MIPS claims first 65-nm HDMI IP, inks HDMI alliance with NXP

By Ann Steffora Mutschler, Senior Editor -- 2/20/2008
Electronic News

IP provider **MIPS Technologies Inc** and semiconductor company **NXP Semiconductors** said Tuesday they have extended their relationship and will offer high-definition multimedia interface (HDMI)-based IP products for digital home applications, including high-definition DTVs and display units, A/V receivers and set-top boxes.

Under the terms of the agreement, MIPS will license NXP's advanced HDMI receive technology, currently used in the company's DTV ICs, expected to allow MIPS to further develop and offer HDMI receive IP solutions in advanced geometries for integration onto SoCs as part of its analog business group's HDMI product portfolio.

Also, NXP may use these HDMI receiver IP solutions from MIPS to further develop its future DTV SoC product line.

The agreement also offers rights under NXP's patent portfolio, the company said.

Mark Tyndall, VP of business development and corporate relations at MIPS reminded that NXP was an early MIPS instruction set architecture (ISA) licensee, has since licensed the MIPS32 4KEc and 24KE core families used in next-generation HDTVs and set-top boxes, and recently licensed connectivity solutions from Chipidea.

This week, MIPS also announced what it believes is the industry's first 65nm IP solution for HDMI targeted at low power portable, cellular and digital home applications.

MIPS believes its leadership and expertise in both high-performance analog IP and connectivity IP solutions positions the company to offer comprehensive HDMI IP products in advanced geometries—including a PHY and digital controller for both HDMI transmit and receive applications.

Through integration onto the SoC, the company's IP is meant to reduce the overall system cost of implementing HDMI in consumer devices and consumes less power than existing standalone HDMI interface chips commonly used today.

HDMI has emerged as the dominant digital interface for a wide array of consumer electronics, representing today's de facto standard for creating high-bandwidth, streamlined connections between digital devices, MIPS reminded.

The HDMI transmit IP is optimized for today's low power requirements crucial for portable and cell phone applications—supporting data rates of 1.65 Gbps per TDMS channel (approximately 5 Gbps in total) and video resolutions up to 1080p at 60Hz, as well as a version capable of up to 10.2 Gbps for applications demanding higher data rates, MIPS said.

The HDMI receive IP integrates configurability options to support data rates up to 10.2 Gbps and video resolutions to 1080p at 120Hz, 1440p and beyond. The high-bandwidth digital content protection encryption/decryption feature is available as an option, while the integrated DMA eliminates the need for

a separate audio and/or video interface, allowing autonomous access from the HDMI controller to the audio and video information stored in the SoC system memory.

Rich Wawrzyniak, senior market analyst for ASICs and SoCs at market research company **Semico Research** said in a statement, “MIPS Technologies is plugging into a compelling market trend with a HDMI solution that helps address some of today’s real-world digital consumer challenges. HDMI is poised to proliferate rapidly and the demand to transfer HD video content from portable devices, coupled with the need for longer battery life, mean that small area and low power consumption are not only critical but will drive the integration of HDMI onto the SoC."

<< Back | **Print**