Abstracts

THz Dichroic Plates for Use at High Angles of Incidence

P.H. Siegel, R.J. Dengler and J.C. Chen. "THz Dichroic Plates for Use at High Angles of Incidence." 1991 Microwave and Guided Wave Letters 1.1 (Jan. 1991 [MGWL]): 8-9.

The design of a high frequency dichroic plate consisting of an electrically thick self supporting metallic mesh that can be used in a linearly polarized quasi-optical system at high angles of incidence is described. The measured and computed performance of a 2.5-inch aperture mesh is given. This mesh has a 3-dB cutoff frequency of 875 GHz and less than 0.75 dB of transmission loss from 950-1350 GHz at incidence angles of 0, 30, and 45 degrees. The results of a multimode waveguide analysis corroborate the measured data.

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