Abstracts

Microwave, Millimeter Wave and Sub-Millimeter Wave Free-Space Faraday Rotators

G.M. Smith, S. Kang, C. Unsworth, E. Puplett, D. Franklin and J.C.G. Lesurf. "Microwave, Millimeter Wave and Sub-Millimeter Wave Free-Space Faraday Rotators." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1665-1668.

We report new loss and dispersive measurements on SrM hexagonal ferrites both in sintered form and in a plastic matrix showing their potential for providing high performance, freespace Faraday Rotators over large frequency ranges. SrM polycrystalline ferrites show a strong dispersion at frequencies blow 150GHz which helps to account for their wideband performance at W-band. These femites have the advantage that they operate in their remnant state and require no external magnetic field and can act as isolators over extremely huge apertures.

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