

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.

Case IPR2025-00682
Patent No. 8,198,686

PETITIONER'S UPDATED EXHIBIT LIST

Pursuant to 37 C.F.R. § 42.63(e), Petitioner Taiwan Semiconductor Manufacturing Company Ltd. hereby submits a current listing of Petitioner exhibits. Exhibits 1151-1155 are being filed today.

Exhibit	Description
1001	U.S. Patent No. 8,198,686 B2 to Sato et al. (“’686 Patent”).
1002	Prosecution History of the ’686 Patent (“Prosecution History”).
1003	Declaration of Dr. Scott E. Thompson, Ph.D.
1004	Curriculum Vitae of Dr. Scott E. Thompson, Ph.D.
1005	U.S. Pat. Pub. No. 2007/0215950 A1 to Aoyama (“Aoyama”).
1006	U.S. Pat. Pub. No. 2007/0235823 A1 to Hsu et al. (“Hsu823”).
1007	U.S. Patent No. 6,171,910 B2 to Hobbs et al. (“Hobbs”).
1008	U.S. Pat. Pub. No. 2007/0066077 A1 to Akasaka et al. (“Akasaka”).
1009	S.M. Sze, <i>Physics of Semiconductor Devices</i> (2d ed. 1981) (excerpted).
1010	J.D. Plummer et al., <i>Silicon VLSI Technology: Fundamentals, Practice and Modeling</i> (2000) (excerpted).
1011	M. Baklanov et al., <i>Dielectric Films for Advanced Microelectronics</i> (2007) (excerpted).
1012	International Technology Roadmap for Semiconductors: Front End Processes (2007 ed.).
1013	International Technology Roadmap for Semiconductors: Process Integration, Devices, and Structures (2007 ed.).
1014	U.S. Pat. Pub. No. 2006/0081939 A1 to Akasaka et al.
1015	U.S. Pat. Pub. No. 2006/0022277 A1 to Kavalieros et al.

Exhibit	Description
1016	K. Mistry, et al., “A 45nm Logic Technology with High-k+Metal Gate Transistors, Strained Silicon, 9 Cu Interconnect Layers, 193nm Dry Patterning, and 100% Pb-Free Packaging,” Technical Digest of the of the 2007 IEEE International Electron Devices Meeting (IEDM), pp. 247-50 (Dec. 2007).
1017	K. Mistry, et al., “A 45nm Logic Technology with High-k+Metal Gate Transistors, Strained Silicon, 9 Cu Interconnect Layers, 193nm Dry Patterning, and 100% Pb-Free Packaging,” presented at 2007 IEEE International Electron Devices Meeting (IEDM), pp. 1-37 (Dec. 2007).
1018	U.S. Patent No. 6,881,631 B2 to Saito et al.
1019	U.S. Patent No. 7,812,414 B2 to Hou et al.
1020	U.S. Pat. Pub. No. 2005/0258468 A1 to Colombo et al.
1021	U.S. Patent No. 6,849,511 B2 to Iriyama et al.
1022	U.S. Pat. Pub. No. 2002/0037615 A1 to Matsuo.
1023	S.E. Thompson et al., “A 90-nm Logic Technology Featuring Strained Silicon,” IEEE Transactions on Electron Devices, vol. 51. No. 11, pp. 1790-97 (Nov. 2004).
1024	Y. Sun et al., “Physics of Strain Effects in Semiconductors and Metal-Oxide-Semiconductor Field-Effect Transistors,” Journal of Applied Physics, vol. 101, Art. No. 104503 (22 pages) (May 2007).
1025	D. James, “2004 – The Year of 90-nm: A Review of 90 nm Devices,” 2005 IEEE/SEMI Advanced Semiconductor Manufacturing Conference, pp. 72-77 (2005).
1026	U.S. Pat. Pub. No. 2006/0148151 A1 to Murthy et al.
1027	U.S. Pat. Pub. No. 2004/0262683 A1 to Bohr et al.

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1028	P. Morin et al., “Extensive Study of the Correlation between Contact Etch Stop Nitride Material Properties and Negative Bias Temperature Instabilities Measured in pMOSFETS,” ECS Transactions, vol. 6, no. 3, pp. 355-69 (2007).
1029	U.S. Pat. Pub. No. 2005/0170104 A1 to Jung et al.
1030	Y.C. Liu et al., “Single Stress Liner for Both NMOS and PMOS Current Enhancement By a Novel Ultimate Spacer Process,” Technical Digest of the 2005 IEEE International Electron Devices Meeting (IEDM), pp. 836-39 (Dec. 2005).
1031	U.S. Pat. Pub. No. 2008/0145984 A1 to Ke et al.
1032	P. Bai et al., “A 65nm Logic Technology Featuring 35nm Gate Lengths, Enhanced Channel Strain, 8 Cu Interconnect Layers, Low-k ILD and 0.57 μm^2 SRAM Cell,” Technical Digest of the 2004 IEEE International Electron Devices Meeting (IEDM), pp. 657-60 (Dec. 2004).
1033	Westlinder et al., “On the Thermal Stability of Atomic Layer Deposited TiN as Gate Electrode in MOS Devices,” IEEE Electron Device Letters, vol. 24, no. 9, pp. 550-552 (Sept. 2003).
1034	U.S. Pat. Pub. No. 2007/0105317 A1 to Nakajima.
1035	G. Eneman et al., “Scalability of Stress Induced by Contact-Etch-Stop Layers: A Simulation Study,” IEEE Transactions on Electron Devices, vol. 54, no. 6, pp. 1446-53 (June 2007).
1036	M. Quirk & J. Serda, <i>Semiconductor Manufacturing Technology</i> , Ch. 12: Metallization (2001) (excerpted).
1037	U.S. Patent No. 7,785,952 B2 to Chang et al.
1038	U.S. Patent No. 8,536,660 B2 to Hsu et al.
1039	U.S. Patent Pub. No. 2005/0048754 A1 to Yeh et al.

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1040	U.S. Patent Pub. No. 2006/0001106 A1 to Metz et al.
1041	U.S. Patent No. 8,486,789 B2 to Okazaki et al.
1042	Second Amended Docket Control Order, <i>Advanced Integrated Circuit Process LLC v. United Microelectronics Corporation et al.</i> , No. 2:24-cv-00730-JRG (E.D. Tex.).
1043-1152	Reserved.
1053	Report of Judge Rodney Gilstrap, Calendar of Events Set for 6/1/2026/-6/30/2026 (PACER) (last visited June 27, 2025), <i>available at</i> https://ecf.txed.uscourts.gov/cgi-bin/CalEvents.pl?143870417754058-L_1_0-1 .
1054	Andrew T. Dufresne et al., How reliable are trial dates relied on by the PTAB in the Fintiv analysis? (Oct. 29, 2021).
1055	United States District Courts – National Judicial Caseload Profile, 12-Month Period Ending Mar. 31, 2025, U.S. Courts (2025), <i>available at</i> https://www.uscourts.gov/sites/default/files/document/fcms_na_dist_profile0331.2025.pdf .
1056	Summary of Judge Gilstrap Patent Trials Within One-Year Period of July 12, 2024, to July 11, 2025.
1057	Summary of cases by year for Judge Gilstrap, Docket Navigator, <i>available at</i> https://search/docketnavigator.com/patent/judge/14373/0?print=true&e=false .
1058	Summary of Post-Trial Briefing Timelines for Judge Gilstrap Trials Since 2023, based on LegalMetric data.
1059	Reserved.
1060	Letter from Sen. Thom Tillis to Acting Director Andrew Hirshfeld (Nov. 2, 2021).

Exhibit	Description
1061	Letter from Sens. Thom Tillis and Patrick Leahy to Hon. Chief Justice John Roberts (Nov. 2, 2021).
1062	2021 Year-End Report on the Federal Judiciary, Supreme Court of the United States (Dec. 31, 2025) (last visited July 15, 2025), <i>available at</i> https://www.supremecourt.gov/publicinfo/year-end/2021year-endreport.pdf .
1063	<i>Resonant Sys., Inc. v. Samsung Elecs. Co. Ltd.</i> , No. 2:22-cv-00423-JRG, Dkt. 41, Second Amended Docket Control Order (E.D. Tex. Apr. 24, 2023).
1064	<i>Resonant Sys., Inc. v. Samsung Elecs. Co. Ltd.</i> , No. 2:22-cv-00423-JRG, Dkt. 58, Third Amended Docket Control Order (E.D. Tex. Nov. 21, 2023).
1065	<i>Resonant Sys., Inc. v. Samsung Elecs. Co. Ltd.</i> , No. 2:22-cv-00423-JRG, Docket (E.D. Tex.).
1066	<i>Commc'n Techs. Inc., v. Samsung Elecs. Co., Ltd.</i> , No. 2:21-cv-00444-JRG, Dkt. 34, Docket Control Order (E.D. Tex. Apr. 6, 2022).
1067	<i>Commc'n Techs. Inc., v. Samsung Elecs. Co., Ltd.</i> , No. 2:21-cv-00444-JRG, Dkt. 83, Second Amended Docket Control Order (E.D. Tex. Oct. 31, 2022).
1068	<i>Commc'n Techs. Inc., v. Samsung Elecs. Co., Ltd.</i> , No. 2:21-cv-00444-JRG, Dkt. 133, Third Amended Docket Control Order (E.D. Tex. Feb. 2, 2023).
1069	<i>Commc'n Techs. Inc., v. Samsung Elecs. Co., Ltd.</i> , No. 2:21-cv-00444-JRG, Docket (E.D. Tex.).
1070	<i>Pictiva Displays Int'l Ltd. v. Samsung Elecs. Co. Ltd.</i> , No. 2:23-cv-00495-JRG, Dkt. 40, Docket Control Order (E.D. Tex. Apr. 17, 2024).

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1071	<i>Pictiva Displays Int'l Ltd. v. Samsung Elecs. Co. Ltd.</i> , No. 2:23-cv-00495-JRG, Dkt. 224, First Amended Docket Control Order (E.D. Tex. Apr. 21, 2025).
1072	<i>Pictiva Displays Int'l Ltd. v. Samsung Elecs. Co. Ltd.</i> , No. 2:23-cv-00495-JRG, Docket (E.D. Tex.).
1073	<i>Cyandia, Inc. v. SAP Am., Inc.</i> , No. 2:24-cv-00096-JRG, Dkt. 32, Docket Control Order (E.D. Tex. June 17, 2024).
1074	<i>Cyandia, Inc. v. SAP Am., Inc.</i> , No. 2:24-cv-00096-JRG, Dkt. 102, First Amended Docket Control Order (E.D. Tex. May 9, 2025).
1075	<i>Cyandia, Inc. v. SAP Am., Inc.</i> , No. 2:24-cv-00096-JRG, Docket (E.D. Tex.).
1076	<i>Emerging Auto. LLC v. Kia Corp.</i> , No. 2:23-cv-0437-JRG, Dkt. 40, Docket Control Order (E.D. Tex. February 6, 2024).
1077	<i>Emerging Auto. LLC v. Kia Corp.</i> , No. 2:23-cv-0437-JRG, Dkt. 265, First Amended Docket Control Order (E.D. Tex. May 21, 2025).
1078	<i>Emerging Auto. LLC v. Kia Corp.</i> , No. 2:23-cv-0437-JRG, Docket (E.D. Tex.).
1079	<i>Truesight Commc'ns LLC v. Samsung Elecs. Co. Ltd.</i> , No. 2:23-cv-00643-JRG, Dkt. 31, Docket Control Order (E.D. Tex. June 24, 2024).
1080	<i>Truesight Commc'ns LLC v. Samsung Elecs. Co. Ltd.</i> , No. 2:23-cv-00643-JRG, Dkt. 59, Second Amended Docket Control Order (E.D. Tex. Jan. 8, 2025).
1081	<i>Truesight Commc'ns LLC v. Samsung Elecs. Co. Ltd.</i> , No. 2:23-cv-00643-JRG, Dkt. 67, Third Amended Docket Control Order (E.D. Tex. Jan. 24, 2025).
1082	Declaration of Michael Shen.

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1083	TSMC's stipulation regarding U.S. Patent Nos. 8,198,686; 8,907,425; 7,579,227; 7,923,764; 8,253,180; 8,587,076; and 8,796,779.
1084	United Microelectronics Corp. and UMC Group (USA)'s stipulations regarding U.S. Patent Nos. 8,587,076; 8,253,180; 7,579,227; 8,907,425; 8,198,686; 7,923,764; and 8,796,779.
1085	Reserved.
1086	Institution Decisions for TSMC, based on Lex Machina data.
1087	Business Organizations Inquiry for Advanced Integrated Circuit Process LLC, Filing No. 805585855, Texas Secretary of State.
1088	Certificate of Formation Limited Liability Company for Advanced Integrated Circuit Process LLC, Filing No. 805585855, Texas Secretary of State (June 12, 2024).
1089	Patent Assignment Record from Nuvoton Technology Corp. Japan to Advanced Integrated Circuit Process LLC, Reel: 068118 Frame: 0314-0317, United States Patent and Trademark Office (July 30, 2024).
1090	<i>Intellectual Ventures I LLC v. T-Mobile USA, Inc.</i> , No. 2:17-cv-557-JRG, Dkt. 297, Pre-Trial Hearing Transcript (E.D. Tex. Jan. 3, 2019).
1091	<i>Advanced Integrated Circuit Process LLC v. United Microelectronics Corp.</i> , No. 2:24-cv-0730-JRG (Lead Case), AICP's P.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions and P.R. 3-2 Document Production Against TSMC (E.D. Tex. Jan. 7, 2025).
1092	Dockets in <i>Advanced Integrated Circuit Process LLC v. United Microelectronics Corp.</i> , No. 2:24-cv-0730-JRG (Lead Case), Docket (E.D. Tex.).
1093	Reserved.

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1094	<i>United Microelectronics Corp. v. Advanced Integrated Circuit Process LLC</i> , IPR2025-01090, Paper 7, Motion for Joinder Under 35 U.S.C. § 315(c) and 37 C.F.R. § 42.122(b) to Related <i>Inter Partes</i> Review IPR2025-00683 (P.T.A.B. June 30, 2025).
1095	<i>United Microelectronics Corp. v. Advanced Integrated Circuit Process LLC</i> , IPR2025-01093, Paper 7, Motion for Joinder Under 35 U.S.C. § 315(c) and 37 C.F.R. § 42.122(b) to Related <i>Inter Partes</i> Review IPR2025-00831 (P.T.A.B. June 30, 2025).
1096	<i>United Microelectronics Corp. v. Advanced Integrated Circuit Process LLC</i> , IPR2025-01092, Paper 7, Motion for Joinder Under 35 U.S.C. § 315(c) and 37 C.F.R. § 42.122(b) to Related <i>Inter Partes</i> Review IPR2025-00830 (P.T.A.B. June 30, 2025).
1097	<i>United Microelectronics Corp. v. Advanced Integrated Circuit Process LLC</i> , IPR2025-01091, Paper 7, Motion for Joinder Under 35 U.S.C. § 315(c) and 37 C.F.R. § 42.122(b) to Related <i>Inter Partes</i> Review IPR2025-00682 (P.T.A.B. June 30, 2025).
1098	<i>United Microelectronics Corp. v. Advanced Integrated Circuit Process LLC</i> , IPR2025-01079, Paper 7, Motion for Joinder Under 35 U.S.C. § 315(c) and 37 C.F.R. § 42.122(b) to Related <i>Inter Partes</i> Review IPR2025-00829 (P.T.A.B. June 30, 2025).
1099	<i>United Microelectronics Corp. v. Advanced Integrated Circuit Process LLC</i> , IPR2025-01076, Paper 7, Motion for Joinder Under 35 U.S.C. § 315(c) and 37 C.F.R. § 42.122(b) to Related <i>Inter Partes</i> Review IPR2025-00828 (P.T.A.B. June 30, 2025).
1100	<i>United Microelectronics Corp. v. Advanced Integrated Circuit Process LLC</i> , IPR2025-01053, Paper 7, Motion for Consolidation Under 35 U.S.C. § 315(d) and 37 C.F.R. § 42.122(a) with Related <i>Inter Partes</i> Review IPR2025-00832 (P.T.A.B. June 30, 2025).
1101	Reserved.
1102	Reserved.

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1103	Listing of district court cases and <i>inter partes</i> review proceedings in which U.S. Patent No. 8,198,686 has been asserted or challenged, Docket Navigator.
1104	Continuity data for U.S. Patent No. 8,198,686, Patent Center, United States Patent and Trademark Office.
1105	Delaware Secretary of State Entity Search Status for AMTL LLC.
1106	Final Written Decision Outcomes for TSMC, <i>available at</i> https://law.lexmachina.com/party/ptab?filing_date-from=2012-09-16&filing_date-to=&final_decision_date-from=2013-07-17&final_decision_date-to=&new_trial_flow-exclude=PreI_AS&party_role-include=Petitioner&filters=true&id=26931&id=20676624&id=64431208&tab=ptab_trial_flow&view=analytics&cols=trial%2Cfiled%2Cinstitution_decision_date%2Cpatent%2Cpetitioners%2Cpatent_owners%2Ctrial_resolution%2Cfinal_decision_date .
1107-1109	Reserved.
1110	Number of IPR Final Written Decisions Finding at Least One Claim Unpatentable (2020-2025).
1111	Trump on China Putting - America First (Robert C. O'Brien editor).
1112	YiTan Hsu, The Critical Role of Taiwan in the United States Semiconductor Supply Chain (Nov. 24, 2024).
1113	Letter from Billie Chen to Under Secretary Andrei Iancu regarding USPTO Request for Comments on Discretion to Institute Trials Before the Patent Trial and Appeal Board, Docket No. PTO-C-2020-055.
1114	Reserved.
1115	U.S., Taiwan, and Semiconductors: A Critical Supply Chain Partnership, Final Report, Project 2049 Institute (US-Taiwan Business Counsel June 21, 2023).

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1116	TSMC Adds High-K Metal Gate Low Power Process to 20nm Road Map, TSMC (Aug. 24, 2009) (last visited July 16, 2025), <i>available at</i> https://pr.tsmc.com/english/news/1572 .
1117	TSMC 28nm Technology in Volume Production, PR Newswire (Oct. 24, 2011) (last visited July 16, 2025), <i>available at</i> https://www.prnewswire.com/news-releases/tsmc-28nm-technology-in-volume-production-132425858.html .
1118	Shannon Davis, New Structure Transistors for Advanced Technology Node CMOS ICs, Semiconductor Digest (Mar. 22, 2024) (last visited July 14, 2025), <i>available at</i> https://www.semiconductor-digest.com/new-structure-transistors-for-advanced-technology-node-cmos-ics/ .
1119	Another Historic Investment Secured Under President Trump, Articles, The White House (Mar. 3, 2025) (last visited July 14, 2025), <i>available at</i> https://www.whitehouse.gov/articles/2025/03/another-historic-investment-secured-under-president-trump/ .
1120	About TSMC Washington, TSMC (last visited July 14, 2025), <i>available at</i> https://www.tsmcWASHINGTON.com/en/about/index.html .
1121	Russ Wiles, US Commerce Secretary visits TSMC complex in Phoenix as work on third fab starts, azcentral. (Apt. 30, 2025, updated May 1, 2025) (last visited July 15, 2025), <i>available at</i> https://www.azcentral.com/story/money/business/tech/2025/04/30/u-s-commerce-secretary-howard-lutnick-visits-tsmc-complex-in-phoenix/83353830007/ .
1122	Collaboration Programs, University Centers, TSMC (last visited July 14, 2025), <i>available at</i> https://research.tsmc.com/english/collaborations/academic/academic-programs.html .

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1123	CNBC Transcript: United States Commerce Secretary Howard Lutnick Speaks with CNBC’s Brian Sullivan on “The Exchange” Today, CNBC (Apr. 29, 2025) (last visited July 14, 2025), <i>available at</i> https://www.cnbc.com/2025/04/29/cnbc-transcript-united-states-commerce-secretary-howard-lutnick-speaks-with-cnbc-brian-sullivan-on-the-exchange-today.html .
1124	Silvia Pellegrino, What is TSMC?, Tech Monitor (Jan. 2, 2023) (last visited July 14, 2025), <i>available at</i> https://www.techmonitor.ai/what-is/what-is-tsmc/?cf-view .
1125	Lucas Tsai, TSMC: Enabling Startups to Unleash New Semiconductor Innovation, TSMC Blog (Apr. 18, 2022) (last visited July 14, 2025), <i>available at</i> https://www.tsmc.com/english/news-events/blog-article-20220418 .
1126	Silent Giant TSMC Returns to the Peak of its Powers as the AI Boom Continues, Yahoo! finance (June 12, 2025), <i>available at</i> https://finance.yahoo.com/news/silent-giant-tsmc-returns-peak-230300515.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAGbNeBi6fbz4U1LAPZACoSOpxFKhZ2d8Aeym1OTBUscShGSwm5cDQL_KDbidYk16TkPx7YtIzsB2YbOGEGdO4PchwSBFYrk3fTg3HWr-MVsPIL1q7mWa7ZR5e6BG0tbKASjEzPE-8r-aiT0KakQ2cXTjpdVs4xTGUvCoXUGIVbDT .
1127	Reserved.
1128	Reserved.
1129	Removing Barriers to American Leadership in Artificial Intelligence, Presidential Actions, The White House (Jan. 23, 2025) (last visited July 14, 2025), <i>available at</i> https://www.whitehouse.gov/presidential-actions/2025/01/removing-barriers-to-american-leadership-in-artificial-intelligence/ .

Exhibit	Description
1130	TSMC Expands Collaboration with Ansys by Integrating AI Technology to Accelerate 3D-IC Design, Ansys (Sept. 25, 2024) (last visited July 14, 2025), <i>available at</i> https://investors.ansys.com/news-releases/news-release-details/tsmc-expands-collaboration-ansys-integrating-ai-technology .
1131	Cadence and TSMC Advance AI and 3D-IC Chip Design with Certified Design Solutions for TSMC's A16 and N2P Process Technologies, Cadence (Apr. 23, 2025) (last visited July 14, 2025), <i>available at</i> https://www.cadence.com/en_US/home/company/newsroom/press-releases/pr/2025/cadence-and-tsmc-advance-ai-and-3d-ic-chip-design-with-certified.html .
1132	Reserved.
1133	David Sacks and Seaton Huang, Onshoring Semiconductor Production: National Security Versus Economic Efficiency, Council on Foreign Relations (Apr. 17, 2024) (last visited July 14, 2025), <i>available at</i> https://www.cfr.org/article/onshoring-semiconductor-production-national-security-versus-economic-efficiency .
1134	NVIDIA to Manufacture American-Made AI Supercomputers in US for First Time, NVIDIA Newsroom (Apr. 14, 2025) (last visited July 14, 2025), <i>available at</i> https://blogs.nvidia.com/blog/nvidia-manufacture-american-made-ai-supercomputers-us/ .
1135	Sujai Shivakumar and Charles Wessner, Semiconductors and National Defense: What Are the Stakes?, Center for Strategic International Studies (June 8, 2022) (last visited July 14, 2025), <i>available at</i> https://www.csis.org/analysis/semiconductors-and-national-defense-what-are-stakes .
1136	Eric Lee, How Taiwan Underwrites the US Defense Industrial Complex, The Diplomat (Nov. 9, 2021) (last visited July 14, 2025), <i>available at</i> https://thediplomat.com/2021/11/how-taiwan-underwrites-the-us-defense-industrial-complex/ .

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1137	Jeffrey D. Bean and Andreas Kuehn, The U.S. Defense Industry Still Faces a Chip Challenge, Observer Research Foundation America (Apr. 1, 2025) (last visited July 14, 2025), <i>available at</i> https://orfamerica.org/orf-america-comments/us-defense-industry-chip-challenge .
1138	Edited Transcript 2330.TW – Q1 Taiwan Semiconductor Manufacturing Co Ltd Earnings Call (Apr. 17, 2025) (last visited July 15, 2025), <i>available at</i> https://investor.tsmc.com/chinese/encrypt/files/encrypt_file/reports/2025-04/7630274eccc1197a4e3ea6a415f44a47204fe10a/TSMC%201Q25%20Transcript.pdf .
1139	TSMC Intends to Expand Its Investments in the United States to US\$165 Billion to Power the Future of AI, TSMC (Mar. 4, 2025) (last visited July 16, 2025), <i>available at</i> https://pr.tsmc.com/english/news/3210 .
1140	TSMC Arizona, U.S. Department of Commerce announce up to \$6.6B in proposed CHIPS Act direct funding; Company plans third leading-edge fab in Phoenix, Greater Phoenix Economic Council (Apr. 8, 2024) (last visited July 16, 2025), <i>available at</i> https://www.gpec.org/news/tsmc-chips-funding-fab-expansion-announcement/ .
1141	TSMC, ASU form partnership to boost student recruitment, faculty research, Arizona Technology Council (last visited July 16, 2025), <i>available at</i> https://www.aztechcouncil.org/tsmc-asu-form-partnership-to-boost-student-recruitment-faculty-research/ .
1142	TSMC Arizona, TSMC (last visited July 17, 2025), <i>available at</i> https://www.tsmc.com/static/abouttsmc/az/index.htm .
1143	Read the Full Transcript of Donal Trump’s ‘100 Days’ Interview With TIME, TIME USA (last visited July 18, 2025), <i>available at</i> https://time.com/7280114/donald-trump-2025-interview-transcript/ .

Exhibit	Description
1144	Allowance Rate for U.S. patent applications for TSMC, from https://app.juristat.com/dashboard/premium-benchmarks .
1145	Excerpted data on U.S. utility patent applications from ifi Claims Patent Services December 2024 Monthly Report – U.S. Utility Grants and Applications (Dec. 2024).
1146	ifi Claims Patent Services, Top 50 patent grants from 2022-2024, <i>available at</i> https://www.ificlaims.com/rankings/top-50-2024/ , https://www.ificlaims.com/rankings/top-50-2023/ , https://www.ificlaims.com/rankings/top-50-2022/ .
1147	Jeremy Bowman, Nasdaq, This 1 Number May Ensure TSMC’s Market Dominance, The Motley Fool (Aug. 17, 2024) (last visited July 18, 2025), <i>available at</i> https://www.nasdaq.com/articles/1-number-may-ensure-tsmcs-market-dominance .
1148	AMD Achieves First TSMC N2 Product Silicon Milestone, Press Release, Advanced Micro Devices (Apr. 14, 2025) (last visited July 18, 2025), <i>available at</i> https://ir.amd.com/news-events/press-releases/detail/1245/amd-achieves-first-tsmc-n2-product-silicon-milestone .
1149	Greg Barr, Advanced Micro Devices confirms plans to make chips at TSMC Arizona, Business Journal (Phoenix) (Apr. 16, 2025), <i>available at</i> 2025 WLNR 9049985.
1150	Email from J.P. Long to Trials providing notice of service to Patent Owner under alternative filing method in IPR2025-00682 and IPR2025-00683 (July 18, 2025).
1151	Patent Assignment Record from Yoshihiro Sato and Hisashi Ogawa to Panasonic Corporation, Reel: 023849 Frame: 0197-0198, United States Patent and Trademark Office (Jan. 26, 2010).
1152	Updated Summary of Judge Gilstrap Patent Trials Within One-Year Period of July 12, 2024, to July 11, 2025.

Exhibit	Description
1153	Stratix FPGAs, Microchip USA (May 5, 2023) (last visited July 31 2025), https://www.microchipusa.com/articles/articles/altera-stratix-fpgas?srsltid=AfmBOopk1H1UWIV5y4nUTpl0q1X-e6jm6KAk-lZM837oynjPZD9_uo9y .
1154	Y. Shuhei, “China’s Semiconductor Industry Avoids ‘Blockage Against Miniaturization,’” Discuss Japan-Japan Foreign Policy Forum, No. 86 (Apr. 25, 2025), <i>available at</i> https://www.japanpolicyforum.jp/pdf/2025/no86/DJweb_86_eco_03.pdf .
1155	A. Ebrahimi, “Chinese Mature Node Overcapacity: Unfounded Fears,” Ifri Memos, Ifri (Oct. 7, 2024), <i>available at</i> https://www.ifri.org/sites/default/files/2024-10/ifri_ebrahimi_chinese_mature_node_overcapacity_oct2024_1.pdf .

Respectfully submitted,

Dated: July 31, 2025

/ J. Preston Long /

J. Preston Long, Ph.D.
Reg. No. 65,125
FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.
Lead Counsel for Petitioner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing **Petitioner's Updated Exhibit List** and **Exhibits 1151-1155** were served on July 31, 2025, via e-mail directed to counsel of record for the Patent Owner at the following:

Russell A. Chorush
Michael F. Heim
Christopher L. Limbacher
Lily R. Glick
Kyle Friesen
HEIM, PAYNE & CHORUSH, LLP
609 Main Street, Suite 3200
Houston, TX 77002
rchorush@hpcllp.com
mheim@hpcllp.com
climbacher@hpcllp.com
lglick@hpcllp.com
kfriesen@hpcllp.com
aicppllit@hpcllp.com

Patent Owner has consented to electronic service via email.

Dated: July 31, 2025

/ William Esper /

William Esper
Senior Litigation Paralegal
FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, LLP