

PRESS RELEASE

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Xtendwave selects EnSilica's eSi-3200 processor for the receiver IC implementing NIST's next-generation WWVB atomic timekeeping signal



Wokingham, UK – 28th May 2012. EnSilica, a leading independent provider of IC design services and system solutions, has announced that Xtendwave has licensed its high-performance eSi-3200 32-bit processor core to power Everset™, Xtendwave's time code receiver solution for the next-generation WWVB atomic timekeeping signal. The new signal, broadcast by NIST (the National Institute of Standards and Technology), a US Government agency, will represent the official time of the USA and includes the implementation of daylight saving time and leap seconds.

Xtendwave, a fabless semiconductor company focused on the development of physical-layer communication technologies is developing Everset™ as both a chip and IP solution to provide electronic clock and appliance manufacturers with a low-cost, low-power solution for receiving and decoding the new timekeeping signal. The signal adopts an advanced communications protocol based on a new modulation and coding scheme. Xtendwave is developing Everset™ as part of its contract with NIST to design the new WWVB broadcasting system to overcome reception problems in certain locations and environments by enhancing performance and sensitivity as well as improving robustness to interference.

Xtendwave chose EnSilica's eSi-3200 processor for Everset™ following extensive evaluation against a competing solution from the industry's primary supplier of embedded processors. Several key factors were crucial to Xtendwave's choice of the eSi-3200 – low gate-count, performance, low power, high code density, compact silicon area and ease of integration. EnSilica's flexible licensing model will also facilitate the proliferation of the solution by allowing its deployment in third party products.

EnSilica provided Xtendwave with a version of eSi-3200 optimized for the Everset™ application, configuring it to reduce the overall processor gate count by half compared to the competing solution. The optimized version also featured custom trigonometric instructions reducing cycle count by 30% and a 2Kbyte reduction in valuable memory space.

The new Everset™ WWVB receiver solution will not only deliver the benefit of accurate timekeeping for radio-synchronized clocks and watches but will also enable its deployment in a host of emerging applications for energy-efficient appliances, personal electronics, telecommunications, automotives electronics, smart meters and automated controllers. Designed to operate with a smaller antenna than before, it will facilitate integration into devices once considered too small to receive the WWVB broadcast.

"EnSilica's eSi-3200 processor clearly proved the superior choice both technically and commercially following our evaluation." said Oren Eliezer, Xtendwave's Chief Technology Officer. "Technically, it was the best solution for our demanding performance criteria. Commercially, EnSilica's flexible licensing model will not only enable us to proliferate the technology but also open up a wealth of new applications."

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About EnSilica

EnSilica is an established company with many years experience providing high quality IC design services to customers undertaking FPGA and ASIC designs. EnSilica has an impressive record of success working across many market segments with particular expertise in multimedia and communications applications. Customers range from start-ups to blue-chip companies. EnSilica can provide the full range of IC design services, from System Level Design, RTL coding and Verification through to either a FPGA device or the physical design for ASIC designs. EnSilica also offers a portfolio of IP, including a highly configurable 16/32 bit embedded processor called eSi-RISC, the eSi-Comms range of communications IP and eSi-Crypto encryption IP. For further information about EnSilica, visit <http://www.ensilica.com>.

About Xtendwave

Xtendwave, based in Dallas, Texas, is an early-stage fabless semiconductor company focused on the development of physical-layer communication technologies. These are based on both analog and digital signal processing methods, strategically targeted at enabling improved performance over various media through increased data rates, greater distances, and higher quality-of-service. Xtendwave is currently engaged with customers in both the precise timekeeping industries and telecommunications industries. Xtendwave has strong collaborative relationships with three leading universities: The University of Texas at Dallas, Southern Methodist University, and The Ohio State University, and includes university faculty members on its advisory board. For further information about Xtendwave, visit <http://www.xtendwave.com>.

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