Abstracts

A Method for Reducing Radiation Losses at Bends in Open Dielectric Structures

M. Desai and R. Mittra. "A Method for Reducing Radiation Losses at Bends in Open Dielectric Structures." 1980 MTT-S International Microwave Symposium Digest 80.1 (1980 [MWSYM]): 211-213.

In this paper we present the results of an experimental study of a scheme for reducing the radiation losses from bends in open dielectric waveguides used in millimeter-wave integrated circuits. We show that the radiation losses can be reduced significantly using an optimally designed, open shield placed near the guide. The shielding concept is especially useful for designing integrated circuit components, e.g., couplers and ring resonators. Illustrative examples are presented for a 180° bend and a ring resonator.

❑ Return to main document.