UNIVERSITI TEKNOLOGI MARA

MEASUREMENTS OF SPIRAL ANTENNA FOR WiFi APPLICATIONS

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ABSTRACT

A single-arm spiral antenna has been investigated for Wi-fi applications. The main objective of this project is to design and measure the parameters of spiral antenna for Wi-fi applications at frequency range of 2.4 GHz to 2.5 GHz.

The spiral antenna is fed by microstrip line and RT Duroid 5870 is used with specified information including the dielectric constant of substrate (ε_r= 2.33), the center frequency (fc = 2.45 GHz) and thickness (t_{sub}=0.5mm).

For the spiral antenna design and simulation, the Genesys software is used. A prototype of a circular microstrip antenna has been built and tested by using Vector Network Analyzer (VNA).

Simulated result like return loss, VSWR and input impedance are compared with those obtained from measurement where good agreements are shown.

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