

Declaration in Support of *Inter Partes* Review of U.S. Patent RE45,542

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KINGSTON TECHNOLOGY COMPANY, INC.,

Petitioner,

v.

MEMORY TECHNOLOGIES, LLC,

Patent Owner

U.S. Patent No. RE45,542

**DECLARATION OF R. JACOB BAKER, Ph.D., P.E.,
REGARDING U.S. PATENT NO. RE45,542**

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I. INTRODUCTION

1. My name is R. Jacob Baker Ph.D., P.E. I am a Professor of Electrical and Computer Engineering at the University of Nevada, Las Vegas. I have prepared this report as an expert witness on behalf of Kingston Technology Company, Inc. (“Petitioner” or “Kingston”). In this report I give my opinions as to whether claims 18, 23-24, 28-29, 32-33, and 37-40 of U.S. Patent No. RE45,542 (“the RE542 Patent”) (Ex. 1001) are valid. I provide technical bases for these opinions as appropriate.

2. This declaration contains statements of my opinions formed to date and the bases and reasons for those opinions. I may offer additional opinions based on further review of materials in this case, including opinions and/or testimony of other expert witnesses.

3. I have summarized in this section my educational background, career history, publications, and other relevant qualifications. My full *curriculum vitae* is attached as Appendix A to this declaration.

A. Educational Background

4. I received a B.S. degree and a M.S. degree in electrical engineering from the University of Nevada, Las Vegas (“UNLV”) in 1986 and 1988, respectively. I received my Ph.D. in Electrical Engineering from the University of Nevada, Reno, in 1993.

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5. My doctoral research, culminating in the award of a Ph.D. in Electrical Engineering in 1993, investigated the use of power MOSFETs (metal oxide semiconductor field effect transistors) in the design of very high peak power, and high-speed, instrumentation. I developed techniques to reliably stack power MOSFETs to switch higher voltages, that is, greater than 1,000 V at near 100 Amps of current with nanosecond switching times. This work was reported in the paper entitled “Transformerless Capacitive Coupling of Gate Signals for Series Operation of Power MOSFET Devices,” published in the IEEE Transactions on Power Electronics. The paper received the 2000 Best Paper Award from the Power Electronics Society. In addition, I have published several other papers in this area and I hold a patent, Patent No. 5,874,830, in the area of power supply design, titled, “Adaptively biased voltage regulator and operating method,” which was issued on February 23, 1999.

B. Career History

6. I am a licensed Professional Engineer in the State of Idaho and have more than 30 years of experience, including extensive experience in circuit design and manufacture of Dynamic Random Access Memory (DRAM) semiconductor integrated circuit chips and CMOS Image Sensors (CISs) at Micron Technology, Inc. (“Micron”) in Boise, Idaho. I also spent considerable time working on the development of Flash memory while at Micron. My efforts resulted in more than a

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