Abstracts

A novel multibeam grating antenna with applications to low-cost millimeter-wave beam-steering

C.T. Rodenbeck, M. Li and Kai Chang. "A novel multibeam grating antenna with applications to low-cost millimeter-wave beam-steering." 2002 MTT-S International Microwave Symposium Digest 02.1 (2002 Vol. I [MWSYM]): 57-60 vol.1.

This paper introduces a low-cost millimeterwave dual-beam scanning antenna that uses a dielectric image line fed grating film designed for bidirectional excitation. An excellent radiation pattern is maintained for both beams across wide scan angles over the 35 to 40 GHz frequency range, with over /spl plusmn/50/spl deg/ scanning reported at each frequency. Theoretical calculations closely predict the observed scan angle across the entire range of measurement.

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