

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ADVANCED MICRO DEVICES, INC.

Petitioner

v.

AQUILA INNOVATIONS INC.

Patent Owner

Case No. IPR2019-01526
Patent No. 6,895,519 B2

DECLARATION OF DR. STEVEN A. PRZYBYLSKI

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I. INTRODUCTION

1. I, Steven A. Przybylski, Ph.D., have been retained by Freitas & Weinberg LLP on behalf of Aquila Innovations, Inc. as an independent expert in the field of computer memory technology in this *inter partes* review no. IPR2019-01526 of U.S. Patent No. 6,895,519 (which I will refer to in this declaration as “the ’519 patent”).

2. I understand that the ’519 patent is owned by Aquila Innovations Inc., which I understand has sued Advanced Micro Devices, Inc. (“AMD”) for infringement of the ’519 patent and that AMD filed the IPR petition.

3. I am being compensated at my standard hourly rate for my work on this matter, including providing this declaration. My compensation is not dependent on the outcome of this IPR, the infringement litigation, or any other proceeding. The compensation I receive in this case does not in any way affect the substance of my testimony in this declaration.

4. I have no financial interest in the ’519 patent, Aquila Innovations Inc., or any entity affiliated with Polaris Innovations Limited. I do not stand to benefit or be harmed financially in any way by the outcome of this IPR or the infringement litigation.

5. I understand that the Patent Trial and Appeal Board (PTAB) has ordered trial on all the Challenges AMD has asserted: That claims 1, 7, 10 , and 11

of the '519 patent are obvious over Ober (U.S. Patent No. 6,665,802, Exhibit 1004) in view of Nakazato (U.S. Patent No. 6,681,336, Exhibit 1008); that claims 2 through 6 are obvious over Ober in view of Nakazato, Cooper (U.S. Patent No. 6,823,516, Exhibit 1007, and Windows ACPI (Exhibit 1013); and that claims 8 and 9 are obvious over Ober in view of Nakazato and Doblar (U.S. Patent No. 6,516,422, Exhibit 1008).

6. In preparing this declaration, I have considered the '519 patent and its prosecution history, the IPR petition filed by AMD (Paper No. 1), the declaration of Dr. David Albonesi (Exhibit 1003) filed with the IPR petition, the prior art and references identified in the petition, my knowledge and expertise in the art, and any additional materials cited herein.

II. SUMMARY OF OPINIONS

7. Based on my review and analysis of the materials in this matter, as well as my experience and education, in my opinion the Petition fails to show that any claims of the '519 patent should be found unpatentable.

III. QUALIFICATIONS

8. My current curriculum vitae ("CV") is being provided as a separate exhibit.

9. I earned a Bachelor of Applied Science from the University of Toronto in 1980. I was enrolled in the Engineering Science program, completing a course of study combining the Electrical Engineer and Computer Science options.

10. I earned a Masters of Science in Electrical Engineering degree and a Ph.D. in Electrical Engineering in 1982 and 1988 respectively, both from Stanford University.

11. I also earned a Masters of Business Administration from the Haas School of Business at the University of California at Berkeley in 2000.

12. I have extensive experience with memory semiconductor integrated circuits and the memory systems constructed of them. At Stanford, my dissertation was on the optimization of single- and multi-level cache hierarchies to maximize system-level performance. Also at Stanford, I was a member of the core team that architected, designed, built and tested the seminal MIPS processor. I was responsible for the design of the instruction decode and control units as well as architecting the virtual memory support. I assembled and debugged the entire microprocessor design and oversaw its fabrication and testing. In 1984 and 1985, I took a leave of absence from Stanford to become a member of the founding team of MIPS Computer Systems, a startup in California that designed, built, and sold processors and computer systems. In 1989, after finishing my doctorate and brief post-doctorate at Stanford, I returned to MIPS Computer Systems. Throughout my

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