Abstract

Now-a-days wireless communication has made the world a smaller than it used to be a couple of decades ago. With the evolving technologies emerging, a continuous and seamless connectivity with the artificial planetary objects such as Satellite and ground station has become a demand of time. Hence researchers are relentlessly working on to overcome the challenge of integrating a budget-friendly yet miniature in shape and multimode supporting antenna in wireless devices. Microstrip Patch Antenna, a technology invented in the 70s, can easily accommodate the entire requirement. But there are some trade-off in terms of performance and design. In this particular paper we analyzed the performance of a slotted Swastika Shaped microstrip Patch antenna with meta-material layer. The probe feeding technique and design structure provides the antenna to operate in five different frequencies. The antenna resonates at 9. 11 GHz in X band and 12. 56 GHz, 13. 82 GHz, 14. 71 GHz and 15. 50 GHz in X band with return loss of -17. 84 dB, -13. 86 dB, -13. 52 dB, -20. 4 dB and -15. 9 dB respectively of proposed antenna have been examined and discussed.

References
Performance Study of Swastika Shaped Microstrip Patch Antenna loaded with Meta-material Layer

Performance Study of Swastika Shaped Microstrip Patch Antenna loaded with Meta-material Layer

- Razin Ahmed, Md. Fokrul Islam, "E shaped Microstrip Patch Antenna for Ku band," Published in International Journal of Computer Applications Volume 80, No. 6, October 2013

Index Terms

Computer Science Communications

Keywords

Microstrip Patch Antenna (MPA) Rectangular Microstrip Patch Antenna (RMPA)
Electromagnetic (EM)

Meta-material