

ARCHIMEDEAN SINGLE-ARM SPIRAL ANTENNA FOR WI-FI
APPLICATION

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ABSTRACT

This paper presents the design and analysis of Archimedean single-arm spiral antenna with five spiral turns. The antenna has been designed and fabricated with resonant frequency of 2.4 GHz for Wi-Fi application. The Archimedean single-arm spiral antenna was fabricated using FR-4 laminate with dielectric constant of 5.0 and substrate thickness of 1.6 mm respectively. The antenna was designed and simulated using computer simulation technology (CST) software and the characteristics were then measured using vector network analyzer ZVA 40 (VNA) and compared with the simulated results. The results show that the single-arm spiral antenna with five spiral turns performed very good in many ways.

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