



NOVEMBER 2004

APSS 2.3 Release Notes

The following features are available in this new version:

- Mesh setting is not changed when the refractive index of any part is modified in a waveguide. It would be useful when designers modify material of a complex structure
- Showing the structure in result field window. It is very useful in waveguide application to see if the calculated field is confined in a region. It also gives a better understanding of the device performance, and provides more info about the location of loss and confinements. It should be mentioned that this option does not work for AWG structures and waveguide scanning. The upgrade will be available in the next version.
- Confinement factor and Mode coupling calculation in waveguide module. This feature provides us with the confined power in any region of the waveguide that is useful for Laser applications, and also mode coupling which can be used for grating applications.
- Field calculation for Cylindrical-BPM, such as S-bend and Ellipse, are added to the simulations.
- The simulation process can be scanned from high to low values. This would be useful to find waveguide modes when the field is near cut off region.
- The layout export to GDS-II was improved for faster and smaller export file. This is important improvement for large structures such as AWG.
- Several Add-on shapes with overlap. Having a few Add-on shapes allows us to create more complex structure such as elevated Ring resonator, or 3D BPG devices.
- Complex Add-on shapes. In this version users can create complex structures, such as vertical tapers in Spot-Size Converters, or polarization rotation devices. In general, parameters of an Add-on shape can be set to expressions.
- Possibility of calculating field in PBG device by launching user-defined input file
- Tilted input ports in all device simulations