

Leaky Modes of Symmetrical Groove Guide

A.A. Oliner and P. Lampariello. "Leaky Modes of Symmetrical Groove Guide." 1983 MTT-S International Microwave Symposium Digest 83.1 (1983 [MWSYM]): 390-392.

Both the odd and even higher modes of groove guide, a low-loss waveguide proposed some years ago for millimeter wavelengths and of interest again today, are investigated quantitatively. We verified an early prediction that all the odd higher modes leak, and we find that all even higher modes do also. The leakage is obtained quantitatively by deriving accurate transverse equivalent networks, all of whose elements are in closed form. The implications for new leaky-wave antennas are also indicated.

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