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Luxtera and STMicroelectronics to Enable High-Volume Silicon Photonics Solutions

Collaboration between two leading companies will bring silicon photonics into mainstream markets

Geneva and Carlsbad, Calif. March 1, 2012 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications and Luxtera Inc., the world leader in silicon photonics, today announced a new agreement to bring Luxtera’s leading-edge IP and knowledge in silicon photonics to a dedicated process to be developed by ST at its 300mm facility in Crolles, France. Production at ST’s Crolles site will enable the two companies to support the market with the world’s most advanced low-cost, high-volume solution for silicon photonics components and systems.

Silicon photonics is regarded as a key enabler of future very high-speed computing and communications applications such as optical networking, CPU interconnect, and data storage, as they scale to multi-terabit⁽¹⁾ connectivity. The technology allows high-speed optical communications devices to be built using well-proven, low-cost silicon manufacturing technology, rather than more expensive compound semiconductor materials containing gallium or indium.

“The powerful synergy of this partnership, derived from the complementary strengths of two technology and industry leaders, represents a tremendous breakthrough. This will bring silicon photonics into the mainstream of important technologies such as optical networking, ultra-fast computer processors and other applications via the commercial volume availability of a best-in-class silicon photonics IP platform,” said Flavio Benetti, general manager of mixed process division at STMicroelectronics.

With this collaboration ST has been granted the rights to use the Luxtera’s silicon photonics technology that will be implemented in the new ST photonics process and its future generations. ST will provide Luxtera with a reliable, scalable, and cost-effective



supply chain, allowing Luxtera to satisfy its growing market in terms of volume and quality requirements. Working together the companies will bring silicon photonics into a new era, enabling it to become a cost-effective mainstream technology.

“Luxtera has found a broad market opportunity for silicon photonics that requires an expanded supply chain and continued technology advancement. We can now offer our customers a high-volume, capable source of supply and an aggressive long-term photonic process technology roadmap. This will advance our base technology and enable the integration of optical transceivers with SoCs from advanced CMOS nodes to deliver photonic-enabled SoCs for large scale systems. In turn, ST can now offer customers the world’s leading optical IP as the two companies expand the silicon photonics ecosystem,” said Greg Young, president and CEO of Luxtera.

The new advanced 300mm silicon photonics platform being developed by ST will offer these key benefits:

- Performance: Scalability of low-cost transceivers for data rates of 100Gb, 400Gb and upwards;
- Density: Ultra-high-density interconnect with the lowest power consumption;
- Interoperability: with support for 1310nm, 1490nm and 1550nm wavelengths.

The optimized silicon photonics process will be developed at ST’s Crolles technology center in France, where ST’s other major CMOS R&D programs, including the value-added derivative high-performance analog BiCMOS technologies, are running.

About Luxtera

Luxtera, Inc. is the world leader in integrated silicon CMOS photonics. It is the first company to overcome the complex technical obstacles involved with integrating high performance optics directly with silicon electronics on a mainstream CMOS chip, bringing direct “fiber to the chip” connectivity to market. Headquartered in Carlsbad, California, Luxtera is a fabless semiconductor company that was founded in 2001 by a team of industry-renowned researchers and technology managers drawn from the communications and semiconductor industries. Luxtera has received funding from leading venture capitalists including August Capital, New Enterprise Associates, Sevin Rosen Funds and Lux Capital. For more information, please visit www.Luxtera.com



Press release



About STMicroelectronics

ST is a global leader in the semiconductor market serving customers across the spectrum of sense and power technologies and multimedia convergence applications. From energy management and savings to trust and data security, from healthcare and wellness to smart consumer devices, in the home, car and office, at work and at play, ST is found everywhere microelectronics make a positive and innovative contribution to people's life. By getting more from technology to get more from life, ST stands for [life.augmented](#).

In 2011, the Company's net revenues were \$9.73 billion. Further information on ST can be found at www.st.com.

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Notes

(1) 1 Terabits per second = 1000 Gigabits per second i.e. about 20,000 times faster than a broadband connection today.