

MIPS enters 32-bit MCU market

By Suzanne Deffree, News Editor -- 10/30/2007

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MIPS Technologies Inc. has entered the 32-bit microcontroller (MCU) market, marking the company's first move that incorporates its acquisition of analog IP player **Chipidea Microelectronica S.A.**

MIPS closed the **\$147 million Chipidea acquisition** in August, making the Lisbon, Portugal-based company a newly formed business group within Mountain View, Calif.-based MIPS, which continues to sell the complete product portfolio under the Chipidea brand. Today's news, which will see MIPS combine processor IP and Chipidea analog IP and peripherals, is the first announcement from a corporate strategy perspective that is both MIPS processor business unit-based and Chipidea analog business unit-based.

"This is our first announcement of the synergy of the products since the acquisition," MIPS VP of marketing Jack Browne said. "As people move to a process node, one of the limiting things is analog. Chipidea has been very successful and today has some 230 engineers doing analog design. We have over 400 IP blocks, so we are in a situation with customers where a lot of what they want, we've already done it and have it proven in silicon."

Clearly, MIPS is joining the industry as it begins a transition that many believe will include 32 bit as commonplace in the MCU world in the near-term future, as designers require increased functionality, a wide array of peripherals, and note a growing demand for analog functions in MCUs.

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"Unit volumes of 32-bit MCUs are growing rapidly, especially for sophisticated automotive, consumer and industrial applications that require more processing power and larger memory capacities," Tony Massimini, chief of technology, Semico Research, said. "With increasing demand for more complex encryption and decryption for security applications, more performance for improved automotive safety and engine management, and additional integration and connectivity across all MCU applications, we expect the market will continue to grow."

For the 32-bit cores, MIPS is offering hardware and software development tools to mitigate the development task and reduce time-to-market in an effort to encourage design transitions from 8-bit and 16-bit MCU. Customers can leverage MIPS' general-purpose processor cores from the low-power MIPS32 M4K core, up to the high-performance MIPS32 24K family, depending on specific applications. Browne further noted MIPS' move to 32 bit encourages the fabless model for MCUs by offering digital I/O and cores, analog I/O, debug and development tools and ecosystem support for RTOS.

The announcement also pits MIPS against its longtime rival in the IP space, **ARM**, which has 32-bit MCU deals with **NXP** and **Luminary Micro**, among others. MIPS claimed to have a major customer announcement coming for its 32-bit cores in November, but would not immediately disclose details.

"Today 32-bit [total available market] is over 3 billion. It's growing to well over \$4 billion in the next five years," Browne said, quoting Gartner Dataquest research. "If you look at this marketplace today, its predominantly proprietary architectures. If you look at where this marketplace will be five years from now, I believe it will be more than half licensed IP processor cores. The benefit there is that to support your own architecture takes about 50 people. If you license IP, we'll license that IP for about 10% to 20% of

that cost. We can give people the ability to reinvest their R&D dollars differently.”

For more on the 32-bit MCU market, see:

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