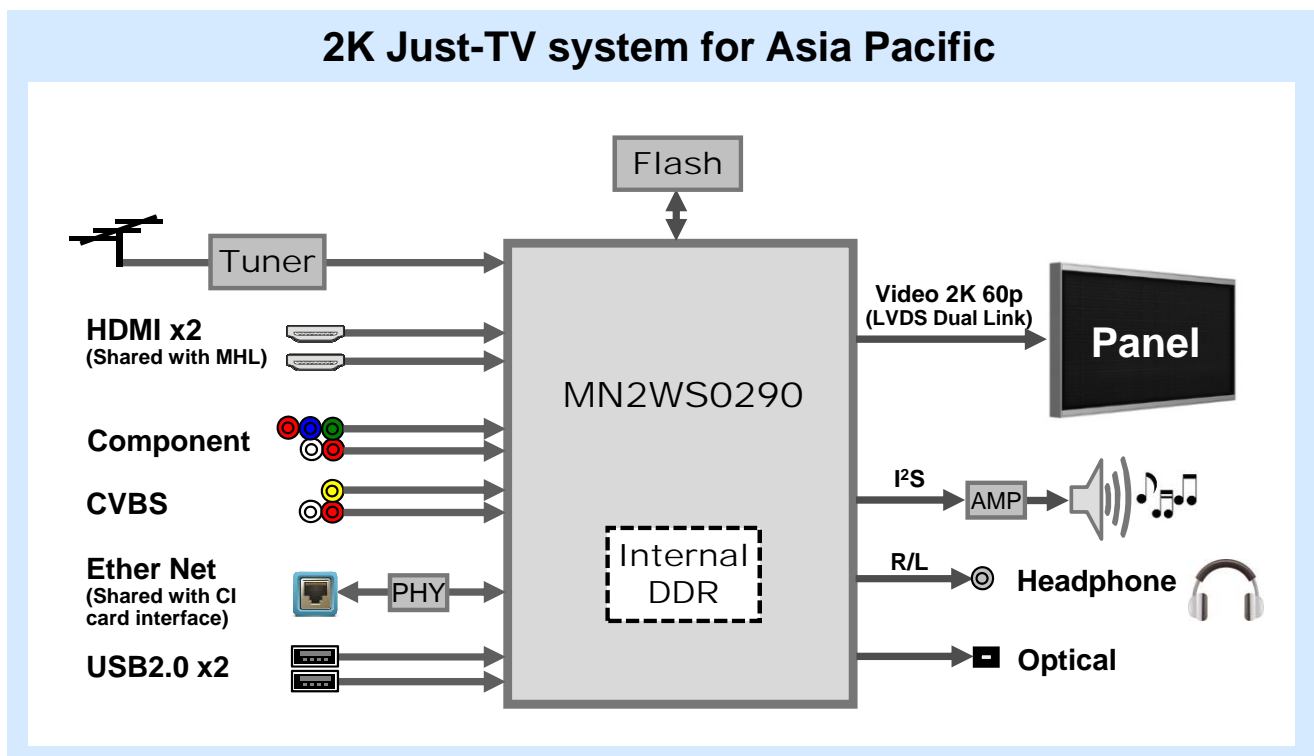MN2WS0290 contains all the functionality required for global TV solutions on a single chip.

This allow you to build extremely low-cost solutions for 2K Just-TV with connected features.

■Features

- Suitable for extremely low-cost 2K TV solution.
- Integrated DTV demodulator and DDR memory to reduce BOM cost.
- World-wide DTV demodulator and high performance multi-format video decoder.

■Applications

2K Just-TV system for Asia Pacific

Flash

Tuner

HDMI x2
(Shared with MHL)

Component

CVBS

Ether Net
(Shared with CI card interface)

PHY

USB2.0 x2

MN2WS0290

Internal DDR

Video 2K 60p
(LVDS Dual Link)

Panel

I²S

AMP

R/L

Headphone

Optical

■ Specifications

■ SoC
- Package: BGA (17x17mm)
- Number of balls: 369
- Ball pitch: 0.8mm
- Power: 1.1/ 1.5/ 3.3V

■ Internal DDR memory
- 2-Gbit

■ CPU
- Up to 600-MHz operation
- Instruction/ Data caches: 64/ 64-KB
- 2nd cache: 128-KB

■ General purpose peripherals
- Timers x17 (WD x1, 16-bit x12, 8-bit x4)
- UART x1
- I^2C x1
- IC card x1
- NAND flash x1

■ Media I/F
- USB2.0 x2-ports
- Ethernet: MAC (100Mbps)
  (shared pin with CI card interface)

■ Video I/O
- Analog input: CVBS x1, RGB/ YPbPr x2
- HDMI x2-ports (ver.1.4a)
- MHL x1-port (shared pin with HDMI)
- LVDS x2-link

■ Audio I/O
- Analog input: LR x2
- Analog output: LR x1
  (shared pin with Headphone)
- Digital output: I^2S x1, SPDIF x1

■ Graphics processor
- 2D accelerator
- OpenGL ES1.1 compliant

■ 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-T2/T/C (Supports CI/CI+)

■ Integrated high performance Multi-format Video Decoder supports (*1):
- MPEG-1
- MPEG-2 MP@ML
- MPEG-4 AVC (H.264 HP@L4.1)
- WVC-1
- Real Video 8/9/10
- WMV9
- JPEG

■ Integrated Audio Processor supports (*1):
- MPEG-1 Layer 2/3
- MPEG-2 Layer 2/3
- MPEG-2, MPEG-4 AAC
- HE-AAC
- Dolby Digital, Dolby Digital Plus
- DTS
- WMA Standard
- Vorbis
- FLAC
- WAV

■ Integrated Video Processor
- Super-resolution

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*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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