

## DESIGN AND DEVELOPMENT OF HARVESTER RECTENNA AT GSM BAND FOR BATTERY CHARGING APPLICATIONS

This paper describes the design of the harvester RECTENNA for charging mobile applications. A rectenna (RECTifying anTENNA) is a combination of a receiving antenna and a rectifying circuit which converts RF signal to into direct-current (DC) voltage. The design consists of microstrip patch antenna and Villard voltage doubler circuit which is designed at 900 MHz band. 3 stages of Schottky diode voltage doubler circuit are designed and simulated in this paper and matched to the antenna design. CST is used for modelling the antenna using transmission line method, and ADS used for the modelling and simulation of the rectifier. The output voltage of the rectifier is 5.014 V which indicates the suitability for charging mobile applications

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