A Double U-Slots Microstrip Antenna for Triple-bands Operation

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Authors:
Kirankumar R. Urgunde, Veeresh G. Kasabegoudar

Abstract

In this paper, a design of double U-slots microstrip antenna with triple bands operation is presented. The antenna geometry is fed with a coaxial line feed technique. The feed is connected between the two arms of U-slots. The two slots are created on patch which is placed on the dielectric substrate of FR4 material with the overall dimensions of 74 mm × 67 mm × 1.6 mm. The proposed antenna geometry’s performance is investigated in the frequency range of 5 GHz to 10 GHz. This geometry exhibits three resonances at 6.64 GHz, 8.21 GHz, and 9.18 GHz. However, in this work we presented U-Slot antenna which excites dual band operation with improved performance. The bandwidth at second resonant frequency was obtained broad as compared to the conventional patch antennas (2~3%). The proposed geometry was fabricated and tested for its validation. Measured results fairly agree with the simulated values.

References


Index Terms

Computer Science  Wireless

Keywords

Microstrip Antenna, Slot Antennas, U-Slot, Triple Bands Antenna.