

ABSTRACT

Gain factor is very important in this power amplifier. Because the most fonctionable is as transmitted power gain. The substance and its parameter are selected by specification and availableity of the substance which needed. So that, its gotten a stable amplifier (single class).

The purpose of this final project is to design and implementation of power amplifier based on microstrip at 1805- 1880 MHz and use BFR 91-A transistor. The other specification are Gain ≥ 10 dB, output power ≥ 10 mW, VSWR ≤ 1.5 , and ZT : 50Ω unbalance.

From the analyze and BFR 91-A datasheet, that transistor BFR 91-A is conditioned stability transistor. While the passives component have been realized with discreet component, in this case are resistors and capasitors. To facilitate the realization, inductors passives component have been realized using microstrip. The substrate that selected is Epoxy FR-4 which it has a dielectric and low loss.

This realitation result of a prototype Power Amplifier that can work at 1.417,02 – 2.137,32 MHz with Gain 10,761 dB. This power amplifier have bandwidth about 720,3 MHz.

Key Words : Amplifier, Microstrip, GSM Frequency.