

**THE DESIGN AND DEVELOPMENT OF A PORTABLE MINI
ANECHOIC CHAMBER FOR ANTENNA MEASUREMENT**



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ABSTRACT

A mini anechoic chamber is developed with a wall that can absorb the microwave energy thus preventing any internal reflection. Interference is removed and no external wave can enter the chamber due to its shielding properties. The challenge in this project is to design a good absorber that can absorb the microwave energies without affected by the environment. Three major elements are to be considered; the absorbing cone, which is made of polystyrene, carbon that coats the cone and special paint that joins the carbon and the cone together. The design is focused on a pyramid shape, the easiest way to construct as compared to the others. The frequencies are expected to operate at 3 GHz to 10 GHz only due to its equipment limitation. The results obtained will be compared to other commercial absorber.

TABLE OF CONTENTS

CHAPTER		PAGE
	TITLE	i
	CERTIFIED OF APPROVAL	ii
	PROJECT TEAM MEMBERS	iv
	ACKNOWLEDGEMENT	v
	ABSTRACT	vi
	TABLE OF CONTENTS	vii
	LIST OF FIGURES	x
	LIST OF TABLES	xii
	LIST OF ABBREVIATIONS	xiii
CHAPTER 1	INTRODUCTION	
1.1	Background Study	1
1.2	Objectives	2
1.3	Scope of Work	3
1.4	Outline of Project Report	3
CHAPTER 2	AN INTRODUCTION TO ANECHOIC CHAMBERS	
2.1	Introduction	5
2.2	Antenna Testing Ranges	5
2.3	Antenna Measurement	7
2.3.1	Radiation Pattern Measurement	8
2.3.2	Directivity Measurement	8

2.3.3	Gain Measurement	9
2.3.4	Polarity Measurement	9
2.4	Absorber	10
2.4.1	Absorber's Material	12
2.4.2	Knowing the Absorber	13
2.4.3	Performance of the Absorber	16
2.5	Anechoic Chamber	17
2.5.1	Tapered the Anechoic Chamber	18
2.5.2	Rectangular Anechoic Chamber	19

CHAPTER 3 DESIGNING PROCESS AND DEVELOPMENT OF ABSORBERS

3.1	Shape Designed	21
3.2	Designing the Absorbers	22
3.3	Development of the Absorbers	24
3.4	Constructing the Prototypes	25
3.5	Absorber Measurement	25
3.5.1	First Stage	28
3.5.2	Second Stage	29
3.5.3	Third Stage	30
3.6	Flowchart	32

CHAPTER 4 DEVELOPMENT OF THE PRELIMINARY STAGE OF MINI ANECHOIC CHAMBERS

4.1	Introduction to Anechoic Chamber Design	33
4.1.1	Chamber Configuration	34
4.2	A Mini Anechoic Chamber	35
4.3	Assembling the Absorber	37
4.4	Flowchart	38