

# Lumerical Flow First to Support Mentor's New LightSuite™ Photonic Compiler

Vancouver, British Columbia, 12 September, 2018

## *Highlights:*

- *Integrated flow combines EDA tools and photonic integrated circuit simulator*
- *OpenDoor flow is a key step in building the photonic integrated circuit ecosystem*

Lumerical Inc. ([www.lumerical.com](http://www.lumerical.com)), a leading developer of photonic simulation tools, today announced the renewal of its membership in the Mentor OpenDoor™ Program, a significant milestone in the continued development of the ecosystem supporting the design and commercial manufacture of photonic integrated circuits (PICs).

The Mentor-Lumerical integrated flow utilizes foundry process design kits (PDKs) to enable photonic designers to combine industry leading photonic simulation and EDA tools. Lumerical and Mentor, a Siemens business, are improving photonic circuit and system designers' productivity by providing a layout driven flow featuring Python-driven layout generation with Mentor's recently announced LightSuite™ Photonic Compiler, integrated with Lumerical's photonic integrated circuit simulator INTERCONNECT™, and DRC checking with Mentor's Calibre® RealTime Custom verification tool. This integration introduces a path towards efficient photonic-electronic co-simulation.

“Mentor's LightSuite Photonic Compiler represents a quantum leap in automating what has up to now been a highly manual, full-custom process that required deep knowledge of photonics as well as electronics,” said Joe Sawicki, vice president and general manager of the Design-to-Silicon Division at Mentor, a Siemens business. “With the new LightSuite Photonic Compiler, Mentor is enabling more companies to push the envelope in creating integrated photonic designs. Our customers have been using Lumerical photonic simulation solutions with our tools for some time. This OpenDoor renewal is particularly significant as we work more closely with Lumerical than ever to provide a smooth integrated path between Lumerical's photonic simulation and our just released LightSuite Photonic Compiler.”

Photonics, the science of light and its interaction with matter, unlocks many possibilities for the world's leading technology companies across diverse fields including biotechnology, data communications, information storage, solar energy, environmental sensing, and consumer electronics. "With the migration to Silicon Photonics (SiPho) picking up momentum, full flows integrating best-in-class simulation tools with schematic and layout capabilities have become essential. This is exactly what this Lumerical-Mentor OpenDoor collaboration aims to deliver. TowerJazz's customers are using this flow, and we anticipate greater adoption of our PH18 process, which is the industry's first open foundry SiPho process targeting optical networking, data center and sensing applications," said Samir Chaudhry, Director, Design Enablement at TowerJazz.

LightSuite Compiler will be available October 1 from Mentor. INTERCONNECT and interoperability licenses enabling the flow are available immediately from Lumerical.

James Pond, CTO of Lumerical said "Mentor's vast experience in IC design and their emphasis on photonics layout combined with Lumerical's 15 years of photonics simulation leadership creates an excellent path forward for PIC designers. We are seeing more and more commitment to commercialize PICs from our industrial customers, and Mentor's OpenDoor Program is enabling a production-worthy path to new innovations."

The new flow featuring Lumerical's INTERCONNECT, and Mentor's LightSuite Photonic Compiler will be demonstrated at the 44<sup>th</sup> European Conference on Optical Communications (ECOC) in Rome, September 24 – 26 at Stands 436 and 569.

#### About Lumerical

Lumerical develops photonic simulation software – tools which enable product designers to understand light, and predict how it behaves within complex structures, circuits, and systems. Since being founded in 2003, Lumerical has grown to license its design tools in over 50 countries and its customers include 10 of the top 15 companies in the S&P 1200 Global IT index, and 46 of the top 50 research universities as rated by the Times Higher Education rankings. Lumerical's substantial impact on the photonic design and simulation community means its tools are among the most widely cited in the scientific press, with references in more than 10,000 academic publications and patents. Lumerical enables its customers to achieve more with light, and establish a leading position in the development of transformative technologies employing photonics.

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