

# **DESIGN OF BALUN USING DEFECTED GROUND STRUCTURE**

**ROHIT SAMADHIYA & P. K. SINGHAL**

Electronics Department, Madhav Institute of Technology and Sciences, Gwalior, Madhya Pradesh, India

## **ABSTRACT**

In this paper the microwave balun with defected ground structure has been presented. Here in the ground the slots of different sizes and of shapes have been cut to show the transition of electric field between the microstrip and slots in the ground. This structure has been designed at 2.7GHz frequency; the return loss (S11) is obtained 18dB, bandwidth of the proposed structure is obtained to 54MHz and the phase difference between the balanced ports is 180 degree.

**KEYWORDS:** Microstrip, Defected Ground Structure (DGS), Microwave Balun