

***THEORETICAL STUDY OF THE RADIATION FIELDS OF SHORT
BACKFIRE ANTENNA EXCITED BY A LINEAR ARRAY OF A
RECTANGULAR WAVEGUIDE***

**Z.A. Ahmed, W.A. Godaymi and A.S. Tahir
Dept. of physics, College of science, University of Basrah
Basrah, Iraq**

Abstract :

The mathematical expressions of the far-field radiation pattern are derived from a short backfire array fed by a rectangular smooth walls w/g . New type of sub-reflector in conjunction with a half-wave length rim around the edge of main-reflector used to impose the electrical characteristics of this type of antenna. The calculated patterns agree reasonably well with the results of other research workers.