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 ($\varepsilon_r$) 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 40×50mm$^2$. 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
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