

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: Sung Jun Park, et al.
U.S. Patent No.: 7,881,236 Attorney Docket No.: 00035-0009IP1
Issue Date: February 1, 2011
Appl. Serial No.: 12/538,514
Filing Date: August 10, 2009
Title: Data Transmission Method and User Equipment for the
Same

DECLARATION OF JONATHAN WELLS, PH.D.

Table of Contents

I.	Introduction.....	3
II.	Qualifications.....	3
III.	Materials Considered.....	6
IV.	Applicable Legal Standards.....	8
	A. My Understanding of Anticipation	8
	B. My Understanding of Obviousness	9
	C. My Understanding of Claim Construction.....	13
	1. Effective Filing Date of the '236 Patent	13
V.	Level of Ordinary Skill in the Art	14
VI.	Random Access Overview.....	15
	A. When is Random Access Used?.....	18
	B. Types of Random Access Procedures	19
	C. The Random Access Preamble.....	20
VII.	Brief Overview of the '236 Patent.....	22
VIII.	Claim Construction.....	24
	A. Claim scope of the '236 patent.....	25
IX.	Prior Art	26
	A. Kitazoe Overview	26
	1. Kitazoe Provisional	30
	B. AAPA Overview	33
	C. 3GPP TS 36.321 Overview	34
	D. The Combination of Kitazoe, AAPA, and 3GPP TS 36.321	36
	E. Reasons to Combine Kitazoe, AAPA, and 3GPP TS 36.321	54
	F. The Combination of Kitazoe, the AAPA of the '236 patent, 3GPP TS 36.321, and Kitazoe II	56
	1. Kitazoe II Provisional	56
	G. Reasons to combine Kitazoe, the AAPA of the '236 patent, 3GPP TS 36.321, and Kitazoe II	58
	H. Niu Overview	59
	I. The Combination of Kitazoe, Niu, and 3GPP TS 36.321	60
	J. Reasons to Combine Kitazoe, Niu, and 3GPP TS 36.321	64
	K. The combination of Kitazoe, Niu, 3GPP TS 36.321, and Kitazoe II.....	66
	L. Reasons to combine Kitazoe, Niu, 3GPP TS 36.321, and Kitazoe II.....	66
X.	Conclusions.....	68

I. Introduction

I, Dr. Jonathan Wells, declare as follows:

1. I have been retained on behalf of Petitioner (Apple Inc., Microsoft Corporation, Microsoft Mobile Oy, and Microsoft Mobile Inc. (f/k/a Nokia Inc.)) to provide expert opinions in connection with this *inter partes* review. Specifically, I have been asked to provide my opinion relating to an inquiry into the patentability of claims of the U.S. Patent No. 7,881,236 (the “236 patent”).

II. Qualifications

2. I have over 25 years of academic and industry experience in wireless networks (*e.g.*, 2G, 3G and 4G networks, comprising GSM, EDGE, WCDMA, HSDPA and LTE technologies), cellular infrastructure equipment (base stations, backhaul and handsets), and wireless standards, rules and regulations (*e.g.*, 3GPP, FCC, ETSI and CEPT). Over my career, I have worked with companies to develop and deploy radio frequency (RF) hardware for telecommunication infrastructure equipment for worldwide export, to implement marketing and product development strategies for cellular wireless products, and to participate in Federal Communications Commission (“FCC”), European Conference of Postal and Telecommunications Administrations (“CEPT”), European Telecommunications Standards Institute (“ETSI”) and other technical body meetings.

3. In 1987, I received my Bachelor of Science degree in Physics with Physical Electronics (with 1st Class Honours) from the University of Bath, Bath, United Kingdom. In 1991, I received the Doctor of Philosophy (Ph.D.) degree in Physics from the University of Bath. In 1998, I received a Master of Business Administration (with distinction) from Massey University, New Zealand.

4. After completing my Ph.D., I began working at the University of Bath as a Postdoctoral Research Officer. I continued to work at the University of Bath until 1992. During this time, I built novel electronic devices, and developed software models to predict their performance in wireless communication systems.

5. For more than 20 years I worked in private industry designing, developing and implementing various wireless communication products throughout the world.

6. Specifically, from 1993 to 1994, I was a Senior Design Engineer at Matra Marconi Space, where I developed space-qualified electronic components and sub-systems for two satellite systems.

7. From 1994 to 1995, I was a Senior RF Design Engineer, and from 1995-1998, I was RF Group Manager, at MAS Technology (now Aviat Networks), where I, among other things, led the development of three families of innovative wireless products, oversaw the company's European regulatory approvals, and personally designed a wide range of RF devices.

8. From 1998 to 1999, I was an Engineering Group Leader, and from 1999-2000 I was the Director of Wideband Products, at Adaptive Broadband (now GE Digital Energy), where I oversaw the Terrestrial Infrastructure Group, and led the development of a family of digital radio products.

9. From 2000 to 2004, I was the Director of Product Development at Stratex Networks (now Aviat Networks), where I was responsible for the global product development of the company's Outdoor Unit (ODU) portfolio of high-end digital microwave radios, which were primarily directed towards cellular applications.

10. From 2005 to 2007, I was the Director of Product Management and Global Regulatory Affairs at GigaBeam Corporation, where I developed the overall product strategy for a wideband communication system for future cellular applications. During this time I had responsibility for establishing a global regulatory framework for this new product, which included developing FCC (Federal Communications Commission) and ETSI (European Telecommunications Standards Institute) standards to cover the specification and regulation of the system.

11. Since 2007, I have been the Managing Partner of AJIS Consulting—an independent consulting firm specializing in wireless communications and emerging wireless fields. Specifically, I analyze cellular and wireless technologies,

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.