

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LG ELECTRONICS, INC.,
LG ELECTRONICS U.S.A., INC., and
LG ELECTRONICS MOBILECOMM U.S.A., INC.,
Petitioner

v .

CYPRESS SEMICONDUCTOR CORPORATION
Patent Owner

Case IPR2014-01302
Patent 8,059,015

DECLARATION OF ROBERT DEZMELYK

EXHIBIT 2020

LG Elecs. v. Cypress Semiconductor
IPR2014-01302, U.S. Pat. 8,059,015

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I, Robert Dezmelyk, declare and state as follows:

I. INTRODUCTION

1. I have been retained by Kaye Scholer LLP at the rate of \$270 per hour to provide opinions in connection with the *Inter Partes* review of U.S. Patent No. 8,059,015 (the “‘015 patent”). My compensation is not affected by the outcome of this proceeding.

2. I have no financial interest in any of the parties, or the ‘015 patent.

II. QUALIFICATIONS

3. I am currently President of LCS/Telegraphics, a consulting and technology supply company. In addition to my design and engineering work at LCS/Telegraphics I personally provide consulting related to areas of technology that I have expertise in. I have been working with input devices, microcomputers, and interactive computer systems since 1976. In 1979, I received my degree from the Massachusetts Institute of Technology (“MIT”). I studied in a specialized program on the application of computers to measurement and control that combined Electrical Engineering and Computer Science courses with courses and research in control systems, signal processing, and instrumentation.

4. During my 35 year career, I have concentrated my work on the interfaces between humans and computers. I have worked on the design and development of numerous input devices, including mice, keyboards, digitizers, touch pads and touch screens. As a part of that work I have designed, implemented, and debugged numerous digital and analog circuits, including circuits used to

determine the location of a user's touch. I have also developed a large amount of software that interacts with input device hardware in order to write device driver programs for input devices. I have developed graphical user interfaces, and software which uses touch or stylus input as its primary means of user interaction. I have designed, written, and led the development of software that interprets user gestures, and I have designed and written controller firmware for keyboards, joysticks, mice, trackballs, digitizing tablets, touch pads, and resistive and capacitive touch screens. I have also been involved with a number of industry standards setting efforts related to input device interfaces. I have been qualified as an expert regarding user interfaces, input device technology, including capacitive touch screen technology, gesture based user interfaces, the display of graphic images, and KVM (keyboard - video - mouse) switch technology. My experience and education are detailed in my curriculum vitae, which is attached as Appendix A.

5. While at MIT, in 1976 I began writing software and designing microcomputer-based devices and had the opportunity to work on some of the first personal computers, writing software and helping to build an interactive flight simulator game. At MIT, I took a project oriented class at MIT's Architecture Machine Group and had the opportunity to familiarize myself with and work with an experimental touch screen with 6DOF force sensors, and a projection based virtual keyboard.

6. After receiving my degree from MIT, I formed Robert Dezmelyk

Associates, a consulting and design company. Projects I personally completed included a control and data acquisition system for pulsed dye lasers used in research, a dynamic RAM board for IBM, and a number of microcomputer systems for data acquisition and analysis. Several of those systems used digitizing tablets, input devices which sense the location of a stylus held by a user to input X,Y coordinate data from images.

7. In 1980, I incorporated my business as Laboratory Computer Systems, Inc. ("LCS") and we launched its first product, a microcomputer based image analysis system called the Image-80 which incorporated a digitizing tablet. Data was entered by tracing features in images with a stylus. In 1981 we introduced a smaller image analyzer built into a digitizing tablet, the Microplan II. The Microplan II was marketed under a private label agreement with Nikon, Inc. and sold by Nikon for a number of years as a part of its scientific instrument product line. For Microplan II, I re-wrote the firmware for the digitizing tablet and licensed that firmware back to the tablet manufacturer, starting a long relationship with manufacturers of digitizing tablets. The Microplan II firmware computed morphometric parameters from the user's input strokes in real time. The Microplan II firmware performed the same type of computations used in real time gesture recognition software.

8. In 1984, I developed a concept for an interactive communications program for the newly introduced IBM Personal Computers that allowed users to browse remote time sharing systems with a graphical interface, similar in



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