

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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APPLE INC.,  
Petitioner,

v.

KOSS CORPORATION,  
Patent Owner.

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CASE: IPR2021-00381  
U.S. PATENT NO. 10,491,982

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**DECLARATION OF JOSEPH C. MCALEXANDER III**

**September 28, 2021**

## TABLE OF CONTENTS

<b>I.</b>	<b>BACKGROUND AND QUALIFICATIONS.....</b>	<b>1</b>
<b>II.</b>	<b>MATERIALS REVIEWED.....</b>	<b>4</b>
<b>III.</b>	<b>SUMMARY OF THE '982 PATENT .....</b>	<b>4</b>
<b>IV.</b>	<b>PERSON OF ORDINARY SKILL IN THE ART.....</b>	<b>7</b>
<b>V.</b>	<b>APPLICABLE LEGAL PRINCIPLES .....</b>	<b>10</b>
	A. Claim Construction .....	10
	B. Obviousness .....	11
<b>VI.</b>	<b>SUMMARY OF PRIOR ART FOR GROUND 1A.....</b>	<b>14</b>
	A. Rosener.....	15
	B. Hankey .....	22
<b>VII.</b>	<b>CLAIM 1 WOULD NOT HAVE BEEN OBVIOUS TO A POSITA .....</b>	<b>23</b>
	A. A POSITA Would Not Have Been Technically Qualified to Modify Rosener in View of Hankey (and Dyer) .....	23
	B. A POSITA Would Not Understand the Transducers of Rosener and Thus, Could Not Modify Them in View of Hankey .....	26
	C. A POSITA Would Not Understand the Analog-to-Digital Converter and Buffer of Rosener and Thus, Could Not Modify Them in View of Hankey.....	27
	D. Petitioner’s Illustration of Rosener-Hankey-Dyer Evidences the Acoustic and Mechanical Infeasibility of the Asserted Combinations .....	30
<b>VIII.</b>	<b>THE PROPOSED COMBINATIONS FAIL TO TEACH EVERY TECHNICAL FEATURE RECITED BY THE CLAIMS .....</b>	<b>33</b>

A.	The Proposed Combinations Fail to Teach Two Wireless Earphones, Each Having a Microphone.....	33
B.	A POSITA Would Not be Motivated to Modify Rosener and Hankey (and Dyer) to Include a Microphone in Each Earphone...37	
<b>IX.</b>	<b>DEPENDENT CLAIMS.....</b>	<b>41</b>
A.	The Rosener, Hankey, and Price (and Dyer) Combination Does Not Teach or Suggest the “Firmware Upgrades” of Claim 14 .....	41
B.	The Rosener and Hankey (and Dyer) Combination Does Not Teach or Suggest the “Activation of the Microphone ” of Claim 15 .....	45
C.	The Rosener and Hankey (and Dyer) Combination Does Not Teach or Suggest the “Digital Signal Processor” of Claim 19 .....	48
<b>X.</b>	<b>SECONDARY CONSIDERATIONS BUTTRESS MY OPINIONS THAT THE CHALLENGED CLAIMS WOULD NOT HAVE BEEN OBVIOUS.....</b>	<b>53</b>
<b>XI.</b>	<b>CONCLUDING REMARKS .....</b>	<b>55</b>

1. I, Joseph C. M<sup>c</sup>Alexander III, declare as follows:

2. I have been retained by counsel for Koss Corp. (“Koss”) as a technical expert in connection with the *inter partes* review (“IPR”) proceeding identified above for U.S. Patent 10,491,982 (the “982 Patent”). I submit this declaration in support of Koss’s response to the petition.

## **I. BACKGROUND AND QUALIFICATIONS**

3. 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.

4. 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.

5. 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, 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.

6. 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.

7. 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

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