Abstract

The transmission of information through optical fiber is affected by various types of dispersions which reduce the efficiency and hence data carrying capacity of a fiber. But the most important kind of dispersion which affects a lot on the performance of the fiber is Polarization Mode Dispersion, PMD. PMD can cause the optical receiver to be unable to interpret the signal correctly, and results in high bit error rates. This paper demonstrates the broadening of pulse caused by polarization mode dispersion (PMD).

Reference

Transmission Power Optimization and Analysis for SMF considering Optical Pulse Broadening for 193.548 THz

- Corning Issue Feb 2001, "Mode Field Diameter – Measurements”.
- S. Ten, M. Edwards’s. An introduction to the fundamentals of PMD in fibers. White paper

Index Terms

Computer Science  Optical Fiber
Communications

Key words
SMF  Dispersion  PMD  BER