Abstracts

Novel single-layer waveguides for high-efficiency millimeter-wave arrays

M. Ando, J. Hirokawa, T. Yamamoto, A. Akiyama, Y. Kimura and N. Goto. "Novel single-layer waveguides for high-efficiency millimeter-wave arrays." 1998 Transactions on Microwave Theory and Techniques 46.6 (Jun. 1998 [T-MTT]): 792-799.

This paper presents novel single-layer waveguides for challenging design of high-gain, high-efficiency, and mass-producible planar slotted arrays for the millimeter wave region. The key features of three types of waveguides, as well as state-of-the-art performance of the arrays using these, are surveyed. A model antenna realizes 35-dBi gain and 64% efficiency at 60.2 GHz.

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