Abstracts

Field distributions in six-port gyroelectric semiconductor circulators with coplanar waveguide (CPW) feeders

Z.M. Ng, L.E. Davis and R. Sloan. "Field distributions in six-port gyroelectric semiconductor circulators with coplanar waveguide (CPW) feeders." 2002 MTT-S International Microwave Symposium Digest 02.2 (2002 Vol. II [MWSYM]): 1189-1192 vol.2.

The magnetic field distributions of a CPW semiconductor junction circulator are computed at different frequencies for the first time. The results resemble the electric field distributions of a six-port microstrip ferrite junction circulator simulated using Ansoft HFSS. A broadband CPW semiconductor circulator centered at 60 GHz has been designed by tracking the perfect circulation curves from the region where /spl epsi//sub eff/>0 up to the region where /spl epsi//sub eff/<0.

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