

NEC Electronics Introduces New SoC for Set-Top Boxes with Extensive Multi-Format Video Support

Targeting the IP and Pay-TV Markets in Europe, Asia and Latin America

KAWASAKI, Japan, DUESSELDORF, Germany, SANTA CLARA, Calif. (U.S.A.), Aug. 24, 2009--NEC Electronics (TSE: 6723) today announced the availability of a new image-processing solution, the EMMA3™SL/P system-on-chip (SoC) based on NEC Electronics' enhanced multimedia architecture (EMMA) platform. The EMMA3SL/P SoC is a set-top box (STB) device compliant with H.264 high definition (HD), the next-generation image-compression standard, as well as the multi-format video support used for the increasing number of worldwide internet-protocol television (IP TV) STBs, such as DivX®, VC-1, and WMV. The new SoC is also the first among the company's EMMA products to support China's audio/video standard (AVS).

The EMMA3SL/P device is an image-processing SoC that integrates key functions needed to receive and decode digital broadcasts, including MPEG-2 HD audio/video decoders, transport-stream demultiplexers, as well as display controllers for enhanced display and graphics features.

The new SoC includes these features: (1) multi-format video support for IP TV STBs, in addition to support for the H.264 HD standard and China's AVS, (2) integrated enhanced security features, and (3) 20 percent reduction in the number of on-board pins compared to the company's existing products, due to the high level of function integration.

Digital audio/visual (AV) applications are a strategic business focus for NEC Electronics, and the company is actively promoting chips for this market segment. Having released the world's first digital broadcasting STB SoC in 1998 under the brand name "EMMA," the company has built a formidable range of digital AV SoC devices since then covering three main areas — STBs, digital TVs and DVD recorders. With these devices, NEC Electronics reached a cumulative total shipment of 100 million as of April 2009. NEC Electronics introduced two EMMA devices in January 2009, the EMMA3SL/LP and EMMA3SL/L SoCs, to the wider H.264 STB market. Due to specific emerging demand for increased multi-format video especially in Europe, Asia, and Latin America, NEC Electronics announced an expansion of its STB device roadmap with advanced security features and cost efficiency, building on technology gained from previous products.

Principal Features

(1) Supports multi-format video for IP TV

The new EMMA3SL/P device supports the reception of H.264 HD broadcasts adopted especially in Asia, Europe and Latin America. The SoC also specializes in multi-format video

support for IP TV and pay TV, which allows users to play back almost all video formats from DivX and WMV, to VC-1. The new device is also the company's first EMMA product to support China's AVS.

(2) Complies with enhanced security features

To address the Conditional Access Companies' demand for protection against signal piracy, the new EMMA3SL/P SoC provides advanced security features to meet current security anti-piracy standards.

(3) Reduced total component cost, simplified board design and assembly

In addition to the indispensable HDMI interface and USB 2.0 host controller, the new device integrates Ethernet MAC, audio DAC and all other essential features on a single chip. The SoC ball layout has approximately 20 percent fewer number of pins from 596 to 484, compared to the company's existing products, resulting in reduced bill-of-materials (BoM) costs for STB manufacturers.

(4) Additional features

The new EMMA3SL/P SoC, in addition to supporting previous products' features, adds new capabilities and higher performance:

- Performance more than doubled to 990 MIPS, compared to the company's previous EMMA3SL/HD device
- Supports hybrid IP TV STB functionality featuring simultaneous IP TV and broadcast TV, which can be either digital terrestrial, satellite or cable TV in one multimedia platform
- Built-in deinterlacer to convert interlaced signals into progressive signals for enhanced display features
- Supports the Linux operating system (OS) in addition to a real-time OS (RTOS) providing flexibility and easing development of software applications

NEC Electronics believes the new device will serve as a perfect platform to support the technical and pricing requirements of STB manufacturers and enable them to produce state-of-the-art STBs at a low cost. The company plans to market the EMMA3SL/P SoC aggressively and continues to expand its accompanying lineup of high-performance digital AV product offerings.

Detailed specifications about the EMMA3SL/P SoC can be found at

http://www.am.necel.com/news/appendix/emma3sl-p-soc_spec.pdf

Exhibition at the International Broadcasting Convention 2009

NEC Electronics' EMMA3SL/P device will be showcased in its booth located in Hall 1, Stand C27, at the International Broadcasting Convention 2009 (IBC 2009), to be held in Amsterdam, Netherlands, from September 11 to 15.

Pricing and Availability

Samples of NEC Electronics' new EMMA3SL/P SoC are available now, with pricing starting at \$30 per unit. Volume production is scheduled to begin by the second half of 2009 and expected to reach 250,000 units per month. More information about NEC Electronics' extensive digital AV product offerings can be found at http://www.am.necel.com/digital_av.

(Pricing and availability are subject to change without notice.)

About NEC Electronics Corporation

NEC Electronics Corporation (TSE: 6723) specializes in semiconductor products encompassing advanced technology solutions for the high-end computing and broadband networking markets; system solutions for the mobile handset, PC peripheral, automotive and digital consumer markets; and multi-market solutions for a wide range of customer applications. NEC Electronics Corporation has subsidiaries worldwide including NEC Electronics America, Inc. (www.am.necel.com) and NEC Electronics (Europe) GmbH (www.eu.necel.com). More information about NEC Electronics worldwide can be found at www.necel.com.

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