

Announcing VPIphotonics VPIdeviceDesigner Version 2.7

Simplifies Material Definition, Enhances 3D Design and Simulation Capabilities

Berlin, Germany – VPIdeviceDesigner version 2.7 is now available for immediate upgrade.

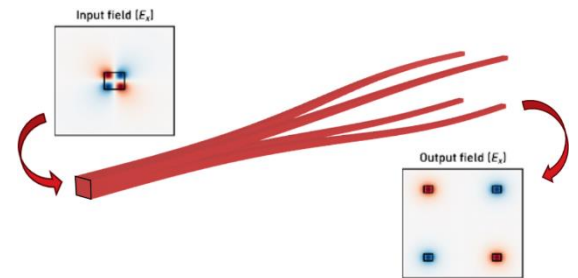
VPIphotonics is proud to announce the release of VPIdeviceDesigner version 2.7, a versatile simulation framework for analyzing and optimizing optical devices, waveguides, and fibers, emphasizing integrated photonics applications. This powerful design tool offers 2D and 3D full-vectorial finite-difference beam propagation and eigenmode expansion solvers for modeling optical devices and a set of semi- and full-vectorial finite-difference mode solvers for modeling straight and bent waveguides and fibers made of iso- and anisotropic (including plasmonic and gyrotropic) materials.

VPIdeviceDesigner version 2.7 offers new functionalities to streamline material definition, 3D design workflows, and light propagation simulations.

- Dispersive anisotropic and graded-index materials now have dedicated classes for easier setup.
- Cody–Lorentz and Tauc–Lorentz permittivity models to support amorphous semiconductor materials.
- Upgraded 3D geometry kernel enables the creation of complex 3D structures like photonic lanterns and tapered fiber couplers.
- EME and BPM now support the calculation of S-matrices for devices with vertically shifted ports and high-index leaky substrates.
- EME solver features automatic simulation settings for faster convergence, particularly in tapered regions, and offers increased user control for advanced needs.
- Reworked S-matrix interface offers unwrapped phase, group delay, and on-the-fly least-squares fitting adjustments.

Version 2.7 significantly extends the product capabilities in modeling photonic devices, simulating photonic waveguides and optical fibers, and introduces four new application examples:

- Anisotropic Dispersive Lithium Niobate Waveguide
- Effective Index Model for MQW-like Layer Stacks
- Efficient Mode Calculation in MQW Waveguides
- Photonic Lantern with BPM



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About VPIphotonics

VPIphotonics sets the industry standard for end-to-end photonic design automation comprising design, analysis and optimization of devices, components, systems and networks. We provide professional simulation software supporting applications in optoelectronics, integrated photonics, fiber optics, optical transmission systems and networks. Our experts offer professional consulting services and training courses on modeling techniques and software capabilities. For 25+ years, VPIphotonics' award-winning solutions have been 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 easy access to VPIphotonics' latest modeling and design innovations. **More information is available at www.VPIphotonics.com.**

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