

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.

MAXELL, LTD.

Patent Owner

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Case IPR2020-00202

Patent 10,212,586

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**Declaration of Dr. Victor Shoup**

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## DECLARATION OF DR. VICTOR SHOUP

I, Victor Shoup, Ph.D., hereby declare the following:

### I. BACKGROUND AND QUALIFICATIONS

1. My name is Victor Shoup, and I am over 21 years of age and otherwise competent to make this Declaration. I make this Declaration based on facts and matters within my own knowledge and on information provided to me by others, and, if called as a witness, I could and would competently testify to the matters set forth herein.

2. I have been retained as a technical expert witness in this matter by Counsel for the Petitioner, Apple Inc. (“Petitioner”) to provide my independent opinions on certain issues requested by Counsel for Petitioner relating to the accompanying Petition for *Inter Partes* Review of U.S. Patent No. 10,212,586 (“the ’586 Patent”), claims 1-2, 6-7, 9-10, 13-14, and 16-18. I am being compensated at an hourly rate of \$500. My compensation in this matter is not based on the substance of my opinions or on the outcome of this matter. I have been informed that Maxell, Ltd. is the purported owner of the ’586 Patent. I note that I have no financial interest in Maxell, Ltd. or Petitioner, and I have no other interest in the outcome of this matter.

3. As part of my work and in forming my opinions in connection with this proceeding, I have reviewed the following materials, each of which I believe experts

in my field would reasonably rely upon in forming opinions regarding the subject matter of this proceeding:

- Patent Owner’s Preliminary Response (IPR2020-00202, Paper 6) (“*POPR*”)
- Decision Granting Institution of *Inter Partes Review* (IPR2020-00202, Paper 11) (“*Institution Decision*”)
- Patent Owner’s Response (IPR2020-00202, Paper 17) (“*POR*”)
- Deposition Transcript of Dr. Branimir Vojcic (Ex. 1060) (“*Vojcic Trans.*”)
- Brent A. Miller & Chatschik Bisdikian, *Bluetooth Revealed* (2001) (“*Miller*”)
- Plamen Nedeltchev, *Wireless Local Area Networks and the 802.11 Standard*. March 31, 2001 (“*Nedeltchev*”)
- Kin K. Leung, et al., *Outdoor IEEE 802.11 Cellular Networks: MAC Protocol Design and Performance*, 1 Proc. IEEE Int’l Conf. on Comm. 595 (2002) (“*Leung*”)

These materials are in addition to those previously disclosed in my Declaration (identified as Ex. 1003 in this proceeding).

## II. OPINION

### A. Level of Skill of a Person Having Ordinary Skill in the Art

4. I have reviewed the Board’s preliminary determination as to the level of ordinary skill in the art at the time of the invention. (“For purposes of this proceeding, we determine that a person of ordinary skill in the art is a person having Bachelor’s degree in Electrical Engineering or Computer Science, or an equivalent degree, with at least two years of working experience in computer or network security, or wireless communications.”). *Institution Decision* at 22.

5. I have also reviewed Patent Owner's proposed level of ordinary skill in the art. ("A person of ordinary skill in the art in the field of the '586 Patent would have had a working knowledge of wireless communications, and gained this knowledge through a Bachelor of Science in Electrical Engineering, and at least one year of experience working in the field of wireless communications.") *POPR* at 23.

6. For the purposes of this declaration, I have applied the Board's preliminary determination as to the level of ordinary skill in the art. However, none of the opinions expressed herein would change if the Board were instead to adopt Petitioner's proposed level of skill in the art (as set forth and discussed in my original declaration) or Patent Owner's proposed level of skill in the art.

7. Based on my education, training, and professional experience in the field of the claimed invention, I am familiar with the level and abilities of a person of ordinary skill in the art at the time of the claimed invention. Additionally, I met at least these minimum qualifications to be a person having ordinary skill in the art at least as of May 23, 2012. Further, although my qualifications may exceed those of the hypothetical person having ordinary skill in the art defined above, my analysis and opinions regarding the '586 Patent have been rendered from the perspective of a person having ordinary skill in the art at the time of the invention.

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