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Date: June 30, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNITED MICROELECTRONICS CORPORATION,
AND
UMC GROUP (USA),
Petitioner,

v.

ADVANCED INTEGRATED CIRCUIT PROCESS LLC,
Patent Owner.

Case IPR2025-01053
U.S. Patent No. 8,796,779

MOTION FOR CONSOLIDATION UNDER 35 U.S.C. § 315(d) AND 37 C.F.R. § 42.122(a) WITH RELATED *INTER PARTES* REVIEW IPR2025-00832

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I. STATEMENT OF THE PRECISE RELIEF REQUESTED

Pursuant to 37 C.F.R. § 42.22, United Microelectronics Corporation and UMC Group (USA) (collectively, "Petitioner") respectfully submit this Motion for Consolidation of the Petition for *Inter Partes* Review challenging claims 1, 2, 7, and 12-13 ("UMC Challenged Claims") of U.S. Patent No. 8,796,779 ("the '779 Patent") filed in IPR2025-01053 ("the UMC Petition").[1]

Pursuant to 35 U.S.C. § 315(d) and 37 C.F.R. § 42.122(a), Petitioner respectfully requests institution of *inter partes* review and consolidation with *Taiwan Semiconductor Mfg. Co. Ltd. v. Advanced Integrated Circuit Process LLC,* IPR2025-00832 ("TSMC IPR"), which has been accorded a filing date of April 11, 2025 (*see* Paper 5) and challenges claims 1 and 8-15 ("TSMC Challenged Claims") of the '779 Patent.

The UMC Petition is substantively identical to the TSMC IPR petition as it relies on the same prior art and grounds, and substantially the same evidence and

[1] Petitioner did not seek prior Board authorization pursuant to 37 CFR § 42.20(b) because it understands from *Taiwan Semiconductor Mfg. Co., Ltd. v. Zond LLC*, IPR2014- 00781 and IPR2014-00782, Paper 5 at 3 (PTAB May 29, 2014) that such authorization is not required for joinder/consolidation motions.

arguments, with respect to claims 1 and 12-13 of the '779 Patent. Of the three grounds in the UMC Petition, Grounds II and III are substantively identical to Grounds 4 and 5 of the TSMC IPR petition, respectively. Ground I of the UMC Petition is substantively identical to Ground 1 of the TSMC IPR petition with respect to claims 1 and 12-13 of the '779 Patent, but further challenges dependent claims 2 and 7 of the '779 Patent while relying on the same prior art reference (i.e., U.S. Patent No. 6,881,657 to Torii, et al.). Petitioner is currently a defendant in (1) *Advanced Integrated Circuit Process LLC v. United Microelectronics Corp.*, Civil Action No. 2:24-cv-00730 in the Eastern District of Texas (Lead Case), filed September 6, 2024; and (2) *Advanced Integrated Circuit Process LLC v. Taiwan Semiconductor Mfg. Co. Ltd.*, Civil Action No. 2:24-cv-00623 in the Eastern District of Texas (Consolidated Member Case), filed August 1, 2024 and Petitioner has not previously filed a petition for *inter partes* review challenging the validity of the '779 Patent. Judicial resources will be conserved by institution and consolidation here.

Petitioner further stipulates that if consolidation is granted, it will act as an "understudy" and will not assume an active role unless the TSMC IPR petitioner ceases to participate, or to the extent portions of such filings or motions solely involve Petitioner (such as the portions of filings and motions solely concerning dependent claims 2 and 7 of the '779 Patent). Petitioner also will not seek any additional depositions or deposition time. These limitations remove any potential

burden for having another party join the TSMC IPR proceeding and avoid any lengthy or duplicative briefing.

Accordingly, consolidation is appropriate because it will efficiently resolve the question of the '7779 Patent's validity in the same manner and timeframe already prescribed by the Scheduling Order yet to be issued in the TSMC IPR.

II. STATEMENT OF MATERIAL FACTS

1. On April 11, 2025, Taiwan Semiconductor Manufacturing Company Limited ("TSMC") filed a petition for *inter partes* review (IPR2025-00832) requesting cancellation of the TSMC Challenged Claims. *See* IPR2025-00830, Paper 2.

2. On May 12, 2025, the Board issued a Notice of Filing Date Accorded to Petition and Time for Filing Patent Owner Preliminary Response, according the TSMC IPR petition a filing date of April 11, 2025. *See* IPR2025-00832, Paper 5.

3. On May 23, 2025, Petitioner filed a petition for *inter partes* review (IPR2025-01053) requesting cancellation of the UMC Challenged Claims, which includes Grounds I, II, and III that are substantively identical to Grounds 1, 4, and 5 of the TSMC IPR petition, respectively, as related to claims 1 and 12-13 of the '779 Patent.

III ANALYSIS OF THE PRECISE RELIEF REQUESTED

A. Legal Standard

The Board has the authority under 35 U.S.C. § 315(d) to consolidate a properly filed *inter partes* review petition. *See* 35 U.S.C. § 315(d). A motion for consolidation may be filed any time during the pendency of an *inter partes* review, and is therefore timely here. *See* 37 C.F.R. § 42.122(a). Additionally, "[c]onsolidation is appropriate where … the Board can more efficiently handle the common issues and evidence, and also remain consistent across proceedings." *See JSR Corp. v. JSR Life Sciences, LLC*, IPR2022-00041, Paper 43 at 2 (PTAB May 18, 2023).

While Petitioner believes the instant Motion is properly made under 35 U.S.C. § 315(d) because the UMC Petition challenges two dependent claims of the '779 Patent (i.e. claims 2 and 7) not challenged in the TSMC IPR petition, the factors considered by the Board in deciding whether to exercise its discretion and permit joinder may be instructive as to whether the Board can more efficiently handle the common issues and evidence with consistency. Petitioner asserts that the below evaluation of those factors, including: "(1) the reasons why joinder is appropriate; (2) whether the new petition presents any new grounds of unpatentability; (3) what impact, if any, joinder would have on the trial schedule for the existing review; and (4) how briefing and discovery may be simplified" indicates that consolidation is

appropriate. *See Kyocera Corp. v. Softview LLC*, IPR2013-00004, Paper 15 at 4 (PTAB Apr. 24, 2013).

B. Each Factor Weighs in Favor of Consolidation

Each of the joinder factors considered by the Board weighs in favor of consolidation here. *See Kyocera Corp.*, IPR2013-00004, Paper 15 at 4. The UMC Petition does not present any new grounds of unpatentability, and merely adds dependent claims 2 and 7 of the '779 Patent to Ground 1 of the TSMC IPR petition, thereby relying on the same prior art for those claims as corresponding to that ground. Thus, the UMC Petition is substantively identical to the TSMC IPR petition with respect to claims 1 and 12-13 of the '779 Patent. Further, consolidation will have minimal, if any, impact on the trial schedule, as all issues are substantively identical with respect to the overlapping claims, Petitioner agrees to be bound by the Scheduling Order to be issued in the TSMC IPR, and Petitioner will accept a passive "understudy" role (unless TSMC ceases to participate in the TSMC IPR) except for those issues that relate solely to UMC, which it expects to be limited to dependent claims 2 and 7 of the '779 Patent. *See Sony Corp. v. Memory Integrity, LLC*, IPR2015-01353, Paper 11 at 6 (PTAB Oct. 5, 2015) (granting *inter partes* review where petitioner requested an "understudy" role), Paper 4 at 5-7 (PTAB Jun. 8, 2015).

Further, the briefing and discovery should see no change given Petitioner's passive "understudy" role where Petitioner will not actively participate in the TSMC IPR proceeding. Lastly, consolidation is appropriate because both the petitioner in the TSMC IPR and the Patent Owner have consented to the consolidation of the UMC Petition. *See Applied Maerials, Inc. v. Ocean Semiconductor LLC*, IPR2021-01342, Paper 59 at 3 (PTAB Feb. 7, 2023) (consolidating where "neither party raised objections to consolidation of these proceedings").

Accordingly, consolidation is appropriate. *See Sony Corp.*, IPR2015-01353, Paper 11 at 5-6 (granting institution of IPR and motion for joinder where petitioners relied "on the same prior art, same arguments, and same evidence….and a substantively identical declaration."), Paper 4 at 4-5.

1. Consolidation is Appropriate

Consolidation of the UMC Petition and TSMC IPR petition is appropriate because the UMC Petition involves the same patent, challenges only a subset of the same claims with the exception of dependent claims 2 and 7, , and is based on the same grounds and combinations of prior art submitted in the TSMC IPR. *See Sony Corp.*, IPR2015-01353, Paper 11 at 5-6, Paper 4 at 4-5. The UMC Petition is substantively identical to the TSMC IPR petition with respect to claims 1 and 12-13 of the '779 Patent, containing only minor differences related to the overview of the technology and formalities of a different party filing the petition supported by a

different expert. There are no substantive changes to the facts or arguments presented in the TSMC IPR petition. Because these proceedings are substantively identical with respect to the overlapping challenged claims, good cause exists for consolidating this proceeding with the TSMC IPR so that the Board can efficiently resolve all grounds in both the UMC Petition and the TSMC IPR petition together. *See id*.

2. Petitioner Proposes No New Grounds of Unpatentability

The UMC Petition presents the same grounds of unpatentability as the TSMC IPR petition with respect to the claims 1 and 12-13 of the '779 Patent and merely adds dependent claims 2 and 7 to Ground 1 of that petition, thereby relying on the same prior art for dependent claims 2 and 7 as the other claims challenged in that ground.

3. Joinder Will Not Unduly Burden or Negatively Impact the TSMC IPR Trial Schedule

Because the UMC Petition is substantively identical to the TSMC IPR petition with respect to the overlapping challenged claims, the new substantive issues for Patent Owner to address are restricted to two dependent claims, and Petitioner's proposed "understudy" role will allow the TSMC IPR to proceed in the same manner and timeframe as prescribed in the Scheduling Order to be issued in the TSMC IPR.

As agreed above, Petitioner will take a passive "understudy" role in the TSMC IPR proceeding with respect to the overlapping challenged claims and not actively participate unless TSMC ceases to be involved in the TSMC IPR. Under this "understudy" role, Petitioner agrees that:

- Petitioner shall be bound by the Scheduling Order to be issued in the TSMC IPR;
- Petitioner shall not make any substantive filings and shall be bound by the filings of the petitioner in the TSMC IPR, unless a filing concerns termination or settlement, a filing solely involves Petitioner, or petitioner in the TSMC IPR ceases to participate;
- Petitioner shall not present any argument or make any presentation at oral hearing unless an issue solely involves Petitioner (e.g., as related to dependent claims 2 and 7 of the '779 Patent), or when addressing Board-approved motions that do not affect the petitioner in the TSMC IPR, or unless petitioner in the TSMC IPR ceases to participate.
- Petitioner shall not seek to take a deposition or defend a deposition of any witness, unless the topic of examination concerns issues solely involving Petitioner (e.g., as related to dependent claims 2 and 7 of the '779 Patent), or petitioner in the TSMC IPR ceases to participate.

- Petitioner shall not seek discovery unless petitioner in the TSMC IPR ceases to participate and discovery is needed.
- Petitioner will not rely on expert testimony beyond that submitted by the petitioner in the TSMC IPR except as related to dependent claims 2 and 7 of the '779 Patent or unless the petitioner in the TSMC IPR ceases to participate in the proceeding.

Petitioner will also abide by any additional conditions the Board deems appropriate for an "understudy" role. Given the terms of Petitioner's proposed "understudy" role, Petitioner respectfully submits that consolidating the TSMC IPR will not require any delay or modification and will not unduly prejudice any party or the Board. "Thus [] granting the Motion for Joinder would help 'secure the just, speedy, and inexpensive resolution of these proceedings." *Texas Instruments Inc. v. Greenthread, LLC,* IPR2024-00774, Paper 24, at 18-20 (PTAB Oct. 11, 2024) (granting institution and joinder where petitioner agreed to take an "understudy" role).

Due to the same issues being presented in the TSMC IPR petition for the majority of challenged claims (including all independent claims), Patent Owner will not be required to present any additional responses or arguments except as related to dependent claims 2 and 7 of the '779 Patent. *See* IPR2015-01353, Decision Instituting IPR, Motion for Joinder, Paper 11 at 6 (granting IPR and motion for

joinder where "joinder should not necessitate any additional briefing or discovery from Patent Owner beyond that already required in [the original IPR]."); *see also Sony Corp.*, IPR2015-01353, Paper 4 at 5-7.

The Patent Owner Preliminary Response will not be negatively impacted because the issues presented in the TSMC Petition are identical to the issues presented in the UMC Petition with respect to the overlapping challenged claims. Patent Owner will not be required to provide any additional analysis or arguments beyond what it will already provide in responding to the TSMC IPR petition except with respect to the two dependent claims not challenged in the TSMC IPR petition. Consolidation of this proceeding with the TSMC IPR also does not unduly burden or negatively impact the trial schedule in any meaningful way.

4. Procedures to Simplify Briefing and Discovery

The TSMC IPR petition and UMC Petition present substantively identical grounds of rejection with respect to the overlapping challenged claims 1 and 12-13 of the '779 Patent, including the same art combinations against the same claims. Additionally, Petitioner explicitly agrees to take an "understudy" role, as described in the proceeding section. Petitioner will assume an active, primary role only with respect to dependent claims 2 and 7 of the '779 Patent or if TSMC ceases to participate in the TSMC IPR.

By Petitioner accepting an "understudy" role, Patent Owner and Petitioner can comply with the Scheduling Order to be issued in the TSMC IPR and avoid any duplicative efforts by the Board or the Patent Owner. These steps will minimize any potential complications or delay that may result by consolidation. *See Sony Corp.*, IPR2015-01353, Paper 11 at 6-7 (granting IPR and motion for joinder because "joinder would increase efficiency by eliminating duplicative filings and discovery, and would reduce costs and burdens on the parties as well as the Board" where petitioners agreed to an "understudy" role.), Paper 4 at 6-7.

IV. *GENERAL PLASTIC* IS INAPPLICABLE

Petitioner respectfully submits application of the *General Plastic* analysis is inapplicable here. In *General Plastic*, the Board set forth a series of factors that may be analyzed for follow-on petitions to help conserve the finite resources of the Board. In the current motion, Petitioner merely seeks to consolidate with the TSMC IPR petition and does not present any new grounds. As such, Petitioner respectfully submits that *General Plastic* does not apply in this circumstance because Petitioner would be taking an "understudy" role and the Board's finite resources would not be impacted.

Moreover, this is not the type of serial petition to which *General Plastic* applies, especially as Petitioner has not previously filed an IPR against the '779 Patent. The PTAB has previously stated that a joinder petition "effectively

neutralizes" a *General Plastic* analysis. *See Apple Inc. v. Uniloc 2017 LLC*, IPR2018-00580, Paper 13 at 10 (PTAB Aug. 21, 2018) (instituting a joinder petition where joinder petitioner previously filed a non-instituted IPR, stating joinder petitioner's joinder motion agreeing to a passive "understudy" role "effectively neutraliz[es] the *General Plastic* factors"); *see also Celltrion, Inc. v. Genentech, Inc.*, IPR2018-01019, Paper 11 at 10 (PTAB Oct. 30, 2018) (instituting a joinder petition where joinder petition previously filed a non-instituted IPR, stating the joinder motion "effectively obviates any concerns of serial harassment and unnecessary expenditure of resources").

In the event the Board does analyze the *General Plastic* factors, those factors heavily weigh in favor of instituting the present IPR. *General Plastic Indus. Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, slip op., at 16 (PTAB Sept. 6, 2017) (Paper 19) (precedential as to § II.B.4.i).

Regarding the first factor, Petitioner has not previously filed a petition against the '779 Patent. Because Petitioner has not otherwise challenged the validity of the '779 Patent in a petition, this factor weighs in favor of institution.

The second factor is whether at the time of filing the first petition the petitioner knew or should have known of the prior art asserted in the second petition. This factor is neutral, if not inapplicable, in the *General Plastic* analysis. Here, the TSMC IPR petition and UMC Petition share the same prior art because the UMC Petition

is a "copycat" of TSMC's petition with respect to the overlapping challenged claims. Because Petitioner is merely seeking to join in an "understudy" role, the factor is neutral, at best, in determining whether to institute.

The third factor is whether at the time of filing of the second petition the petitioner already received the patent owner's preliminary response to the first petition or received the Board's decision on whether to institute review in the first petition. The petitioner in the TSMC IPR has not received the Board's institution decision and the patent owner's preliminary response has not been submitted in that proceeding and is not due until August 12, 2025. Because this is a Motion for Joinder requesting an "understudy" role, Petitioner is submitting a substantively identical petition with respect to claims 1 and 12-13 of the '779 Patent, and has not added to, or changed, any of the substantive arguments from, the TSMC IPR petition with respect to those claims. Moreover, because Petitioner will serve an "understudy" role, the UMC Petition is not an attempt to harass the Patent Owner or otherwise engage in serial, tactical filings. Thus, this factor weighs in favor of consolidation and institution.

The fourth factor is the length of time elapsed between the time the petitioner learned of the prior art asserted in the second petition and filing of the second petition, and the fifth factor is whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same

claims of the same patent. In the context of a consolidation motion where Petitioner will be taking an "understudy" role, these factors are inapplicable.

The sixth factor is the finite resources of the Board. Granting Petitioner's consolidation motion where Petitioner will serve in an "understudy" role will not impact the Board's resources beyond those resources the Board dedicates to the instant motion and will otherwise only conserve the Board's resources.

The seventh factor is the requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than one year after the date on which the Director notices institution of review. As noted above, joining Petitioner will not impact the schedule of the TSMC IPR. Accordingly, this factor weighs in favor of institution.

An eighth factor identified by the Board in *Shenzhen* is the extent to which the petitioner and any prior petitioner(s) were similarly situated defendants or otherwise realized a similar-in-time hazard regarding the challenged patent. *See Shenzhen Silver Star Intelligent Tech. Co., Ltd. v. iRobot Corp.*, IPR2018-00898, Paper 9 at 7, 13-14 (PTAB Oct. 1, 2018) (noting "the purpose of proposed Factor 8 is to discourage tactical filing of petitions over time by parties that faced the same threat at the same time" such that earlier petitions are filed as "test case(s)" to gain "tactical advantage"). Because the UMC Petition does not introduce any new grounds of unpatentability, merely adds a challenge to dependent claims 2 and 7 to Ground 1 of the TSMC IPR petition, and will effectively merge into the same

proceeding with TSMC's IPR, no tactical advantage contemplated by the Board in *Shenzhen* is gained here.

Thus, none of the *General Plastic* factors weighs against institution and joinder with respect to the UMC Petition.

V. CONCLUSION

Based on the factors discussed above, Petitioner respectfully requests that the Board grant the UMC Petition for *Inter Partes* Review of the '779 Patent and then grant consolidation with *Taiwan Semiconductor Mfg. Co. Ltd. v. Advanced Integrated Circuit Process LLC*, IPR2025-00832.

Date: June 30, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §42.6(e), the undersigned certifies that on this 30th day of June, 2025, I caused to be served a true and correct copy of the foregoing **Motion for Consolidation Under 35 U.S.C. § 325(d) and 37 C.F.R. § 42.122(a) To Related Inter Partes Review IPR2025-00832** by e-mail (as agreed in the Service Information section of Patent Owner's Mandatory Notice)

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