

# Press Information

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## VPIphotonics and Luceda Photonics streamline the design process for Photonic Integrated Circuits to be manufactured using the SMART Photonics Indium Phosphide technology platform.

Designers that use SMART Photonics technology will now benefit from a flow that starts from a graphical photonic integrated circuit design and system simulation environment which seamlessly couples to Python scripted layout and design capabilities for tape-out with a foundry-validated Process Design Kit (PDK).

Luceda's *IPKISS* design platform combines circuit level design and simulation, layout and device CAD all based on Python scripting. Luceda's SMART Photonics PDK allows designers to tape-out to the SMART Photonics foundry by means of a foundry validated PDK.

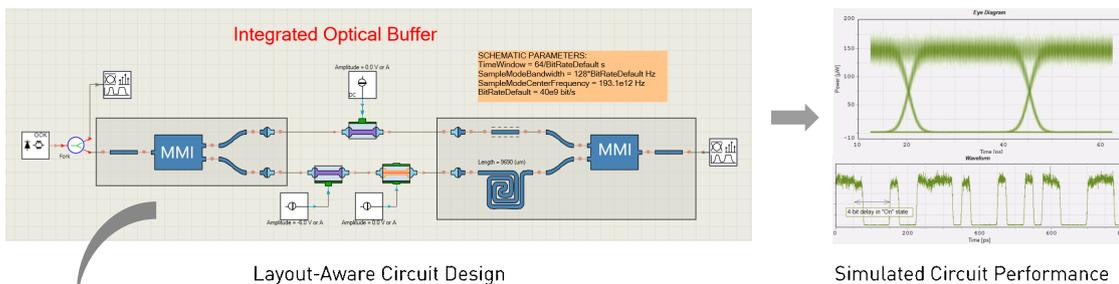
*VPIcomponentMaker Photonic Circuits* is a professional simulation and design environment for large-scale photonic integrated circuits and offers a large mix of general-purpose photonic, electrical and optoelectronic device models. The library extension *VPItoolkit PDK SMART v1.5* enables a layout-aware schematic-driven PIC design

workflow and provides access to a broad set of available standard building blocks of the SMART PDK.

Combine the best of both worlds by porting your schematic design to the Python based layout. Use *VPIcomponentMaker Photonic Circuits* together with its add-on *VPItoolkit PDK SMART* to design and simulate the PIC within a complete system. Seamlessly generate the Python based layout of your circuit within the *IPKISS* platform using the foundry PDK and improve the yield and reliability of your PIC design flow.

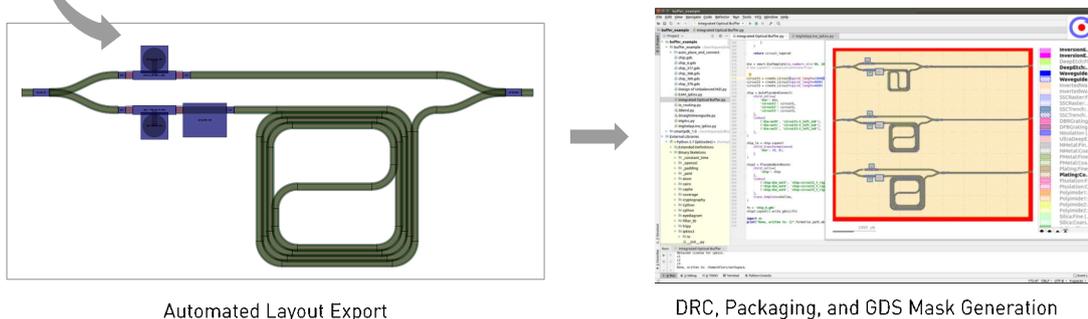
The combined flow allows you to construct your own hierarchical and custom building blocks, effectively expanding the foundry PDK to fit individual needs. The advanced Python scripting interfaces of *VPIcomponentMaker* and *IPKISS* empower their intimate integration at any desired level.

### VPIphotonics Circuit Simulation Platform



Streamlined design process for PICs developed for the SMART Photonics InP PDK

### Luceda's IPKISS Design Platform



*“The IPKISS design platform supports a growing number of PDKs from the major photonic IC foundries in silicon, dielectric and III-V technology. By making our validated SMART Photonics PDK available from within VPIcomponentMaker Photonic Circuits, organizations can now take a leap forward and create a design flow that is more reliable and scalable and that will enable them to consolidate their knowledge in a fast moving industry.”*

says Pieter Dumon, CTO of Luceda Photonics.

## About Luceda Photonics

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Luceda Photonics wants photonic IC engineers to enjoy the same first-time-right design experience as electronic IC designers. Luceda Photonics' tools and services are rooted in over 50 years of experience in photonic integrated circuit (PIC) design.

The team's expertise in the development of process design kits (PDK) and the design and validation of photonic integrated circuits is used by many of the top industry R&D teams and research organizations worldwide.

[www.lucedaphotonics.com](http://www.lucedaphotonics.com)

*“By adding support of the IPKISS design platform in VPItoolkit PDK SMART, which supported earlier the Phoenix OptoDesigner and Nazca Design platforms already, we provide PIC designers with the first photonic design automation (PDA) environment that seamlessly integrates capabilities of four different layout design and circuit simulation tools. This enables fast cross-verification of designed circuits, provides easy access to strongest unique features of each tool, and makes an important step towards our common activities on standardization of PDA interfaces, required to avoid segmentation of the rapidly growing integrated photonics market.”*

says André Richter, General Manager of VPIphotonics.

## About VPIphotonics

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VPIphotonics sets the industry standard for end-to-end photonic design automation comprising design, analysis and optimization of components, systems and networks. We provide professional simulation software addressing demands in integrated photonics and fiber optics, optical transmission links and networks.

Our team of experts performs design services addressing customer-specific requirements, and delivers training courses on adequate modeling techniques and advanced software capabilities. Our award-winning off-the-shelf and customized solutions are used extensively in research and development, and by product design and marketing teams at hundreds of corporations worldwide. Over 160 academic institutions joined our University Program enabling students, educators and researchers an easy access to VPIphotonics' latest modeling and design innovations.

[www.VPIphotonics.com](http://www.VPIphotonics.com)

## Contact

**Vera Hilt, Marketing Manager**

E-mail: [vera.hilt@vpiphotonics.com](mailto:vera.hilt@vpiphotonics.com)

Phone: +49 30 398 058-41