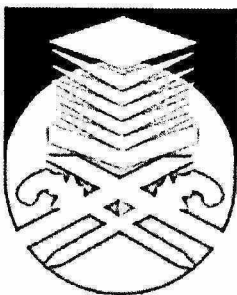


Design of Stacked Patch Antenna on LTCC Substrate for WLAN Application

This project report is presented in partial fulfillment for the award of the

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ABSTRACT

The purpose of this project is to design stacked patch antenna on LTCC substrate for WLAN application. Simulation has been done using the CST MWS package. The concept of the antenna is stacked patch configuration with aperture coupled feed. The proposed antenna operates at resonance frequency of 5GHz and antenna is made up of 8 layers of LTCC substrate, Ferro A6S with relative permittivity of 5.9.

Stacked patch configuration is used to enhance the bandwidth and aperture coupled feed are used to reduce the back lobe. Various parameters such as bandwidth, return loss, gain and VSWR are obtained from the simulation result to see the performance of the proposed antenna.

The performance of the antenna with and without parasitic element in terms of bandwidth have been analyzed and presented. The bandwidth result of the design with parasitic element measure at -10dB is 1.75% or 87.386MHz. The radiation pattern in terms of gain and directivity also be analyzed and discussed.

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