Zemax Simulation of Multimode Fiber Coupling

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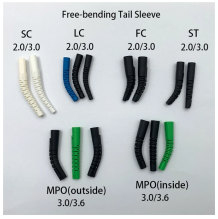
This allows very general and arbitrary fiber modes to be described, including multi-mode, aberrated, or arbitrary amplitude and phase fibers. The fiber mode may also be defined using all the same options ...

In non-sequential mode, using two coaxial cylinders to represent the core and cladding should work okay for simulation of a multimode fiber (MMF), but there are a few details to take into ...



I want to be able to build a system that allows me to model the coupling of a laser to my fiber optic, as well as the subsequent ray propagation through the fiber.

To show the power of the scattering method, we showed a few basic examples where the method was used for defocus analysis, fiber coupling efficiency estimation, and simulation of spot size and shape.

A method to design muti-mode fiber collimator by using ZEMAX software is introduced. With the ZEMAX, the theoretical model of the optical system for the muti-mode fiber collimator was built.

For evaluating multi-mode coupling in Sequential Mode, though, you can use something like the Geometric Image Analysis tool -- the article here explains in more detail how the tool works.

When propagating a polarized beam, the fiber coupling receiver efficiency is calculated individually for both the x- and y-polarized portions of the beam, using only the y- or x- components of the complex ...

Compute the coupling efficiency of the optical system into a multi-mode fiber of a specified NA and radial aperture by using the NA setting on the Geometric Image Analysis feature.

This article demonstrates the use of the Geometric Image Analysis feature to compute multi-mode fiber coupling efficiency. We also use the IMAE operand to optimize the system for multi-mode fiber ...

Based on this technique, 24 laser diodes were successfully coupled into a 200 µm/0.22 fiber, and both Zemax simulation and experimental data proved the practicality and high efficiency of ...

Contact Us

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