Enhancement of Bandwidth and VSWR of a Double Notch E-Shaped Inset-Fed Patch Antenna

Pavada Santosh¹, Prudhivi Mallikarjuna Rao²

¹ECE Department, Andhra University College of Engineering (A), Visakhapatnam, AP, India.

santosh.pavada@gmail.com

²ECE Department, Andhra University College of Engineering (A), Visakhapatnam. AP, India.

pmraoauece@yahoo.com

Abstract: This paper presents the design and performance evaluation of Double Notch E-Shaped Inset Fed patch antenna for high frequency applications. In recent times microstrip patch antennas are gaining a lot of importance for an enhanced communication. In this work a single notch E-shaped patch antenna and a double notch E-shaped patch antenna are simulated and the performance characteristics are compared, in which double notch E-shaped patch antenna exhibits better performance characteristics like Bandwidth, Return loss and VSWR. An Inset feed is used as a feeding technique for an efficient power transfer. RT Duriod is used as a substrate which has a dielectric constant of 2.2. CST 2015 electromagnetic tool has been used to obtain the simulated results. The results are presented at the end.

Keywords: CST microwave studio, Bandwidth, VSWR, Return loss, Inset feed, Microstrip patch antenna.