UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner

v.

TELEFONAKTIEBOLAGET LM ERICSSON,

Patent Owner

Inter Partes Review Case No. IPR2022-00468

U.S. Patent No. 10,512,027

DECLARATION OF JONATHAN WELLS UNDER 37 C.F.R. § 1.68 IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 10,512,027

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I, Jonathan Wells, declare as follows:

I. INTRODUCTION

1. I have been retained as an expert witness by Apple Inc. ("Petitioner") in connection with the above- captioned Petition for *Inter Partes* Review ("IPR") of U.S. Patent No. 10,512,027 ("the '027 patent") (Ex. 1001).

2. I have been asked to prepare this Declaration to provide my opinions regarding whether or not claims 1-8, 10-18, and 20-21 of the '027 patent are valid in view of the prior art cited in the Petition. I refer to claims 1-8, 10-18, and 20-21 of the '027 patent as the "Challenged Claims."

3. In preparing my Declaration, I reviewed the '027 patent, including its file history, prior art references, technical references, and other publications from the time of the alleged invention, which I discuss herein, including 3rd Generation Partnership Project ("3GPP") meeting notes R2-166120 from October 10-14, 2016; LTE for UMTS, Evolution to LTE- Advanced, Harri Holma and Antti Toskala (2d

4. In forming the opinions expressed in my Declaration, I relied upon my education and experience, and I considered the viewpoint of a person having ordinary skill the art ("POSA"), as discussed in Section VII below, as of the priority date of the '027 patent.

5. I am not currently, and never have been, an employee of Apple. I received no compensation for this Declaration beyond my normal hourly compensation based on my time spent analyzing the '027 patent, the prior art patents and publications cited below, and issues related thereto. My compensation is not affected by or dependent in any way on the outcome of this matter. I have no financial interest in Apple.

II. QUALIFICATIONS

6. My educational background, career history, publications, and other relevant qualifications provided here are only a summary. My full *curriculum vitae*,

¹ Holma was published and publicly available no later than July 1, 2011. Ex. 1018 (Mullins Declaration In Support of Public Availability of Holma), ¶48.

² Sesia was published and publicly available no later than April 14, 2012. Ex. 1018 (Mullins Declaration In Support of Public Availability of Sesia), ¶63. including cases in which I have previously given testimony, is attached as Exhibit 1006.

7. I have over 35 years of academic and industry experience in wireless networks, including 2G, 3G, 4G and 5G networks, comprising GSM, WCDMA, LTE and NR technologies; cellular infrastructure equipment, including handsets, base stations and backhaul; and wireless standards, rules and regulations (e.g., 3GPP, ETSI and FCC). Over my career, I have developed and deployed radio frequency (RF) hardware for telecommunication infrastructure equipment for worldwide export, implemented marketing and product development strategies for cellular wireless products, and participated in European Telecommunications Standards Institute ("ETSI"), Federal Communications Commission ("FCC") and other technical body meetings. I have been a member of 3GPP, and have direct knowledge and experience with 3GPP and its operations and specifications. I have worked as an expert in matters related to the infringement and validity of patents on multiple occasions, including for patents related to wireless technologies and standards.

8. In 1987, I received my Bachelor of Science (B.Sc.) degree in Physics with Physical Electronics, awarded with 1st Class Honours, from the University of Bath, Bath, United Kingdom. In 1991, I received my Doctor of Philosophy (Ph.D.) degree from the University of Bath. In 1998, I received my Master of Business

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