

## Miniaturized Wideband Single-Feed Shorted-Edge Stacked Patch Antenna for C-Band Applications

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**Abstract :** In this paper, we propose a miniaturized and wideband patch antenna for C-band applications. The antenna miniaturization is obtained by loading shorting vias along one patch edge. At the same time, the wideband performance is achieved by combining two resonances using one feed line. The measured results reveal that the antenna covers the frequency band 4.32 GHz to 6.52 GHz (41%) with a peak gain and a peak efficiency of 5.5 dBi and 87%, respectively. The antenna occupies a relatively small size of only 26 x 22 x 5.6 mm<sup>3</sup>, making it suitable for compact wireless devices requiring a stable unidirectional gain over a wide frequency range.

**Keywords :** miniaturized antennas, patch antennas, stable gain, wideband antennas

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