UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD., Petitioner

v.

GODO KAISHA IP BRIDGE 1, Patent Owner

> Case IPR2016-01249 Patent 6,538,324

PETITIONER'S UPDATED EXHIBIT LIST

Further to 37 C.F.R. § 42.63(e), Petitioner, Taiwan Semiconductor

Manufacturing Company, Ltd.'s, hereby submits a current listing of exhibits filed

with the Board and counsel for Patent Owner.

DOCKET

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Exhibit	Description	Previously
No.		Submitted
1001	U.S. Patent No. 6,538,324 to Tagami et al.	X
1002	File History of U.S. Patent No. 6,538,324.	Х
1003	Expert Declaration of Dr. Sanjay Kumar Banerjee.	Х
1004	U.S. Patent No. 5,893,752 to Zhang et al.	X
1005	U.S. Patent No. 6,887,353 to Ding et al.	Х
1006	Holloway et al., "Tantalum as a diffusion barrier	Х
	between copper and silicon: Failure mechanism and effect of nitrogen additions," Journal of Applied Physics, 71(11), 5433-5444 (1992).	
1007	Sun et al., "Properties of reactively sputter-deposited Ta-N thin films," Thin Solid Films, 236 (1993) 347- 351.	X
1008	U.S. Patent No. 5,858,873 to Vitkavage et al.	X
1009	U.S. Patent No. 5,668,411 to Hong et al.	X
1010	Excerpt of El-Kareh, "Fundamentals of	X
	Semiconductor Processing Technologies," Kluwer	
	Academic Publishers (1995).	
1011	Declaration of Dr. Li Jiang.	Х
1012	Library of Congress Catalog Record of Holloway et al., "Tantalum as a diffusion barrier between copper and silicon: Failure mechanism and effect of nitrogen additions," Journal of Applied Physics, 71(11), 5433- 5444 (1992).	X
1013	Library of Congress Catalog Record of Sun et al., "Properties of reactively sputter-deposited Ta-N thin films," Thin Solid Films, 236 (1993) 347-351.	X
1014	Library of Congress Catalog Record of El-Kareh, "Fundamentals of Semiconductor Processing Technologies," Kluwer Academic Publishers (1995).	Х

Find authenticated court documents without watermarks at docketalarm.com.

Exhibit No.	Description	Previously Submitted
1015	Stavrev et al., "Crystallographic and morphological characterization of reactively sputtered Ta, Ta-N and Ta-N-O thin films," Thin Solid Films, 307 (1997) 79-88.	X
1016	Library of Congress Catalog Record of Stavrev et al., "Crystallographic and morphological characterization of reactively sputtered Ta, Ta-N and Ta-N-O thin films," Thin Solid Films, 307 (1997) 79-88.	Х
1017	Duan et al., "Magnetic Property and Microstructure Dependence of CoCrTa/Cr Media on Substrate Temperature and Bias," IEEE Transactions on Magnetics, Vol. 28, No. 5 (September 1992).	Х
1018	Library of Congress Catalog Record of Duan et al., "Magnetic Property and Microstructure Dependence of CoCrTa/Cr Media on Substrate Temperature and Bias," IEEE Transactions on Magnetics, Vol. 28, No. 5 (September 1992).	Х
1019	Moussavi et al., "Comparison of Barrier Materials and Deposition Processes for Copper Integration," Proceedings of the IEEE 1998 International Interconnect Technology Conference, pp. 295-97 (1998).	Х
1020	Library of Congress Catalog Record of Moussavi et al., "Comparison of Barrier Materials and Deposition Processes for Copper Integration," Proceedings of the IEEE 1998 International Interconnect Technology Conference, pp. 295-97 (1998).	Х
1021	Wijekoon et al., "Development of a Production Worthy Copper CMP Process," 1998 IEEE/SEMI Advanced Semiconductor Manufacturing Conference, pp. 354-63 (1998).	Х
1022	Library of Congress Catalog Record of Wijekoon et al., "Development of a Production Worthy Copper CMP Process," 1998 IEEE/SEMI Advanced Semiconductor Manufacturing Conference, pp. 354-63 (1998).	Х

Exhibit	Description	Previously
No.		Submitted
1023	Wang et al., "Barrier Properties of Very Thin Ta and	Х
	TaN layers Against Copper Diffusion," J.	
	Electrochem. Soc., Vol. 145, No. 7, pp. 2538-45.	
1024	Library of Congress Catalog Record of Wang et al.,	Х
	"Barrier Properties of Very Thin Ta and TaN layers	
	Against Copper Diffusion," J. Electrochem. Soc., Vol.	
	145, No. 7, pp. 2538-45.	
1025	U.K. Patent No. 2,298,657 to Cho.	Х
1026	U.S. Patent No. 5,780,908 to Sekiguchi et al.	Х
1027	U.S. Patent No. 5,869,902 to Lee et al.	Х
1028	U.S. Patent No. 5,882,399 to Ngan et al.	Х
1029	U.S. Patent No. 6,057,237 to Ding et al.	Х
1030	U.S. Patent No. 6,136,682 to Hegde et al.	Х
1031	U.S. Patent No. 6,242,804 to Inoue et al.	Х
1032	Annotated FIG. 4 of U.S. Patent No. 5,893,752 to	Х
	Zhang et al.	
1033	U.S. Patent No. 6,458,255 to Chiang et al.	Х
1034	Excerpt of "The American Heritage College	Х
	Dictionary," 3 rd Ed., Houghton Mifflin Company	
	(1993).	
1035	U.S. Patent No. 5,281,485 to Colgan et al.	Х
1036	May 5, 2017, Deposition Transcript of Harlan R.	Х
	Harris, Ph.D.	
1037	Invalidity Contentions, Godo Kaisha IP Bridge 1 v.	Х
	Broadcom Limited, et al., Case No. 2:16-cv-134	
1038	Declaration of Dr. Sanjay K. Banerjee.	Х
1039	Declaration of Thomas E. Gorman.	Х
1039A	Ex. A to Exhibit 1039 - PACER Docket, Godo Kaisha	Х
	IP Bridge 1 v. Broadcom Limited, 16-cv-00134.	
1039B	Ex. B to Exhibit 1039 - Appendix_B Patent Rules	Х
	5.6.15.	
1039C	Ex. C to Exhibit 1039 - Docket Control Order, Godo	Х
	Kaisha IP Bridge 1 v. Broadcom Limited, 16-cv-	
	00134.	
1039D	Ex. D to Exhibit 1039 - Rule 3-3 Notice of	X
	Compliance, Godo Kaisha IP Bridge 1 v. Broadcom	
	Limited, 16-cv-134.	

Case No.: IPR2016-001249 Patent No. 6,538,324

Exhibit No.	Description	Previously Submitted
1039E	Ex. E to Exhibit 1039 - TSMC Exhibit 1037, IPR2016-01249.	Х
1039F	Ex. F to Exhibit 1039 - TSMC Exhibit 1037, IPR2016-01264.	X
1040	Email correspondence concerning authenticity of Exhibit 1037.	X
1041	Petitioner's Demonstratives.	

Petitioner hereby certifies that copies of all listed documents above have

been served on counsel for Patent Owner.

Respectfully submitted,

Dated: August 3, 2017

By: <u>/ E. Robert Yoches /</u> E. Robert Yoches, Lead Counsel Reg. No. 30,120

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