Multimode fiber interference effect

M ULTIMODE FIBER (MMF) is the dominant type of fiber used for data communications in current local-area networks. In achieving higher signalling rates, the dominant limiting factor is the inter-symbol ...

In this review, we critically summarize the multimode interference in TOFs and some of its applications with a focus on our research project undertaken at the Optoelectronics Research ...

Abstract: In recent years, optical fiber sensors based on multimode interference (MMI) have attracted increasing interest and developed into various sensors used in many practical applications.

To overcome this limitation, we propose a new sensing approach that maps the intermodal interference in spatial domain. We achieve this by sparsely sampling the fiber transverse mode field distribution ...

Several optical fiber structures have been examined in order to recreate and inves-tigate multimode interference in multimode-fibers. Additionally, heterogeneous structures employing a lateral ...

By means of a comprehensive modal propagation analysis, we simulated the transmission spectrum of realistic MMI devices, as a function of the diameter of the multimode fiber and the ...

In this manuscript, we report on, to the best of our knowledge, the first experimental realization of a multimode interference device based on self-image phenomenon accomplished by ...

Multimode interference (MMI) in optical fibers has been studied and its applications in optical fiber lasers and amplifiers have been proposed and demonstrated in this thesis.

In this paper, the fiber optic cascade based on multimode interference (MMI) is demonstrated and investigated via COMSOL Multiphysics software. Two different cascades were adopted in this work, ...

Compared with fiber grating and birefringent filters, multimode interference filters have the advantages of simple structure, flexible tuning methods, being easy to integrate with fiber devices, and flexible ...

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