Dual-Band Circular Patch Antenna for Wideband Application

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Abstract

A Circular Patch Antenna for wideband application is presented in this paper. The antenna has been designed, simulated and fabricated on an FR4 substrate with dielectric constant (ε_r) of 4.4 and thickness of 1.6mm. A dual feed approach has been used in the design of the proposed wideband antenna. The dual-band circular patch antenna is smaller than the conventional antenna for wideband application. The final optimized design is $40\times50mm^2$. The measured and simulated return loss results and simulated radiation pattern results of proposed antenna has been presented.

Keywords

Antenna measurements
Antenna radiation patterns
Dual band
Loss measurement
Patch antennas
Wideband