

TABLE OF CONTENTS

APPROVAL PAGE	i
SELF DECLARATION AGAINST PLAGIARISM	ii
ABSTRACT	iii
TABLE OF CONTENTS	iv
LIST OF FIGURES.....	vi
LIST OF TABLES	vii
CHAPTER I	1
INTRODUCTION.....	1
1.1 Background.....	1
1.2 Problem Definition	3
1.3 Research Objectives.....	4
1.4 Scope of Work	4
1.5 Hypothesis	4
1.6 Methodology	5
1.7 Research Method	6
CHAPTER II	8
Error Vector Magnitude (EVM).....	8
2.1 Orthogonal Frequency Division Multiplexing (OFDM)	8
2.2 IEEE Standard 802.11ax/Wi-Fi 6	11
2.3 1024-QAM and I/Q Constellation	11
2.4 Error Vector Magnitude (EVM) and I/Q Imbalance	14
2.5 EVM to BER Calculation	19
2.6 Perdirjen SDPPI No. 02 of 2019.....	22
CHAPTER III.....	24
SYSTEM AND MODEL DESIGN.....	24
3.1 System Model and Scenario	24
3.2 Simulation Scenario	25
3.3 Data Collecting Scenario	28
3.4 Analysis Scenario	30
CHAPTER IV	32
RESULT AND ANALYSIS	32
4.1 Method of Modulation Accuracy of WLAN Telecommunication Devices	32
4.2 EVM Measurement Results	34
4.2.1 Measurements of Different Bandwidths.....	34
4.2.2 Measurement of Different Modulation Schemes	40
4.2.3 Measurement of Different Access Point	40
4.3 EVM to BER Conversion	42
4.4 Proposed Technical Recommendations	45
CHAPTER V	46

CONCLUSION	46
REFERENCES.....	48