### UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., Petitioner,

V.

TOGAIL TECHNOLOGIES LTD., Patent Owner.

IPR2023-00645 U.S. Patent No. 10,743,238

DECLARATION OF DR. ZHI DING, PH.D., UNDER 37 C.F.R. § 1.68 IN SUPPORT OF PETITION FOR INTER PARTES REVIEW



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I, Dr. Zhi Ding, do hereby declare as follows:

#### I. INTRODUCTION

- 1. I am making this declaration at the request of Apple Inc. in the matter of the *Inter Partes* Review of U.S. Patent No. 10,743,238 ("the '238 patent") to Chen, *et al*.
- 2. I am being compensated for my work on this matter and 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, and I have no other interest in this case or the parties thereto.
- 3. I have been asked to provide my opinions regarding whether claims 1-5 and 11-15 ("the Challenged Claims") of the '238 patent are patentable, or whether they would have been obvious to a person having ordinary skill in the art ("POSITA") at the time of the alleged invention, in light of the prior art. It is my opinion that all of the limitations of the challenged claims would have been obvious to a POSITA.
  - **4.** In the preparation of this declaration, I have studied:
  - a. the '238 patent, Ex.1001;
- b. the prosecution history of the '238 patent ("'238 File History"), Ex.1002;



- c. Declaration of Mr. Craig Bishop under 37 C.F.R. § 1.68, Ex.1005;
- d. 3GPP TSG RAN WG2 Meeting #99bis R2-1711767, "Discussion on the granularity of SI change notification," Source: ITRI, Ex.1007;
  - e. U.S. Patent No. 10,505,803 to Liao, Ex.1008;
  - f. U.S. Provisional Patent Application No. 62/544,118 to Liao, Ex.1009;
  - g. U.S. Patent Publication No. 2019/0132824 to Jeon et al., Ex.1010;
- h. U.S. Provisional Patent Application No. 62/577,995 to Jeon et al., Ex.1011;
- i. 3GPP TSG RAN WG1 NR Ad Hoc Meeting R1-1709972, "Overview of wider bandwidth operations," Source: Huawei, HiSilicon, Ex.1012;
  - j. U.S. Patent Publication No. 2019/0260530 to Yi et al., Ex.1013;
- k. Draft Report of 3GPP TSG RAN WG1 Meeting #90bis v0.1.0 R1-171xxxx, Source: MCC Support, Ex.1014;
- 1. 3GPP TSG RAN WG2 Meeting #99bis R2-1710181, "Discussion on NR SI Modification," Source: OPPO, Ex.1015;
  - m. U.S. Patent Publication No. 2019/0182884 to Deenoo et al., Ex.1016;
  - n. U.S. Patent Publication No. 2019/0053029 to Agiwal et al., Ex.1017;
- o. U.S. Provisional Patent Application No. 62/543,581 to Agiwal et al., Ex.1018;



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