



## NEWS RELEASE

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### FOR IMMEDIATE RELEASE

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### **CHIPIDEA, SOLID SILICON TECHNOLOGY OFFER INTEGRATED USB 2.0 AND USB 2.0 OTG IP SOLUTIONS FOR CHARTERED'S 0.13-MICRON AND 0.18-MICRON PROCESSES**

**DATE 2005 CONFERENCE, MUNICH, Germany – March 8, 2005** – Chartered Semiconductor Manufacturing, Chipidea and Solid Silicon Technology L.L.C. (SST) today announced the immediate availability of a comprehensive portfolio of USB 2.0 and USB 2.0 On-The-Go (OTG) intellectual property (IP) solutions based on Chartered's 0.13-micron nominal and high-performance processes, and 0.18-micron processes.

The portfolio of USB 2.0 IP solutions developed for Chartered's processes are tuned to products requiring high-speed connectivity such as digital set-top boxes, digital still cameras and a range of multi-media consumer, computer and communication products.

The USB 2.0 and USB 2.0 OTG IP solutions integrate Chipidea's UTMI+ compliant physical layer (PHY) with SST's five-volt tolerant input/output (I/O) pads with primary electrostatic discharge (ESD) protection. Silicon results are available and demonstrate outstanding performance based on silicon validation of the high-speed 480Mbps USB 2.0 test chip on Chartered's 0.13-micron high-performance process<sup>1</sup>.

As a complete solution ready for chip integration, Chipidea provides system designers with an integrated macro-cell with PHY and I/O pads, enabling them to use the I/O pad ring of their choice. The deliverables include a full set of documentation with testing and integration guidelines, a comprehensive design kit and a dedicated support team from Chipidea to facilitate implementation. Alternatively, designers can

separately license Chipidea's PHY or SST's I/O pad as stand-alone cells to build custom solutions. SST also offers I/O libraries that are compatible with the integrated USB 2.0 IP solutions to ensure robust ESD performance.

"Chartered is pleased to extend our open access IP portfolio with USB 2.0 solutions from Chipidea and SST, both having demonstrated excellent track records in on-time delivery and first-pass silicon success for their IP solutions," said Walter Ng, senior director of Design Services at Chartered. "We are actively working with customers who are integrating the USB 2.0 solutions into their high-speed connectivity products for manufacturing at Chartered, reflecting the market demand as well as customer confidence in the combined solutions to enable a reliable path to volume production."

"SST's innovative I/O pad architectures and robust ESD solutions have been utilized by system design teams worldwide. Our collaboration with Chipidea and Chartered further extends a complete portfolio of integrated high-performance analog pad set solutions tuned to products with USB and other high-speed connectivity interfaces," said Robert L. Veal, Business Operations at SST. "As these solutions leverage a uniform pad set, designers would also benefit from the ability to adapt their products across a range of process technologies available from Chartered."

"Chipidea understands the added value of supplying complete USB solutions to the market through complementing our core competencies with quality third-party IPs and proven foundry manufacturing capabilities," said Milton Sousa, Business Development Manager of IP Connectivity Solutions Division at Chipidea. "We are therefore pleased to have qualified our solutions with Chartered across multiple process generations and selected SST to be our I/O pad supplier of choice based on quality standards, support level and reputation."

For more information, visit the following Web sites:

[http://www.charteredsemi.com/design/analog\\_ms\\_ip.asp](http://www.charteredsemi.com/design/analog_ms_ip.asp)

<http://www.chipidea.com>

<http://www.solidsitech.com>

#### **About Chartered**

Chartered Semiconductor Manufacturing (Nasdaq: CHRT, SGX-ST: CHARTERED), one of the world's top dedicated semiconductor foundries, offers leading-edge technologies down to 90 nanometer (nm), enabling today's system-on-chip designs. The company further serves the needs of customers through its collaborative, joint development approach on a technology roadmap that extends to 45nm. Chartered's strategy is based on open and comprehensive design enablement solutions, manufacturing enhancement

methodologies, and a commitment to flexible sourcing. In Singapore, the company operates a 300mm fabrication facility and four 200mm facilities. Information about Chartered can be found at [www.charteredsemi.com](http://www.charteredsemi.com).

### **About Chipidea**

Chipidea is the world's number one analog/mixed-signal merchant IP supplier targeting fast-growing market segments like wireless communications, digital media and consumer electronics. Chipidea supports blue-chip customers across the globe, has an impeccable reputation for delivering high-quality products and is known for its reliable execution. Chipidea licenses its technology to leading companies in these and other key markets, delivering everything from precision single-function blocks to full analog sub-systems. Chipidea employs 180 people in its research and development, and sales and marketing offices across Europe, Asia and North America. In addition, the company expects to add 250 employees by 2006. For further information, please visit [www.chipidea.com](http://www.chipidea.com).

### **About Solid Silicon Technology**

Solid Silicon Technology, one of the world's recognized companies for providing robust ESD protection solutions for System Interface Circuits requirements of SoC designs, is a semiconductor and IP technology company specializing in custom digital and analog integrated circuit design. Based in Plano, Texas, the firm is led by an experienced team, which has worked with some of the top semiconductor companies in the world. Since its founding, SST has developed robust ESD protection architecture IP for System Interface Circuits enabling very high performance circuits for a number of emerging industry standard interfaces, RF and Analog ESD protected circuitry as well as various high-speed interface peripherals. SST has designed cutting-edge integrated circuit technology and design flow processes that allow silicon efficient I/O library designs to enable a wide variety of SoC solutions. Further information about SST is available at [www.solidsitech.com](http://www.solidsitech.com) or by phone at 972-516-0999.

### **About USB-IF**

The non-profit USB Implementers Forum, Inc. was formed to provide a support organization and forum for the advancement and adoption of USB technology. The USB-IF facilitates the development of high-quality, compatible USB devices, and promotes the benefits of USB and the quality of products that have passed compliance testing. For further information, please visit [www.usb.org](http://www.usb.org).

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<sup>1</sup> Note to editor: High-speed (480Mbps) eye diagram available upon request.