UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD;
SAMSUNG ELECTRONICS AMERICA, INC.,

Petitioners,
v.

AFFINITY LABS OF TEXAS, LLC,

Patent Owner.

Case IPR2014-01181[1]

Patent No. 8,532,641 B2

DECLARATION OF DR. MARILYN WOLF IN SUPPORT OF PATENT OWNER'S RESPONSE TO *INTER PARTES* REVIEW OF UNITED STATES PATENT NO. 8,532,641

[1] Cases IPR2014-01182 and IPR2014-01184 have been consolidated with the instant proceeding.

I, Dr. Marilyn Wolf, make the following Declaration pursuant to 28 U.S.C. § 1746:

I. INTRODUCTION

1. I make all of the statements in this Declaration of my own personal knowledge and in accord with 28 U.S.C. § 1746.

2. Attached hereto as Appendix A is a true and correct copy of my current curriculum vitae, which details my extensive work history in the electrical and computer engineering fields, including my positions with AT&T Bell Laboratories, MediaWorks Technology, and Verificon.

3. I received my Bachelor's, Master's and Ph.D. degrees in Electronic Engineering from Stanford University in 1980, 1981, and 1984 respectively. My research interests include cyber-physical systems, embedded computing, embedded multimedia and computer vision, and VLSI systems.

4. From 1984 to the present, I served in various positions in academia, as well as in corporate settings. From 1988 to 2007, I held various academic positions at Princeton University, such as visiting lecturer, assistant professor of electrical engineering, associate professor of electrical engineering, and professor of electrical engineering. As a professor of electrical engineering at Princeton University, I taught courses on embedded computing, VLSI design, computer architecture, and multimedia. In 2007, I accepted a position as a Professor, Farmer Distinguished

Chair, and GRA Eminent Scholar at the Georgia Institute of Technology's School of Electrical and Computer Engineering, a position that I currently hold. I teach classes in embedded computing and electrical and computer engineering and I am also responsible for conducting and supervising research in these areas.

5. I have also held a number of positions with both major corporations and start-ups. From 1984 to 1989, I was a member of the technical staff at AT&T Bell Laboratories where I conducted research in computer aided design of digital systems, and was also responsible for supervising the work of co-op and summer students. From 2001 to 2002, I held positions at MediaWorks Technology, including Chief Scientist, Principal SoC Architect and Chief Technical Officer. In these positions, I was responsible for product definition, technology development, and chip design. From 2003 to 2013, I was co-founded and was employed by Verificon Corporation, which is a company that developed and licensed smart camera technology for surveillance and industrial applications.

6. I am a co-inventor on nine U.S. Patents. These patents cover various technologies, including video browsing, video analysis, and object code compression.

7. I have authored or co-authored over 300 technical publications, including four textbooks.

8. I have received the ASEE Terman Award and IEEE Circuits and Systems Society Education Award, and I am also a Fellow of the IEEE and ACM and an IEEE Computer Society Golden Core member.

9. I have supervised the dissertations of 25 Ph.D. students.

10. In addition to my academic and industrial credential, my involvement in the field of wireless technology started at an early age. My father was an independent inventor who involved me in his work while I was in elementary school. At the age of twelve I began to build my own radios. I first built a shortwave receiver, followed by the construction of an amateur radio transmitter/receiver and an automatic Morse code keyer. I received a Novice class amateur radio license, which required me to pass a written test on, among other things, radio circuit theory, as well as a 5 word-per-minute Morse code test.

11. While I was at AT&T Bell Laboratories, I conducted research into computer-aided design methods for integrated circuits. This work was understandably motivated by the design of VLSI chips for telecommunications equipment. As part of my work, I collaborated closely with two major switching systems design organizations: the No. 5 ESS organization at Naperville IL; and the System 75 and 85 organization at Westminster, Colorado. I also collaborated closely with the integrated circuit design organizations in Allentown, Pennsylvania.

12. Telephony has long been a motivation for my research. My interest in embedded computing systems was sparked by the design challenges posed by telephones. After joining Princeton University, I taught a class in which we designed a telephone switching system based on a PC. We designed, fabricated, and tested a line card; we also designed call management and switching software that made use of the line card.

13. Multimedia is another longstanding influence on my research. I designed and built an early Web-based video library for Web-based browsing, search, and playback. I have published extensively on both algorithms for video analysis and computer systems architectures for multimedia processing.

14. As a part of my teaching at Princeton and Georgia Tech, I have taught several classes in which students were required to complete large design projects. I started to include discussions of Bluetooth in these classes soon after the introduction of Bluetooth. I have supervised many student design projects that made use of Bluetooth.

15. While at MediaWorks Technology, I was in charge of the design of a CD/MP3 player chip. This chip was designed to operate the mechanics of a CD drive (move the read head across the disc, etc.) and to decode and play MP3 music files from a CD. This chip was not completed; my work concentrated on architectural design and requirements for key modules in the design.

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