

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD.,
Petitioner,

v.

ADVANCED INTEGRATED CIRCUIT PROCESS LLC,
Patent Owner.

IPR2025-00832
U.S. Patent No. 8,796,779

**PETITIONER'S SUR-REPLY IN SUPPORT OF ITS OPPOSITION TO PA-
TENT OWNER'S DISCRETIONARY DENIAL REQUEST**

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AICP urges the Director to default to the same decision as IPR2025-00682 and IPR2025-00683, focusing solely on time-to-trial and AICP's supposed settled expectations. (Paper-12, 1.) But a holistic assessment of the evidence and arguments **in this proceeding** establishes TSMC's petition warrants referral. TSMC established AICP is not entitled to any settled expectations related to the '779 patent nor were the prior owners. First, the merits are exceedingly strong—AICP did not even file a preliminary response to the petition. Second, TSMC demonstrates Applicant's "unfair dealings" during prosecution—concealing an anticipatory reference and material information from JP prosecution. (*See* Paper-11, 17-22.) Third, the Examiner materially erred by overlooking 4 material prior art references included in the file wrapper, including 3 applied in rejections of the JP counterpart. (*See* Paper-11, 7-15.) Fourth, because no evidence that any product has ever been marked and no license agreements have been presented in this proceeding by AICP, who possesses such confidential evidence, AICP is not entitled to invoke settled expectations from the patent's issue date. *Shenzhen Tuozhu Technology Co. v. Stratasy, Inc.*, IPR2025-00531, Paper-10, 3 (July 17, 2025). Additionally, TSMC's broad stipulation ensures no overlap with the district court and results in a true alternative to litigation, as Congress intended when enacting the AIA. *See* 77 Fed. Reg. 48612.

Applicant's Unfair Dealings. AICP does not dispute Applicant failed to provide Torii, the JP Office Action, and its JP amendment/response to the U.S.

Examiner or that the anticipatory Torii reference is material. Instead, AICP protests that TSMC has not sufficiently shown “deceptive intent” to prove inequitable conduct (“IC”). (Paper-12, 4.) First, “deceptive intent” is not required here. TSMC is alleging “unfair dealings” based on prosecution misconduct, not IC. (Paper-11, 17-22.) Second, AICP cites no legal authority that would forbid finding unfair dealing without proving deceptive intent. The USPTO requires disclosures from applicants to comply fully with their duty of candor, historically including a duty of “fair dealing.” See MPEP § 2011.4 (Rev. 2, Apr. 1980); cf. *Spectrum Solutions LLC v. Longhorn Vaccines & Diagnostics, LLC*, IPR2021-00847, Paper-142, 14-15 (July 11, 2024). It is equally irrelevant that TSMC has not yet asserted IC in district court (Paper-12, 3) because litigation is still in its early stages—more than one month remains to amend pleadings without leave. (Ex-2008, 5.)

AICP disingenuously argues the 3 Japanese references, Fujiwara, Irino and Suzuki, are not material because they were cited in a search report as having “particular relevance” for claim 1 and “[c]laim 1 was subsequently amended.” (Paper-12, 3-4.) AICP is wrong. Each of the references is material. The JP examiner found each anticipates JP claim 1 (substantially identical to as-filed U.S. claim 1), including the “interface layers with different thicknesses” limitation (1[B])—the sole limitation leading to the U.S. allowance. (See Paper-11, 19.) In response, Applicant acquiesced and simply narrowed JP-claim 1 by adding limitations, demonstrating the

references' materiality. Applicant did not make the same amendment in U.S. prosecution. In fact, Irino **anticipates** U.S. claim 1 as amended; Fujiwara and Suzuki each **renders it obvious** when combined with a reference disclosing interface layers "made of a silicon dioxide film or a silicon oxynitride film," which is trivial to a POSITA, as established in TSMC's Petition, Expert Declaration, and Opposition.

Examiner's Material Error. Unable to counter substantively TSMC's "material error" position, AICP argues procedurally that TSMC's DD Opposition includes new "alleged errors" in addition to Gilmer. (Paper-12, 4.) AICP's premise is incorrect. As set forth on the Discretionary Process webpage, the "petition should not address discretionary issues." And the full scope of Examiner error overlooking other material references is a consideration "bearing on the Director's discretion" a petitioner is "permitted to address" in its opposition. (March 26, 2025 Memorandum, 2-3.) TSMC's opposition did just that—addressing multiple material Examiner errors that bear on the Director's discretion.

Moreover, AICP ignores the Petition's and Expert Declaration's discussion of the materiality of the JP references. (Paper-2, 12-13.) Contrary to AICP's statement, they are material (as discussed above); they are not presented as Petition grounds simply because there is a lot prior art disclosing the challenged claims. (*See* Paper-12, 4.) Regarding Torii, AICP's sole argument is because Torii was "not before the Examiner", "it could not have been '**overlook[ed]**.'" (Paper-12, 4 (emphasis in

original).) Not so. By failing to identify Torii as prior art, the Examiner overlooked its teachings. *See* IPR2025-00559, Paper-12, 2 (July 16, 2025).

Strength of TSMC’s Petition. Given the strong Torii (§102) and Gilmer (single-reference §103) grounds in the Petition, AICP chose not to challenge the merits of these grounds in its discretionary request or reply. More tellingly, AICP did not file a preliminary response, further demonstrating the Petition’s strength.

TSMC’s and UMC’s Broad and Reciprocal Stipulations Remove All Risks of Duplicative Litigation, Warranting Referral. AICP does not rebut the effect of the stipulations, only requesting inappropriately that they be given less than “full weight.” (Paper-12, 2-3.) When TSMC filed its petition, a *Sotera* stipulation was sufficient to overcome *Fintiv*; that is no longer the case. *See Shenzhen*, Paper-10, 3 (referring, in part, due to “a broad stipulation” going beyond *Sotera*). Confronted with the new, fast-changing agency policies, TSMC moved quickly and provided an extraordinarily broad stipulation; AICP was provided a full opportunity to respond.

AICP’s Purported “Foreign Discovery Needs”. AICP argues purported “due process rights” to seek foreign discovery in hopes of finding evidence of an earlier invention date. (Paper-12, 2.) AICP, as the new patent owner claiming settled expectations, had ample opportunity to obtain such information before litigation. AICP presents nothing to support even a belief such evidence exists. AICP cannot

divert attention from its own failures by pointing to TSMC's foreign discovery request(s), which TSMC has no choice to pursue as a defendant because such discovery is prudent to avoid unfair surprise. (Paper-12, 2.) AICP bears no such risk, and, despite having TSMC's invalidity contentions since May 1, 2025, AICP did not seek foreign discovery. AICP's claimed foreign discovery "needs" are not genuine.

Economic and National Security Interests Warrant Referral. That semiconductor chips made by TSMC are vital to the U.S. military and national security is both public knowledge and part of the Congressional record. (*See* Paper-11, 28; TSMC-1165, 13-15; TSMC-1166, 181.) It is also widely reported U.S. military applications rely on TSMC's 28nm technology for its proven track record and reliability. Curiously, AICP contends these facts are "irrelevant." (Paper-12, 5.) AICP is mistaken. (Paper-12, 5.) Litigation targeting components vital to and extensively used for U.S. military and national security is disruptive. Additionally, AICP has also accused TSMC's advanced FinFET nodes that are used for AI processors and such accusations also jeopardize the chips necessary to maintain American leadership in AI. (*See* Paper-11, 28-29.) Even if such supplies are exempt under 28 U.S.C. 1498, the statute permits AICP to separately extract royalties from the U.S. government. The Office should ensure an erroneously-issued patent is not used to harm vital U.S. economic and national security interests.

Date: August 22, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing **Petitioner's Sur-Reply In Support of Its Opposition to Patent Owner's Discretionary Denial Request** was served on August 22, 2025, via e-mail directed to counsel of record for Patent Owner at the following:

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