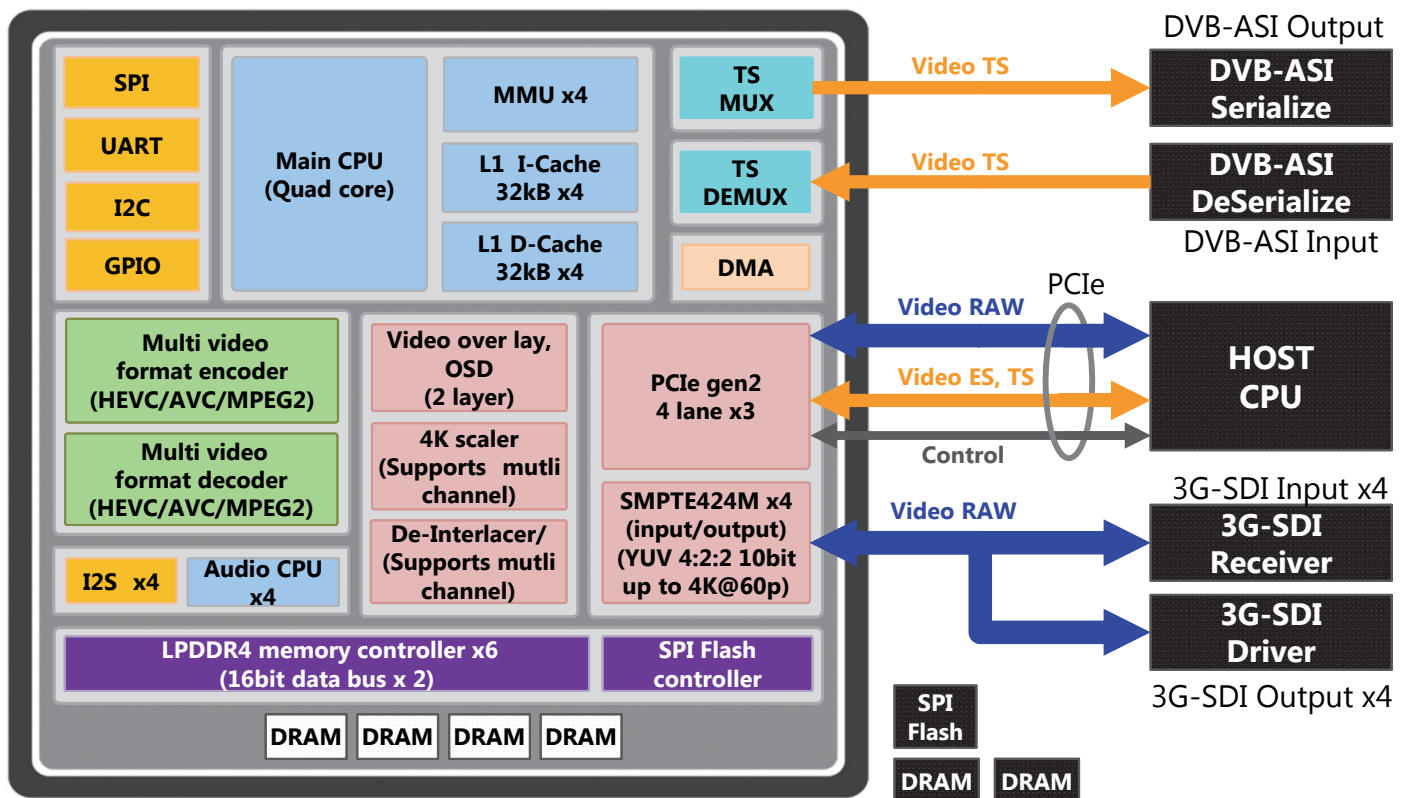
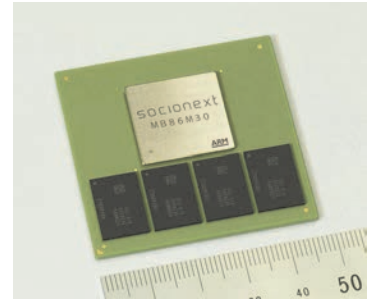


4K/60p HEVC Multi Format Codec MB86M30

■ Overview

The Socionext MB86M30 or "M30" provides video and audio encoding, decoding, and transcoding of HEVC/H.265, AVC/H.264 and MPEG2 standards. The M30 is a slave device controlled by a host CPU via a PCIe interface.



■ Features

- 4K/60p HEVC/H.265 or AVC/H.264 real-time encoding/decoding
- 4K/60p HEVC/H.265 encoding with 10ms ultra low latency (Optional)
- HEVC encoding algorithm supporting HDR (High Dynamic Range) video
- Low power consumption (6.3W at 4K/60p HEVC encoding) with four DRAMs embedded in package to increase system density

■ Applications

- Broadcasting
- IP Video distribution
- Medical
- Signage

■ Specifications

| | | |
|--------------------------|---|--|
| Video | • Encoding | HEVC/H.265 4:2:2 10bit (up to 4096 x 2160p60) AVC/H.264 4:2:2 10bit (up to 2160p60) MPEG2 4:2:0 8bit (up to 1080i59.94, 1080p30) |
| | • Ultra Low Latency Encoding * ¹ | HEVC/H.265 4:2:2 10bit (up to 4096 x 2160p60) Latency : 10ms |
| | • Decoding * ² | HEVC/H.265 4:2:2 10bit (up to 4096 x 2160p60) AVC/H.264 4:2:2 10bit (up to 2160p60) MPEG2 4:2:0 8bit (up to 1080i59.94, 1080p30) |
| | • Transcoding * ³ | HEVC to HEVC, H.264 to HEVC, MPEG2 to HEVC, etc. |
| | • Pre-Processing | De-Interlacing, Scaling, Filtering, Video overlay |
| | • Multiple channel operation | Up to 4ch @HEVC/H.265 encoding, 1080p60 |
| | • HDR ready | |
| Audio | • Encoding | • LPCM, AAC-LC, MPEG1-Layer2 |
| | • Decoding | • LPCM, AAC-LC, MPEG1-Layer2 |
| | • Pass through | |
| Stream processing | • TS MUX | • Up to 4ch |
| | • TS DEMUX | • Up to 4ch |
| Interface | • Control | PCIe 2.0 |
| | • Stream | PCIe 2.0, TS-Serial Input x 4ch, TS-Serial Output x 4ch |
| | • Video | PCIe 2.0, Video Parallel Input x 4ch, Video Parallel Output x 4ch |
| | • Audio | I2S Input x 4 stereo pair, I2S Output x 4 stereo pair |
| System | • Internal Memory | LPDDR4-2400 8Gbits x 4pcs |
| | • External Memory | LPDDR4-2400 (16bit x 2ch) x 2pcs |
| | • Boot Device | SPI Flash |
| | • Package | FCBGA 47.5mm x 47.5mm |

*1: Ultra Low Latency Encoding is optional.

*2: Decode function is verified with the stream generated by MB86M30. Regarding support status of other streams, please contact us.

*3: Transcoding function is optional.