

PRESS RELEASE For Immediate Release

> ChipStart Selects S2C to Facilitate Prototyping ChipStart's SoC System Management Options Availability of SSM on S2C's TAI Logic Module Enables Faster SoC Prototype Development

**Palo Alto, California, March 31, 2011** - ChipStart LLC, a semiconductor intellectual property solution company, announced today it has selected S2C, Inc. as a target vendor for prototyping and low volume deployment of ChipStart's <u>SSM SoC System Manager</u>.

Today's SoCs often include multiple processors and other high functionality hardware blocks supplied by multiple internal and external sources. Each one of these blocks has unique system management requirements, such as reset and boot sequencing, as well as power and security management. SSM enables system management functions to be abstracted and centrally controlled using software. The SSM controller accepts software based command sequences in real time and communicates with each of the IP blocks via a simple SSM bus. This bus is represented as a ring, is easy to implement, and can operate across multiple clock domains. A small SSM register block is connected to each IP block to facilitate mapping the software based commands into specific signal transitions communicated to each of the hardware blocks over the SSM bus.

"For certain applications, such as communications appliances, personalizing the SoC happens more frequently and this can cause a lot of design and test complexity at the system level. In these cases there are economic advantages to having a small FPGA next to the SoC which hosts the SSM controller, rather than incorporating the entire SSM architecture into the SoC" said Howard Pakosh, president and CEO ChipStart LLC. "Certainly this is the case when prototyping systems management schemes for the first

time, but this solution can also offer more flexibility for real time personalization of several ASICs at the board level after the appliances have been shipped into the field".

ChipStart is offering SSM on the S2C Single Virtex-5 110 <u>TAI Logic Module</u>. This logic module is designed for rapid SoC/ASIC prototyping and can hold designs with up to 1.1M ASIC gates. This design can be ported to higher capacity S2C prototyping boards.

"Combining IP subsystems such a SSM with flexible prototyping vehicles such as Virtex-5 not only accelerates architecture development but also delivers the predictable system behavior early in the SoC design cycle that shaves months off of a typical time to market schedule. By controlling the system state transitions using a software scheme, developing and debugging software on the target hardware is much more efficient than traditional approaches." said Toshio Nakama, CEO of S2C.

SoC System Management is rapidly becoming one of the most difficult and expensive design challenges for SoC developers. The proliferation of applications, such as Facebook, Twitter, and YouTube across appliances is re-oriented user expectations of having the same experience across all their appliances, whether it be a cell phone, Internet TV, laptop or tablet computers. As a result, SoC developers are now faced with the challenge of building SoC "platforms" that must comprehend uniform user experience requirements, even if their target SoC is vertically aligned.

"The dynamics of a consistent user experience any where and on any appliance means that SoCs targeted for a specific appliance must in some way comprehend how the application will be executed on other appliances." Said Rich Wawryzniak, Senior Analyst, Semico Research. "Adding personalization through real time programmability into the SoC is now a necessity, and incorporating subsystem IP SoC methodologies that includes SoC system management delivers superior business economics".

SSM is the only merchant SoC Subsystem Management IP available today. SSM provides power and security management, error recovery, boot and reset sequencing, using a software based sequencing methodology that is effective for normal operation

sequences and exception handling and can transition the as applications are selected by the end user.

## About S2C

Founded and headquartered in San Jose, California, S2C has been successfully delivering rapid SoC prototyping tools since 2003. S2C provides:

- Rapid SoC FPGA-based prototyping hardware systems plus design and verification software.
- Third-party Prototype Ready<sup>™</sup> IP, Platforms, and Accessories
- SoC design, prototype and production services

S2C's value proposition is our highly qualified engineering team and customer-focused sales force that understands our customers' commercial SoC development needs. S2C's unique FPGA-based electronic system level (ESL) solution, using our patented TAI IP technology, enables designers to quickly assemble FPGA-based SoC prototypes on S2C FPGA boards. This gives customers an early start on software development, typically the long pole item in development schedules. Combining rapid prototyping methodologies with a comprehensive portfolio of Prototype Ready<sup>™</sup> IP and advanced design solutions, S2C can greatly reduce the SoC design cycle.

In addition to the headquarters in San Jose, CA, S2C currently has 4 direct offices located in Shanghai, Beijing, Shenzhen China and HsinChu, Taiwan. S2C is also the organizer of the annual <u>SoCIP seminar</u> and exhibition in China, which brings SoC designers/professionals from the Asia-Pacific region together with international silicon IP and SoC solution vendors. For more information, visit <u>www.s2cinc.com</u>.

## About ChipStart

ChipStart is a semiconductor intellectual property solution company based in Palo Alto, California. ChipStart provides sales, marketing, and support engagement solutions for companies that commerce third party semiconductor intellectual property, and high quality pre-verified subsystem solutions and supporting design services for ASIC and fables semiconductor companies. ChipStart solutions are used as critical components of communications, consumer and computer products including switches, routers, modems, cellular phones, set-top boxes, HDTVs, DVD players and PCs. For more information, see http://www.chip-start.com/about/differentiation

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