Socionext Develops 4K/60p HEVC Compatible Multi-Format Codec IC

Delivers Optimum Solutions to the Growing Video Transmission Equipment Market

Yokohama, November 10, 2016 --- Socionext Inc., an emerging leader in advanced SoC technology for video and imaging systems, today announced the release of MB86M30, a Multi-format Codec IC capable of encoding, decoding, and transcoding of HEVC/H.265, AVC/H.264 and MPEG2 video and audio, all with a single chip. Socionext will start volume shipping of the MB86M30 at the end of November. Socionext will demonstrate the MB86M30 at InterBEE (International Broadcast Equipment Exhibition) 2016, at Makuhari Messe in Chiba, Japan from November 16 to 18.

The MB86M30 supports encoding, decoding and transcoding of video and audio in HEVC/H.265, which compresses 4K video data at half the cost of conventional format without image quality degradation. The encoder core integrated in the the MB86M30 was co-developed with Fujitsu Laboratories Ltd. The IC is also compatible with conventional formats such as AVC/H.264 and MPEG2, and is capable of handling all codec functions with a single chip. Its power efficiency and high density processing capability make MB86M30 the optimum codec device for digital broadcasting equipment. The IC also helps to reduce power consumption and minimize the size of data centers for video transmission over the Internet. This IC can also be used in Socionext's 8K HEVC real-time encoder solution.
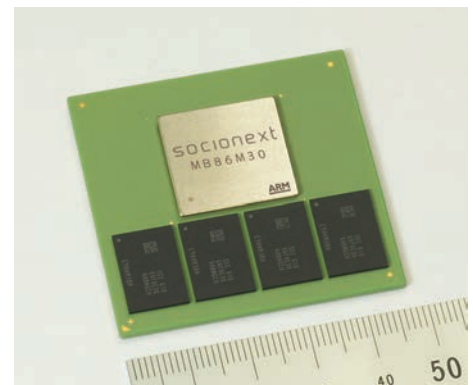

Photo: MB86M30

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The MB86M30 is capable of processing real-time encoding and decoding of 4K/60p video. It also features very low-latency encoding, as low as 10ms, of 4K/60p video in HEVC/H.265. Furthermore, MB80M30 is compatible with HDR (High Dynamic Range) video, which has recently been gaining more attention in the industry. The MB86M30 handles all video processing

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For Press Inquiry

Public Relations

Socionext Inc.

Tel: +81-45-568-1006

Inquiry Form   http://socionext.com/en/contact/

functions with a single chip, drastically reducing power consumption down to as low as 1/50 of conventional systems built with multiple semiconductor parts and CPUs. Another feature of the MB86M30 includes multi-channel processing, which enhances the processing density of video streaming by up to 4x more than that of conventional systems.

"The enhanced processing capabilities brought by Socionext's MB86M30 will play a key role in enabling new and innovative UHD and Virtual Reality applications," said Ween Niu, VP and General Manager, Advantech Networks and Communications Group. "Its impressively efficient and powerful performance combined with the time-to-market advantages of our off-the-shelf adapters and integrated systems will help customers accelerate their next-generation video products rollout."

"Fujitsu will launch its broadcast-use "FUJITSU Network Real-Time Video Transmission Gear IP-HE950" video encoder and decoder. Sales will commence in Japan from November 2016. It utilizes the codec IC technology of Socinext's MB86M30," said Hidetoshi Amari, Vice President, Development Div., Safety Solutions Business Unit, Fujitsu Limited. "Combined with Fujitsu's video technologies, we deliver the smallest and lightest-class broadcasting industry codec equipment in Japan."

The MB86M30 is designed for professional, high-end video equipment market with product shipment to begin in late November. Socionext aims to be the world's leading solution provider in the expanding video transmission equipment market, by offering advanced codec products like MB86M30 and related services to customers worldwide.

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.

MB86M30 Main Specifications

Video	Encoding	HEVC/H.265 4:2:2 10bit（up to 4096×2160p60）
		AVC/H.264 4:2:2 10bit（up to 3840×2160p60）
		MPEG2 4:2:0 8bit（up to 1080i59.94, 1080p30）
	Ultra-low latency Encoding *	HEVC/H.265 4:2:2 10bit（up to 4096×2160p60）
	Decoding	HEVC/H.265 4:2:2 10bit（up to 4096×2160p60）
		AVC/H.264 4:2:2 10bit（up to 3840×2160p60）
		MPEG2 4:2:0 8bit（up to 1080i59.94, 1080p30）
	Transcoding *	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	-
Streaming		TS MUX, TS DEMUX
Interfaces	Control	PCIe
	Stream	PCIe, TS-Serial Input×4ch, TS-Serial Output×4ch
	Video	PCIe, Video Parallel Input×4ch,
		Video Parallel Output×4ch
	Audio	I2S Input×4 stereo pair, I2S Output×4 stereo pair
System	Internal Memory	LPDDR4-2400 8Gbits×4pcs
	External Memory	LPDDR4-2400（16bit×2ch）×2pcs
	Boot Device	SPI Flash
	Package	FCBGA 47.5mm×47.5mm
	Power Consumption	6.3W (Typical)

* Optional