Marvell Embraces Earth Day: Driving Greener, Eco-Friendly Embedded Enterprise Applications

Marvell, a worldwide manufacturer of integrated silicon solutions, today announced a new addition to the ARMADA™ family of application processors in honor of Earth Day 2010 - the Marvell® ARMADA 310.

The new System-on-a-Chip (SoC) is designed to deliver scalable performance of up to 1 GHz while consuming less than 1W – a striking industry benchmark for the enterprise application developer community.

The ARMADA 310 opens doors to new greener embedded enterprise applications with gigahertz-class performance to muscle computing horsepower for digital homes and small and remote office applications, as well as for new intelligent solutions for Plug Computing, medical, financial and point-of-sale (POS) markets.

The advanced ARMADA 310 offers designers the opportunity to develop high performance, power-efficient green systems with smaller form factors for a variety of peripherals such as routers, microservers, dongles, PC cards, industrial and medical systems.

“With the ongoing demand for sustainable enterprise developments and Marvell’s commitment to advocate and advance the development of energy efficient green technology, the groundbreaking ARMADA 310 sets itself apart from competitors with its enterprise performance features and lower power capabilities,” said Dr. Simon Milner, vice president and general manager of the Enterprise Business Unit at Marvell Semiconductor Inc.

“Embedded application developers need smarter processors capable of delivering high levels of performance while consuming lower power, the new ARMADA 310 is designed to do just that — the solutions offers a variety of performance features while meeting the community’s demand to lower carbon footprint.”

The ARMADA 310 offers scalable performance from 600MHz to 1GHz and the ability to power down as low as 700 mW. To help maximize bandwidth, reduce power consumption and drive down system cost, the new SoC features an on-chip 16-bit DDR2/3 interface. The highly integrated IC also drives down bill of material (BOM) costs by adding a wide variety of communications options including two PCI-express bus interfaces, two Gigabit Ethernet (GbE) MACs, a USB 2.0 compliant port with an integrated PHY that can serve as a peripheral or host, and an embedded 16-bit LCD controller.

“Marvell is recognized as a leading developer of CPUs running the ARM instruction set that reach a broad array of markets and applications,” said Tony Massimini, Chief of Technology at Semico Research Corp. “By integrating extensive

connectivity capabilities into a highly scalable ARM-based SoC, the ARMADA 310 offers designers the opportunity to create small-form factor, high-performance, devices that easily link to other systems and outside networks."

The CPU core on the ARMADA 310 was developed by Marvell and is ARMv5TE compliant. It features a four-way, set-associative L1 16 KB I-cache /16-KB D-cache and a 256-KB, unified four-way, set-associative L2 cache. To maximize throughput the chip uses an innovative on-chip crossbar architecture that enables concurrent transactions among multiple units.