

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.

IPR2025-00830
U.S. Patent No. 8,253,180

**PETITIONER'S SUR-REPLY IN SUPPORT OF ITS OPPOSITION TO
PATENT 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-13, 1.) But a holistic assessment of all 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 '180 patent nor were the prior owners. First, Applicant engaged in "unfair dealings" during prosecution including misleadingly stating it provided a CN office action translation to explain the relevance of the applied prior art and withholding material JP prosecution information. (*See* Paper-12, 30-35.) Second, the Examiner materially erred by overlooking 5 prior art references in the file wrapper, including 3 applied in JP counterpart rejections. (*See* Paper-12, 7-15.) The Examiner further erred by repeatedly rejecting the claims based on non-existent limitations. Third, 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 issue date of the asserted patent. *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.

Applicant's Unfair Dealings. AICP neither disputes nor attempts to justify Applicant's selective withholding of certain CN and JP prosecution documents from

the U.S. Examiner, nor disputes their materiality. (Paper-13, 3.) Instead, AICP protests that TSMC has not made a sufficient showing of “deceptive intent” to prove inequitable conduct (“IC”). (Paper-13, 3.) First, “deceptive intent” is not required here. TSMC is alleging “unfair dealings” based on prosecution misconduct; not IC. Second, AICP cites no legal authority that would forbid considering prosecution misconduct without proving deceptive intent. The USPTO requires disclosures from applicants to comply fully with their duty of candor. This duty of candor has historically been characterized as 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) (reviewing sanctions imposed for party’s failure to “meet its duty of candor and fair dealing in its actions before the Board”). It is equally irrelevant that TSMC has not yet asserted IC in district court (Paper-13, 3) because litigation is in its early stages—more than a month remains to amend pleadings. (Ex-2008, 5.)

Examiner’s Material Error. Unable to counter substantively TSMC’s “material error” position, AICP argues procedurally that TSMC’s DD Opposition includes “several new alleged errors” in addition to those related to JP-Matsumoto and JP-Ono discussed in the Petition. 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.) And TSMC’s opposition did just that—addressing multiple material Examiner errors that bear on the Director’s discretion. AICP also does not dispute the materiality of JP-Ono, Henson, and Kajiyama. AICP argues that JP-Matsumoto “does not disclose all the limitations of claim 1” (Paper-13, 4) and cites its request (Paper-8, 35-37) where Matsumoto is discussed. In fact, nowhere in AICP’s request is JP-Matsumoto discussed. In attacking JP Matsumoto by citing its Matsumoto discussion, AICP concedes that the two references have identical disclosure. Contrary to AICP’s argument, JP-Matsumoto is highly material at least because it discloses some limitations which Applicant alleged were missing from the prior art cited by the US Examiner. (See Paper-12, 10-11.) Notably, AICP does not address the explicit errors during prosecution that the Examiner repeatedly rejected the ’180 patent pending claims based on non-existent limitations. (See Paper-12, 13-15.) The volume of material errors warrant referral.

Strength of TSMC’s Petition. Given the Petition’s strong grounds, AICP merely reiterates baseless “in” v. “on” attorney arguments and ignores the explicit disclosures of the references and the testimony of TSMC’s expert, Dr. Lee. TSMC established Matsumoto and Guha meet the “*active region in a substrate*” limitation. Indeed, Matsumoto expressly discloses the active region formed in the “SOI substrate 4.” It was well-known in the art that a substrate encompasses both bulk and

SOI substrates. And Guha discloses that its “**substrate** may further contain **active regions**.” (Paper-12, 20, 22.)

On Kamata, TSMC explained why it invalidates the ’180 patent under the proper construction and even under AICP’s unsubstantiated construction of the term “predetermined distance.” (Paper-12, 28-29.) Now, AICP argues TSMC conceded “by omission” to AICP’s proposed construction in its *preliminary response*, where it proposed a new construction (that remains inconsistent with its litigation position). (Paper-13, 4). TSMC could not have responded to AICP’s new construction because AICP’s Preliminary Response (*Id.*) was filed **the same day** as TSMC’s Opposition. It is AICP that belatedly advances a new construction in its preliminary response, different from the construction it proposed in its discretionary denial brief. (*Compare* Paper-8, 35 *with* Paper-10, 29.) Even under AICP’s shifting and untimely claim construction, Katama still invalidates the ’180 patent as a single-reference §103 ground.

TSMC’s and UMC’s Broad and Reciprocal Stipulations Remove All Risks of Duplicative Litigation. AICP does not rebut the effect of the stipulations, only requesting inappropriately they be given less than “full weight.” (Paper-13, 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 “broad stipulation” going beyond *Sotera*). In response, TSMC moved quickly to provide its 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-13, 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-13, 2.) AICP bears no such risk, and, despite having TSMC’s invalidity contentions since May 1, 2025, AICP sought no foreign discovery. AICP’s foreign discovery “needs” are not genuine.

Economic and National Security Interests. 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-12, 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-13, 5.) But, litigation targeting components vital to and extensively used for U.S. military and national security is disruptive. 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. 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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