

## **CompoundTek delivers Si photonics PDK in partnership with EDA leader Mentor and photonics simulation leader Lumerical**

*Predictive capabilities to accelerate customers' time-to-market and drive SiPh adoption*

**Singapore, 6 August 2019** – CompoundTek, a global foundry services leader in emerging silicon photonic solutions (SiPh) recently partnered with leading Electronic Design Automation (EDA) vendor Mentor, a Siemens business, and leading photonic simulation software provider Lumerical to deliver CompoundTek's SiPh Process Design Kit (PDK) across its global commercial customer base.

Available immediately, the PDK's predictive capabilities enable photonics designers to validate designs prior to manufacturing thus enabling reduction of the time from product design to market launches.

"Together with our design partners, this photonics design automation solution by Lumerical and Mentor, combined with CompoundTek's open SiPh manufacturing process platform, will accelerate SiPh adoption for applications ranging from datacom transceivers, bio-sensing, smart sensors, LiDAR, quantum computing and artificial intelligence," said KS Ang, Chief Operating Officer, CompoundTek.

The PDK includes active and passive devices such as optical waveguide devices, fibre-to-waveguide couplers, high-speed waveguide Ge photo-detectors and high-speed modulators. SiPh designers can leverage these pre-developed blocks to design and verify their photonics products more quickly and efficiently before fabricating physical prototypes.

A complete design flow enabled by the PDK includes photonic simulation, schematic capture, custom layout, layout automation, and physical verification. Tools enabled include Lumerical INTERCONNECT, as well as Mentor's L-Edit Photonics, LightSuite Photonic Compiler, and industry-leading Calibre™ platform physical verification tools.

"The development of the ecosystem is imperative to the ongoing productisation of photonics. We are excited to be working with two of the pioneers, Mentor and CompoundTek, a leading foundry service provider, as we build the ecosystem together. Successful flows must be built with the cooperation of EDA, Photonic Design Automation, and foundries, with unrelenting focus on the customers' needs," said Dr. James Pond, Chief Technology Officer, Lumerical.

Greg Lebsack, General Manager Integrated Circuit Design Solutions (ICDS) added, "Our partnership with CompoundTek and Lumerical provides our mutual customers with the ability to design complex custom photonic integrated circuits using their proprietary photonic process. The CompoundTek PDK supports both an automated design flow with LightSuite Photonic Compiler, an interactive design flow using L-Edit Photonics, and integrated full system simulation with Lumerical's INTERCONNECT."

CompoundTek in partnership with Mentor and Lumerical will present live demos at the 16th International conference on Group IV Photonics (GFP2019) August 28th-30th at CompoundTek's booth #3, Mentor's booth #9 and Lumerical's booth #5 at the Singapore Hilton. GFP2019 delivers insights on current and future innovations in Group IV element-based photonic materials and devices, including silicon photonics.

The partners will present live demos in a shared booth (Hall #1, Booth 1A64-9) of the China International Optoelectronic Exposition (CIOE 2019) on September 4th-7th at the Shenzhen Convention & Exhibition Centre. In representing the entire optoelectronics industry chain, CIOE is the world's largest exhibition in the optoelectronics industry.

CompoundTek, based in Singapore, boasts of an operation that include strategic partnerships with a leading fabrication service provider in Malaysia and renowned global SiPh research institutes. Backed by wide-ranging expertise from process technology, product design support capabilities delivered through strategic design partners up to manufacturing, CompoundTek's solutions are increasingly sought after by SiPh players globally from Fortune 500 entities to start-ups.

- End -

### **About CompoundTek Pte Ltd**

Founded and supported by industry veterans and technologists, Singapore-based CompoundTek combines world-class commercial foundry with leading silicon photonics (SiPh) research institutes to provide cutting-edge SiPh technologies that enhance foundry services capabilities. As one of the few offering SiPh solutions internationally, CompoundTek brings to the marketplace revolutionary semiconductor applications designed to meet critical requirements in high bandwidth and high data transfer solutions particularly in emerging connectivity driving Industry 4.0. The company's in-depth know-how includes end-to-end technologies – from proprietary fabrication process expertise to product design support with strategic partners and extended services for end-product manufacturing. CompoundTek's global customers span leading brands and FORTUNE 500 companies in high-growth industries including artificial intelligence, automotive, bio-medical diagnostics, data centre, lidar, smart sensor, telecommunication and quantum optical computing.

Visit [www.compoundtek.com](http://www.compoundtek.com) for more information.

For media queries, please contact Engage SEA:  
Ms. Suchithra Krishnan  
E: [suji@engagesea.com](mailto:suji@engagesea.com)

**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.

For media queries, please contact:

Mr. Rich Goldman

E: [rgoldman@lumerical.com](mailto:rgoldman@lumerical.com)

Note: A list of relevant Siemens trademarks can be found [here](#).