

A Theis

Submitted to the College of Education University of Basrah

In Partial Fulfillment of the Requirements for the Degree of Master of Science in Physics

By

MOHAMMAD KAZUM HAMED

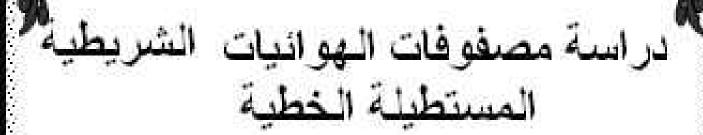
B. Sc Baghdad University (2002)

Supervised by

Prof. Dr. Ali A.S. Obaid Assist Prof. Dr. Ahmed H. Abood

2010March





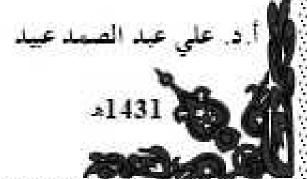
مرسالة مقدمة إلى

كلية التربية - جامعة البصرة
وهي جنر من منطلبات بيل دمرجة
ماجستير علوم في الفينزياء
من قبل
من قبل
بكالوريوس علوم فيزياء

جامعة بخداد 2002

إشراف

أ.م. د. أحمد هاشم عبود 2010م م





ABSTRACT

Our present theoretical study deals the radiation pattern and radiation fields and its parameters that were produced by the resonant rectangular microstrip antenna according to cavity model, the design frequency is 1.28 GHz and dielectric constant ε =2.32. The width of antenna is considered to be small enough to neglect the variation of the current in that direction. The radiation pattern and its parameters were calculated and have a good agreement compared with the recent result using different analysis methods.

The effect of antenna length on the radiation pattern parameters is studied, the computed results show a little enhancement in the radiation parameters, so, we built a linear array of these antenna to improve the radiation parameters.

The effect of number of element, spacing elements, and phased array are studied finally the relationship between the directivity and the steering angle of phased array were also studied it has been found that there is a relationship between the different distances in relation to the elements and the surveying angle.



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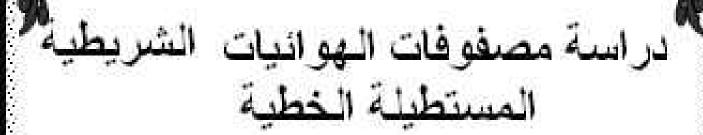
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