

Abstracts

Exact Splice Loss Prediction for Single-Mode Fiber

Y. Usui, T. Ohshima, Y. Toda, Y. Kato and M. Tateda. "Exact Splice Loss Prediction for Single-Mode Fiber." 1982 Transactions on Microwave Theory and Techniques 30.4 (Apr. 1982 [T-MTT] (Joint Special Issue on Optical Guided Wave Technology)): 601-604.

This paper describes the direct measurement method of spot size for single-mode fibers and its application to the splice loss prediction. Using a core-centering-type automatic fusion splicing machine, predicted splice loss is examined for several MCVD and VAD fibers. The accuracy of splice loss predicted by this method is better than that calculated from core radius and refractive index. The experimental splice loss is equal to the sum of the loss predicted by this method and the loss caused by the splicing technique.

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