UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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LG ELECTRONICS, INC., AND ZTE (USA) INC.,
Petitioners,

v.

PAPST LICENSING GMBH & CO., KG,
Patent Owner.

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Case IPR2017-00443
United States Patent No. 6,470,399

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# DECLARATION OF THOMAS A. GAFFORD UNDER 37 C.F.R. § 42.53 IN SUPPORT OF PATENT OWNER RESPONSE UNDER 37 C.F.R. § 42.120

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## I. Introduction

1. I have been retained on behalf of Papst Licensing GmbH & Co. KG ("Patent Owner" or "Papst") and its counsel, DiNovo Price Ellwanger LLP, as an expert in this proceeding. I am personally knowledgeable about the matters stated herein.

2. I understand that Dr. Kevin Almeroth has provided a declaration ("Almeroth Declaration") on behalf of Huawei Device Co., Ltd., LG Electronics, Inc. and ZTE (USA) Inc. ("Petitioners" or "Huawei/LG/ZTE"), indicating that claims 1-8, 10-11 and 13-15 of United States Patent No. 6,470,399 ("'399 patent") are invalid.

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. Almeroth have failed to show that any of the claims discussed in the Petition or Almeroth Declaration are invalid for anticipation or obviousness.

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 the '399 patent, and my compensation is not dependent on the outcome of this *inter partes* review ("IPR") or the underlying litigation. The conclusions I present are due to my own judgment.

5. I reserve the right to modify and supplement the analysis and conclusions proposed herein based upon additional information including any additional fact discovery or expert discovery by the parties.

## II. Background and Qualifications

6. 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 claimed in the '399 patent, are provided in the paragraphs below. A copy of my latest curriculum vitae (CV) is attached as Exhibit 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.

7. 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 claimed in the '399 patent includes my understanding of computer peripherals, analog and digital circuitry, interface devices, device drivers, file systems, SCSI standards, data buses, and operating systems.

8. 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.

9. After leaving Stanford, I founded G Systems in 1976, which managed the hardware and software design and development of computer transaction processing systems for a variety of applications and customers. Projects included writing communications software and device drivers, design of hardware and software interfaces for disk controllers, designing peripheral switches incorporated into system products, communications controllers, co-design of mainframe computers, and other projects.

10. In 1983, I co-founded and served as head of engineering of Softix Incorporated. Softix designed and produced systems to control and sell entertainment tickets by ticket agencies and large arenas in the United States, Canada, Australia, and Hong Kong. My duties at Softix included managing software development efforts; developing architecture, design, sales, contracting, production, and field support of large-scale software and hardware systems; and analyzing,

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