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#### UNITED STATES PATENT AND TRADEMARK OFFICE

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

ASML Netherlands B.V., Excelitas Technologies Corp., and Qioptiq Photonics GmbH & Co. KG, Petitioners

v.

Energetiq Technology, INC., Patent Owner.

Case IPR2015-01375

#### PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,048,000 CLAIMS 1, 15, and 18

#### U.S. Patent 9,048,000 Petition for *Inter Partes* Review

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#### I. MANDATORY NOTICES

#### A. Real Parties-in-Interest

ASML Netherlands B.V., Excelitas Technologies Corp., and Qioptiq Photonics GmbH & Co. KG ("Petitioners") are the real parties-in-interest.

#### **B.** Related Matters

U.S. Patent No. 9,048,000 ("the '000 patent," Ex. 1001) is one member of a patent family of continuation and continuation in part applications. Exhibit 1002 shows the members of this patent family and the relationships among them. Petitioners are also seeking *inter partes* review of related U.S. Patent Nos. 7,435,982 ("the '982 patent"); 7,786,455 ("the '455 patent"); 8,309,943 ("the '943 patent"); 8,525,138 ("the '138 patent"); and 8,969,841 ("the '841 patent"). Petitioners request that the *inter partes* reviews of the '000, '982, '455, '943, '138, and '841 patents be assigned to the same Panel for administrative efficiency.

The following litigation matter would affect or be affected by a decision in this proceeding: *Energetiq Tech., Inc. v. ASML Netherlands B.V.*, Civil Action No. 1:15-cv-10240-LTS (D. Mass.).

#### C. Counsel

Lead Counsel: Donald R. Steinberg (Registration No. 37,241) Backup Counsel: David L. Cavanaugh (Registration No. 36,476) Second Backup Counsel: Michael H. Smith (Registration No. 71,190)

#### **D.** Service Information

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#### II. CERTIFICATION OF GROUNDS FOR STANDING

Petitioners certify pursuant to Rule 42.104(a) that the patent for which review is sought is available for *inter partes* review and that Petitioners are not barred or estopped from requesting an *inter partes* review challenging the patent claims on the grounds identified in this Petition.

#### III. OVERVIEW OF CHALLENGE AND RELIEF REQUESTED

Pursuant to Rules 42.22(a)(1) and 42.104 (b)(1)-(2), Petitioners challenge claims 1, 15, and 18 of the '000 patent ("the challenged claims") and request that each challenged claim be cancelled.

#### A. Grounds for Challenge

This Petition, supported by the declaration of Dr. J. Gary Eden, a Professor of Electrical Engineering at the University of Illinois ("Eden Decl.," Ex. 1003), demonstrates that there is a reasonable likelihood that Petitioners will prevail with respect to at least one of the challenged claims and that each of the challenged claims is unpatentable for the reasons cited in this petition. *See* 35 U.S.C. § 314(a).

## **B. Prior Art Patents and Printed Publications Relied Upon** Petitioners rely upon the following patents and printed publications:

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