

**STATISTICAL ANALYSIS OF INTERFERENCE EFFECT FROM LOW DATA
RATE UWB SIGNAL ON OFDM**

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ABSTRACT

This paper reports on the study of the interference effects from 2 types of ultra wideband (UWB) radar signals on a OFDM transmission system by simulation. The culprit UWB sources were: Gaussian monocycle pulse and UWB chirp signal. Average bit error rate (BER) degradation of the victim system was evaluated under in-band interference from the UWB signal. Simulation results show that both Gaussian monocycle pulse and UWB chirp signal waveform yield different BER characteristic compared to an AWGN. The Gaussian monocycle pulse resulted as the worse case where significant BER floor were observed at the victim receiver.

TABLE OF CONTEXT

CHAPTER	DESCRIPTION	PAGE
	DECLARATION	i
	ACKNOWLEDGEMENT	ii
	ABSTRACT	iii
	TABLE OF CONTENT	iv
	LIST OF FIGURES	viii
	LIST OF TABLES	ix
	LIST OF ABBREVIATIONS	x
 CHAPTER 1 INTRODUCTION		
1.1	Introduction	1
1.2	Problem Statement	2
1.3	Objective	2
1.4	Scope of Project	3
1.5	Thesis Organization	3
 CHAPTER 2 LITERATURE REVIEW		
	Literature Review	4

CHAPTER 3 OVERVIEW ON THE ULTRA WIDE BAND(UWB) TECHNOLOGY

3.1	History and Backgroud of UWB	6
3.1.1	UWB History	6
3.1.2	UWB Background	7
3.2	UWB Features	11
3.3	UWB Applications	12
3.3.1	Communication	12
3.3.2	Localization	13
3.3.3	Sensor Technology	14
3.4	Detection & Performance in presence of noise and interference	15
3.5	UWB Signals used in ranging communication applications	15
3.5.1	Gaussian Monocycle Pulse	15
3.5.2	UWB Chirp	16
3.6	OFDM Transmission scheme	17

CHAPTER 4 METHODOLOGY

4.1	Flowchart	19
4.2	Simulation Model	21
4.3	Victim system	23
4.4	Theoretical BER OFDM system in AWGN channel	25