

Abstracts

Time Dispersion Properties of Cascaded Multimode Fiber Links

G. Cancellieri and P. Fantini. "Time Dispersion Properties of Cascaded Multimode Fiber Links." 1984 Transactions on Microwave Theory and Techniques 32.8 (Aug. 1984 [T-MTT] (Special Issue on Electromagnetic-Wave Interactions with Biological Systems)): 929-935.

A general model for studying the time dispersion properties of cascaded multimode fiber links is presented. Fibers having different index profiles and misaligned joints are taken into account. It is shown that the transit time of a ray in the first fiber is conserved and transferred to another ray in the second fiber, and so forth. Simple compensation formulas are derived for alpha-profile fibers. The lower limit to the total time dispersion, which is imposed by material dispersion, is also investigated.

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