

BATTERY CHARGING USING FIXED UHF RADIO FREQUENCY SOURCE

Prepared by: Chin Wei Cheng

ABSTRACT

The RF sources charger system can used to charge the battery. The system consists of two main parts, the rectifier circuit and the DC/DC step up converter. The voltage doubler can be connected in series that perform a stack performance. This means the output of the 2nd stage is approximately two times of the output voltage of the 1st stage voltage doubler.

Charging the battery might take a long time as the RF source is the low power AC which means the output of the voltage doubler is small. Thus the rate of charging is slow but the convenient of the circuit. But the system is environmental friendly because it uses the abundant of energy which is the radio frequency. The handphone user needs to plug in the adapter to the wall so to overcome this problem the project entitle 'Battery Charging Using Fixed UHF Radio Frequency' is designed.

The aim and objective of this project is to design and implement the hardware to rectify the RF to the DC. This project has two parts which is the rectifier circuit and the DC/DC step up converter. The use of the rectifier is to convert the RF to DC and stepup converter is to booster up the voltage. The theory and test is also shown in the report.