



Press Release

CompoundTek Showcases PAM-4 Demo at OFC 2020 with Cadence and Lumerical

Advanced EPDA flow enables customers to accelerate silicon photonics design implementation

Singapore, 13 February 2020 – CompoundTek, a global foundry services leader in emerging silicon photonic (SiPh) solutions announced it is showcasing a PAM-4 demo based on a process design kit (PDK) for SiPh ICs co-created with collaborators, Cadence Design Systems, Inc. and leading photonics design and simulation provider, Lumerical. The demo will feature the latest electro-optical photonic reference flow based on the industry-standard Cadence® Virtuoso® electronic/photonic design automation (EPDA) environment, Lumerical's INTERCONNECT and CompoundTek's silicon photonic PDK and process at the upcoming Optical Fiber Communication Conference and Exhibition (OFC) 2020.

The new CompoundTek PDK, which was announced in December, is based on the Cadence Virtuoso custom IC design platform, utilizing the Cadence CurvyCore engine and Cadence Spectre® simulation platform as well as the electrical-optical co-simulation capability in Lumerical's photonic integrated circuit simulator INTERCONNECT, which contains a full suite of active and passive devices for SiPh designs. The PDK features optical waveguide devices, fiber-to-waveguide couplers, high-speed waveguide Ge photo-detectors and high-speed modulators that enable SiPh designers to design and verify their photonics products more quickly and efficiently before fabricating physical prototypes.

The demo at OFC 2020 will showcase:

1. CompoundTek's world-class foundry services and silicon photonics PDK and platform featuring a full suite of active and passive devices
2. Electrical and photonic schematic capture in the Cadence Virtuoso Schematic Editor
3. Electro-optical co-simulation in the Virtuoso Analog Design Environment, using the Cadence Spectre AMS Designer and Lumerical INTERCONNECT
4. Photonic layout implementation in the Virtuoso Layout Suite environment
5. Schematic-driven layout, using a single golden schematic for both electrical and optical domains
6. Waveguide parameter back-annotation to schematic for layout-accurate optical re-simulation
7. Co-design of the electronic and photonic components for hybrid systems

These cutting-edge solutions will be presented at OFC 2020, booth 6206, San Diego Convention Centre.

Contact CompoundTek (enquiries@compoundtek.com) for more details.

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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 elites 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 for more information.

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