UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BOE Technology Group Co., Ltd.
Petitioner

v.

Optronic Sciences LLC
Patent Owner

Inter Partes Review No.: IPR2024-01133
U.S. Patent No. 9,263,509

PETITIONER'S OPPOSITION TO PATENT OWNER'S REQUEST FOR DIRECTOR REVIEW

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I. INTRODUCTION

Patent Owner Optronic Sciences LLC's ("PO's") Request for Director Review (Paper 44, "DR Request") should be denied because Petitioner BOE Technology Group Co., Ltd. ("Petitioner" or "BOE") properly identified itself as the real party in interest ("RPI"). The Board applied the correct standard and correctly found that BOE showed "by a preponderance of the evidence that its identification of RPIs is correct." (Order 42, 5 "RPI Decision"). PO argues that the People's Republic of China, through Beijing Electronics Holdings Co., Ltd ("BEH"), is an RPI. DR Request, 1. But the facts show that 1) BOE is a publicly traded company, 2) the explicit definition of the relationship between BOE and BEH in BOE's annual report, as confirmed by BOE's uncontested declaration, makes clear BEH is not an RPI, 3) the minority interest controlled (directly or indirectly) by BEH is, at most, 15%, 4) the directors identified by BEH are a minority that do not control BOE, and 5) BEH did not, in fact, have any control over this IPR.

PO's reliance on *Yangtze Memory Techs. Co. v. Micron Tech., Inc.*, IPR2025-00098, Paper 38 (Director Jan. 15, 2026) ("*YMTC*") highlights why the Board's decision here was correct. In *YMTC*, the Petitioner was 100% owned and controlled by the state, was listed on the "BIS Entity List" as a risk to national

security, and failed to address the merits in response to an Order to Show Cause. None of those facts are even alleged to be present here.

The DR Request should also be denied because PO improperly delayed in raising the RPI issue with the Board and then changed its theories in its DR Request. PO does not dispute that it knew, prior to institution, of every fact it now relies on to dispute whether institution was proper. PO's decision to "wait and see" whether it could win the IPR on the merits rather than timely raise the RPI issue is not an efficient use of the Office's limited resources and represents gamesmanship that should not be endorsed by the Office. PO points to *YMTC* as the inspiration for its untimely challenge, but *YMTC* highlights PO's delay because the patent owner in *YMTC* properly raised the RPI dispute prior to institution. PO then compounds the prejudice to Petitioner by improperly raising new theories in its DR Request.

II. BOE IS THE ONLY REAL PARTY IN INTEREST

BOE is a public company traded on the Shenzhen Stock Exchange—not a government entity. *See, e.g.*, Ex. 2036 at 10. In fact, BOE is a world leader in the semiconductor display and smart system industries. Ex. 1024. BOE was the 12th largest U.S. patent assignee in 2024. Ex. 1023 (Zhang Decl.) ¶ 6; Ex. 1025.

A. BOE's Annual Report And Uncontested Declaration Make Clear BEH is not an RPI

PO first argues that BOE's identification of BEH as an "actual controller" is legally significant (DR Request, 4-5), but BOE's annual report goes on to

expressly define the relationship between BOE and BEH in a way that confirms BEH is not an RPI. Ex. 2036 at 111-112; *see also* Ex. 1023 (Zhang Decl.) ¶ 5. Specifically, as the Board recognized, the BOE annual report describes the relationship between BOE and BEH as follows:

> The Company was independent from the controlling shareholder and the actual controller in terms of business, personnel, assets, organization and financing, with independent & complete business and capability to operate independently.
>
> 1. In business, the Company was independent from the controlling shareholder and the actual controller, with its own production and business departments and management system, the Company had the capability to make its own decisions, assume sole responsibility for its profits and losses, and operate independently with independent and complete business.
>
> 2. In personnel, the Company was completely independent in labor, staff and remunerations. The Company had its own operating management team. ...
>
> 4. In organization, the Company had established its organization completely independent from the controlling shareholder and the actual controller, with independent and sound organs and corporate governance structure. The Company had not handled any official affairs jointly with the controlling shareholder or the actual controller. There were no subordinate relationships between the controlling shareholder

> & its functional departments and the Company & its functional departments.
>
> 5. In financing, the Company had established independent financial departments… opened independent account in bank, and paid tax independently.

Ex. 2036 at 46 (emphasis added). The Board properly rejected PO's request to take BOE's use of the phrase "actual controller" in its annual report out of the context of the rest of the annual report. RPI Decision, 8-9. The Board also properly credited BOE's uncontested declaration that confirmed the accuracy of the relationship defined in the annual report, confirmed that BOE independently controlled this IPR and, specifically, confirmed that BEH did not "fund, direct, or control" this IPR. RPI Decision, 9; Ex. 1023 (Zhang Decl.) ¶ 5. The RPI analysis requires a showing that a non-party funds, directs, and controls an IPR petition or proceeding and not merely that it has some relationship with the petitioner. *Corning Optical Communications RF, LLC v. PPC Broadband Inc.*, IPR2014-00440, Paper 68 at 14 (PTAB Aug. 18, 2015); *see Par Pharm., Inc. v. Jazz Pharm.*, Inc., IPR2015-00546, Paper 25 at 14 (July 28, 2015 PTAB) ("The RPI analysis, moreover, is an inquiry into the 'relationship between a party and a *proceeding*;' not 'the relationship between *parties*.'") (emphasis in original) (quoting *Aruze Gaming Macau, Ltd. v. MGT Gaming, Inc.*, IPR2014-01288, Paper 13 at 12 (PTAB

Feb. 20, 2015)). BOE's annual report and declaration confirms that BEH has no such control.

PO has no legitimate basis to argue that BOE's usage of the phrase "actual controller" in the annual report implies a legal relationship that contradicts the rest of that annual report. DR Request, 4-5. PO's citation to an article regarding the duties of loyalty and diligence of shareholders is wholly inapposite. DR Request, 5 (citing Ex. 2037, 5-6). And PO's citation to two articles discussing actual controllers in other contexts clearly do not apply to the relationship between BOE and BEH as defined in BOE's annual report. DR Request, 5 (citing Ex. 2038, 2; Ex. 2039, 1-3). Finally, PO's request that the Director perform legal research on foreign law and "Article 265" (DR Request, 13) is unintelligible and wholly inappropriate in light of the undisputed facts here.

B. BEH's Minority Interest And Related Agreements Do Not Make it an RPI

PO then argues BEH indirectly controls a 10.79% interest in BOE through a series of agreements (DR Request, 6), but the Board correctly found that the minority interest owned or controlled by BEH did not make it an RPI. RPI Decision, 7. The Board considered BEH's 0.73% direct ownership and the potential that BEH indirectly owned or controlled up to 15% and correctly concluded that such a minority stake would not make BEH an RPI. *Id.* PO does not, and cannot, assert that the cited agreements provide any additional ownership

interest or control relative to BOE. Thus, regardless of how BEH and the other companies divvy up the 15% minority interest, BOE still operates independently as described in the annual report and discussed above.

The undisputed fact that BEH controls at most 15% (or 10.79% as PO asserts in its DR Request) stands in stark contrast to the undisputed evidence in *YMTC* that showed Petitioner was wholly owned and controlled by the state. *YMTC* at 6-7 (citing Paper 8, 7-9, which showed 100% state ownership and control, admissions by the foreign government, numerous articles, and multiple statements from U.S. lawmakers all showing "owned" and "controlled"). The Board correctly found that BEH was not an RPI based on its minority interest.

Of course, the proper "focus 'is on the degree of control the nonparty could exert over the [IPR], not the petitioner'" and there is no evidence that any entity other than BOE could exert any control of this IPR. *Par Pharm.*, IPR2015-00546, Paper 13 at 14 (quoting *Aruze Gaming Macau*, IPR2014-01288, Paper 13 at 12). In fact, the undisputed evidence shows BEH did not have any control of this IPR. Ex. 1023 (Zhang Decl.) ¶ 5. Much larger ownership interests have been found insufficient to create an RPI. *See LG Elecs., Inc. v. Fundamental Innovation Sys. Int'l LLC*, IPR No. 2018-00683, Paper 7 at 4-6 (PTAB Sept. 27, 2018) (parent of petitioner not an RPI, even though it owned more than 30% of petitioner and conducted certain joint activities with the petitioner because this did "not

demonstrate or tend to show that the Petition was filed at LG Corporation's behest, or that LG Corporation exercised or could have exercised control over LG Electronics, Inc.'s participation in this proceeding."); *see also Sony Computer Ent't Am., LLC v. Game Controller Tech., LLC*, IPR 2013–00634, Paper No. 31 at 7-8 (PTAB April 2, 2015) (finding non-parties were not RPIs where petitioner and non-parties had "traditional parent/subsidiary business relationship" and reasoning "[t]here is no persuasive evidence that [non-parties have] had or could have had any control over the Petition itself or over Petitioner's role in this proceeding.").

PO's argument regarding the agreements (The Stock Management Protocol, Voting Rights Implementation Protocol, and Acting-in-Concert Agreement) should be rejected for the additional reason that it is an improper new argument that was not raised with the Board. The USPTO's Director Review process, codified in 37 C.F.R. § 42.75, provides that "[t]he Director will not consider new evidence or new arguments not part of the official record," and sets forth a procedure for requesting the Director's authorization for "submission of new evidence or arguments … in cases addressing issues of first impression or issues involving intervening changes in the law or USPTO procedures, guidance, or decisions."[1] ("Director Review Process, § 3.E"). PO's failure to raise this issue before the

[1] *See* "Director Review Process," § 3.E (available at https://www.uspto.gov/patents/ptab/decisions/director-review-process) (last visited March 5, 2026).

Board is prejudicial because it precluded Petitioner from presenting any other evidence regarding these agreements, which it cannot do now.

C. The BEH-Affiliated Directors Do Not Make BEH An RPI

PO then incorrectly asserts that there are "six BOE officers who simultaneously hold positions at BEH or its affiliated state-owned entity and receive remuneration from those entities." DR Request, 7-9. Of the 32 total "directors, supervisors and senior management" listed in the BOE annual report currently in the record, for the 2024 reporting period, PO identifies only six (6) with any alleged affiliation with BEH or BSCOM—three (3) held minority seats on the Board of Directors, and three (3) held supervisory roles at BOE that no longer exist. There is nothing to suggest that these individuals had or could have had any involvement whatsoever in this IPR proceeding. *See First Quality Baby Prods., LLC v. Kimberly-Clark Worldwide, Inc.*, IPR2014-01023, Paper No. 41 at 9-10 (PTAB July 16, 2015) (finding "[t]he fact that certain managers and other personnel may hold positions at Petitioner as well as other entities [fell] short of indicating sufficiently that those entities are real parties in interest"). Again, Mr. Zhang's declaration that BEH had no such control is uncontested.

PO's argument related to these officers should be rejected for the additional reason that it was not raised with the Board. Director Review Process, § 3.E. PO's failure to raise this issue before the Board precluded Petitioner from presenting any

other evidence regarding the structure of BOE's Board or the roles of these officers, which BOE cannot do now. If BOE were allowed to present additional evidence, it would show that only three of the individuals PO identifies actually sit on BOE's Board of Directors and that they do not possess sufficient voting rights to control any decision-making because resolutions must be approved by at least half of the Board. The other three individuals are not on BOE's Board of Directors and no longer hold any Board positions within BOE. They were previously members of a Supervisory Board that has since been canceled and replaced with a new committee.

D. The Intel And Micron Analogy Is More Apt Than *YMTC*

PO then attempts to distinguish the United States' investment in Intel and Micron from BEH's investment in BOE. DR Request, 9. However, BEH's minority investment in BOE is more analogous to those investments than the *YMTC* case relied on by PO, wherein the state wholly owned and controlled the petitioner. *YMTC* at 6-7.

E. Congressman Moolenaar's Letter Does State That BEH (Or The PRC) Owns Or Controls BOE

PO's reliance on a letter from Congressman John Moolenaar sent to the U.S. International Trade Commission (Ex. 2034), in connection with a patent infringement dispute between non-party Samsung and BOE, is also misplaced. DR Request, 9-10. Congressman Moolenar does not state or allege in his letter that

BOE is "owned" or "controlled" by BEH or the state. Ex. 2034. In contrast, in *YMTC*, multiple U.S. lawmakers characterized Petitioner as "state-owned." *YMTC* at 6, 7. Here, the Board correctly found that Congressman Moolenar's letter "falls short of alleging that the Chinese government controls BOE, merely that the Chinese government may be a customer of BOE and may provide some unspecified support to BOE." RPI Decision, 6. Thus, the Board correctly found this evidence was insufficient "to even put in dispute that the Chinese government exercises or could exercise the kind of control that would be necessary to make it an RPI of Petitioner." *Id*.

III. THE BOARD CORRECTLY DENIED PO'S UNTIMELY MOTION TO DISMISS

The Board properly denied PO's Motion to Dismiss (Paper 38, "RPI Motion") in view of the baseless arguments and factual assertions raised in that motion. As the Board explained in *Corning*, "[a] patent owner challenging a petitioner's RPI disclosure must provide sufficient evidence to show the disclosure is inadequate." *Corning*, IPR2014-00440, Paper 68 at 13. Contrary to PO's assertion, the Board properly assessed whether the record evidence sufficiently put Petitioner's RPI identification in dispute (*see* RPI Decision, 6), and then ultimately concluded "that the preponderance of the evidence shows that Petitioner's RPI identification is correct." RPI Decision, 10.

PO relies exclusively on *YMTC* to support its argument that BOE bears the burden to "bring forth evidence or arguments demonstrating that it named all RPIs." *YMTC* at 8. But *none* of the facts that the Director found sufficient to put the petitioner's RPI identification in dispute in *YMTC* is present here and BOE (unlike petitioner in *YMTC*) responded with evidence and argument demonstrating that it named all RPIs.

In *YMTC*, the patent owner supported its argument that a foreign government was an RPI with "(1) articles explaining that the foreign government invests in, sets policy for, and controls Petitioner's industry (semiconductor manufacturing) within its borders." *Id.* at 6. PO has submitted no such evidence here. The patent owner in *YMTC* also submitted "(2) articles explaining that the foreign government owns a controlling interest in Petitioner through ownership in Petitioner's parent corporation." *Id.* Here, there is no evidence to suggest that the Chinese government owns a controlling interest in BOE, either directly or indirectly. To the contrary, the evidence reflects that that BEH owns or controls up to at most a 15% minority stake. The evidence in *YMTC* also included "(3) statements from U.S. lawmakers that Petitioner is owned and backed by the foreign government; and (4) statements by the Department of Defense that the foreign government owns or controls Petitioner." *Id*. Here, PO submitted only a single letter, which does not state that Petitioner is owned or controlled by the PRC.

In *YMTC*, the Patent Owner also submitted evidence suggesting that "Petitioner's parent corporation, . . . is wholly owned by state-owned enterprises." *Id*. Here, there is no evidence that Petitioner, or any BOE affiliate, is wholly state-owned. And BEH (and not the PRC) directly or indirectly owns or controls at most a 15% minority stake in BOE. In addition, in *YMTC*, the "Patent Owner's evidence further include[d] statements from the foreign government referring to Petitioner as a 'state-owned enterprise.'" *Id.* There is no evidence that the PRC has ever referred to BOE as state-owned, because it is not. Moreover, in *YMTC*, Patent Owner's evidence also included public statements from "multiple U.S. lawmakers" characterizing Petitioner as state-owned. *Id.* at 6-7. There is no such evidence here, as PO offers only a single letter, which does not assert that BOE is state-owned.

Finally, in *YMTC*, Petitioner did "not dispute[] its inclusion on the Entity List or dispute[] that its activities pose a significant risk of becoming involved in activities contrary to the national security." *Id*. at 7. Here, in contrast, it is undisputed that BOE is *not* on the Entity List, even though PO erroneously claimed that it was in the RPI Motion. RPI Motion, 1; Ex. 1023 (Zhang Decl.) ¶¶ 3-4. In the RPI Motion, PO pointed to an unrelated entity named "Beijing Opto-Electronics Technology Company" ("Beijing Opto"). Ex. 2033, 2. As Petitioner has established, Beijing Opto is neither BOE nor related to BOE. Ex. 1023 (Zhang Decl.) ¶ 3. PO expressly recognizes this error and thus does not repeat this flawed

argument in its DR Request. DR Request, 14. Instead, PO improperly raises a new theory in its DR Request based on BEH.

In sum, PO offers none of the evidence that the Director relied on in *YMTC* to find that the PO had put the RPI issue in dispute. And, unlike the petitioner in *YMTC*, BOE has not failed "to provide clarity as to its actual identity." To the contrary, Petitioner offers pertinent statements from the Corporate Governance section of the BOE annual report reinforcing that BOE operates independently of BEH (and the PRC). Additionally, BOE submitted Mr. Zhang's declaration, attesting that BOE "has independently made its decisions (such as whether or not to file a petition, prior art selection, and counsel selection) in these IPRs and the many other IPRs it has filed," and that "[BEH] does not fund, direct, or control these IPR petitions or proceedings." Ex. 1023 (Zhang Decl.) ¶ 5. Thus, even if PO had properly placed Petitioner's RPI identification "in dispute," which it did not, Petitioner has "br[ought] forth evidence [and] arguments demonstrating that it named all RPIs." *YMTC* at 8. In contrast, the petitioner in *YMTC* offered no evidence to rebut the patent owner's evidence, despite the Board and the Director providing it with ample opportunities to do so. Accordingly, here, the Board correctly found "that Petitioner has shown by a preponderance of the evidence that its identification of RPIs is correct." RPI Decision, 5.

IV. PO'S REQUEST SHOULD BE DENIED BECAUSE OF PO'S DELAY

PO waived any challenge to RPI before the Board by choosing to wait to raise the dispute until just before the hearing on the merits. PO does not dispute that it knew, prior to institution, of every fact it now relies on to dispute whether institution was proper. Nevertheless, PO chose not to challenge Petitioner's RPI identification in any of its pre- or post-institution papers. Instead, PO waited until November 12, 2025, one week before the hearing on the merits, to seek leave to file a motion to dismiss based on information related to RPI. Ex. 1031. PO did not even attempt to make the required showing under 37 C.F.R. § 42.123(b) as to why the information pertaining to RPI could not have been obtained earlier. Paper 17 (Scheduling Order), 10 (deemed waived); Trial Practice Guide, 52; *In re Nuvasive, Inc.*, 842 F.3d 1376, 1381 (Fed. Cir. 2016). Petitioner put PO on notice of the need to address these issues (*see* Ex. 1031), but PO chose not to do so.

The Director should not endorse an intentional delay in raising an RPI issue for several reasons. First, endorsing such delays will encourage patent owners to "wait and see" how an IPR develops and only raise an RPI dispute once it becomes clear they will lose the IPR on the merits (as happened here). This delay will waste the Boards' limited resources in considering IPRs on the merits that may not be proper. Second, patent owners will be encouraged to wait until the 1-year bar has run (as PO did here) to prevent petitioners from mooting or curing any RPI issue.

Third, raising an important issue like RPI in 3-page supplemental briefs (the page length requested by PO) is prejudicial as it limits petitioner's response.

PO cannot credibly claim that *YMTC* justifies its delay. The patent owner in *YMTC* did not need any inspiration from a third party to timely dispute the petitioner's RPI identification. The patent owner in *YMTC* timely raised the RPI issue in its Preliminary Response, and the issue was fully briefed before the Board's Decision on Institution. *See YMTC*, Paper 38 at 5, 8. The Director then stayed the IPR to conserve the Office's limited resources while the RPI dispute was resolved. PO's strategy of intentionally delaying its RPI Motion should not be endorsed by the Office.

V. CONCLUSION

PO's DR Request should be denied on the merits and because of PO's delay. It is undisputed that BEH owns or controls at most a 15% stake in BOE and a minority of directors. And the statement in BOE's annual report that BEH is an "actual controller" should not be taken out of the context of that report, which makes perfectly clear that BEH is not an RPI. *YMTC* involved a Petitioner that was wholly owned and controlled by the state, which highlights why BEH is not an RPI here. Finally, the Office should not endorse PO's strategy of delay as it wastes the Office's limited resources and prejudices Petitioner.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies pursuant to 37 C.F.R. §§ 42.6(e) and 42.105 that on March 5, 2026, a true and correct copy of the forgoing document was served by emailing a copy of same (by agreement) to the following attorneys for the Patent Owner:

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