

Miniaturized Single Feed Multi-band Microstrip Patch Antenna

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Abstract: *In recent years, the demand for compact and multi-functional antennas has increased due to the development of wireless communication systems. In this paper, a miniaturized multi-band single feed patch antenna is proposed, for designing multiband antenna first we need to design single band antenna then multi band, which operates in the frequency range of 2.4 GHz to 8 GHz. A single slot is inserted in the patch of the proposed antenna to achieve multi-band operation. The antenna is designed and simulated using the software ADS simulation Studio. The simulation results show that the proposed antenna has a compact size with Patch width, w 19.83mm, patch Length, L 23.71mm. With input impedance of 144Ω and achieves good performance in terms of return loss, radiation patterns, and gain at different frequency bands.*

Keywords: Antenna

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