

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.

SCRAMOGE TECHNOLOGY LTD.,  
Patent Owner

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Case IPR2022-00117  
Patent No. 9,843,215

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**DECLARATION OF JOSHUA PHINNEY, PH.D.,  
UNDER 37 C.F.R. § 1.68  
IN SUPPORT OF PETITIONER REPLY**

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I, Joshua Phinney, Ph.D., declare as follows:

**I. INTRODUCTION**

1. I am the Joshua Phinney who has previously submitted a declaration as Ex.1003 in this proceeding. The terms of my engagement, my background, qualifications and prior testimony, and the legal standards and claim constructions I am applying are set forth in my previous CV and declaration. *See* Ex.1003; Ex.1004. I offer this declaration in reply to the Response the Patent Owner filed in this proceeding.

2. I am a Principal Engineer in the Electrical Engineering and Computer Science practice at Exponent, an engineering and scientific consulting firm headquartered at 149 Commonwealth Drive, Menlo Park, California 94025.

3. I have been retained as an independent expert consultant in this proceeding before the United States Patent and Trademark Office (the “Patent Office”). I am being compensated for my work in this matter at my standard hourly rate. I am also being reimbursed for reasonable and customary expenses associated with my work and testimony in this investigation. My compensation is not contingent on the outcome of this matter or the specifics of my testimony.

4. I previously submitted an expert declaration in support of Apple, Inc.’s Petition for *inter partes* review (IPR) regarding U.S. Patent No. 9,843,215 (“the ’215 Patent”) to Yeom *et al.* *See* Ex. 1003. I understand that Patent Owner

Scramoge submitted a Patent Owner Response (“Response”) in IPR2022-00117 (Paper 17) addressing grounds for obviousness presented by Petitioner in its Petition. I submit this expert declaration in support of Petitioner’s Reply to the Response.

5. Details regarding my qualifications, testifying experience, employment history, fields of expertise, and publications are provided in my prior declaration and my CV, Ex. 1003; Ex.1004.

6. In the preparation of this declaration, I have studied the materials listed in Ex.1003, as well as the materials cited in this declaration, including:

- a. Declaration of David S. Ricketts, Ex. 2020;
- b. Patent Owner’s Response, Paper 17;
- c. Certified Transcript from Deposition of Dr. Ricketts, Ex.1017.
- d. B.D. Cullity, Introduction to Magnetic Materials, 2nd Edition, Ex.1019;
- e. U.S. Patent No. 10,344,391, Ex.1020;
- f. Xing Xing, Soft Magnetic Materials and Devices on Energy Applications, July 2011 doctoral thesis at Northeastern University, Ex.1021;
- g. S. Tumanski, *Magnetic Materials from: Handbook of Magnetic Measurements*, CRC Press. Ex.1022;

- h. Sun, *Soft High Saturation Magnetization ( $Fe_{0.7}Co_{0.3})_{1-x}N_x$  Thin Films For Inductive Write Heads*, Ex.1023;
- i. Leary, *Soft Magnetic Materials in High-Frequency, High-Power Conversion Applications*. Ex.1024
- j. *The Merriam-Webster Dictionary*, Merriam-Webster, Inc., 1995, Ex.1025;
- k. The Wayback Machine, capture of “Separate | Define Separate at Dictionary.com” on February 7, 2012, <https://web.archive.org/web/20120207103735/http://dictionary.reference.com:80/browse/separate>, Ex.1026;
- l. U.S. Patent No. 8,409,341, Ex.1027;
- m. Wiley Online Record for Cullity (Ex.1019), Ex.1028;
- n. Northeastern Library Link, Ex.1029;
- o. *High Bandwidth Low Insertion Loss Solenoid Transformers Using FeCoB Multilayer* (p.19), Ex.1030;
- p. Online Print Publication Record for Ex.1022, Ex.1031;
- q. *Magnetic Nanoparticles: From Fabrication to Clinical Applications* (pg. 41) CRC Press, Ex.1032;
- r. U.S. Patent No. 7,968,219, Ex.1033;

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