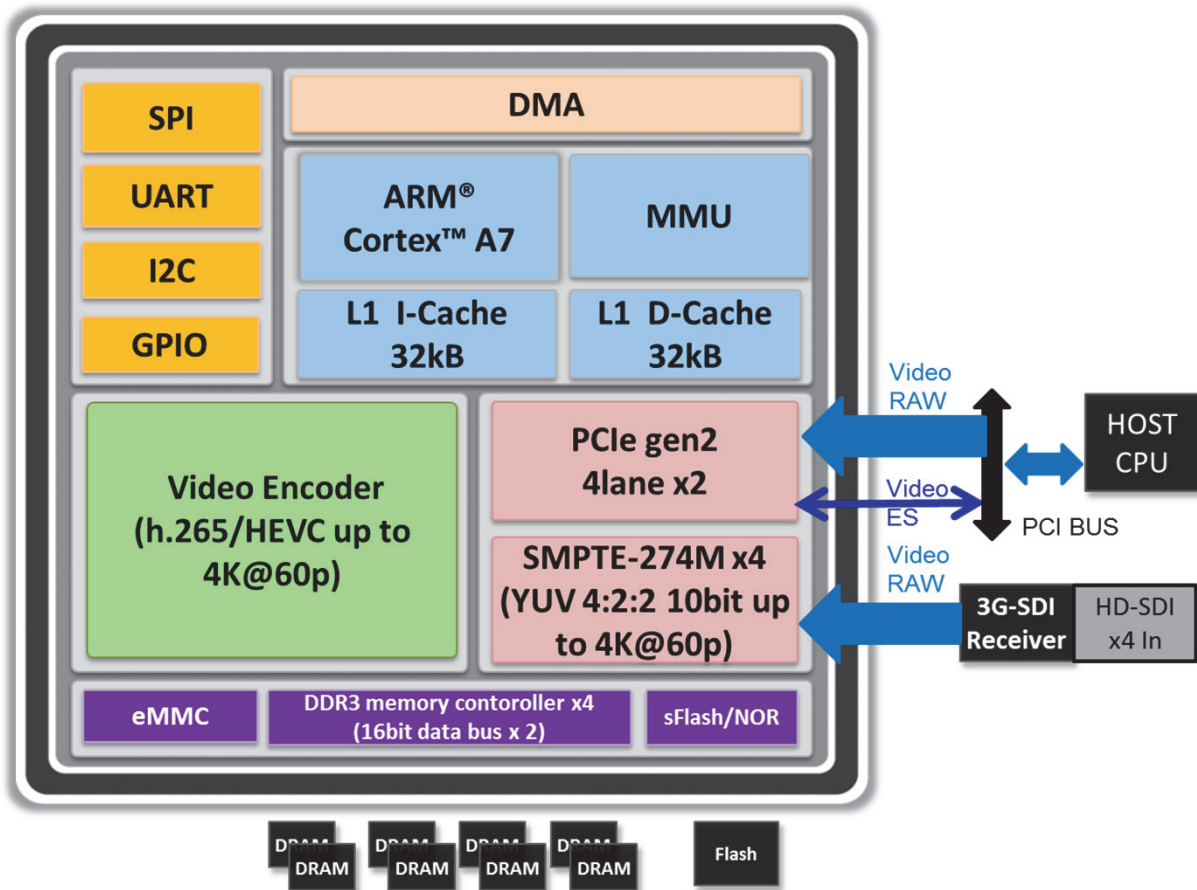
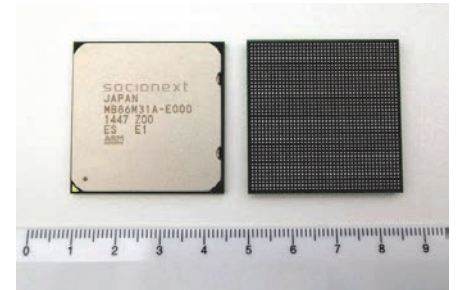


# H.265/HEVC 4K60p Real-time encoder MB86M31

## ■ Overview

The MB86M31, code name "M31", provides H.265/HEVC 4K60p real-time encoding using a single chip. The M31 is slave device controlled by host CPU via the PCIe interface.



## ■ Features

- Hardware-based H.265/HEVC 4K60p real-time video encoder
- Supports Main 4:2:2 10 profile necessary for broadcasting applications
- Supports multi-channel video encoding: 1080p60 4ch, 720p60 8ch, 480p 16ch
- Low power consumption

## ■ Applications

- Broadcasting
- Video capture
- Medical

# ■ Specifications

<b>Video</b>	<ul style="list-style-type: none"> <li>• Encoding</li> </ul>	<ul style="list-style-type: none"> <li>-H.265/HEVC Main, Main 10, Main 4:2:2 10 profile</li> <li>-Multi channel encoding: 4K60p 1ch, 1080p60 4ch, 720p60 8ch, 480p 16ch</li> </ul>
<b>Interface</b>	<ul style="list-style-type: none"> <li>• Control</li> <li>• Peripheral</li> <li>• Video</li> </ul>	<ul style="list-style-type: none"> <li>-PCIe Gen2.0</li> <li>-PCIe Gen 2.0 ( 4 lanes x2, 5.0 GT/s, Max payload size 1024 Bytes, Lane reversal supported)</li> <li>-UART(4 channels)</li> <li>-I2C(2 channels)</li> <li>-SPI(1 channel)</li> <li>-GPIO(64 pin)</li> <li>-20bit parallel interface(4 channels) support YUV4:2:2 10bit up to 4K</li> <li>-Support embedded sync(CEA-861)</li> </ul>
<b>System</b>	<ul style="list-style-type: none"> <li>• CPU</li> <li>• Memory I/F</li> <li>• Boot Device</li> </ul>	<ul style="list-style-type: none"> <li>-ARM Cortex-A7 400MHz single core</li> <li>-DDR3 SDRAM 1333Mbps (16bit x2, 4channels)</li> <li>-Serial flash, Nor Flash</li> </ul>
<b>Physical</b>	<ul style="list-style-type: none"> <li>• Power supply</li> <li>• Operating temperature</li> <li>• Package</li> </ul>	<ul style="list-style-type: none"> <li>-Internal Logic: 1.2V, Analog: 1.2V / 3.3V, I/O: 1.5V / 1.8V</li> <li>-Ta = 0 to 70degree</li> <li>-FCBGA-1764 (35mm x 35mm, 0.8mm pitch )</li> </ul>

# ■ Deliverables for system development

- Evaluation board
  - Offered as a PCIe card
  - Supports 4ch 3G-SDI input
- Software Development Kit
  - Includes Host CPU driver, sample application (Source code)
- Documentation
  - MB86M31 data sheet, evaluation board schematic, board design database
  - Host CPU driver, Sample application software, Control command document

