

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD. and  
APPLE INC.,  
Petitioners,

v.

MARLIN SEMICONDUCTOR LTD.,  
Patent Owner.

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Case IPR2025-00848  
Patent No. 9,953,880

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**PETITIONERS' UPDATED EXHIBIT LIST**

Pursuant to 37 C.F.R. § 42.63(e), Petitioners Taiwan Semiconductor Manufacturing Company Ltd. and Apple Inc. hereby submit a current listing of Petitioners' exhibits. Exhibits 1036-1041, 1100-1114, 1116-1133, 1139-1147, 1150, 1152-1189, and 1191-1197 are being filed today.

| Exhibit | Description                                                                                                                                             |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1001    | U.S. Patent No. 9,953,880 B1 to Lin et al. ("’880 Patent").                                                                                             |
| 1002    | Prosecution File History of the ’880 Patent.                                                                                                            |
| 1003    | Declaration of Dr. Suman Datta, Ph.D.                                                                                                                   |
| 1004    | Curriculum Vitae of Dr. Suman Datta, Ph.D.                                                                                                              |
| 1005    | U.S. Pat. Appl. Pub. No. 2017/0054002 A1 to Doris et al. ("Doris").                                                                                     |
| 1006    | U.S. Pat. Appl. Pub. No. 2016/0111524 A1 to Ha et al. ("Ha").                                                                                           |
| 1007    | J.-P. Colinge, <i>FinFETs and Other Multi-Gate Transistors</i> (2008) (excerpted) ("Colinge").                                                          |
| 1008    | U.S. Pat. No. 9,653,583 B1 to Zhao et al. ("Zhao").                                                                                                     |
| 1009    | U.S. Pat. Appl. Pub. No. 2017/0125411 A1 to Yu et al. ("Yu").                                                                                           |
| 1010    | S.M. Sze, <i>Physics of Semiconductor Devices</i> (2d ed. 1981) (excerpted).                                                                            |
| 1011    | J.D. Plummer et al., <i>Silicon VLSI Technology: Fundamentals, Practice and Modeling</i> (2000) (excerpted).                                            |
| 1012    | M.-H. Chi, "Challenges in Manufacturing FinFET at 20nm Node and Beyond," <i>Technology Development</i> , Global Foundries, Malta, NY, USA, 2012 (2012). |
| 1013    | U.S. Patent No. 6,413,802 to Hu et al.                                                                                                                  |

| Exhibit | Description                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1014    | B. Doyle et al., <i>Tri-Gate Fully-Depleted CMOS Transistors: Fabrication, Design and Layout</i> , Digest of the 2003 Symposium on VLSI Technology, pp. 133-34 (2003).                                                                                                                                                                                                                                      |
| 1015    | U.S. Pat. No. 9,412,616 B1 to Xie et al.                                                                                                                                                                                                                                                                                                                                                                    |
| 1016    | U.S. Pat. Appl. Pub. No. 2015/0054078 A1 to Xie et al.                                                                                                                                                                                                                                                                                                                                                      |
| 1017    | U.S. Pat. Appl. Pub. No. 2017/0243790 A1 to Xie et al.                                                                                                                                                                                                                                                                                                                                                      |
| 1018    | Intel Newsroom, <i>Intel 22nm 3-D Tri-Gate Transistor Technology</i> , <a href="https://web.archive.org/web/20110507231236/http://newsroom.intel.com/docs/DOC-2032">https://web.archive.org/web/20110507231236/http://newsroom.intel.com/docs/DOC-2032</a> (archived by the Internet Archive on May 7, 2011).                                                                                               |
| 1019    | Intel Newsroom, <i>Intel Announces New 22nm 3D Tri-gate Transistors</i> , <a href="https://web.archive.org/web/20110516102045/http://download.intel.com/newsroom/kits/22nm/pdfs/22nm-Announcement_Presentation.pdf">https://web.archive.org/web/20110516102045/http://download.intel.com/newsroom/kits/22nm/pdfs/22nm-Announcement_Presentation.pdf</a> (archived by the Internet Archive on May 16, 2011). |
| 1020    | Intel Newsroom, <i>Intel's Revolutionary 22 nm Transistor Technology</i> , <a href="https://web.archive.org/web/20110516103214/http://download.intel.com/newsroom/kits/22nm/pdfs/22nm-Details_Presentation.pdf">https://web.archive.org/web/20110516103214/http://download.intel.com/newsroom/kits/22nm/pdfs/22nm-Details_Presentation.pdf</a> (archived by the Internet Archive on May 16, 2011).          |
| 1021    | U.S. Patent No. 6,881,631 B2 to Saito et al.                                                                                                                                                                                                                                                                                                                                                                |
| 1022    | U.S. Patent No. 7,812,414 B2 to Hou et al.                                                                                                                                                                                                                                                                                                                                                                  |
| 1023    | U.S. Patent No. 6,849,511 B2 to Iriyama et al.                                                                                                                                                                                                                                                                                                                                                              |
| 1024    | 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).                                                                                                              |

| Exhibit | Description                                                                                                                                                                                                                                                                |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1025    | 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). |
| 1026    | U.S. Pat. Appl. Pub. No. 2006/0081939 A1 to Akasaka et al.                                                                                                                                                                                                                 |
| 1027    | U.S. Pat. Appl. Pub. No. 2007/0215950 A1 to Aoyama.                                                                                                                                                                                                                        |
| 1028    | M. Quirk & J. Serda, <i>Semiconductor Manufacturing Technology</i> (2001) (excerpted).                                                                                                                                                                                     |
| 1029    | U.S. Pat. No. 9,947,540 to Tsai et al.                                                                                                                                                                                                                                     |
| 1030    | U.S. Pat. Appl. No. 2018/0151445 A1 to Hsu et al.                                                                                                                                                                                                                          |
| 1031    | U.S. Pat. No. 6,458,686 B1 to Piao.                                                                                                                                                                                                                                        |
| 1032    | Declaration of Shauna Wiest in support of public availability of Colinge (2008).                                                                                                                                                                                           |
| 1033    | S. Wolf, <i>Silicon Processing for the VLSI Era, Volume 3: The Submicron MOSFET</i> (1995) (excerpted).                                                                                                                                                                    |
| 1034    | U.S. Pat. Appl. Pub. No. 2013/0140639 to Shieh et al.                                                                                                                                                                                                                      |
| 1035    | Complaint Under Section 337 of the Tariff Act of 1930, as Amended, <i>In re Certain Foreign-Fabricated Semiconductor Devices, Products Containing the Same, and Components Thereof</i> (Feb. 14, 2025).                                                                    |
| 1036    | U.S. Pat. Appl. Pub. No. 2014/0027820 A1 to Aquilino et al.                                                                                                                                                                                                                |
| 1037    | U.S. Pat. Appl. Pub. No. 2018/0090493 A1 to Kwak et al.                                                                                                                                                                                                                    |
| 1038    | U.S. Pat. No. 10,332,877 to Liou et al.                                                                                                                                                                                                                                    |

| Exhibit   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 1039      | Patent Assignment Search of Reel 07193 Frame 0125, U.S. Patent and Trademark Office (last visited Aug. 11, 2025), <i>available at</i> <a href="https://assignment.uspto.gov/patent/index.html#/patent/search/resultAssignment?searchInput=071913-0125&amp;id=71913-125">https://assignment.uspto.gov/patent/index.html#/patent/search/resultAssignment?searchInput=071913-0125&amp;id=71913-125</a> .                                                                                                      |
| 1040      | Listing of district court cases and inter partes review proceedings in which U.S. Patent No. 9,953,880 has been asserted or challenged, Docket Navigator.                                                                                                                                                                                                                                                                                                                                                  |
| 1041      | Continuity data for U.S. Patent No. 9,953,880, Patent Center, United States Patent and Trademark Office.                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1042-1099 | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1100      | Institution Decisions for TSMC, based on Lex Machina data.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 1101      | <i>Certain Integrated Circuits With Voltage Regulators And Products Containing Same</i> , Inv. No. 337-TA-1024, USITC Order 55 (Aug. 31, 2018).                                                                                                                                                                                                                                                                                                                                                            |
| 1102      | <i>Certain Personal Computer/Consumer Electronic Convergent Devices, Components Thereof, And Products Containing Same</i> , Inv. No. 337-TA-558 (USITC Order 6 (Feb. 7, 2006).                                                                                                                                                                                                                                                                                                                             |
| 1103      | <i>Certain Unmanned Aerial Vehicles And Components Thereof</i> , Inv. No. 337-TA-1133, USITC Comm’n Op. (Sept. 8, 2020).                                                                                                                                                                                                                                                                                                                                                                                   |
| 1104      | Jennifer Nall, <i>How delayed Notice of Date Accorded mailings may affect inter partes review</i> , DLA Piper (last visited Aug. 8, 2025), <i>available at</i> <a href="https://www.dlapiper.com/en/insights/publications/intellectual-property-news/2025/how-delayed-notice-of-date-accorded-mailings-may-affect-inter-partes-review">https://www.dlapiper.com/en/insights/publications/intellectual-property-news/2025/how-delayed-notice-of-date-accorded-mailings-may-affect-inter-partes-review</a> . |
| 1105      | Memorandum from Scott R. Boalick to PTAB AIA Paneling re: Notice of Filing Date Accorded for AIA Petitions (July 18, 2025).                                                                                                                                                                                                                                                                                                                                                                                |

| Exhibit | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| 1106    | Final Written Decision Outcomes for TSMC, <i>available at</i> <a href="https://law.lexmachina.com/party/ptab?filing_date-from=2012-09-16&amp;filing_date-to=&amp;final_decision_date-from=2013-07-17&amp;final_decision_date-to=&amp;new_trial_flow-exclude=PreI_AS&amp;party_role-include=Petitioner&amp;filters=true&amp;id=26931&amp;id=20676624&amp;id=64431208&amp;tab=ptab_trial_flow&amp;view=analytics&amp;cols=trial%2Cfiled%2Cinstitution_decision_date%2Cpatent%2Cpetitioners%2Cpatent_owners%2Ctrial_resolution%2Cfinal_decision_date">https://law.lexmachina.com/party/ptab?filing_date-from=2012-09-16&amp;filing_date-to=&amp;final_decision_date-from=2013-07-17&amp;final_decision_date-to=&amp;new_trial_flow-exclude=PreI_AS&amp;party_role-include=Petitioner&amp;filters=true&amp;id=26931&amp;id=20676624&amp;id=64431208&amp;tab=ptab_trial_flow&amp;view=analytics&amp;cols=trial%2Cfiled%2Cinstitution_decision_date%2Cpatent%2Cpetitioners%2Cpatent_owners%2Ctrial_resolution%2Cfinal_decision_date</a> . |
| 1107    | George Quillin, <i>PTAB Average Time-To-Decision in IPRs May Surprise You</i> , JDSupra (July 28, 2015) (last visited Aug. 8, 2025), <i>available at</i> <a href="https://www.jdsupra.com/legalnews/ptab-average-time-to-decision-in-iprs-71645">https://www.jdsupra.com/legalnews/ptab-average-time-to-decision-in-iprs-71645</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1108    | <i>Certain Foreign-Fabricated Semiconductor Devices, Products Containing The Same, And Components Thereof</i> , Inv. No. 337-TA-1443, USITC Order 10 (May 7, 2025).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 1109    | <i>Certain Power Inverters And Converters, Vehicles Containing The Same, And Components Thereof</i> , Inv. No. 337-TA-1267, USITC Order 6 (Aug. 4, 2021).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1110    | <i>Certain Power Inverters And Converters, Vehicles Containing The Same, And Components Thereof</i> , Inv. No. 337-TA-1267, USITC Order 14 (Sept. 22, 2021).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1111    | Trump on China - Putting America First (Robert C. O'Brien editor).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1112    | YiTan Hsu, <i>The Critical Role of Taiwan in the United States Semiconductor Supply Chain</i> (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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Exhibit | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| 1114    | <i>Certain Wearable Electronic Devices With Egg Functionality And Components Thereof</i> , Inv. No. 337-TA-1266, USITC Order 6 (June 25, 2021).                                                                                                                                                                                                                                                                                                                                                                 |
| 1115    | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1116    | <i>Certain Automated Storage And Retrieval Systems, Robots, And Components Thereof</i> , Inv. No. 337-TA-1228, USITC Order 4 (Dec. 4, 2020).                                                                                                                                                                                                                                                                                                                                                                    |
| 1117    | <i>Certain Automated Storage And Retrieval Systems, Robots, And Components Thereof</i> , Inv. No. 337-TA-1228, USITC Order 21 (June 10, 2021).                                                                                                                                                                                                                                                                                                                                                                  |
| 1118    | <i>Certain Disposable Vaporizer Devices</i> , Inv. No. 337-TA-1410, USITC Order 9 (Aug. 26, 2024).                                                                                                                                                                                                                                                                                                                                                                                                              |
| 1119    | Another Historic Investment Secured Under President Trump, Articles, The White House (Mar. 3, 2025) (last visited July 14, 2025), <i>available at</i> <a href="https://www.whitehouse.gov/articles/2025/03/another-historic-investment-secured-under-president-trump/">https://www.whitehouse.gov/articles/2025/03/another-historic-investment-secured-under-president-trump/</a> .                                                                                                                             |
| 1120    | About TSMC Washington, TSMC (last visited July 14, 2025), <i>available at</i> <a href="https://www.tsmcWASHINGTON.com/en/about/index.html">https://www.tsmcWASHINGTON.com/en/about/index.html</a> .                                                                                                                                                                                                                                                                                                             |
| 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> <a href="https://www.azcentral.com/story/money/business/tech/2025/04/30/us-commerce-secretary-howard-lutnick-visits-tsmc-complex-in-phoenix/83353830007/">https://www.azcentral.com/story/money/business/tech/2025/04/30/us-commerce-secretary-howard-lutnick-visits-tsmc-complex-in-phoenix/83353830007/</a> . |
| 1122    | Collaboration Programs, University Centers, TSMC (last visited July 14, 2025), <i>available at</i> <a href="https://research.tsmc.com/english/collaborations/academic/academic-programs.html">https://research.tsmc.com/english/collaborations/academic/academic-programs.html</a> .                                                                                                                                                                                                                            |

| Exhibit | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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> <a href="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">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</a> .                                                                                                                                                                                                                                                                                                                |
| 1124    | Silvia Pellegrino, What is TSMC?, Tech Monitor (Jan. 2, 2023) (last visited July 14, 2025), <i>available at</i> <a href="https://www.techmonitor.ai/what-is/what-is-tsmc/?cf-view">https://www.techmonitor.ai/what-is/what-is-tsmc/?cf-view</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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> <a href="https://www.tsmc.com/english/news-events/blog-article-20220418">https://www.tsmc.com/english/news-events/blog-article-20220418</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 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> <a href="https://finance.yahoo.com/news/silent-giant-tsmc-returns-peak-230300515.html?guccounter=1&amp;guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLnNvbS8&amp;guce_referrer_sig=AQAAAGbNeBi6fbz4U1LAPZACoSOpXFKhZ2d8Aeym1OTBUscShGSwm5cDQL_KDbidYk16TkPx7YtIzsB2YbOGeGdO4PchwSBFYrk3fTg3HWr-MVsPIL1q7mWa7ZR5e6BG0tbKASjEzPE-8r-aiT0KakQ2cXTjpdVs4xTGUvCoXUGIVbDT">https://finance.yahoo.com/news/silent-giant-tsmc-returns-peak-230300515.html?guccounter=1&amp;guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLnNvbS8&amp;guce_referrer_sig=AQAAAGbNeBi6fbz4U1LAPZACoSOpXFKhZ2d8Aeym1OTBUscShGSwm5cDQL_KDbidYk16TkPx7YtIzsB2YbOGeGdO4PchwSBFYrk3fTg3HWr-MVsPIL1q7mWa7ZR5e6BG0tbKASjEzPE-8r-aiT0KakQ2cXTjpdVs4xTGUvCoXUGIVbDT</a> . |
| 1127    | <i>Certain Electronic Computing Devices, And Components And Modules Thereof</i> , Inv. No. 337-TA-1387, USITC Order 7 (Mar. 12, 2004).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1128    | <i>Certain Semiconductor Devices, And Methodes Of Manufacturing Same and Products Containing The Same</i> , Inv. No. 337-TA-1366, USITC Order 7 (Aug. 8, 2023).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Exhibit | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 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> <a href="https://www.whitehouse.gov/presidential-actions/2025/01/removing-barriers-to-american-leadership-in-artificial-intelligence/">https://www.whitehouse.gov/presidential-actions/2025/01/removing-barriers-to-american-leadership-in-artificial-intelligence/</a> .                                                                     |
| 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> <a href="https://investors.ansys.com/news-releases/news-release-details/tsmc-expands-collaboration-ansys-integrating-ai-technology">https://investors.ansys.com/news-releases/news-release-details/tsmc-expands-collaboration-ansys-integrating-ai-technology</a> .                                                                                |
| 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> <a href="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">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</a> . |
| 1132    | Marlin Semiconductor Limited, D&B Hoovers (last visited July 23, 2025), <i>available at</i> <a href="https://app.hoovers.dnb.com/company/f077d361-3cc9-3811-9ffb-8ffef999170/reportViewer?reports=summary&amp;mode=pdf&amp;userId=635c7f94-3f17-3ac0-974a-c9aecbd1eb3...">https://app.hoovers.dnb.com/company/f077d361-3cc9-3811-9ffb-8ffef999170/reportViewer?reports=summary&amp;mode=pdf&amp;userId=635c7f94-3f17-3ac0-974a-c9aecbd1eb3...</a>                                                                          |
| 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> <a href="https://www.cfr.org/article/onshoring-semiconductor-production-national-security-versus-economic-efficiency">https://www.cfr.org/article/onshoring-semiconductor-production-national-security-versus-economic-efficiency</a> .                                                                     |
| 1134    | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1135    | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Exhibit | Description                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 1136    | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1137    | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1138    | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 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> <a href="https://pr.tsmc.com/english/news/3210">https://pr.tsmc.com/english/news/3210</a> .                                                                                                                                                |
| 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> <a href="https://www.gpec.org/news/tsmc-chips-funding-fab-expansion-announcement/">https://www.gpec.org/news/tsmc-chips-funding-fab-expansion-announcement/</a> . |
| 1141    | TSMC, ASU form partnership to boost student recruitment, faculty research, Arizona Technology Council (last visited July 16, 2025), <i>available at</i> <a href="https://www.aztechcouncil.org/tsmc-asu-form-partnership-to-boost-student-recruitment-faculty-research/">https://www.aztechcouncil.org/tsmc-asu-form-partnership-to-boost-student-recruitment-faculty-research/</a> .                                      |
| 1142    | TSMC Arizona, TSMC (last visited July 17, 2025), <i>available at</i> <a href="https://www.tsmc.com/static/abouttsmcaz/index.htm">https://www.tsmc.com/static/abouttsmcaz/index.htm</a> .                                                                                                                                                                                                                                   |
| 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> <a href="https://time.com/7280114/donald-trump-2025-interview-transcript/">https://time.com/7280114/donald-trump-2025-interview-transcript/</a> .                                                                                                                                     |
| 1144    | Allowance Rate for U.S. patent applications for TSMC, from <a href="https://app.juristat.com/dashboard/premium-benchmarks">https://app.juristat.com/dashboard/premium-benchmarks</a> .                                                                                                                                                                                                                                     |
| 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).                                                                                                                                                                                                                                                        |

| Exhibit | Description                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| 1146    | ifi Claims Patent Services, Top 50 patent grants from 2022-2024, <i>available at</i> <a href="https://www.ificlaims.com/rankings/top-50-2024/">https://www.ificlaims.com/rankings/top-50-2024/</a> , <a href="https://www.ificlaims.com/rankings/top-50-2023/">https://www.ificlaims.com/rankings/top-50-2023/</a> , <a href="https://www.ificlaims.com/rankings/top-50-2022/">https://www.ificlaims.com/rankings/top-50-2022/</a> .     |
| 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> <a href="https://www.nasdaq.com/articles/1-number-may-ensure-tsmcs-market-dominance">https://www.nasdaq.com/articles/1-number-may-ensure-tsmcs-market-dominance</a> .                                                                                                         |
| 1148    | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1149    | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1150    | Patent Assignment Record from United Microelectronics Corp. to Marlin Semiconductor Ltd., Reel: 056991 Frame: 0292-0328, United States Patent and Trademark Office (July 26, 2021).                                                                                                                                                                                                                                                      |
| 1151    | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1152    | <i>FAQs for Interim Processes for PTAB Workload Management</i> , USPTO (last visited Aug. 8, 2025), <i>available at</i> <a href="https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management">https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management</a> .                                                                                                                                      |
| 1153    | U.S.-China Economic and Security Review Commission, 2024 Report to Congress of the U.S.-China Economic and Security Review Commission, 118 Cong., 2d Sess. (2024).                                                                                                                                                                                                                                                                       |
| 1154    | Press Release, <i>Apple will spend more than \$500 billion in the U.S. over the next four years</i> , Apple (Feb. 24, 2025) (last visited Aug. 8, 2025), <i>available at</i> <a href="https://www.apple.com/newsroom/2025/02/apple-will-spend-more-than-500-billion-usd-in-the-us-over-the-next-four-years/">https://www.apple.com/newsroom/2025/02/apple-will-spend-more-than-500-billion-usd-in-the-us-over-the-next-four-years/</a> . |
| 1155    | Newsroom, <i>Apple Manufacturing Academy opens in Detroit on August 19</i> , Apple (July 29, 2025) (last visited Aug. 8, 2025), <i>available at</i> <a href="https://www.apple.com/newsroom/2025/07/apple-manufacturing-academy-opens-in-detroit-on-august-19/">https://www.apple.com/newsroom/2025/07/apple-manufacturing-academy-opens-in-detroit-on-august-19/</a> .                                                                  |

| Exhibit | Description                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1156    | Donald J. Trump, <i>Promoting the Export of the American AI Technology Stack</i> , The White House (July 23, 2025) (last visited Aug. 8, 2025), available at <a href="https://www.whitehouse.gov/presidential-actions/2025/07/promoting-the-export-of-the-american-ai-technology-stack/">https://www.whitehouse.gov/presidential-actions/2025/07/promoting-the-export-of-the-american-ai-technology-stack/</a> . |
| 1157    | Office of Science and Technology Policy, Executive Office of the President of the United States, <i>Winning the Race: America's AI Action Plan</i> (July 2025).                                                                                                                                                                                                                                                  |
| 1158    | <i>Certain Electrical Connectors And Cages, Components Thereof, And Products Containing The Same</i> , Inv. No. 337-TA-1241, USITC Order 50 (Jan. 24, 2022).                                                                                                                                                                                                                                                     |
| 1159    | <i>Certain Electrical Connectors And Cages, Components Thereof, And Products Containing The Same</i> , Inv. No. 337-TA-1241, USITC Order 51 (Mar. 4, 2022).                                                                                                                                                                                                                                                      |
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| 1161    | <i>Certain Power Inverters and Converters, Vehicles Containing The Same, And Components Thereof</i> , Inv. No. 337-TA-1267, USITC Order 54 (July 27, 2022).                                                                                                                                                                                                                                                      |
| 1162    | <i>Certain Power Inverters and Converters, Vehicles Containing The Same, And Components Thereof</i> , Inv. No. 337-TA-1267, USITC Notice (Oct. 18, 2022).                                                                                                                                                                                                                                                        |
| 1163    | <i>Certain Light-Based Physiological Measurement Devices And Components Thereof</i> , Inv. No. 337-TA-1276, USITC Order 5 (Sept. 22, 2021).                                                                                                                                                                                                                                                                      |
| 1164    | <i>Certain Light-Based Physiological Measurement Devices And Components Thereof</i> , Inv. No. 337-TA-1276, USITC Order 58 (Sept. 12, 2022).                                                                                                                                                                                                                                                                     |

| Exhibit | Description                                                                                                                                         |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 1165    | <i>Certain Light-Based Physiological Measurement Devices And Components Thereof</i> , Inv. No. 337-TA-1276, USITC Order 59 (Oct. 24, 2022).         |
| 1166    | <i>Certain Light-Based Physiological Measurement Devices And Components Thereof</i> , Inv. No. 337-TA-1276, USITC Order 61 (Dec. 9, 2022).          |
| 1167    | <i>Certain Light-Based Physiological Measurement Devices And Components Thereof</i> , Inv. No. 337-TA-1276, USITC Notice (Mar. 13, 2023).           |
| 1168    | <i>Certain Light-Based Physiological Measurement Devices And Components Thereof</i> , Inv. No. 337-TA-1276, USITC Notice (July 11, 2023).           |
| 1169    | <i>Certain Light-Based Physiological Measurement Devices And Components Thereof</i> , Inv. No. 337-TA-1276, USITC Notice (Oct. 2, 2023).            |
| 1170    | <i>Certain Light-Based Physiological Measurement Devices And Components Thereof</i> , Inv. No. 337-TA-1276, USITC Notice (Oct. 23, 2023).           |
| 1171    | <i>Certain Flocked Swabs, Products Containing Flocked Swabs, And Methods Of Using Same</i> , Inv. No. 337-TA-1279, USITC Order 73 (Sept. 30, 2022). |
| 1172    | <i>Certain Flocked Swabs, Products Containing Flocked Swabs, And Methods Of Using Same</i> , Inv. No. 337-TA-1279, USITC Order 77 (Oct. 20, 2022).  |
| 1173    | <i>Certain Flocked Swabs, Products Containing Flocked Swabs, And Methods Of Using Same</i> , Inv. No. 337-TA-1279, USITC Notice (Feb. 3, 2023).     |

| Exhibit | Description                                                                                                                                                            |
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| 1174    | <i>Certain Cellular Base Station Communication Equipment, Components Thereof, And Products Containing Same</i> , Inv. No. 337-TA-1302, USITC Order 27 (Feb. 22, 2023). |
| 1175    | <i>Certain Power Semiconductors, And Mobile Devices And Computers Containing Same</i> , Inv. No. 337-TA-1308, USITC Order 50 (May 2, 2023).                            |
| 1176    | <i>Certain Outdoor And Semi-Outdoor Electronic Displays, Products Containing Same, And Components Thereof</i> , Inv. No. 337-TA-1331, USITC Order 40 (Sept. 19, 2023). |
| 1177    | <i>Certain Outdoor And Semi-Outdoor Electronic Displays, Products Containing Same, And Components Thereof</i> , Inv. No. 337-TA-1331, USITC Order 41 (Oct. 17, 2023).  |
| 1178    | <i>Certain Video Processing Devices And Products Containing The Same</i> , Inv. No. 337-TA-1341, USITC Order 36 (Jan. 25, 2024).                                       |
| 1179    | <i>Certain Portable Battery Jump Starters And Components Thereof (II)</i> , Inv. No. 337-TA-1359, USITC Order 43 (June 18, 2024).                                      |
| 1180    | <i>Certain Photovoltaic Connectors And Components Thereof</i> , Inv. No. 337-TA-1365, USITC Order 32 (July 8, 2024).                                                   |
| 1181    | <i>Certain Photovoltaic Connectors And Components Thereof</i> , Inv. No. 337-TA-1365, USITC Order 33 (Aug. 13, 2024).                                                  |
| 1182    | <i>Certain Photovoltaic Connectors And Components Thereof</i> , Inv. No. 337-TA-1365, USITC Notice (Nov. 13, 2024).                                                    |
| 1183    | <i>Certain Electronic Computing Devices And Components Thereof</i> , Inv. No. 337-TA-1382, USITC Order 66 (Jan. 13, 2025).                                             |
| 1184    | <i>Certain Electronic Computing Devices And Components Thereof</i> , Inv. No. 337-TA-1382, USITC Notice (June 9, 2025).                                                |

| Exhibit | Description                                                                                                                                                                                                                                                                                                   |
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| 1185    | <i>Certain Electronic Computing Devices, And Components And Modules Thereof</i> , Inv. No. 337-TA-1387, USITC Order 36 (Mar. 14, 2025).                                                                                                                                                                       |
| 1186    | <i>Certain High-Strength Aluminum Or Aluminum Alloy-Coated Steel, And Automotive Products And Automobiles Containing Same</i> , Inv. No. 337-TA-1402, USITC Order 33 (June 18, 2025).                                                                                                                         |
| 1187    | <i>Certain Disposable Vaporizer Devices</i> , Inv. No. 337-TA-1410, USITC Order 49 (July 16, 2025).                                                                                                                                                                                                           |
| 1188    | Alex He, <i>In the Global AI Chips Race, China is Playing Catch-Up</i> , Centre for International Governance Innovation (Sept. 18, 2024).                                                                                                                                                                     |
| 1189    | Taiwan Semiconductor Manufacturing Company Ltd., GIGAFAB Facilities.                                                                                                                                                                                                                                          |
| 1190    | Reserved.                                                                                                                                                                                                                                                                                                     |
| 1191    | Judy Lin, <i>TSMC Arizona's First Fab to Reach 100% Capacity Utilization Rate Soon</i> , TechSoda (June 2, 2025) (last visited Aug. 11, 2025), available at <a href="https://techsoda.substack.com/p/tsmc-arizonas-first-fab-to-reach">https://techsoda.substack.com/p/tsmc-arizonas-first-fab-to-reach</a> . |
| 1192    | Kaustubh Bagalkote, <i>Scott Bessent Warns TSMC's \$40 Billion Arizona Fab May Only Meet 7% of US Chip Demand – Blames Building Inspectors, Red Tape For Delays</i> , yahoo!finance (July 25, 2025).                                                                                                          |
| 1193    | <i>Certain Foreign-Fabricated Semiconductor Devices, Products Containing The Same, And Components Thereof</i> , Inv. No. 337-TA-1443, Proposed Respondent Apple Inc.'s Action Request Not to Institute and Public Interest Statement Under Commission Rule 210.8(C) (USITC Mar. 4, 2025).                     |

| Exhibit | Description                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1194    | Pablo Valerio, <i>Taiwan Already Has 3-nm Chips; Why the U.S. Lags</i> , EE Times (Jan. 9, 2023) (last visited Aug. 11, 2025), <i>available at</i> <a href="https://www.eetimes.com/taiwan-already-has-3-nm-chips-why-the-u-s-lags/">https://www.eetimes.com/taiwan-already-has-3-nm-chips-why-the-u-s-lags/</a> .                                                                                                              |
| 1195    | Lionel Lim, <i>TSMC's \$100 billion promise to invest in the U.S. won't shake up the chip supply chain</i> : Most of its capacity is still in Taiwan, Fortune (Mar. 12, 2025) (last visited Aug. 11, 2025), <i>available at</i> <a href="https://fortune.com/asia/2025/03/12/tsmc-us-investment-change-chip-supply-chain-taiwan/">https://fortune.com/asia/2025/03/12/tsmc-us-investment-change-chip-supply-chain-taiwan/</a> . |
| 1196    | Taiwan Semiconductor Manufacturing Company Ltd., 7nm Technology (last visited Aug. 13, 2025), <i>available at</i> <a href="https://www.tsmc.com/eng/sh/dedicatedFoundry/technology/log1c/i_7nm">https://www.tsmc.com/eng/sh/dedicatedFoundry/technology/log1c/i_7nm</a> .                                                                                                                                                       |
| 1197    | U.S. Patent and Trademark Office, Interim Director Discretionary Process (last visited Aug. 13, 2025), <i>available at</i> <a href="https://www.uspto.gov/patents/ptab/interim-director-discretionary-process">https://www.uspto.gov/patents/ptab/interim-director-discretionary-process</a> .                                                                                                                                  |

Respectfully submitted,

Dated: August 15, 2025

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a copy of the foregoing **Petitioner's Updated Exhibit List and Exhibits 1036-1041, 1100-1114, 1116-1133, 1139-1147, 1150, 1152-1189, and 1191-1197** were served on August 15, 2025, via e-mail directed to counsel of record for the Patent Owner at the following:

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