CHARACTERISTIC MULTIMODE SIW FILTER AND MICROSTRIP ANTENNA SQUARE PATCH

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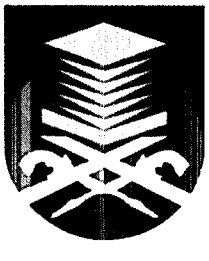

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ABSTRACT

There is growing interest in the integration of microwave filters and antennas in the RF communication system. In practice, filters and antennas that have been designed separately which are linked together in a common reference impedance, 50Ω. Multimode irises is one of the main parameter will be considered to analyze characteristics. In this paper, Substrate Integrate Waveguide (SIW) microstrip antenna and filter is proposed a detailed study of how to design a microstrip square patch antenna with enhanced directive gain. A uniform slotted SIW in circular filter is designed using multilayer technology with multimode irises at the common ground plane.The proposed SIW is simulated and analyzed using CST microwave studio suite software. Simulation and measured results proposed in S-band at frequency from 2 to 4 GHz. This antenna is feed by a 50Ω microstrip line offset from the centre of a patch at bottom layers. Measured results will be presented.

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