Abstracts

Multimode Deposited Silica Waveguide and its Application to an Optical Branching Circuit

H. Mori and N. Shimizu. "Multimode Deposited Silica Waveguide and its Application to an Optical Branching Circuit." 1982 Transactions on Microwave Theory and Techniques 30.4 (Apr. 1982 [T-MTT] (Joint Special Issue on Optical Guided Wave Technology)): 622-627.

A fabrication procedure has been developed for multimode deposited silica waveguide (DS guide), consisting of uniform and thick glass layer formation for core and cladding, and amorphous Si mask film for reactive sputter etching. The embedded multimode DS guide with a square core cross section has a transmission loss of 1.3 dB/cm at 633 nm wavelength. Waveguide parameters, such as core dimension, refractive index, and index difference, are similar to those of a multi-mode silica fiber. A multimode optical branching circuit with eight output ports was demonstrated by the above fabrication procedure. Excess insertion loss was 2 dB.

❑ Return to main document.