

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re *Inter Partes* Review of:)
U.S. Patent No. 8,288,952)
Issued: Oct. 16, 2012)
Application No.: 13/189,865)
Filing Date: July 25, 2011)

For: **Intelligent User Interface Including A Touch Sensor Device**

FILED VIA PRPS

**DECLARATION OF PAUL BEARD IN SUPPORT OF
PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 8,288,952**

For ease of reference, Mr. Beard refers to this declaration as being in support of
“’952 Petition” challenging claims 1-4, 14, 16, 17, 19, 22-24, 26, 27, and 38-40.

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION AND QUALIFICATIONS.....	1
II. MY EXPERIENCE WITH PORTABLE, BATTERY-POWERED DEVICES IN THE MID-1990S.....	6
III. UNDERSTANDING OF THE GOVERNING LAW.....	9
A. Invalidity by Anticipation or Obviousness.....	9
B. Interpreting Claims Before the Patent Office.....	11
C. Relevant Time Period for the Obviousness Analysis.....	11
D. Materials Relied on in Forming My Opinion.....	12
IV. LEVEL OF SKILL IN THE ART.....	12
A. Use of a Signal Switch in a User Interface.....	12
B. Use of a Microchip to Control the Battery and Device.....	13
C. Person of Ordinary Skill in the Art.....	18
V. PERSPECTIVE APPLIED IN THIS DECLARATION.....	19
VI. OVERVIEW OF THE '952 PATENT.....	20
A. Disclosure of the '952 Patent.....	20
B. Prosecution History of the '952 Patent.....	23
VII. THE PRIOR ART.....	24
A. Beard.....	24
B. Rathmann.....	32
C. Danielson.....	36
VIII. MOTIVATIONS TO COMBINE THE PRIOR ART.....	38
A. Motivation to Combine Beard with Rathmann.....	38
B. Motivation to Combine Beard and Rathmann with Danielson.....	43
IX. CLAIM CONSTRUCTIONS.....	47
A. Legal Standard.....	47

B. “energy consuming load”47

X. GROUNDS OF INVALIDITY49

A. Ground 1: Claims 1, 2, 3, 16, 17, 19, 22, 23, 24, 26, 27, 38, 39,
and 40 are invalid under 35 U.S.C. § 103 on the ground that
they are all rendered obvious by Beard in view of Rathmann.49

1. Claim 149

2. Claim 261

3. Claim 363

4. Claim 1666

5. Claim 1768

6. Claim 1970

7. Claim 2272

8. Claim 2374

9. Claim 2476

10. Claim 2678

11. Claim 2791

12. Claim 3894

13. Claim 3996

14. Claim 4097

B. Ground 2: Claims 4 and 14 are invalid under 35 U.S.C. § 103
on the ground that they are rendered obvious by Beard in view
of Rathmann and Danielson98

1. Claim 498

2. Claim 14100

I, Paul Beard, resident of Bigfork, Montana, hereby declare as follows:

I. INTRODUCTION AND QUALIFICATIONS

1. I have been retained by Apple Inc. (“Apple”) to provide my opinion concerning the validity of U.S. Patent No. 8,288,952 (Ex. 1001, “the ’952 patent”) in support of its Petition for *Inter Partes* Review of U.S. Patent No. 8,288,952 (“’952 Petition”). I have not previously been employed or retained by Apple in any capacity.

2. From 1980 to 1983, I attended the University of Manchester (U.K.) where I received a B.Sc. (Honors) degree in Electrical and Electronics Engineering.

3. From 1978 to 1989, I was employed by British Telecom (BT) in England. I received a series of promotions culminating in my eventual position as Head of Group for BT’s ISDN voice and data terminals. These terminals were portable electronic devices with microcontroller chips.

4. From 1989 to 1991, I was employed as a member of technical staff for VMX Inc., where I designed a world-wide approved subscriber line interface circuit.

5. From 1991 to 1994, I was the Vice President of Systems Engineering at DSP Group, where I architected a low-cost, fixed-point digital signal processing chip.

6. From 1994 to 1998, I was the Chief Architect and a Fellow of Norand Corporation, a developer of portable, wireless, pen-based data-entry devices that were battery-powered.

7. From 1998 to 2000, I founded a wireless (radio frequency) product development company called Alation Systems based on my invention of a new type of radio frequency modulation scheme. I sold Alation Systems to Cypress Semiconductor in 2000.

8. From 2000 to 2005, I was the Chief Technology Officer (CTO) of Wireless Systems at Cypress Semiconductor. I directly reported to the CEO, and was the only Engineering Fellow in the entire company. During my time at Cypress, I invented the technology underlying the 2.4 Ghz wireless mouse as described in U.S. Patent No. 8,442,437. Cypress's WirelessUSB line of radio frequency chips is based on this technology, and the technology is also widely used in portable, battery-powered electronic devices such as microphones, electronic toys, mice and keyboards.

9. WirelessUSB was a major commercial success, and received four international electronics product awards, including a prestigious EDN (Electrical Design News) innovation award. I also designed two Cypress radio and wireless integrated circuits (IC), the CYRF6951 and CYRF6961.

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