

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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VIZIO, INC.,  
Petitioner

v.

NICHIA CORPORATION,  
Patent Owner

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Case No. IPR2018-00386  
Patent 9,490,411

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**DECLARATION OF DR. STANLEY R. SHANFIELD IN SUPPORT OF  
PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE**

## TABLE OF CONTENTS

I.	PRIOR TESTIMONY .....	1
II.	MATERIALS REVIEWED .....	2
III.	LEVEL OF ORDINARY SKILL IN THE ART .....	2
IV.	CLAIM CONSTRUCTION .....	4
A.	Background and Legal Standards.....	4
B.	“Wherein Both a Part of the Metal Part and a Part of the Resin Part Are Disposed in a Region Below an Upper Surface of the Metal Part, on Four Outer Lateral Surfaces of the Resin Package” (Ex. 2011 (Schubert Decl. in Support of PO’s Response), ¶¶35-68) .....	7
C.	“Resin Package Comprising a Resin Part and a Metal Part” (Ex. 2011 (Schubert Decl. in Support of PO’s Response), ¶¶69-82) .....	22
V.	THE CHALLENGED CLAIMS 1-3, 5-8, 10, 13, 16-20 OF THE ’411 PATENT ARE UNPATENTABLE .....	29
A.	Legal Standards .....	29
B.	Loh Discloses “Wherein Both a Part of the Metal Part and a Part of the Resin Part Are Disposed in a Region Below an Upper Surface of the Metal Part, on Four Outer Lateral Surfaces of the Resin Package” (Ex. 2011 (Schubert Decl. in Support of PO’s Response), ¶¶109-123, 129-136) .....	29
C.	Loh Discloses “a Resin Package Comprising a Resin Part and a Metal Part” (Ex. 2011 (Schubert Decl. in Support of PO’s Response), ¶¶124-128, 137-138).....	31
VI.	CONCLUSION.....	36

I, Dr. Stanley Shanfield, have previously been asked to testify as an expert witness in this action. As part of my work in this action, I have been asked by VIZIO, Inc. (“VIZIO” or “Petitioner”) to respond to certain assertions offered by Nichia Corporation (“Patent Owner”) in connection with U.S. Patent No. 9,490,411 (“the ’411 patent”) in IPR2018-00386. I hereby declare under penalty of perjury under the laws of the United States of America, as follows: <sup>1</sup>

## **I. PRIOR TESTIMONY**

1. I am the same Stanley Shanfield who provided a Declaration in this proceeding, Case No. IPR2018-00386 executed on December 22, 2017, as Exhibit 1003 (“December 22, 2017 Declaration”), which, including its appendices, is incorporated by reference herein in its entirety. Ex. 1003 (December 22, 2017 Declaration), ¶¶ 1-155, Appendices A-B.

2. I offer statements and opinions on behalf of Petitioner, generally regarding the validity, novelty, prior art, anticipation and obviousness considerations, and understanding of a person of ordinary skill in the art (“POSITA”) as it relates to the ’411 patent.

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<sup>1</sup> Throughout this Rebuttal Declaration, all emphasis and annotations are added unless noted.

3. My qualifications and the circumstances of my engagement were detailed in ¶¶ 2, 4-15 and Appendix A of the December 22, 2017 Declaration, which I incorporate here by reference.

4. I offer this declaration in rebuttal to the arguments raised by Patent Owner in its “Patent Owner’s Response” (“POR”) and the Declaration of Dr. E. Fred Schubert (Ex. 2011).

## **II. MATERIALS REVIEWED**

5. In connection with my study of the POR and supporting declarations and reaching the conclusions stated herein, I have reviewed a number of additional documents. In addition to those mentioned in my previous declaration, I have reviewed the following additional documents:

- POR and its accompanying exhibits
- All other documents referenced herein.

6. My opinions are also based upon my education, training, research, knowledge, and personal and professional experience.

## **III. LEVEL OF ORDINARY SKILL IN THE ART**

7. My opinion regarding one of ordinary skill is discussed in the December 22, 2017 Declaration Ex. 1003 ¶¶16-18.

8. In my December 22, 2017 Declaration, I opined that a person of ordinary skill in the art (“POSITA”) as of September 3, 2008 (the claimed priority

date of the '411 patent) would have a minimum of a Bachelor's degree in Physics, Electrical Engineering, Material Science, or a related field, and approximately 5 years of professional experience in the field of semiconductor technology, including manufacturing and packaging processes for light emitting devices. Ex. 1003 (December 22, 2017 Declaration), ¶ 17. Additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education. *Id.* I have reviewed Dr. Schubert's opinion regarding the level of skill of a POSITA with respect to the '411 patent (requiring "(i) a Ph.D. degree in Electrical Engineering, Applied Physics, Materials Science, or a related field, and about 3 years of practical experience in industry; (ii) a Master's degree in Electrical Engineering, Applied Physics, Materials Science, or a related field, and about 5 years of practical experience in industry; or (iii) a Bachelor's degree in Electrical Engineering, Applied Physics, Materials Science, or a related field, and about 10 years of practical experience in industry."). Ex. 2011 (Schubert Decl. in Support of PO's Response), ¶ 29. Under either my definition or Dr. Schubert's definition, I met or exceeded the level of skill required as of September 3, 2008, and my opinions are the same.

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