IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 2, Issue 1, September 2022
Impact Factor: 6.252

Design of Dual-Band Microstrip Antenna with U-Shaped Slot

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Abstract: *In some applications, it is required to have dual band characteristics instead of single band. This characteristic can be obtained by embedding a U-slot in the patch and hence the radiating patch includes a pair of step – slots. In this paper, we propose a dual band microstrip patch antenna with a U- shaped slot fed by coaxial feeding technique. The proposal antennas designed, simulated and optimized using Ansoft HFSS Vs 15. The simulation results are presented in terms of return loss, VSWR, input impedance, gain and radiation pattern. The dimensions are optimized to achieve the exact operating frequencies using resonating frequency control mechanisms. The results showed that the U-Shaped slot microstrip antennas efficiently operated at 2.4Ghz and 4.6Ghz.*

Keywords: VSWR, Input impedance, HFSS, Radiation pattern

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