

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ADVANCED ENERGY INDUSTRIES INC.,
PETITIONER,

v.

RENO TECHNOLOGIES INC.,
PATENT OWNER.

Case IPR2021-01397
Patent 10,707,057

**DECLARATION OF STEVEN H. VOLDMAN, PH.D.
IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S.
PATENT NO. 10,707,057**

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B. Mavretic in view of Mason and Navigator II Renders Obvious
Claims 3, 6-8, 14 and 1566

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INTRODUCTION

I, Steven H. Voldman, Ph.D., declare as follows:

1. I have been retained on behalf of Advanced Energy Industries, Inc. (“Petitioner”) to provide expert opinions in connection with this *inter partes* review (“IPR”) of U.S. Patent No. 10,707,057 (“the ’057 Patent”).
2. I am being compensated for my time in connection with this IPR at my standard consulting rate for consulting services. My compensation is not affected by the outcome of this matter.
3. I have been asked to provide my opinions regarding whether claims 1-17 of the ’057 Patent (“the Challenged Claims”) are invalid as obvious to a person having ordinary skill in the art at the time of the alleged invention (“POSITA”).
4. For the purposes of my Declaration, a patent or printed publication that predates January 10, 2014 is prior art against the ’057 Patent.
5. In preparing this Declaration, I have reviewed at least the ’057 Patent, the file history of the ’057 Patent, the prior art cited in this declaration, and any other documents cited in this declaration.
6. I have also been informed that the Board construes claims during IPR such that the words in the claim are given their plain meaning, which is the meaning understood by a POSITA after reading the entire patent. The analysis focuses

on how the patentee used the claim terms in the claims, specification, and prosecution history of the patent. As so informed, I have considered and applied the plain and ordinary meaning of the claim terms in my analysis below.

7. In forming the opinions expressed in this Declaration, I relied upon my knowledge, skill, experience, training, and education in the relevant field of the art, and have considered the viewpoint of a POSITA as of January 10, 2014. My opinion is based, at least in part, on analysis of the following prior art and background references in view of a POSITA:

U.S. Patent No. 10,707,057 (“the ’057 patent”)
U.S. Patent No. 5,654,679 to Mavretic, et al. (“Mavretic”)
U.S. Patent No. 8,436,643 to Mason (“Mason”)
Navigator® II Matching Networks With a Solid-State Technology Option, presented by Advanced Energy Industries, Inc. at SEMICON West 2012 (“Navigator II”)
U.S. Patent No. 6,259,334 to Howald (“Howald”)
Valentin Todorow, Impedance Matching and Matching Networks, (PowerPoint slides), Etch Products Business Group, Applied Materials (December 2009) (“Todorow”) available at: https://pdfs.semanticscholar.org/presentation/3711/53475dd48c0f71938d8d49dad2d83c1a2579.pdf .

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