4K/60p HEVC Multi Format Codec MB86M30

**Overview**

“MB86M30” provides video and audio encoding, decoding, and transcoding with supporting HEVC/H.265, AVC/H.264 and MPEG2 standard. MB86M30 is slave type device controlled by host CPU via 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 (Option)
- HEVC encoding algorithm supporting HDR(High Dynamic Range) Video
- Low power consumption(6.3W at 4K/60p HEVC encoding) and embedding four DRAMs in package enable high density in the system

**Applications**

- Broadcasting  
- IP Video distribution  
- Medical  
- Signage
## Specifications

| Video          | • Encoding                           | HEVC/H.265 4:2:2 10bit (up to 4096 x 2160p60)  
|               | • Ultra Low Latency Encoding *1      | AVC/H.264 4:2:2 10bit (up to 2160p60)  
|               | • Decoding *2                        | MPEG2 4:2:0 8bit (up to 1080i59.94, 1080p30)  
|               | • Transcoding *3                     | HEVC/H.265 4:2:2 10bit (up to 4096 x 2160p60)  
|               | • Pre-Processing                     | Latency : 10ms  
|               | • Multiple channel operation         | HEVC/H.265 4:2:2 10bit (up to 4096 x 2160p60)  
|               | • HDR ready                          | AVC/H.264 4:2:2 10bit (up to 2160p60)  
|               |                                          | MPEG2 4:2:0 8bit (up to 1080i59.94, 1080p30)  
|               |                                          | HEVC to HEVC, H.264 to HEVC, MPEG2 to HEVC, etc.  
|               |                                          | De-Interlacing, Scaling, Filtering, Video overlay  
|               |                                          | Up to 4ch @HEVC/H.265 encoding, 1080p60  
| Audio         | • Encoding                           | LPCM, AAC-LC, MPEG1-Layer2  
|               | • Decoding                           | LPCM, AAC-LC, MPEG1-Layer2  
|               | • Pass through                       |  
| Stream        | • TS MUX                             | Up to 4ch  
| processing    | • 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.