



## DECA TECHNOLOGIES ANNOUNCES COMPANY LAUNCH

### Disruptive Approach & IP Will Revolutionize Electronic Interconnect

TEMPE, AZ., November 9, 2011 – Charting a new course for the future of electronic systems, [Deca Technologies](#) has launched a breakthrough approach to creating advanced electronic interconnect solutions. Leveraging the unique, cost-effective solar wafer manufacturing methods of SunPower Corp. (Nasdaq: SPWRA, SPWRB) and financial, operational and manufacturing support from [Cypress Semiconductor Corp.](#) (Nasdaq: CY), Deca's proprietary solutions uniquely position it to reshape the way the world designs and manufactures electronic devices.

Deca's initial products include a series of WLCSP (Wafer Level Chip Scale Packaging) derivatives targeted at the current \$1 billion-plus WLP (Wafer Level Packaging) market. Growth in WLPs continues to be driven primarily by the desire of handset OEMs to integrate more features and functionality into less space. Miniaturization, cost and performance benefits increasingly lead to a preference for WLP solutions. However, as traditional strip-based package technologies give way to advanced wafer-based methods, significant capital strain and cycle time challenges have burdened the supply chain.

Deca's investors include Cypress and SunPower. The new company is part of Cypress's Emerging Technology Division. Cypress drives entrepreneurship and innovation by funding autonomous businesses in much the same way venture capital companies fund startups. This approach has delivered multiple successes for Cypress and its shareholders, including SunPower, which was spun out of Cypress in 2008 in a \$2.6-billion tax-free shareholder distribution.

"We saw an incredible opportunity to apply SunPower's solar wafer processing technology and methods to slash through the capital and cycle time constraints that have held back rapid acceptance of advanced interconnect solutions," commented Tim Olson, Deca president and CEO. "Our unique approach enables breakthrough new product capabilities, improved cycle time and unrivaled flexibility, all at the price point the industry requires for mass adoption."

“SunPower continues to set the world’s standard for high-efficiency silicon solar cells with our proprietary advanced wafer processing methods, which originally grew out of semiconductor manufacturing processes,” noted Tom Werner, SunPower president & CEO. “When Tim approached us with the idea to adapt our technology ‘back’ into semiconductors, and to address an industrywide challenge, we signed on as knowledge property providers and investors in Deca Technologies.”

In a board presentation on the future of silicon interconnect, Cypress President and CEO T.J. Rodgers said:

“As Moore’s Law has progressed over the course of my career from dimensions of 10 microns (or 10,000 nanometers) to 28 nanometers—a factor of 357 linearly and 127,000 in area—integrated circuits have progressed by a factor of 10 million, from simple chips with just 100 transistors to billion-transistor chips, such as Cypress’s new 144-megabit SRAM. Moore’s Law has also improved the speed of Cypress’s memories 15-fold, from 25 ns in 1983 to 1.6 ns today. And during that same period, power per function has actually come down. Today, our revolutionary PSoC 3 chip—which contains a computer, its associated program and data memories, 24 programmable digital blocks, 20 fixed digital functions and 20 high-performance analog blocks—uses only 3.6 mW of power, four times less than the power of the sunlight that strikes an area the size of the chip.

“Despite this breathtaking progress, there is an economic problem preventing the full integration promised by Moore’s Law: advanced semiconductor chips are becoming so specialized that they can’t be integrated into one chip. For example, due to process incompatibilities, there are no microprocessors available today with integrated DRAM. The process for one type of chip, for example, a 0.35-micron RF chip, may cost \$0.02 per square millimeter—making it horribly uneconomical to integrate an RF block onto a microprocessor wafer costing \$0.10 per square millimeter. Today’s systems contain very different chips made in different processes, in different fabs, and even in different countries. They therefore cannot be integrated on silicon and must be connected on PC boards, an ancient technology with 500-micron dimensions and a host of reliability problems.

“We want to use the dense, reliable silicon interconnect inherent in Moore’s Law to integrate the dissimilar chips used in today’s systems, but we face an economic barrier because the interconnect on silicon chips is 1,000 times more expensive than the interconnect on PC boards.

“We could enable a new silicon-based interconnect paradigm if we could make silicon interconnect wafers for \$10, just what silicon solar wafers cost today. The problem of mapping solar technology onto Moore’s Law is straightforward, but difficult, and we believe DecaTech has the answer.”

With respect to Deca’s initial product offering, E. Jan Vardaman, president and founder of TechSearch International, stated that WLPs will maintain double-digit unit growth with a CAGR of 12.5 percent and annual volumes exceeding 20 billion units by 2014.

“We are uniquely positioned to take advantage of this expanding market,” Olson said. “We have met stringent reliability requirements and are now fully qualified for production with first revenue expected in early 2012. Given the high level of customer interest and engineering activity, we anticipate multiple additional customer qualifications in the next few quarters. With typical handset OEM PCN (Product Change Notice) acceptance windows averaging around one additional quarter, we are planning for our production ramp in late 2012.”

### **About Deca Technologies Inc**

Deca Technologies is an advanced electronic interconnect solutions provider that initially provides wafer level chip scale packaging (WLCSP) services to the semiconductor industry. Deca’s unique integration of solar and semiconductor technologies provides our customers with unrivaled new product introduction, rapid cycle time and powerful flexibility, all with the best value in the industry. Deca Technologies is a majority owned and fully independent subsidiary of Cypress. For more information, please visit [www.decatechnologies.com](http://www.decatechnologies.com).

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