

Filed on behalf of Valencell, Inc.

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC.,  
Petitioner,

v.

VALENCELL, INC.,  
Patent Owner.

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Case IPR2017-00319  
U.S. Patent No. 8,923,941

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**DECLARATION OF LUCA POLLONINI IN SUPPORT OF PATENT  
OWNER RESPONSE TO PETITION**

Mail Stop PATENT BOARD  
Patent Trial and Appeal Board  
U.S. Patent & Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Case IPR2017-00319  
Patent 8,923,941

**Patent Owner Response to Petition for *Inter Partes* Review of U.S. Patent  
No. 8,923,941**

**Declaration of Dr. Luca Pollonini**

I, Luca Pollonini, do hereby declare and state, under penalty of perjury under the laws of the United States of America, that all statements made herein of my own knowledge are true and correct and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed on September 22, 2017, at Manvel, Texas.



Luca Pollonini

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## **INTRODUCTION**

### ***A. Engagement***

1. My name is Dr. Luca Pollonini. I have been asked to submit this declaration on behalf of Valencell, Inc. (“Valencell” or “Patent Owner”) in connection with Patent Owner’s response (the “Response”) to the petition (the “Petition”) of Apple Inc. (“Apple” or “Petitioner”) for *inter partes* review of U.S. Patent No. 8,923,941 (“the ’941 patent”). Valencell’s Response, I understand, is being submitted to the Patent Trial and Appeal Board (“PTAB” or the “Board”) of the United States Patent and Trademark Office (“PTO” or “USPTO”) in this proceeding having case number IPR2017-00319.

2. I have been retained as a technical expert by Petitioner to study and provide my opinions on the technology claimed in, and the patentability or nonpatentability of, claims 1, 2, and 6-21 of the ’941 patent. I understand that two separate *inter partes* reviews have been instituted on the ’941 patent. My opinions in this declaration will concern those claims instituted in case number IPR2017-00319: claims 1, 2, and 6-13.

3. As part of my study, I have reviewed and am familiar with the specification of the ’941 patent. I understand that the ’941 patent has been provided as Exhibit 1001. Previously, Patent Owner filed its Preliminary Response (Paper 6, referred to as the “Preliminary Response”) to the Petition (Paper 2, referred to as the

“Petition”). And the Board issued its Decision (Paper 10, referred to and cited to as the “Decision”), which instituted review based on the finding that there was a reasonable likelihood that the Petitioner would prevail as to claims 1, 2, and 6-13 of the '941 patent.

***B. Background and Qualifications***

4. I expect to testify regarding my background, qualifications, and experience relevant to the issues in this *inter partes* review proceeding.

5. In this section, I discuss my educational background, work experience, and other relevant qualifications. My curriculum vitae is attached as **Appendix A**.

6. I have over seventeen years of experience in biomedical optics, which I matured both in academia and industry. I am currently an Assistant Professor of Engineering Technology at the University of Houston, where I direct the Optical BioImaging Laboratory. My research activity is focused on the design, development and validation of optical devices and instruments for non-invasive sensing of physiological parameters of interest in healthcare. In particular, my lab operates in the field of optical brain imaging for measurement of cerebral blood flow, wearable optical sensors for early detection of pressure ulcers, and other applications based on near infrared spectroscopy.

7. I have also co-founded two companies, Nirox (established in 2005 in Italy) and Performance Athlytics (established in 2013 in Texas), both of which are

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