## **EXHIBIT C**

## IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

CYWEE GROUP LTD.,

Plaintiff

v.

NO. 2:17-CV-00140-RWS-RSP

NO. 2:17-CV-00140-RWS-RSP

NO. 2:17-CV-00140-RWS-RSP

AND SAMSUNG ELECTRONICS

AMERICA, INC.,

Defendants.

## DECLARATION OF M. RAY MERCER, PH.D.

#### I. <u>INTRODUCTION</u>

- I, M. Ray Mercer, Ph.D. hereby declare as follows:
- 1. My name is Melvin Ray Mercer. I am at least eighteen years of age. I reside in Dallas in the State of Texas. I have personal knowledge of and am competent to testify as to the facts and opinions herein.
- 2. I have been retained by counsel for Defendants Samsung Electronics Corporation Ltd. and Samsung Electronics America, Inc. (collectively "Samsung") as an expert to analyze and explain what certain claim terms in U.S. Patent Nos. 8,441,438 ("438 Patent") and 8,552,978 ("978 Patent") (collectively, "patents-in-suit") would mean to a person of ordinary skill in the art ("POSA") at the time of the alleged inventions.
- 3. I have been informed that CyWee Group Ltd. ("CyWee") is currently asserting certain claims of the '438 and '978 Patents against Samsung in a litigation pending in the United States District Court for the Eastern District of Texas.



- 4. I am being compensated at my normal consulting rate of \$650 per hour. I am being separately reimbursed for any out-of-pocket expenses. My compensation does not depend in any way on the outcome of this case, my particular testimony, or the opinions that I express.
- 5. In rendering my opinions, I considered the items listed in Exhibit A, the items discussed or listed herein, as well as my own experiences in the field.

## II. **QUALIFICATIONS**

- 6. In this section of my declaration, I provide a brief summary of my qualifications to act as an expert in this matter. A copy of my current Curriculum Vitae is attached as Exhibit B, which contains a listing of my education and experience.
- 7. I have more than 47 years of dual industrial and academic experience in Electrical Engineering and Computer Engineering. I received a B.S. in Electrical Engineering from Texas Tech University in 1968, a Master of Science in Electrical Engineering from Stanford University in 1971, and a Doctor of Philosophy in Electrical Engineering from The University of Texas at Austin in 1980. Further, I have authored dozens of published technical papers and delivered many lectures addressing various aspects of Electrical and Computer Engineering.
- 8. From 1968 to 1973, I was a Research/Development Engineer at General Telephone and Electronics Sylvania in Mountain View, California. I completed my M.S. in Electrical Engineering from Stanford University in 1971. At Stanford, I worked on techniques that were unique in that they involved adaptive linear optimizations for monitoring non-stationary signals. During this period, much of my work related to communications, computer control of data collection, and analysis systems used by organizations in the United States government. Leading-edge sensing techniques were a key aspect of much of this work.
- 9. From 1973 to 1977, I was a Member of Technical Staff at Hewlett-Packard's Santa Clara Division and subsequently at Hewlett-Packard Laboratories in Palo Alto, California. During



that time, I continued to develop application programs. I also designed interface hardware to interact with computer software and accomplish various tasks. One major project I was responsible for was the real-time control of environmental test systems for satellites and satellite components. Applications for these analysis and control tools utilized Fourier Transforms for tasks best performed in the frequency domain. For example, these tools allowed automated analysis of communication systems. Key concepts in this work are related to this case because they involved digital data communications, motion control, motion analysis, and data collection based upon sensors including accelerometers. During this period, I also used variations of these tools to monitor and analyze motions of rigid and semi-rigid objects — particularly with respect to vibration mode analysis. The same tools also found application in the automated diagnosis of communication systems such as telephone systems.

- 10. At HP Laboratories, among other projects, I developed hardware and software to provide real-time control of manufacturing systems for solid state devices. This work related directly to the issues in this case because the tools I developed involved sensor systems and control systems for displacement, rotation, temperature control, etc. I also did some of the earliest research on the dominant sources for the degradation of liquid crystal displays.
- 11. From 1977 to 1980, I was a Lecturer in the Division of Mathematics, Statistics, and Computer Science at the University of Texas at San Antonio. As the director of a laboratory for teaching students to program and build hardware interfaces and control systems using small computers, my students and I purchased, built, and operated some of the earliest personal computers. Additionally, I taught courses in the design of digital systems. During this period, I also completed my Ph.D. in Electrical Engineering at the University of Texas at Austin in 1980. I also did my first consulting work at this time involving the control, sensing, and evaluation of human motion control capabilities under adverse environmental conditions.



- 12. From 1980 to 1983, I was a Member of Technical Staff at Bell Laboratories in Murray Hill, New Jersey. My work involved the programming of computers and the design of hardware components for communication systems. I was part of a three-person team that designed, tested, and directed the manufacture of an integrated circuit that was a key component in a digital telephone modern. I also actively worked with designers of large scale digital telephone switching systems. This work relates generally to the topics in this case because moderns obviously sense and produce sound. The manufacture testing of this product involved extensive investigation of the external sensing aspects of this product and associated conclusions about aspects of the device that were only indirectly determinable.
- 13. In 1983, I was appointed Assistant Professor of Electrical and Computer Engineering at the University of Texas at Austin. In 1987, I was promoted to Associate Professor and Professor in 1991. During this period, I taught Computer Engineering courses at the undergraduate and graduate level, directed the research of graduate students, and consulted with numerous organizations. One consulting project I did at this time involved the study of early printed circuit board surface mount techniques where component placement was automated using pick-and-robotic systems. As part of this work I interface with more than a dozen of the largest printed circuit manufacturers in the United States at that time. Aspects of this work relate to issues in this case since the manufacturing systems made extensive use of sensors and controllers.
- 14. In 1995, I was appointed Professor of Electrical and Computer Engineering, Leader of the Computer Engineering Group, and Holder of the Computer Engineering Chair in Electrical Engineering at Texas A&M University in College Station, Texas. My teaching, my research, my technical publications, and my supervision of graduate students during that period included the areas of the modeling, design, and fabrication of digital hardware and software systems. As with my previous work (at The University of Texas at Austin), during this period, I taught courses at the



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