#### UNITED STATES PATENT AND TRADEMARK OFFICE

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## BEFORE THE PATENT TRIAL AND APPEAL BOARD

In the Patent of: Yang, Xiu Zheng, Shulin (TW);

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Title: METHOD FOR CONSTRUCTING FRAME STRUCTURES

*INTER PARTES* REVIEW OF U.S. PATENT NO. 8,265,096 B2 Case IPR2021-00734

DECLARATION OF SUMIT ROY, Ph.D. Ex. 1002



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	A.	Ground 1: Claims 1-4 and 6-7 were rendered obvious by Talukdar in View of Li					
		1.	Cla	aim 1			
			a)	1[pre]: "A method of constructing a frame structure for data transmission, the method comprising"			
			b)	1[a]: "generating a first section comprising data configuring a first format compatible with a first communication system using symbols"			
			c)	1[b]: "generating a second section following the first section, the second section comprising data configured second format compatible with a second communication system using symbols, wherein the first communication system's symbols and the second communication system symbols co-exist in one transmission scheme"	n n m's		
			d)	1[c]: "and wherein: the second format is compatible with the second communication system configured to support higher mobility than the first communication system, wherein each symbol in the second communication system as a shorter symbol period than that in the first communication system"	rt tem		
			e)	1[d]: "generating at least one non-data section containing information describing an aspect of data in at least one of the first section and the second section"	of		
			f)	1[e]: "combining the first section, the second section and the at least one non-data section to form the frame structure"			
		2.	Cla	aim 2	95		
		3.	Cla	aim 3	98		
		4.	Cla	aim 4	.100		
		5.	Cla	aim 6	.101		
		6.	Cla	aim 7	.103		
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	1.	[c]: "and wherein the second communication system has pilot ymbols that are denser than those in the first communication			
		system"			
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APPENDIX A (Curriculum Vitae)



### I. INTRODUCTION

- 1. My name is Sumit Roy, Ph.D., and I have been retained by counsel for Petitioner ZyXEL Communication Corporation ("ZyXEL" or "Petitioner") as an expert witness to provide assistance regarding U.S. Patent No. 8,265,096 ("the '096 Patent"). I previously submitted a substantially identical declaration to this one on behalf of Qualcomm Incorporated in a prior petition for *inter partes* review (IPR2021-00375). Specifically, I have been asked to consider the validity of claims 1-4 and 6-8 of the '096 Patent (the "Challenged Claims") in view of prior art, anticipation and obviousness considerations, and understanding of a person of ordinary skill in the art ("POSA") as it relates to the '096 Patent. I have personal knowledge of the facts and opinions set forth in this declaration, and believe them to be true. If called upon to do so, I would testify competently thereto.
- 2. I am being compensated for my time at my standard consulting rate of \$650 per hour. I am also being reimbursed for expenses that I incur during the course of this work. My compensation is not contingent upon the results of my study, the substance of my opinions, or the outcome of any proceeding involving the challenged claims. I have no financial interest in the outcome of this matter or in the pending litigation between Petitioner and UNM Rainforest Innovations ("UNM"), which I understand has asserted the '096 Patent against Petitioner in litigation.



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