

Socionext Introduces 8K HEVC Real-Time Encoder Solution

Latest technology accelerates the popularization of super-high resolution video distribution

Yokohama, November 10, 2016 --- Socionext Inc., a leader in SoC-based solution for video and imaging systems, today introduced the world's first solution that enables the encoding of HEVC/H.265 video at 8K/60p with a single board, by utilizing the company's latest codec ICs. Socionext will start delivering the solution at the end of December. The solution will be showcased at InterBEE (International Broadcast Equipment Exhibition) 2016 at Makuhari Messe in Chiba, Japan from November 16 to 18.

Test broadcasting of 8K started in August 2016 in Japan and full service is scheduled for 2018. The virtual reality technology, which is seeing rapid growth in the global market, requires an 8K resolution. The current 4K resolution cannot support a full 360-degree wraparound view with adequate resolution. In the field of medical application, 8K is also considered essential for transmitting video images of surgical operations. However, in order to compress 8K video data down to the size which is practical for transmission or storage, the conventional method either took very long time for the entire process, or required to have a very large system with multiple processors, consuming a lot of power.

To address this issue, Socionext has developed the world's first solution that enables users to build devices with the size of one PCIe board for real-time HEVC encoding of 8K/60p video. Applying the solution to Socionext's state-of-the-art lineup of codec products enables users to build a real-time 8K encoder on a small board that fits into conventional PCs and servers. Socionext has implemented the solution using the company's 4K/60p HEVC encoder MB86M31, which is already in production. It also plans to use MB86M30, which will start volume shipping at the end of November, as well as other Socionext's codec ICs.

Advantech Co., Ltd. provides the "VEGA-3304", containing four MB86M31 chips on a single board. It is the first product in which the Socionext's 8K encoding solution is implemented. The MB86M31, developed based on Socionext's expertise on advanced codec technology, can reduce

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the power consumption for real-time encoding of 4K/60p video down to 1/50 compared to the conventional method. The "VEGA-3304" achieves immense reduction both in the the power --- as low as 75W --- as well as the size of the equipment.



Photo: Advantech VEGA-3304

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“Driven by the convergence of IT and broadcasting technologies, the VEGA-3304 is a breakthrough in enabling next generation 8K and Virtual Reality video services,” said Ween Niu, VP and General Manager, Advantech Networks and Communications Group. “Customers can leverage this impressively compact and low power card based on Socionext’s innovative solution to easily add 8K encoding capabilities to server based applications and rapidly bring unrivalled processing performance to a wide range of video solutions from cloud and OTT video to contribution and broadcast encoding.”

Socionext aims to be the world's leading solution provider in the expanding 8K video transmission equipment market by offering advanced codec products and related services to the customers.

Main specifications of the 8K HEVC Real-Time Encoder Solution include the following:

Video	Encoding	HEVC 4:2:2/4:2:0 10bit/8bit 7680 × 4320p60
	8K video image division	Square-division method, Horizontal slice method (optional)
Interfaces:	Control	PCIe
	Video	PCIe, Video Parallel Input

About Socionext Inc.

Socionext is a new, innovative enterprise that designs, develops and delivers System-on-Chip products to customers worldwide. The company is focused on imaging, networking, computing and other dynamic technologies that drive today' s leading-edge applications. Socionext combines world-class expertise, experience, and an extensive IP portfolio to provide exceptional solutions and ensure a better quality of experience for customers. Founded in 2015, Socionext Inc. is headquartered in Yokohama, and has offices in Japan, Asia, United States and Europe to lead its product development and sales activities. For more information, visit socionext.com.

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