# UNITED STATES PATENT AND TRADEMARK OFFICE PATENT TRIAL AND APPEAL BOARD Luxshare Precision Industry Co., Ltd., Petitioner, v. Amphenol Corp, Patent Owner. CASE NO: IPR2022-00132 U.S. PATENT NO. 10,381,767

DECLARATION OF JOSEPH C. MCALEXANDER III IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 10,381,767



# **LIST OF EXHIBITS**

Exhibit No.	Description
1001	U.S. Patent No. 10,381,767 to Milbrand, Jr. et al. ("'767 Patent")
1002	Declaration of Joseph C. McAlexander III
1003	File History of U.S. Patent No. 10,381,767
1004	CN Utility Model Patent No. 201112782Y to Cai et al. ("Cai") and Certified Translation
1005	U.S. Patent No. 7,494,383 to Cohen et al. ("Cohen")
1006	Specification for QSFP (Quad Small Formfactor Pluggable) Transceiver, Revision 1.0 ("QSFP Standard")
1007	Specification for SFP (Small Formfactor Pluggable) Transceiver, Revision 1.0 ("SFP Standard")
1008	U.S. Patent Application Publication No. 2002/0192988 A1 to Droesbeke et al. ("Droesbeke")
1009	CV of Joseph C. McAlexander III
1010	Decision Invalidating CN Patent Application No. 201610952606.4, which issued as CN Utility Model Patent No. 107069274B, and Certified Translation
1011	In re Certain Electrical Connectors and Cages, Components Thereof, and Prods. Containing the Same, Inv. No. 337-TA- 1241, Order No. 31 (Oct. 19, 2021): Construing Certain Terms of the Asserted Claims of the Patents at Issue



### I. INTRODUCTION

- 1. I, Joseph C. M<sup>©</sup>Alexander <sup>III</sup>, have been retained as an independent technical expert on behalf of Petitioner related to Inter Partes Review ("IPR") of U.S. Patent No. 10,381,767 (Ex. 1001, "the '767 Patent").
- 2. I am being compensated for my work in this matter at an hourly rate. I am also being reimbursed for reasonable and customary expenses associated with my work and testimony in this matter. My compensation is not contingent on the outcome of this matter or the specifics of my testimony. I have no personal or financial stake or interest in the outcome of the present proceeding.
- 3. The opinions and comments formulated during this assessment are based on observations and information available at the time of the investigation. The findings presented herein are made to a reasonable degree of scientific certainty. I have made every effort to accurately and completely investigate all areas of concern identified during our investigation.

# II. EXPERIENCE AND QUALIFICATIONS

- 4. I have a Bachelor of Science in Electrical Engineering from North Carolina State University and have studied neural science at the University of Texas Graduate School of Biomedical Science.
- 5. Upon completion of my electrical engineering degree in 1969, I was commissioned as an officer in the U.S. Army. For 2 years, I managed the air defense



operation for the New England area, which included radar and secure communication channels to aircraft, missile batteries, and U.S. Command. I then commanded a signal battalion in South Korea for 1 year, designing and orchestrating at the division level the first of its kind communication power grid mapping study using AM and FM transmission/reception, among others, and utilizing crypto security transmission/reception methods.

I am a Registered Professional Engineer in the state of Texas (Reg. No. 79,454) and am a recognized inventor on thirty-one U.S. patents. I have forty-nine years of professional experience, during which I designed and analyzed a variety of microcircuits, semiconductors, and control systems, inclusive of packaging, board level integration and connector hardware, amongst other technologies, for Texas Instruments, Inc. and EPI Technologies, Inc. Specifically, I have designed Dynamic Random Access Memories ("DRAMs"), Static Random Access Memories ("SRAMs"), Charged Coupled Devices ("CCDs"), Shift Registers ("SRs"), and a variety of functional circuits, including input/output buffers for addresses and data transmission, decoders, clocks, sense amplifiers, fault tolerant parallel-to-serial data paths for video applications, level shifters, converters, pumps, logic devices, wireless communication systems, and microelectromechanical systems ("MEMs"). I possess significant expertise in operations and manufacturing associated with these



technologies, including a sophisticated knowledge of quality control, testing, reliability, and failure analyses.

- 7. I have conducted high-level instruction to design and process engineers and managers at Texas Instruments, among others, in Solid State Device Physics, Semiconductor Processing, Circuit Design Techniques, and Statistical Quality Control Methods. I have also instructed corporate audiences in Effectiveness Training, Japanese Manufacturing Techniques, and problem recognition and solution methods and tools.
- 8. As part of licensing of my IP circa 2002–2004, I negotiated and executed a number of licensing and design programs to provide GPS tracking and transmission of information wirelessly, using paging and CDMA. The technologies included partnerships for skier tracking with Snowtrax, offender tracking with Stellar Technology Enterprises, pet tracking with The Procter & Gamble Company, journalist tracking with CNN, asset tracking with TrackDaddy, and family tracking with Disney, to name a few. I also advised a startup between 2013 and 2018 in peer-to-peer encrypted cellular communication. For each of these technologies, signal and voltage/current losses, noise, and cross-talk attributeable to board layout and connector design were continual concerns that had to be addressed with each project.
- 9. I have provided consultancy services associated with the aforementioned technologies. My consulting career began with Cochran



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