Abstracts

Antenna arrays in MCM-D technology fed by coplanar CPW networks

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In this paper, the design, fabrication, and characterization of planar antenna arrays in the MCM-D technology are presented. The arrays are fed by coplanar feeding networks built using coplanar-waveguide lines. 2/spl times/2 and 4/spl times/4 arrays of slot dipoles designed to work in K-band, around 25 GHz, are also presented. The analysis was carried out both theoretically and experimentally. The results include the return loss, radiation patterns, and antenna gain. The proposed arrays are compatible with the driving electronics technology, enjoying high-impedance bandwidth, low cross polarization, high gain, and high radiation efficiency.

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