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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.
Petitioner

v.

OPTIS CELLULAR TECHNOLOGY, LLC
Patent Owner

Case IPR2020-00465

**DECLARATION OF DR. WELLS IN SUPPORT OF
PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT NO. 8,102,833 B2**

APPLE 1002

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I, Dr. Jonathan Wells, declare as follows:

I. INTRODUCTION

1. My name is Dr. Jonathan Wells.

2. I have over 30 years of wireless communications experience in areas including cellular technologies, network infrastructure, and wireless standards, rules and regulations. I have written a textbook and multiple industry reports and journal/conference papers which focus on wireless communications system, which are outlined in my CV, attached hereto as Appendix A. For example, I am the author of the textbook “*Multi-Gigabit Microwave and Millimeter-Wave Wireless Communications*,” published by Artech House in 2010. I have also authored four comprehensive industry reports on cellular connectivity for Mobile Experts. I have lectured as part of undergraduate programs at UC Berkeley, Carnegie Mellon University, and University of Bath, and have given over two dozen lectures and conference presentations on topics germane to wireless communications. I am a listed inventor of several patents, and am an author of over 40 academic and commercial publications and presentations. I have been a member of the Institute of Electrical and Electronic Engineers (IEEE) since 1995 and a Senior Member of IEEE since 1999. In 2019, I was recognized by the IEEE Santa Clara Valley Section as their “Outstanding Engineer” of the year. The IEEE Santa Clara Valley Section encompasses Silicon Valley and is the largest IEEE Section in the world.

This was awarded “For his acknowledged expertise in the field of wireless communications and wireless technology, for his willingness to mentor others in the field, and for his work in the development of the next generation of creative and innovative technical products.”

3. I received my B.Sc. degree in Physics with Physical Electronics, awarded with 1st Class Honours, from the University of Bath, United Kingdom, in 1987. In 1991, I earned my Ph.D., also from the University of Bath. I earned my M.B.A., awarded with distinction, from Massey University, New Zealand, in 1998.

4. I began my career in 1985, as an Engineer for Plessey Research, Caswell, United Kingdom, developing high-speed fiber optic transmitter/receiver devices. In 1987, I worked at British Aerospace, Bristol, United Kingdom, designing and fabricating novel mixer devices, to support my Ph.D. research. Later, in 1990, as a Post-Doctoral Research Officer for University of Bath, I designed and fabricated novel quantum amplifiers, and developed computer models to predict the performance of these and other devices. I also taught undergraduate classes and ran laboratory sessions.

5. In 1993, I joined Matra Marconi Space, Portsmouth, United Kingdom as a Senior Design Engineer, and developed integrated electronic components and space-qualified sub-systems for two satellite payloads.

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