UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD MICRON TECHNOLOGY, INC., Petitioner v. VERVAIN, LLC, Patent Owner Case No.: IPR2021-01550 U.S. Patent No. 10,950,300 Original Issue Date: March 16, 2021 Title: LIFETIME MIXED LEVEL NON-VOLATILE MEMORY SYSTEM

REPLY DECLARATION OF DR. DAVID LIU



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I, Dr. David Liu, hereby declare as follows:

I. INTRODUCTION

- 1. I have been retained by Micron Technology, Inc. ("Micron") as an independent expert consultant in this proceeding before the United States Patent and Trademark Office ("PTO"). I am not an employee of Micron or any affiliate or subsidiary of Micron.
- 2. I have been asked to consider whether certain references teach or suggest the features recited in certain claims of U.S. Patent No. 10,950,300, which I refer to herein as the 300 Patent, and whether certain claims of the 300 Patent are unpatentable as obvious.
 - 3. My opinions and the bases for my opinions are set forth below.
- 4. I am being compensated at \$550 per hour for my work, plus reimbursement for any reasonable expenses. My compensation is based solely on the amount of time that I devote to activity related to this case and is in no way contingent on the nature of my findings, the presentation of my findings in testimony, or the outcome of this or any other proceeding. I have no other financial interest in this proceeding.

II. EDUCATION BACKGROUND, PROFESSIONAL EXPERIENCE, AND OTHER QUALIFICATIONS

5. My education, background, and professional qualifications are set forth in Paragraphs 5–14 of the previous declaration that was submitted in



connection with this proceeding (which I understand has been designated as Exhibit 1009). My curriculum vitae ("CV") is included as Exhibit 1058 and provides an accurate identification of my background and experience.

III. ASSIGNMENT AND MATERIALS CONSIDERED

- 6. I have been asked to provide some additional opinions and elaboration regarding the state of the art and the understanding of a person of skill in the art ("POSA") as of the effective filing date of the 300 Patent.
- 7. The opinions expressed in this declaration are not exhaustive of my opinions regarding the unpatentability of the claims of the 300 Patent. Therefore, the fact that I do not address a particular point should not be understood to indicate an agreement on my part that any claim complies with the requirements of any applicable patent or other rule.
- 8. I reserve the right to amend and supplement this declaration in light of additional evidence, arguments, or testimony presented during this IPR or related proceedings on the 300 Patent.
- 9. In forming the opinions set forth in this declaration, I have considered and relied upon my education, knowledge of the relevant field, knowledge of scientific and engineering principles, and my experience. I have also reviewed and considered the 300 Patent (Exhibit 1007), its prosecution history (Exhibit 1008), the materials listed in my prior declaration (Exhibit 1009), the materials cited in



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