E-Shaped Microstrip Patch Antenna for Ku Band

Abstract

Technology has been developing day by day where satellite communication has become daily part of our life. As the technological devices are getting smaller demand for multiband operating antennas are growing faster to the consumers. This paper represents an E shaped Microstrip Patch Antenna for multiband operations in Ku band. The design has been made on low cost material of FR4 substrate having dielectric constant of 4.2 with thickness of 1.6mm. The proposed scheme and probe feeding technique provide designed antenna to operate in three different frequencies range in Ku band. The antenna resonates at 12.4 GHz, 13.28 GHz, and 14.45 GHz with directivity gain of 8.6, 9.5 and 7.4 respectively. Designing and simulation of this antenna has been done by IE3D software. In this paper different types of antenna characteristics have been studied.

References


Index Terms

Computer Science Wireless Communications

Keywords

Rectangular Microstrip Patch antenna (RMPA) Microstrip Patch antenna (MPA) Radio frequency (RF)