

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG ELECTRONICS CO., LTD.,  
SAMSUNG ELECTRONICS AMERICA, INC., AND LG ELECTRONICS,  
INC.  
Petitioners,

v.

PAPST LICENSING GMBH & CO. KG  
Patent Owner.

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Case IPR2016-01733<sup>1</sup>  
Patent 9,189,437

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**DECLARATION OF THOMAS A. GAFFORD**

Mail Stop PATENT BOARD  
Patent Trial and Appeal Board  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

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<sup>1</sup> IPR2017-01038 has been joined with this proceeding.

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## I. Introduction

I, Thomas A. Gafford, declare as follows:

1. I have been retained on behalf of Papst Licensing GmbH & Co. KG (“Papst”), and its counsel, Fitch Even Tabin & Flannery LLP, as an expert in this proceeding. I am personally knowledgeable about the matters stated herein and am competent to make this declaration.

2. I understand that Petitioners filed a Petition for *Inter Partes* Review regarding certain claims of United States Patent No. 9,189,437 (“the ’437 patent”), which was accompanied by the Declaration of Paul F. Reynolds, Ph.D. I am aware that, after Papst submitted its Preliminary Response, the Patent Trial & Appeal Board (“Board”) issued a Decision on February 8, 2017 instituting trial as to claims 1–45. I understand that the trial will address issues of alleged unpatentability under 35 U.S.C. § 103(a) over U.S. Patent No. 5,758,081 to Aytac (Ex. 1004) in combination with the American National Standard for Information Systems, Small Computer System Interface-2, ANSI X3.131-1994 (1994) (“SCSI Specification”) (Ex. 1005), alleged Admitted Prior Art, and additional prior art. (Decisions at 39-40.)

3. I have been asked to provide my conclusions and bases thereof regarding several aspects of the issues in dispute. Based on my investigation

in this matter, I conclude that Petitioners and Dr. Reynolds have not shown that the challenged independent claims of the '437 patent are unpatentable over Aytac in combination with the SCSI Specification and the alleged admitted prior art.

4. I receive compensation at my standard hourly rate of \$550 per hour for my time working on this matter, plus expenses. I have no financial interest in Papst or in the '437 patent, and my compensation is not dependent on the outcome of this trial or any of the related district court proceedings involving the '437 patent. The conclusions I present are due to my own judgment.

## **II. Background And Qualifications**

5. My qualifications as an expert in the field of computer peripherals and data transfer between a computer and peripheral devices, relevant to the subject matter of the analog data generating and processing devices (“ADGPD”) claimed in the '437 patent, are provided in the paragraphs below. A copy of my latest curriculum vitae (CV) is attached as Appendix A, which provides further details regarding my background and qualifications. This CV identifies a list of all cases in which I have testified at trial or at deposition.

6. I have over forty years of experience with electronics and

electrical engineering, including extensive knowledge and experience with analog and digital electronic circuitry, digital computer technology, computer peripherals, control systems, digital communications, operating systems, and related software and hardware components. My technical expertise relevant to the subject matter of the ADGPD claimed in the '437 patent includes my understanding of computer peripherals, analog and digital circuitry, interface devices, device drivers, file systems, SCSI standards, data buses, and operating systems.

7. As a summary of my employment and education history, I worked as a Sergeant and Instructor for the United States Air Force as a maintenance technician for air defense computer systems from 1967–1970. After leaving the Air Force, I earned my Bachelor of Science in Electrical Engineering in 1972 from the University of Washington. After graduating, I was a candidate for a Master of Science degree in Electrical Engineering at Stanford University from 1972–1973, and I worked from 1973–1976 as an Engineer at Stanford University's Artificial Intelligence Laboratory. My duties included the design, construction, and debugging of motor controls and sensor electronics for robotics and computer interfaces.

8. After leaving Stanford, I founded G Systems in 1976, which managed the hardware and software design and development of computer

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