Abstracts

Characterization and minimization of mutual coupling between NLC-FED slot antennas

Yongxi Qian and T. Itoh. "Characterization and minimization of mutual coupling between NLC-FED slot antennas." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1623-1626.

Mutual coupling between both single and twin slot antennas fed by non-leaky coplanar (NLC) waveguides with conductor backing is characterized rigorously for the first time. While there is pronounced mutual coupling (about -12 dB) between two single slots separated by /spl lambda//sub 0//2, we show that by employing an optimized twin-slot configuration, it is possible to reduce significantly the coupling level to below -30 dB over a 15% bandwidth, making this unidirectional radiator an attractive candidate for millimeter-wave imaging arrays.

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