

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent of: Erik Dahlman et al.  
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Title: TRANSMISSION OF SYSTEM INFORMATION ON A  
DOWNLINK SHARED CHANNEL

**DECLARATION OF JONATHAN WELLS, Ph.D.**

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I, Jonathan Wells, Ph.D, of Pleasanton, California, declare that:

## **I. ASSIGNMENT**

1. I have been retained as a technical expert by counsel on behalf of Apple Electronics Co., Ltd. (“Apple” or “Petitioner”). I understand that Apple is requesting that the Patent Trial and Appeal Board (“PTAB” or “Board”) institute an *Inter Partes* Review (“IPR”) proceeding of U.S. Patent No. 8,995,357 (“the ’357 patent”) (APPLE-1001).

2. I have been asked to provide my independent analysis of the ’357 patent in light of the prior art publications cited below.

3. I am not, and never have been, an employee of Apple. I received no compensation for this declaration beyond my normal hourly compensation based on my time actually spent analyzing the ’357 patent, the prior art publications cited below, and the issues related thereto, and I will not receive any added compensation based on the outcome of any IPR or other proceeding involving the ’357 patent.

## **II. QUALIFICATIONS**

4. I have over 35 years of academic and industry experience in wireless networks (e.g., 2G, 3G, 4G and 5G networks, comprising GSM, WCDMA, LTE and NR technologies), cellular infrastructure equipment (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.

5. I received a 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 1987. In 1991, I earned my Doctor of Philosophy (Ph.D.) also from the University of Bath. I earned my Master of Business Administration (M.B.A.) degree, awarded with distinction, from Massey University in New Zealand, in 1998.

6. 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. From 1990 to 1992, I worked at the University of Bath as a Postdoctoral Research Officer. During this time, I designed and fabricated novel quantum amplifiers in a clean room environment and developed computer models to predict semiconductor device performance.

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