

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Inergy Technology, Inc.,

Petitioner

v.

Force Mos Technology Co., Ltd.,

Patent Owner

Case No. IPR2024-00094

Patent No. 7,812,409

**PETITIONER'S RESPONSE TO PATENT OWNER'S
REQUEST FOR DIRECTOR REVIEW OF
THE FINAL WRITTEN DECISION**

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TABLE OF AUTHORITIES

Cases

<i>Medtronic, Inc. v. Robert Bosch Healthcare Sys., Inc.</i> , 839 F.3d 1382 (Fed. Cir. 2016).....	2
<i>Oil States Energy Services, LLC v. Greene’s Energy Group, LLC</i> , 584 U.S. 325 (2018).....	2, 3

PETITIONER’S EXHIBIT LIST

EXHIBIT NO.	DESCRIPTION
1001	U.S. Patent No. 7,812,409 (the “’409 Patent” or “Patent-in-Suit”)
1002	File History for the U.S. Patent No. 7,812,409
1003	Declaration of Dr. David Liu
1004	Curriculum Vitae of Dr. David Liu
1005	U.S. Patent No. 6,888,196, Kobayashi (“Kobayashi”)
1006	U.S. Patent No. 5,763,914, Hshieh et al (“Hshieh”)
1007	Kikkawa, T. et al, “A Quarter-Micrometer Interconnection Technology Using a TiN/Al-Si-Cu/TiN/Al-Si-Cu/TiN/Ti Multilayer Structure,” IEEE Transactions on Electron Devices, Vol. 40, No. 2, February 1993 (“Kikkawa”)
1008	Declaration of Dr. Sylvia D. Hall-Ellis
1009	Complaint, <i>Force Mos Technology, Co. Ltd. v. Asustek Computer, Inc.</i> , No. 2:22-cv-00460 (E.D. Tex.)
1010	First Amended Complaint, <i>Force Mos Technology, Co. Ltd. v. Asustek Computer, Inc.</i> , No. 2:22-cv-00460 (E.D. Tex.)
1011	U.S. Patent No. 6,541,818 to Pfirsch et al. (“Pfirsch”)
1012	Kim, Sang-Gi et al., “Trench Corner Rounding Technology Using Hydrogen Annealing for Highly Reliable Trench DMOSFETs,” International Symposium on Power Semiconductor Devices and ICs (ISPSD), May 22-25, 2000, Toulouse France
1013	Curriculum Vitae of Dr. Sylvia D. Hall-Ellis

EXHIBIT NO.	DESCRIPTION
1014	Attachment 1A MARC Record
1015	Attachment 1B Library of Congress Authorities sh 85042254
1016	Attachment 1C Library of Congress Authorities sh 85099890
1017	Attachment 1D OCLC
1018	Docket Control Order, <i>Force Mos Technology, Co. Ltd. v. ASUSTeK Computer, Inc.</i> , No. 2:22-cv-00460 (E.D. Tex.)
1019	Petitioner's <i>Sotera</i> Stipulation
1020	Transcript from the Deposition of Dean Neikirk, Ph.D., October 30, 2024
1021	Petitioner's Demonstrative Exhibits, Feb. 21, 2025

I. INTRODUCTION

In just the first page of its request, Patent Owner violates two sections of the Director Review Process. First, without authorization under Section 3.E, Patent Owner introduces new evidence, relying on district court documents that the Director declined to permit as exhibits. Second, Patent Owner disregards Section 2.B, belatedly raising issues related to the Board's decision on institution. Most of Patent Owner's arguments rest on one or both of these violations, and Petitioner respectfully submits that the request should be denied for that reason alone.

The Section 2.B violation is particularly egregious because Patent Owner could have sought Director Review on institution over a year ago but chose not to do so. Instead, Patent Owner lay in wait to see how the Board would rule on the merits. Patent Owner's dissatisfaction with the final outcome is no basis for asking the Director to go back to the beginning and review the institution decision. Even if the Director were inclined to do so, the Supreme Court has already rejected Patent Owner's Seventh Amendment argument.

Patent Owner's only other argument, presented scattershot at the end of its request, is the false assertion that the Board relied on new arguments. On the contrary, the Board's decision is properly grounded in the record, and there are no new arguments. Patent Owner simply does not like the result. Petitioner respectfully requests that the Director deny Patent Owner's request for Director Review.

II. ARGUMENT

A. Patent Owner Cites No Precedent for Reversing an Institution Decision After a Final Written Decision

Patent Owner's request violates Section 3.E of the Director Review Process,¹ which prohibits raising institution issues after a final written decision. Patent Owner cites *Medtronic, Inc. v. Robert Bosch Healthcare Sys., Inc.*, 839 F.3d 1382, 1386 (Fed. Cir. 2016), but the Board in that case vacated institution *before* the final written decision because the petitioner failed to name a real party in interest. Patent Owner cites no precedent for revisiting institution *after* the final written decision. To be sure, there is no dispute that the Director has authority to review an institution decision, but the time for making that request is within 14 days after institution. Director Review Process, Sections 2.B and 3.B; 37 C.F.R. § 42.71(d).

B. The Supreme Court Has Rejected—and Patent Owner Has Waived—the Seventh Amendment Argument

1. *Oil States* Precludes Patent Owner's Argument

The Supreme Court rejected the same Seventh Amendment argument Patent Owner makes here in *Oil States Energy Services, LLC v. Greene's Energy Group, LLC*, 584 U.S. 325 (2018). The Court held that the America Invents Act empowers the Board to review the patentability of issued patents as a matter of public right, not private right. *Id.* at 331, 344-345. As such, the Board's decision to cancel patent

¹ See <https://www.uspto.gov/patents/ptab/decisions/director-review-process>.

claims in an *inter partes* review violates neither Article III nor the Seventh Amendment. *Id.* By contrast, none of the four cases Patent Owner cites involved *inter partes* review, and all of them preceded *Oil States*. See Paper No. 38 at 12-13.

To be sure, Patent Owner fully benefited from the Seventh Amendment by having its *private* patent rights decided by a jury. Given the different burdens of proving invalidity in a jury trial (clear and convincing evidence) versus proving unpatentability in *inter partes* review (preponderance of the evidence), it is no surprise that the two proceedings sometimes reach different conclusions.

2. Patent Owner Waived Director Review of Institution

Beyond the constitutional issues, Patent Owner waived its rights by failing to seek Director Review at the time of institution. Even under the Revised Interim Director Review Process that was in effect at the time the Board instituted this proceeding, Patent Owner had the right to request Director Review of the institution decision. Patent Owner chose not to do so, and now it is too late. As the current Director Review Process makes clear, “a request for Director Review of a final written decision is not an opportunity to raise issues related to the Board’s decision on institution.” Director Review Process, Section 2.B.

Patent Owner also waived its rights by failing to raise any of these issues with the Board. The jury reached its verdict on February 13, 2025—before the Board heard oral argument—and yet Patent Owner made no effort to notify the Board of

the verdict. In violation of Section 3.E of the Director Review Process, Patent Owner now relies on the verdict as new evidence. The Director already denied Patent Owner's request to submit the jury verdict and over 300 pages of other district court materials as exhibits. Paper No. 38; Ex. 3100. For the same reason, the Director should reject Patent Owner's effort to use Director Review as a vehicle to inject new arguments and evidence in this proceeding.

C. The Board's Decision Is Sound and Relies on No New Arguments

Patent Owner presents a scattershot criticism of the Board's reasoning, with heavy emphasis on Dr. Neikirk's "unrebutted" testimony. Paper No. 38 at 10-11, 14-15. That Petitioner saw no need for a reply declaration does not mean the Board must wholesale adopt Dr. Neikirk's testimony. Indeed, the Board cited numerous inconsistencies in both Patent Owner's arguments and Dr. Neikirk's underlying testimony. *See, e.g.*, Paper No. 37 at 28, 31, 32, 33, 34-35, 36. Patent Owner also criticizes the Board for relying on Dr. Liu's deposition (*i.e.*, Patent Owner's cross examination of Dr. Liu), but it was Patent Owner who put that evidence in the record. *See* Paper No. 24, Patent Owner's Response and Exhibit List; Ex. 2024. The remainder of this section addresses Patent Owner's specific criticisms of the Board.

First, the Board's finding that Kobayashi/Kim taught the benefits of trench corner rounding leading to *both* higher breakdown voltage *and* lower leakage current was not a new argument. The Board and the Petition both cited the same paragraph

from Dr. Liu's declaration as support for both of these points. Paper No. 37 at 27 (citing Ex. 1003, ¶ 133); Paper No. 1 at 57 (citing Ex. 1003, ¶ 133).

Second, the Board did not rely solely on Dr. Liu in its conclusion that corners "reach higher peak electric fields" or that "it was known to eliminate problematic corners via top view rounding." Paper No. 37 at 28-29 (citing Ex. 1003, ¶¶ 133, 135, 137-141); *see also* Paper No. 1 at 57-62. The Board cited Kobayashi/Kim for this point, crediting both Dr. Liu's testimony and Hsieh as supporting evidence. *Id.*

Third, the Board also did not rely solely on Pfirsch for the concept of rounding corners. The Board relied primarily on Hsieh and Kobayashi/Kim, citing Pfirsch and Dr. Liu as supporting evidence. *Id.* Nor was there any new argument in the Board's discussion of Pfirsch. *See id.* at 29, 35-36 (citing extensively to the record). The Board correctly noted the parties' agreement that Pfirsch showed top-view rounding, notwithstanding Patent Owner's new position to the contrary. *Id.* at 29.

Fourth, the Board rejected Patent Owner's argument regarding three-dimensional diffusion, but the Board did not substitute "its own unsupported technical analysis," as Patent Owner asserts. *See* Paper No. 38 at 11. The Board cited extensively to the teachings of Hsieh and Kobayashi/Kim, credited Dr. Liu's technical analysis, and criticized Patent Owner's arguments for ignoring the relevant prior art teachings. Paper No. 37 at 33-36.

Petitioner respectfully requests that the Director deny Patent Owner's request.

Dated: June 24, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on June 24, 2025, I caused a true and correct copy of Petitioner's Response to Patent Owner's Request for Director Review of the Final Written Decision was served on Patent Owner via email at the following addresses:

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Dated: June 24, 2025

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