Thesis Title	Analysis of Dual-Resonant Frequency and Circular Polarization of Elliptical Microstrip Antenna
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Abstract

This thesis is the analysis for the closed form of effective length and dynamic permittivity to calculate the dual resonant frequency of the elliptical microstrip antenna. The effective length is used instead of the physical length to account for the fringing field and the dynamic permittivity equation is used to account for the dispersion effect. In the case of frequency above 2 GHz, using the effective length and dynamic permittivity to calculate the dual resonant frequency is closed to the measured results. But in the case of frequency below 2 GHz, using effective length and relative permittivity closes the calculated results of dual resonant frequency by using effective length and relative permittivity to the measured results. In the practical, the feed point location of the elliptical microstrip antenna is on the 45 degree along the radius to the major axis for dual resonant frequency and circular polarization. The measured results show the nearly circular polarization. The input impedance of the elliptical microstrip antenna is approximated to the circular microstrip antenna. The calculated results are agreed with measured results.

Keywords : Microstrip Antenna / Dual-Resonant Frequency / Circular Polarization