

World's First 10Gbit CMOS Photonics Platform

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Luxtera Inc., a fabless semiconductor company, and the world leader in silicon photonics, announced today that it has solved the longstanding problem of building advanced photonic interfaces into mass-produced silicon chips. For the first time, it is possible to integrate high-speed optical fiber interfaces in silicon devices produced in an industry-standard CMOS fabrication process. This capability will give computer and communication OEMs the performance benefits of optical-fiber communications, delivered with the economics of silicon.

Luxtera's CMOS Photonics technology delivers the 10Gbit/sec optical modulation required for practical high-speed optical fiber communication. Luxtera chips are built in the same CMOS process that Luxtera's development partner, Freescale Semiconductor, uses for mass production of their leading-edge microprocessors. The integration of 10G photonics into regular silicon processes is a highly disruptive event for both the semiconductor and optics industries, because the integration of optical interfaces into VLSI chips will dramatically reduce the cost of high speed links.

"This development of the world's first 10G optical modulator in CMOS is a huge milestone for the Luxtera team and for the industry in general," said Alex Dickinson, co-founder and CEO of Luxtera. "Most importantly, this clearly signals that CMOS Photonics products are just around the corner, not years in the future. We're already far along with our product development."

"This achievement comes after years of work, and now we have the recipe for incredible products and even higher speeds," notes Cary Gunn, co-founder and vice president of technology for Luxtera.

"Until now, all of the progress in silicon photonics has been in the form of research. Luxtera is the first company to develop a complete, working product that meets a market need," noted Linley Gwennap, principal analyst of The Linley Group, a semiconductor technology analysis firm. "I'm impressed that Luxtera has accomplished this feat using a production CMOS process, allowing its technology to be built in CMOS fabs all over the world," Gwennap added.

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