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SIGN AND DEVELOPMENT OF TWO-CHANNEL 500W HIGH POWER SPEAKER SYSTEM

DESIGN PROJECT

ROT A. ARGUELLES CAROLINE M. de SOSA

Callege of Engineering and Information Technology

CAVITE STATE UNIVERSITY

Indana, Cavite

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DESIGN AND DEVELOPMENT OF TWO-CHANNEL 500W HIGH POWER SPEAKER SYSTEM

Undergraduate Design Project Submitted to the Faculty of Cavite State University Indang, Cavite

In Partial fulfillment
of the requirements for the degree of
Bachelor of Science in Electronics and Communications Engineering



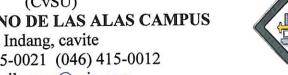
Design and development of two-channel 500 w high power speaker 621.389 Ar3 2007 DP-254

ROY A. ARGUELLES CAROLINE M. de SOSA October 2007



Republic of the Philippines CAVITE STATE UNIVERSITY (CvSU)

DON SEVERINO DE LAS ALAS CAMPUS





(046) 415-0021 (046) 415-0012 E-mail: cvsu@asia.com

COLLEGE OF ENGINEERING AND INFORMATION TECHNOLOGY Department of Computer and Electronics Engineering

Design Project of:

ARGUELLES, ROY A.

DE SOSA, CAROLINE M.

Title:

DESIGN AND DEVELOPMENT OF TWO-CHANNEL 500W

HIGH POWER SPEAKER SYSTEM

APPROVED:

Date

Director for Research

Date

ABSTRACT

ARGUELLES, ROY A. and de SOSA CAROLINE M. "Design and Development of Two-Channel 500W High Power Speaker System". Bachelor of Science in Electronics and Communications Engineering, Cavite State University, Indang Cavite. October 2007. Adviser: Engr. Michael T. Costa.

The Design and Development of High Power Speaker system was constructed at Naic and Indang, Cavite. The study generally aimed to design and develop a high power speaker system, to be used in conducting programs, celebrations, special seminars and even forums.

The hardware if the system consisting of three drivers namely: woofers, midrange and tweeters that produce sound; the three way crossover network that filters the frequency entering the drivers and the baffles that served as the casing of the whole system.

Testing and evaluation of the system were conducted at the Cavite State University, Grandstand.

The testing and final evaluation of the system were done several times to check the speaker's sound level output and performance. By using an amplifier, a microphone and a 1 kHz standard test tone. After the evaluation, the design was able to reproduce sound to a distance of 115 m.

The overall expenditure of the design was PhP 6,922.00

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DESIGN AND DEVELOPMENT OF TWO-CHANNEL 500W HIGH POWER SPEAKER SYSTEM 1/

Roy A. Arguelles

Caroline M. de Sosa

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INTRODUCTION

The loudspeaker is the most important aspect present in the reproduction of musical energy. If the speaker is lousy, you can be guaranteed that the sound you hear is equally bad. Conversely, properly-designed loudspeakers will give the listener a clean, accurate reproduction of the music the listener wishes to enjoy.

The loudspeaker is usually the limiting element in reproduction of sound. The other components involved in sound reproduction are mostly electronic in nature, and the electronic components are fairly highly developed. The loudspeaker has a complex job, that is, the electromechanical process of using an amplified electrical (audio) signal to move a cone or other mechanical device to produce sound. And by the way, this sound should be an accurate reproduction of the original sound wave.