Abstract

In this project a wideband E-shaped patch antenna using U-slots is to be described. A patch antenna, also known as a rectangular micro strip antenna, is an antenna with a low profile, can be mounted on a flat surface. A wide range of radiation pattern can be achieved with this antenna and it is inexpensive. The wide-band mechanism is explored by investigating the behavior of the currents on the patch. This E-shaped antenna is slotted by using U-slots. A notch band characteristic can be achieved by using U slots in 50 ohms feed lines. A parametric study is presented with the results showing that the antenna can be operated at 1.0 GHz up to 12.0 GHz frequency band with return loss of -30.5 dB. Parameters such as S11 and VSWR also have been improved. The design and simulation of antenna is done by using Ansoft HFSS.

References


- High Frequency Structure Simulation (HFSS), Version 13, Ansoft Corp.

**Index Terms**

Computer Science

Antenna Systems

**Keywords**

Microstrip Patch Antenna U-slot CPW Feed HFSS