BPN June 2008

In This Issue

Welcome to our June edition of Braemac Product News

STMicroelectronics 2008 Product Seminar

STMicroelectronics and Braemac are organising a **PRODUCT Seminar**

to present and showcase its latest sophisticated range of Microcontrollers (STM32 256K/512K Flash version & STM8S + MCUs overview), Power Analog (High performance Analog, Power conversion) and MEMs..

The aim of this seminar is to strengthen and enhance our valued customers' knowledge and application of STMicroelectronics products, solutions for system design and development tools.

The one-day program **(0830 to 1700hrs)** will include Analog Power reference design and high density EEprom & RFID.

Ample Free Parking on-site
Tea break & lunch provided

As seats are limited, availability will be on a first-come-first-served basis. Therefore to ensure your seat, please register with Braemac by 30th June 2008.

Register for Sydney	Monday, 21 July 2008 at RYDGES Paramatta **(James Ruse Drive, Rose Hill)**	**Click here** to confirm your seat
Register for Melbourne	Wednesday 23 July 2007 at CLARION on **Canterbury (Canterbury Rd, Forrest Hill)**	**Click here** to confirm your seat
Register for Auckland	Friday 25 July 2008 at Waipuna Hotel 58 (**Waipuna Road Mt Wellington)**	**Click here** to confirm your seat
Register for Christchurch	Monday 28 July 2008 at Holiday Inn on Avon Christchurch **(356 Oxford Terrace)**	**Click here** to confirm your seat

We sincerely hope that you would be able to attend this seminar which has been specially designed to enable you to optimize your use and integration of the latest technology.

[redacted] See you at the Seminar!

Altera Announces Industry's First 40-nm FPGAs and HardCopy ASICs

Stratix IV FPGAs and HardCopy IV ASICs Both Offer Transceiver Options

Enabling designers to achieve new levels of integration and innovation, Altera Corporation (NASDAQ: ALTR) today announced the industry's first 40-nm FPGAs and HardCopy® ASICs. The Stratix® IV FPGAs and HardCopy IV ASICs, both with transceivers options, provide unprecedented densities, performance and low-power leadership. The Stratix IV family has up to 680K logic elements (LEs), 2X bigger than Altera's Stratix III family, currently the largest FPGAs on the market. The HardCopy IV ASIC family offers equivalent densities as the Stratix IV devices and features up to 13.3 million gates. Altera® 40-nm devices meet the diverse high-end application needs in a large number of markets such as wireless and wireline communications, military, broadcast and ASIC prototyping.

With the increasing demand for services such as video over Internet, high-speed wireless data and digital TV, designers need to deliver solutions that provide higher data rates, higher interface bandwidths, and increased data processing all in a power-efficient manner. To address these design challenges, Altera is leveraging its innovations in transceivers, memory interfaces, low-power technology and FPGA core architecture to offer new capabilities with its 40-nm devices.

Manufactured on TSMC's 40-nm process, the Stratix IV FPGA family is comprised of two variants, an enhanced variant rich with memory and digital signal processing (DSP) resources (Stratix IV E FPGAs) and an enhanced variant with transceivers (Stratix IV GX FPGAs). Stratix IV GX FPGAs offer up to 48 transceivers operating at up to 8.5 Gbps, which provides designers with the industry's highest available bandwidth, more than twice the bandwidth of any other FPGA. Stratix IV GX FPGAs also feature hard intellectual property (IP) support for PCI Express (PCIe) Gen 1 and 2 and also supports a wide range of protocols including, Serial RapidIO®, XAUI (including DDR XAUI), CPRI (including 6G CPRI), CEI 6G, Interlaken and Ethernet.

To address the low-power demands of customers, the Stratix IV family members feature Altera's patented Programmable Power Technology. This power-saving technology optimizes logic, DSP and memory blocks to maximize performance where needed while delivering the lowest power elsewhere in the design.

For the first time, Altera offers a transceiver-based ASIC option with the new HardCopy IV ASIC family. Using the Stratix FPGAs in design delivers the benefits of FPGA hardware and software co-design and co-verification—saving months in time to market—and the use of HardCopy ASICs delivers the benefits of ASICs in production.

'Today's announcement significantly widens the density, performance and low-power advantages of the Stratix series versus competing offerings,' said John Daane, president, CEO and chairman of Altera Corporation. 'Combined with the HardCopy ASIC family, Altera is the only company that can offer a complete high-performance solution that allows designers to quickly move from concept to volume production.'

The company also announced today enhancements to its Quartus® II design software (See related announcement: 'Altera's Quartus II Software Version 8.0 Delivers Unprecedented Performance and Productivity for High-End FPGAs') and

delivered IP solutions optimized for 40-nm products. Quartus II software v.8.0 enables designers to achieve efficient team design and fast time to market through the highest performance, logic utilization and lowest compile times in the industry.

For further information please click here

Wavecom Introduces Q52 Omni Wireless CPU®

World's First Cellular-Satellite Hybrid New Wireless CPU® delivers global coverage at a fraction of the cost

Wavecom announced a groundbreaking combination of cellular, satellite and GPS technology (select models) on a single device: the Wavecom Q52 Omni Wireless CPU®. Based on Wavecom Wireless Microprocessor® technology, the Q52 Omni embodies unprecedented integration by embedding control of all three technologies on a single processor, enabling significant cost savings over existing multiprocessor solutions. The powerful, built-in ARM9 processor and included Open AT® Software Suite allow developers to develop, embed and execute their applications directly on the device.

Capable of enduring even the harshest environmental conditions, the Q52 Omni was created to enable remote monitoring and control of assets absolutely anywhere in the world.

'We fully expect this device to change the face of asset tracking by enabling cost-effective, global monitoring,' said Stefan Lindvall, Wavecom Group Vice President and Head of the Americas Region Americas. 'The integration and price point, particularly when paired with affordable services from our Satellite partner ORBCOMM, are sure to open the door to mass adoption of this technology particularly in industries focused on high-value equipment, transportation and logistics.'

To further reduce total cost of ownership, the new Q52 Omni supports the unique, secure Wavecom Intelligent Device Service offer, providing customers with access to the world's most powerful Web-based service platform for upgrading and monitoring networked machines.

For further informationation please click here

Exar Introduces Industry-First Solution: Wireless Universal Asynchronous Receiver Transmitter (UART)

Eliminates Cables Easily for Both Serial or Parallel Interfaces With No Software Development Required

Fremont, California - Exar Corporation (Nasdaq: EXAR) released an industry-first wireless UART solution composed of two devices that can be used either as a chipset, or separately. The chipset solution includes the XR18W750 - a wireless UART controller, and the XR18W753 - an RF (868MHz to 956MHz) transceiver. Addressing the growing market evolution away from cabled to wireless connections, especially in industrial environments, the Exar solution increases equipment mobility, simplifies installations, and accelerates time to market. The wireless UART chipset can be designed onto existing boards, or integrated into add-on wireless adapter cards providing wireless capabilities to systems currently using serial cables. The XR18W753 can also be used separately with popular Microcontroller Units (MCUs) via a simple two-wire I2C interface. Point-of-Sale (POS), security systems, data collection, data monitoring and others no longer need to be connected by serial cables, as the Exar wireless UART solution can transmit and receive data in point-to-point, and point-to-multi-point environments.

'As the UART market leader, we are driving the technology and delivering to customers dynamic new options for their OEM products plus widening the innovation gap between Exar and other UART competitors,' said Levent Ozcolak, vice president, Interface Product Line. 'Exar's XR18W750/753 chipset offers a complete hardware and software solution that can either replace existing serial cable implementations, or upgrade any system currently using a UART and RS-232 or RS-485 transceiver.'

Key Product Features
The XR18W753 is a single-chip RF transceiver designed to operate in license-free North American 915MHz ISM, European 868MHz SRD, and 950MHz to 956MHz bands for low-power, short-range wireless applications. Direct Sequence Spread Spectrum (DSSS) technique is employed to provide robust data communication in signal congested RF environments. The device provides extensive hardware support for packet handling, data buffering, packet timing, RSSI, energy detection, link quality indication, clear channel assessment, FCS computation, and CRC detection. RF output power is programmable from -24 dBm to 0 dBm with a maximum data rate of 250Kbps.

The XR18W750 is a wireless UART controller with a two-wire I2C interface to the XR18W753 RF transceiver to complete Exar's wireless UART chipset solution. The XR18W750 supports both the parallel and serial interfaces to any host system thus providing flexibility for system designers to select their interface option. The XR18W750 includes an embedded 8051 microprocessor which provides the power to process the protocol framing for data transmission and to handle error processing. Internally, the XR18W750 has 4KB RAM for data processing. The XR18W750 also includes a 128-bit AES engine for data encoding and decoding.

'In addition to offering a complete wireless solution when used with the XR18W750, Exar's XR18W753 RF transceiver can interface independently with almost any incumbent MCU on existing boards,' said Eric Nguyen, director strategic marketing, Interface Product Line. 'It delivers for current or new platforms, a new level of design freedom and flexibility for OEMs that want to further differentiate their products by giving their customers the opportunity for early adoption of wireless systems.'

For further information please click here

Proprietary Firmware
The wireless UART chipset comes with Exar's proprietary firmware that supports several communication modes including point-to-point, point-to-multi-point, and broadcast. Point-to-point mode allows exclusive communication between two wireless UART chipsets, similar to RS-232 communication. Point-to-multipoint mode allows communication between multiple wireless UARTs within the same network, similar to an RS-485 network. Broadcast mode sends data to any wireless UART chipset that is within range.

Interface Products
Exar has one of the broadest portfolios of high-performance interface solutions including UARTs, serial transceivers -- RS-232, RS-485, and multi-protocol -- and integrated UART/transceiver combinations. For chip-to-chip or system-to-system connections, Exar's single and multi-channel interface ICs provides immediate competitive advantages to designers: low power, reduction in board space requirements, increased bandwidth capacity, and enhanced product features. Interface devices are found practically everywhere including point-of-sale (POS) terminals, digital televisions, industrial automation equipment, handheld devices, and networking environments.

Evaluation boards, reference designs, software drivers and Exar's proprietary firmware for the wireless UART chipset are available. With the availability of these tools and Exar's application support line: uarttechsupport@exar.com, UART customers can accelerate implementation by eliminating driver development, testing and diagnostic procedures.

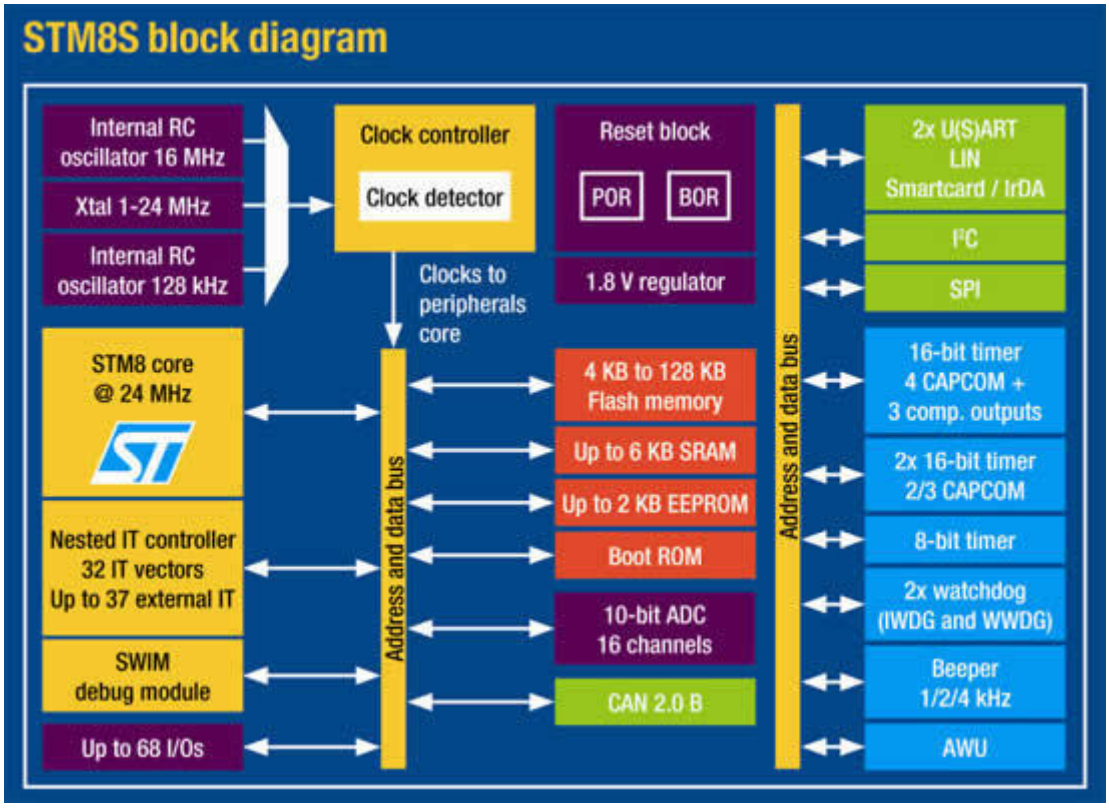
STMicroelectronics Introduces STM8S Microcontrollers, Bringing Advanced 8-bit Core and Platform Scalability to Industrial Applications

New robust and reliable 8-bit MCU family combines STM8 processing power, on-chip true EEPROM,

software and pin-out compatibility, plus peripherals common to families including the STM32

STM32 STMicroelectronics (NYSE: STM), a world leader in microcontrollers, has added new 8-bit MCUs using its next-generation STM8 core, by introducing the **STM8S** family specified for the industrial temperature range. The new MCUs combine the core's high speed, performance and code efficiency with versatile peripherals, including a number of specific features for robustness and reliability. Integrated memory, including true EEPROM, simplifies emulation. The STM8S family lowers system cost and development time and increases performance in industrial and appliance applications.

The 8-bit STM8 core has a 32-bit memory interface and three-stage pipeline, achieving 20 MIPS peak processing performance at 24MHz. A stack pointer and 16-bit index registers enhance manipulation of tables, and the core's 16 Mbytes of linear memory address space streamlines paging operations above 64Kbytes. In addition, improvements to stack-pointer operations, supplemental addressing modes and new instructions boost support for C programming and real-time performance to increase code density and processor efficiency.



'The 32-bit STM32 and 8-bit STM8 families are the foundations on which our microcontroller portfolio will grow, to address the majority of current and future market needs,' said Jim Nicholas, General Manager of ST's Microcontroller Division. 'This new STM8 family of 8-bit microcontrollers ticks all the boxes, in terms of performance, peripherals and reliability, to offer a leading-edge solution for industrial and appliance applications.'

Alongside the advantages of the STM8 core, the STM8S family includes large on-chip Flash memory with variants from 4 Kbytes to 128 Kbytes. The integrated EEPROM delivers performance comparable to external EEPROM, with real-time read-while-write capability and minimum 300,000 write-cycle durability.

Developers using the STM8S family can take advantage of software and package-in-package compatibility within the family, as well as peripheral compatibility throughout ST's MCU families including the 32-bit STM32 series. This compatibility promotes platform design and provides access to a large catalog of functions including 16-bit advanced control timers with configurable modes, capture/compare functions, PWM controllers, andinterfaces including U(S)ARTs, SPI, I2C and CAN 2.0B. Other integrated features save footprint and component count in industrial applications, including an accurate internal 16MHz RC oscillator saving the need for an external clock source, Power On Reset (POR) and Brown-Out Reset (BOR) eliminating external reset circuitry, and high current-injection immunity saving the need for external protection. In addition to specific features for reliability and robustness, such as dual independent watchdogs, a clock security system, complementary copy of configuration option bytes, and EMS reset, the STM8S family also includes in-application programming and in-circuit programming, as well as single-wire debug using the industry's most advanced in-circuit-debugging module.

In addition, four low-power modes help developers implement responsive power management schemes in applications such as home appliances and personal-care equipment, battery-operated devices, power tools, HVAC equipment, motor controllers and circuit breakers. The supply voltage range from 3.0V to 5.5V also simplifies development and eases upgrading of legacy designs.

The STM8S development environment supports high-end emulators that include complex functions such as code profiling

Numerous reference examples in firmware, together with a dedicated library compliant to class B of the IEC60335 standard, are included to help developers meet the certification process for new safety regulations.

For further information please click here

About Braemac

Braemac is Australia's largest electronic component distributor with offices throughout Australia, New Zealand, USA, Singapore, Hong Kong and the UK. Our product offer includes some of the world's most prestigious suppliers including Atmel, Altera, Hitachi (Renesas), STMicroelectronics, Cirrus Logic, Marvell and Wavecom which allows our customers to choose from a wide selection of quality, well recognised components. Visit Braemac Website

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For further information, product data sheets and pricing, please contact your local Braemac sales representative. or email info@braemac.com.au

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