Abstracts

Circularly Polarized Phase Shifter for Use in Phased Array Antennas (1966 [MWSYM])

M.C. Mohr and S. Monaghan. "Circularly Polarized Phase Shifter for Use in Phased Array Antennas (1966 [MWSYM])." 1966 G-MTT International Microwave Symposium Digest 66.1 (1966 [MWSYM]): 224-229.

An X-band ferrite phase shifter has been developed for operational use, the size and electrical performance of which are favorably suited for use in a phased array antenna that requires minimum center-to-center element spacings of 0.537 lambda. The phase shifter has the same configuration as a Faraday rotator with a ferrite rod located at the center of a circular waveguide with an axially applied field. If a circularly polarized wave is passed through this geometry, a nonreciprocal phase versus current characteristic is obtained. The theory of operation of such a device is already well understood, so further elaboration is not necessary. Scharfman and others have described this type of phase shifter in the literature.

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