### UNITED STATES PATENT AND TRADEMARK OFFICE

#### **BEFORE THE PATENT TRIAL AND APPEAL BOARD**

TCL MULTIMEDIA TECHNOLOGY HOLDINGS LIMITED AND TTE TECHNOLOGY, INC.,

Petitioners

v.

NICHIA CORPORATION,

Patent Owner

U.S. Patent No. 8,309,375

"Light Emitting Device and Display"

Inter Partes Review No. 2017-02001

**DECLARATION OF DR. ERIC BRETSCHNEIDER** IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 8,309,375



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I, Eric Bretschneider, do hereby declare and state as follows:

#### I. BACKGROUND AND QUALIFICATIONS

1. I have over 25 years of experience with lighting and LEDs, including a comprehensive background on the full range of LED production technologies, including MOCVD hardware/process, fabrication, LED chip and package testing and reliability, optical design, thermal management, color conversion, and SSL fixture/lamp design, integration, and reliability.

2. I am currently the Chief Technology Officer at EB Designs & Technology. In that capacity, I am (among other things) responsible for the design of solid-state lighting technologies for clients ranging from startups to Fortune 100 companies.

3. I am also currently a member of the University of Florida Department of Chemical Engineering Advisory Board. And I have been a Conference Chair for LED Measurement and Standards. I am also a member of a number of professional societies, including SPIE, Materials Research Society, Illuminating Engineering Society (including a member of numerous committees, including the IES test procedures committee).

4. Prior to my position at EB Designs & Technology, I served as the Director of Engineering at HeathCo, LLC. In that capacity, I was responsible for advanced technology/product development related to solid state lighting, sensors,

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