

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

United States Patent No.: 8,532,641	§	Attorney Docket No.:
Inventors: Russell W. White,	§	110797-0004-657
Kevin R. Imes	§	Customer No. 28120
Formerly Application No.: 13/673,391	§	Petitioners:
Issue Date: Sept. 10, 2013	§	Samsung Electronics Co., Ltd.;
Filing Date: Nov. 9, 2012	§	Samsung Electronics America, Inc.;
Priority Date: March 28, 2000	§	Samsung Telecommunications America,
	§	LLC
Former Group Art Unit: 2646	§	
Former Examiner: Erika Washington	§	
	§	
	§	

For: SYSTEM AND METHOD FOR MANAGING MEDIA

MAIL STOP PATENT BOARD  
Patent Trial and Appeal Board  
United States Patent and Trademark Office  
Post Office Box 1450  
Alexandria, Virginia 22313-1450

**DECLARATION OF DR. SCHUYLER QUACKENBUSH  
IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF  
UNITED STATES PATENT NO. 8,532,641**

## TABLE OF CONTENTS

I.	Introduction.....	1
II.	Opinions Regarding A Person Of Ordinary Skill In The Art.....	7
III.	The ‘641 Patent.....	9
	A. Overview of the ‘641 Patent.....	9
	B. Claim Construction of ‘641 Patent Claims.....	12
IV.	Analysis of The ‘641 Patent.....	12
	A. Ground 1: Obvious over Ohmura in view of Ahn (Claims 1, 2, 5, 8, 9, 11, 13, 14); Ground 2: Obvious over Ohmura in view of Ahn and Nokia (Claims 1- 3, 5, 9, 10, 13, 14); Ground 3: Obvious over Ohmura in view of Ahn and Galensky (Claims 7, 12); Ground 4: Obvious over Ohmura in view of Ahn, Nokia, and Galensky (Claims 6, 7, 12).....	18
	1. Claim 1.....	20
	(a) Preamble.....	20
	(b) Element [1.A].....	21
	(c) Element [1.B].....	22
	(d) Element [1.C].....	26
	(e) Element [1.D].....	27
	(f) Element [1.E].....	29
	(g) Element [1.F].....	34
	(h) Element [1.G].....	35
	(i) Element [1.H].....	40
	(j) Element [1.I].....	43
	2. Claim 2.....	45
	3. Claim 3.....	46
	(a) Element [3.A].....	46
	(b) Element [3.B].....	48
	(c) Element [3.C].....	49
	4. Claim 5.....	51

5.	Claim 6 .....	53
	(a) Element [6.A] .....	53
	(b) Element [6.B] .....	54
6.	Claim 7 .....	56
	(a) Element [7.A] .....	56
	(b) Element [7.B] .....	58
7.	Claim 8 .....	61
	(a) Preamble .....	61
	(b) Element [8.A] .....	62
	(c) Element [8.B] .....	63
	(d) Element [8.C] .....	65
	(e) Element [8.D] .....	66
	(f) Element [8.E] .....	66
8.	Claim 9 .....	66
	(a) Element [9.A] .....	66
	(b) Element [9.B] .....	66
	(c) Element [9.C] .....	67
	(d) Element [9.D] .....	67
9.	Claim 10 .....	67
10.	Claim 11 .....	69
11.	Claim 12 .....	71
	(a) Element [12.A] .....	71
	(b) Element [12.B] .....	71
	(c) Element [12.C] .....	71
12.	Claim 13 .....	72
	(a) Element [13.A] .....	72
	(b) Element [13.B] .....	72
13.	Claim 14 .....	77

I, Schuyler Quackenbush, hereby declare under penalty of perjury:

## **I. INTRODUCTION**

1. I have been retained to provide assistance regarding U.S. Patent No. 8,532,641 (“641 patent”). Attached hereto as Appendix A is a true and correct copy of my Curriculum Vitae describing my background and experience. I have personal knowledge of the facts and opinions set forth in this declaration, and, if called upon to do so, I would testify competently thereto.

2. I received a B.S. in Electrical Engineering from Princeton University in 1975, and M.S. and Ph.D. in Electrical Engineering from the Georgia Institute of Technology in 1980 and 1985, respectively. While at the Georgia Institute of Technology, I concentrated my research on signal processing, including both speech and image processing. In my thesis I explored the factors that determine the perceived quality of a processed speech signal, such as speech signals from a mobile telephone system. My thesis was titled “Objective Measures of Speech Quality” and the thesis research was on computer algorithms that could predict perceived speech quality.

3. Between 1975 and 1978, I worked for Loral Electronics in Yonkers, NY, where I was employed as a test engineer. Loral Electronics produced airborne electronics systems for the U.S. Air Force. My responsibilities in this position included: assisting the lead engineer in setting up test equipment; assembling custom test equipment; and using this equipment to test items from the production line.

4. From 1978 to 1979, I worked for Diagnostic/Retrieval Systems (DRS), Inc. in Oakdale, NJ, where I was a hardware design engineer. DRS produced electronic sonar systems for the U.S. Navy. My responsibilities in this position included: design of an analog to digital signal acquisition sub-system; design of a digital heterodyne sub-system; and assisting in test and debugging of the complete prototype system.

5. Between 1986 and 2002, I worked for AT&T Bell Labs in Murray Hill where I was Member of Technical Staff in the Signal Processing Research Department, and subsequently at AT&T Labs in Florham Park, NJ, where I was Principal Technical Staff and then Acting Supervisor of the Speech and Audio Coding Group. During the time period from 1986 to 2000 I: developed and implemented a speech coding algorithm; developed and implemented several audio coding algorithms; developed and implemented an image and audio decoding algorithm (for use as a “talking mail-order catalog”) and worked on a large team that built a working Digital Audio Broadcast system using AT&T’s Perceptual Audio Coding (PAC) technology. I was the lead expert in the effort to promote AT&T’s PAC technology in the ISO MPEG standards group. This effort resulted in the MPEG Advanced Audio Coding standard, which contained more than 80 percent of AT&T’s PAC technology. I developed a client/server music player using the AT&T audio technology. This used an OpenGL graphical user interface and UNIX socket-based client/server communication. I worked on a team that developed a second generation of this

# 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.