

Case IPR2024-00535
U.S. Patent No. 9,724,802

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Samsung Electronics Co., Ltd.,
Samsung Electronics America, Inc.,
Samsung Semiconductor, Inc., and
Samsung Austin Semiconductor, LLC.,
Petitioner

v.

Chien-Min Sung,
Patent Owner

Case IPR2024-00535

U.S. Patent No. 9,724,802

**PETITIONER SAMSUNG'S
UPDATED TABLE OF EXHIBITS**

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P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF EXHIBITS

Petitioner Exhibit No.	DESCRIPTION
1001	U.S. Patent No. 9,724,802 (“’802 Patent”)
1002	Declaration of Dr. Stanley Shanfield
1003	File History of the ’802 Patent
1004	Tsai et al., “Organic diamond disk versus brazed diamond disk for dressing a chemical-mechanical polishing pad,” <i>Diamond & Related Materials</i> , 23, 2012, 144-149 (“Tsai”)
1005	U.S. Patent Application Publication No. 2007/0060026 (“Sung’026”)
1006	“The Organic Diamond Disk (ODD) for Dressing of Polishing Pads of Chemical Mechanical Planarization”, International Conference on Planarization / CMP Technology, 25-27 October 2007 (“SungICPT”)
1007	Fenna, Donald. “Hardness Numbers,” <i>A Dictionary of Weights, Measures, and Units</i> , 1st ed., Oxford University Press, 2004.
1008	Tsai et al., “Effect of CMP conditioner diamond shape on pad topography and oxide wafer performances,” <i>Int. J. Adv. Manuf. Technology</i> , 55: 253-262 (2011)
1009	U.S. Patent Application Publication No. 2008/0292869 (“Sung’869”)
1010	U.S. Patent Application Publication No. 2010/0248595 (“Dinh-Ngoc”)
1011	Declaration of Dr. [Chien-Min] James Sung In Support of Plaintiff’s Answering Brief In Opposition To Defendant’s Motion To Stay in <i>Chien-Min Sung v. Kinik Co.</i> , 1:20-cv-00247-RGA
1012	Order Denying Stay in <i>Chien-Min Sung v. Kinik Co.</i> , 1:20-cv-00247-RGA
1013	Ishizuka et al. “PCD Dressers for Chemical Mechanical Planarization with Uniform Polishing”, Proceedings of International Conference on Leading Edge Manufacturing in 21 st Century: LEM21, 2007, Volume 2007.4
1014	U.S. Patent No. 5,036,015
1015	Pysher et al. “Design, Characteristics and Performance of Diamond Pad Conditioners”, Materials Research Society Symposium Procedures, Vol. 1249, 2010 (“Pysher”)

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1016	<i>Design, Characteristics and Performance of Diamond Pad Conditioners</i> . SpringerLink. https://link.springer.com/article/10.1557/PROC-1249-E02-04
1017	Exhibit 4 of Complaint in <i>Sung v. Samsung Electronics Co., Ltd. et al</i> , 4-23-cv-00752
1018	U.S. Patent No. 9,138,862 (“’862 Patent”)
1019	Scheduling Order in <i>Sung v. Samsung Electronics Co., Ltd. et al</i> , 4-23-cv-00752
1020	Electronic Copy of Tsai obtained from publisher (Elsevier)
1021	Electronic Copy of Tsai2011 obtained from publisher (Springer)
1022	Webpage of Diamond and related materials vol. 23, archived on May 9, 2012, by Internet Archive, available at https://web.archive.org/web/20120509185427/http://www.sciencedirect.com/science/journal/09259635/23 , accessed and obtained on February 11, 2024
1023	List of citations to Tsai, obtained from Google Scholar
1024	Library copy of Tsai2011 obtained from Linda Hall Library
1025	Bibliographic and MARC records for <i>International Journal of Advanced Manufacturing Technology</i> that contains Tsai2011, available at https://catalog.lindahall.org/permalink/01LINDAHALL_INST/191da7s/alma992717493405961 from the online catalog of the Linda Hall Library, accessed and obtained on February 11, 2024
1026	List of citations to Tsai2011, obtained from Google Scholar
1027	Webpage of Linda Hall Library online catalog archived on January 7, 2011, by Internet Archive, available at https://web.archive.org/web/20110107125151/http://leonardo.lindahall.org/ipac20/ipac.jsp?profile=lhlopen , accessed and obtained on February 18, 2024
1028	Declaration of Dr. Ingrid Hsieh-Yee
1029	U.S. Patent Application Publication No. 2012/0302146 (“Sung’146”)
1030	EDTX Caseload Profile (December 31, 2023)
1031	<i>Chien-Min Sung v. Samsung Electronics Co. Ltd., et al.</i> , Case No. 4:23-cv-00752 (E.D. Tex.), 82 (Order to Stay Pending Motion for Inter-District Transfer)
1032	<i>Chien-Min Sung v. Samsung Electronics Co. Ltd., et al.</i> , Case No.

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	4:23-cv-00752 (E.D. Tex.), 37 (February 14, 2024 Scheduling Order)
1033	<i>Chien-Min Sung v. Texas Instruments Inc.</i> , Case No. EDTX-4-23-cv-00753 (E.D. Tex.), 26 (TI's Motion for Summary Judgment of Invalidity)
1034	<i>Chien-Min Sung v. Texas Instruments Inc.</i> , Case No. EDTX-4-23-cv-00753 (E.D. Tex.), 68 (Order To Stay the Case Pending Resolution of TI's Motion for Summary Judgment).
1035	<i>Chien-Min Sung v. Samsung Electronics Co. Ltd., et al.</i> , Case No. 4:23-cv-00752 (E.D. Tex.), 56 (Motion to Stay Pending Resolution of Texas Instruments Incorporated's Motion for Summary Judgment)
1036	<i>Chien-Min Sung v. Samsung Electronics Co. Ltd., et al.</i> , Case No. 4:23-cv-00752 (E.D. Tex.), 72 (Plaintiff's Sur-reply)
1037	<i>Chien-Min Sung v. Samsung Electronics Co. Ltd., et al.</i> , Case No. 4:23-cv-00752 (E.D. Tex.), 43 (Notice Of Intent To File A Motion To Stay Pending Inter Partes Review)
1038	<i>Chien-Min Sung v. Samsung Electronics Co. Ltd., et al.</i> , Case No. 4:23-cv-00752 (E.D. Tex.), 56 (Motion To Stay Pending Resolution of TI MSJ)
1039	<i>Chien-Min Sung v. Samsung Electronics Co. Ltd., et al.</i> , Case No. 4:23-cv-00752 (E.D. Tex.), 62 (Plaintiff's Opposition to MTS Pending Resolution of TI MSJ)
1040	<i>Chien-Min Sung v. Samsung Electronics Co. Ltd., et al.</i> , Case No. 4:23-cv-00752 (E.D. Tex.), 67 (Defendant's Reply)
1041	<i>Chien-Min Sung v. Samsung Electronics Co. Ltd., et al.</i> , Case No. 4:23-cv-00752 (E.D. Tex.), 72 (Plaintiff's Sur-Reply)
1042	<i>In re: Chien-Min Sung Subpoena Upon 3M Company</i> , Case No. 0:2023mc00104 (D. Minnesota), 1 (3M's Nov. 16, 2023 Motion To Quash Subpoena In The District of Minnesota)
1043	<i>In re: Chien-Min Sung Subpoena Upon 3M Company</i> , Case No. 0:2023mc00104 (D. Minnesota), 15 (Dr. Sung's Nov. 22, 2023 Cross-Motion To Compel And Motion For Sanctions)
1044	<i>In re: Chien-Min Sung v. 3M Company</i> , Case No. 6:23-mc-00002 (N.D. Tex.), 1 (Dr. Sung's Nov. 27, 2023 Motion To Compel In The Northern District of Texas)
1045	<i>In re: Chien-Min Sung Subpoena Upon 3M Company</i> , Case No.

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	0:2023mc00104 (D. Minnesota), 38 (Court Entry Showing A Discovery Hearing Before The Court In The District Of Minnesota)
1046	Judge Jordan's Time To Order Motion of Summary Judgement Statistics
1047	Counsel's drawing with edits by Dr. Tsai
1048	Dr. Tsai's designated profile schematic
1049	M. Y. Tsai et al., Novel Diamond Conditioner Dressing Characteristics of CMP Polishing Pad, International Journal of Machine Tools & Manufacture 49 (2009) 722–729 (“TsaiADD”)
1050	Marked up Tsai et al., “Organic diamond disk versus brazed diamond disk for dressing a chemical-mechanical polishing pad,” <i>Diamond & Related Materials</i> , 23, 2012, 144-149 (“Tsai”)
1051	Dr. Tsai's drawing of mesh
1052	Deposition Transcript of Dr. Tsai in IPR2024-00533, Volume 1,
1053	Deposition Transcript of Dr. Tsai in IPR2024-00533, Volume 2
1054	Deposition Transcript of Dr. Tsai in IPR2024-00534
1055	Deposition Transcript of Dr. Tsai in IPR2024-00535
1056	U.S. Patent Publication No. 2004/0048557 (“Nabeya”)
1057	File History of U.S. Patent Application No. 13/797,704 (“’704 Application”)
1058	File History of U.S. Patent Application No. 12/726,786 (“’6786 Application”)
1059	Plaintiff's Answering Brief In Opposition To Defendant's Motion To Stay in <i>Chien-Min Sung v. Kinik Co.</i> , 1:20-cv-00247-RGA
1060	Declaration of Alex Chan In Support Of Plaintiff's Answering Brief In Opposition To Defendant's Motion To Stay in <i>Chien-Min Sung v. Kinik Co.</i> , 1:20-cv-00247-RGA
1061	Single Diamond Dressing Characteristics of CMP Polyurethane Pad” <i>Key Engineering Materials</i> Vol 329 (2007) pp 151-156
1062	PCD Pad Conditioners for Low Pressure Chemical Mechanical Planarisation of Semiconductors” <i>Int. J. Abrasive Technology</i> , Vol. 1, Nos. 3/4, 2008
1063	“Dressing Behaviors of PCD Conditioners on CMP Polishing Pads” <i>Advanced Materials Research</i> Vols 76-78 (2009) pp 201-206
1064	“Mosaic Diamond Pad Conditioners for Improved CMP Performance” <i>ECS Transactions</i> , 27 (1) 575-580 (2010)

Petitioner Exhibit No.	DESCRIPTION
1065	“The Black Pad with Graphite Impregnation for CMP” <i>ECS Transactions</i> , 27 (1) 581-586 (2010)
1066	“The CMP by Polishing with GiP Dressed by BODD” <i>Advanced Materials Research</i> Vols 126-128 (2010) pp 1013-1018
1067	“Development of a novel cooling system-assisted minimum quantity lubrication method for improvement of milling performance” <i>Journal of the Chinese Institute of Engineers</i> , 2015, Vol. 38, No. 3, 322–331
1068	Dr. Tsai’s drawing of the “designated profile” (generated as EX2013 during re-direct)
1069	Dr. Tsai’s drawing of the “designated profile” (generated as EX2014 during re-direct)
1070	Petitioner’s Demonstratives for Oral Argument

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U.S. Patent No. 9,724,802

Dated: June 16, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that on June 16 2025, a complete copy of Petitioner's Updated Table of Exhibits and EX1070 – Petitioner's Demonstratives were served on counsel of record for the Patent Owner by filing the documents through P-TACTS and by sending via electronic mail to the following addresses:

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