

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**IN THE UNITED STATES PATENT TRIAL AND APPEAL BOARD**

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**BLUEHOUSE GLOBAL LTD.**  
Petitioner

v.

**SEMICONDUCTOR ENERGY LABORATORY CO., LTD.**  
Patent Owner

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CASE IPR: 2018-01405

U.S. PATENT NO. 9,298,057 B2

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**DECLARATION OF RICHARD A. FLASCK**

**Mail Stop Patent Board**  
Patent Trial and Appeal Board  
U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

I, Richard A. Flasck, declare as follows:

## **I. INTRODUCTION**

1. I am over the age of twenty-one (21) and am competent to make this Declaration.

2. I am an independent consultant in liquid crystal display (“LCD”) technology, including manufacturing processes and product design.

### **A. Engagement**

3. I have been retained by counsel for BlueHouse Global Ltd. in the above-captioned *Inter Partes* Review (“IPR”) matter as an independent technical expert.

4. As part of this engagement, I have been retained to review and evaluate whether certain patents and publications disclose to a person of ordinary skill in the art (“POSA”) the subject matter of specific claims of United States Patent No. 9,298,057 B2 (“the ‘057 Patent”) as of the time of the filing date of the application from which the ‘057 Patent issued. I expect to testify regarding the matters set forth in this declaration if asked to do so.

5. I am being compensated on an hourly basis for my work performed in connection with this case. I have received no additional compensation for my work

in this case, and my compensation does not depend upon the contents of this report, any testimony I may provide, or the ultimate outcome of the case.

**B. Background and Qualifications**

6. I earned my Bachelor of Science degree in Physics from the University of Michigan in 1970. I subsequently earned my M.S. in Physics at Oakland University in 1976.

7. I have nearly fifty (50) years of experience in hi tech product development, including all aspects of LCD systems and technologies, through positions ranging from research and development to manufacturing at multiple large and small technology companies. I have led engineering teams to develop Liquid Crystal on Silicon (LCOS) microdisplay technology. I played a significant part in the early development of amorphous silicon thin film transistor (TFT) active matrix Liquid Crystal Displays (AMLCD), including designing the world's first amorphous silicon TFT LCD pilot line in 1986. I have experience in TFT process and circuit design, data driver and gate driver design, scalars, video circuits, backlighting, and inverter design. I also have a solid functional background in all display technologies, their applications and associated process and manufacturing technologies.

8. I am an inventor or co-inventor of 26 patents, including patents on various aspects of LCD technology, including TFT structure and fabrication. A list

of my patents is included in my curriculum vitae, a copy of which is attached hereto as Appendix B.

9. A detailed description of my professional qualifications, including a listing of my specialties/expertise and professional activities, is contained in my curriculum vitae, a copy of which is attached hereto as Appendix B.

### **C. Basis of My Opinions and Materials Considered**

10. In forming my opinions, I have relied upon my education, knowledge and experience with LCDs and related technologies, including manufacturing processes. I have also relied upon my education, knowledge and experience with electronic design, mechanical design, and processes and materials for LCD manufacture.

11. For this work, I reviewed and considered the following materials:

- U.S. Patent No. 8,9,298,057 B2 (“the ‘057 Patent”; Ex. 1001), including the specification and claims;
- The prosecution history of United States Patent Application No. 13/939,323 (“the ‘323 Application”), *i.e.*, the prosecution history of the ‘057 Patent (Ex. 1002);

In forming my opinions, I have relied upon my education, knowledge and experience with LCD technologies, including manufacturing processes and product design. I have also relied upon my education, knowledge and experience with

electronic design, mechanical design, and materials for LCDs and components thereof.

12. I have also been asked to review the subject matter disclosed by various patents and publications that are prior art to the '057 Patent, and have been further asked to compare the subject matter disclosed by those patents and publications to claims 1-7 and 9-19 of the '057 Patent and determine whether those patents and printed publications taught the claimed subject matter to a POSA prior to the earliest effective filing date of the '057 Patent, which I have been instructed to assume is July 20, 2012 for purposes of my analysis. The principal documents that I have analyzed with regard to their teachings of subject matter claimed in the '057 Patent are listed below:

- United States Patent Application Publication No. 2011/0109351 A1 ("*Yamazaki*"; Ex. 1004); and
- United States Patent No. 8,169,558 B2 ("*Morimoto*"; Ex. 1005).

Additional documents that I have analyzed are provided on the list of Exhibits attached hereto as Appendix A.

## II. PATENT PRINCIPLES

13. I am an engineer by trade, and the opinions I express in this declaration involve the application of my engineering knowledge and experience to

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