Resonance Frequencies of Cylindrical-Rectangular and Wraparound Microstrip Patches in a Multilayered Cylindrical Medium

張榮光、許崇宜

E-mail: 8919243@mail.dyu.edu.tw

ABSTRACT

In this thesis, we investigated the resonancd frequencies and lengths of Cylindrical-Rectangular and Wraparound microstrip patches in a multilayered cylindrical medium. An electric field integral equation(EFIE) in the spectral domain is constructed by adopting a rigorous full-wave analysis, and is solved numerically by emplying the moment method. The dyadic Green''''s functions,the route of integration involved in numerical intrgration, and the Fourier transforms of current basis functions are all studied. Computed parameters include complex resonance frequencies,quality factors, and resonance lengths at some fixed frequencies.which, whenever possible,are compared with data available in the literature. Tht results obtained in this thesis can be used in designing pertinent microstrip devices.

Keywords : microstrip

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