

Improvement in Bandwidth of Micro-strip Patch Antenna

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Abstract: This paper presents the improvement in various parameters of patch antenna. Here defected ground structure technique is used to improve the bandwidth. For the design of proposed antenna HFSS(High Frequency Structured Simulation) software is used. First designed a single patch as a reference antenna. In the simulation it operated at 2.34Ghz with gain of 2.01dBi, Bandwidth of 60 Mhz, & vswr of 1.34. So in order to improve the Bandwidth of single patch DGS technique is used & generated a defect of 1.5x1.5 mm below ground & in simulation in operate at 2.35Ghz with gain of 2.54dBi, bandwidth of 61Mhz & vswr of 1.24. Hence bandwidth is enhanced from 60 Mhz to 61 Mhz using DGS technique.

Keywords: Patch, DGS, Bandwidth

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