

# Press Information

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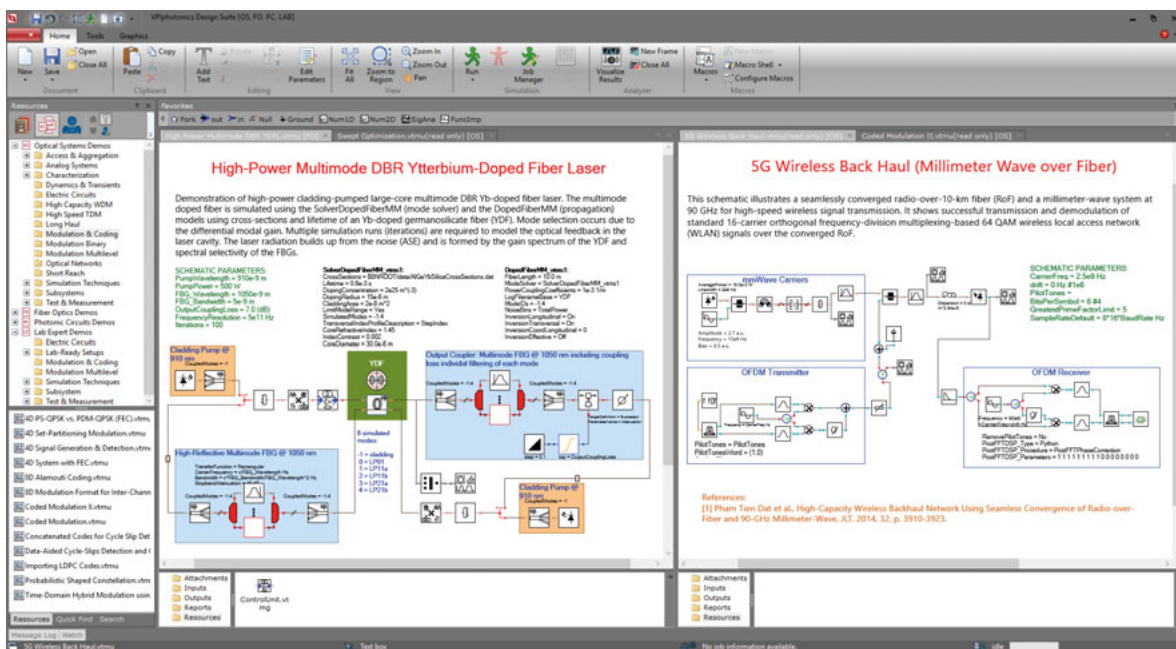
## VPIphotonics Design Suite Version 9.8

New release of market-leading optical transmission system and component design software – on show at OFC 2017

VPIphotonics Design Suite Version 9.8 provides access to four professional application-specific simulation tools with common usability, design process and data analysis capabilities:

- VPIcomponentMaker™ Photonic Circuits
- VPIcomponentMaker™ Fiber Optics
- VPItransmissionMaker™ Optical Systems
- VPIlabExpert™

Significant enhancements of the user interface and tools operation help streamlining design and analysis processes. New and improved simulation capabilities ensure continuous support of cutting-edge research and efficient product development for new technologies, components and systems. Addressed applications range from integrated photonics and optoelectronics, fiber-based lasers and amplifiers, to low-cost high-speed direct detection and high-capacity flexible digital coherent systems.



## Important new capabilities provided with Version 9.8 are

- New data-sheet model for directly modulated lasers driven by multilevel data signals as used in PAM applications. Enhanced MLSE module to support multilevel signals as used in PAM applications.
- New functionality for synchronizing received and reference sequences for DSP and performance estimation. New mode for DSP operation supporting processing of successive signal blocks by adaptive equalizers (such as CPR, TDE-MIMO).
- Enhanced multimode fiber module to support coupling between different mode groups. New analysis tool for linear frequency-dependent transmission properties of multimode components and links
- Enhanced doped multimode fiber solver to support cross-sections spectra of various 2-levels rare-earth dopant ions, besides Erbium ions. New analysis tool for multimode optical amplifiers to characterize gain, noise figures, mode-resolved signal and noise powers, OSNRs, and BERs.
- New bidirectional electro-optic amplitude and phase modulator allowing to control the electro-absorption and -refraction effects in waveguides (for travelling-wave modulators or lengthy Mach-Zehnder interferometers).
- Enhanced modeling of curved waveguides with arbitrary shapes accounting for bend-induced dependencies of effective index and attenuation. New library of waveguides with frequently used curvature shapes.
- New MxN Arrayed Waveguide Grating model employing the scattering matrix approach based on datasheet or measured data without the need to provide design-specific information such as waveguide dimensions and materials.
- New simulation mode allowing to set up automated runs combining one-dimensional parameter optimization (find min, max, target) within multilevel parameter sweeps.
- Sophisticated vector graphics editor for icons of custom-created modules supporting various graphical primitives, and import from library of templates and other existing resources.
- New automated deployment, configuration and management of extendable Python environment including libraries to run macros, simulation scripts and for cosimulation.
- Support of GPU-assisted simulations utilizing graphic cards by NVIDIA with Pascal architecture running CUDA library v8.0 (such as Tesla P100), beside older architectures.

*VPIphotonics Design Suite Version 9.8* comes with over 850 ready-to-run demonstrations illustrating the provided wealth of functionality and application range. New demos address applications such as coded modulation, Stokes vector modulation, PAM, PON transceiver characterization, 5G wireless backhaul over fiber, DBR fiber lasers, electro-optic components, and others.

Many more features and enhancements are provided. For details visit [www.vpi Photonics.com/DSv98](http://www.vpi Photonics.com/DSv98).

***VPIphotonics Design Suite Version 9.8 is on show at OFC 2017, booth 2213 – visit our team for a personalized preview. Shipment will start end of March.***

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## About VPIphotonics

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 supporting requirements of active/passive integrated photonics and fiber optics applications, optical transmission system and network applications, as well as cost-optimized equipment configuration. Our team of experts provides professional consulting services addressing customer-specific design, analysis and optimization requirements, and delivers training courses on adequate modeling techniques and advanced software capabilities.

VPIphotonics' 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.

For further information, please visit us at [www.VPIphotonics.com](http://www.VPIphotonics.com).