

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLIED MATERIALS, INC.

Petitioner,

v.

OCEAN SEMICONDUCTOR LLC,

Patent Owner.

Case IPR: IPR2021-01348
U.S. Patent No. 6,836,691

**PETITIONER'S REPLY TO PATENT OWNER'S
PRELIMINARY RESPONSE**

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EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 6,836,691 (“’691 patent”)
1002	Declaration of Miltiadis Hatalis, Ph.D.
1003	<i>Curriculum Vitae</i> of Miltiadis Hatalis, Ph.D.
1004	File Wrapper for the ’691 patent
1005	Funk et al., U.S. Patent No. 7,123,980 (filed Mar. 23, 2005; issued Oct. 17, 2006) (“Funk”)
1006	Funk, U.S. Provisional Application No. 60/414,425 (filed Sept. 30, 2002; expired July 19, 2004)
1007	Funk et al., International Publication No. WO 2004/031875 (filed Sept. 25, 2003; published Apr. 15, 2004)
1008	Stoddard et al., U.S. Patent No. 6,587,744 (filed June 20, 2000; issued July 1, 2003)
1009	File Wrapper for Funk
1010	Roger E. Bohn and Christian Terwiesch, <i>The Economics of Yield-Driven Processes</i> , J. Operations Management, 18: 41-59 (1999)
1011	Robert C. Leachman and David A. Hodges, <i>Benchmarking Semiconductor Manufacturing</i> , IEEE Transactions on Semiconductor Manufacturing, 9: 158-69 (1996)
1012	Gardner, et al., <i>Equipment Fault Detection Using Spatial Signatures</i> , IEEE Transactions on Components, Packaging, and Manufacturing Technology—Part C, 20: 295-304 (1997)
1013	John McGehee, <i>The MMST Computer-Integrated Manufacturing System Framework</i> , IEEE Transactions on Semiconductor Manufacturing, 7: 107-16 (1994)
1014	Jula, P. et al., <i>Comparing the Economic Impact of Alternative Metrology Methods in Semiconductor Manufacturing</i> , IEEE Transactions on Semiconductor Manufacturing, Vol. 15, No. 4 (November 2002)

Petitioner's Reply to Patent Owner's Preliminary Response
IPR2021-01348

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1015	Richard J. Markle and Elfido Coss, Jr., <i>Data requirements and communication issues for advanced process control</i> , J. of Vacuum Sci. & Tech. A 19, 1241 (2001).
1016	Musacchio, J., et al., <i>On the Utility of Run to Run Control in Semiconductor Manufacturing</i> , IEEE International Symposium on Semiconductor Manufacturing Conference Proceedings, D-9–D-12 (1997)
1017	Jerry A. Stefani and Mike Anderson, <i>Practical Issues in the Deployment of a Run-to-Run Control System in a Semiconductor Manufacturing Facility</i> , Proc. SPIE 3742, Process and Equipment Control in Microelectronic Manufacturing, 52-64 (April 23, 1999)
1018	Gabriel G. Barna, <i>APC in the Semiconductor Industry, History and Near Term Prognosis</i> , IEEE/SEMI 1996 Advanced Semiconductor Manufacturing Conference and Workshop. Theme-Innovative Approaches to Growth in the Semiconductor Industry. ASMC 96 Proceedings, 364-69 (1996)
1019	Limanond, S., et al., <i>Monitoring and Control of Semiconductor Manufacturing Processes</i> , IEEE Control Systems Magazine, 18:46-58 (1998)
1020	Ison, A.M., et al., <i>Fault Diagnosis of Plasma Etch Equipment</i> , IEEE International Symposium on Semiconductor Manufacturing Conference Proceedings (1997)
1021	Mark Melliar-Smith and Alain C. Diebold, <i>Metrology Needs for the Semiconductor Industry Over the Next Decade</i> , AIP Conference Proceedings 449, 3 (1998).
1022	Chris J. McDonald, <i>New tools for yield improvement in integrated circuit manufacturing: can they be applied to reliability?</i> , Microelectronics Reliability 39 (June 1999)
1023	Handbook of Thin Film Deposition Process and Technologies (2nd Ed. 2002); Chapter 6 Keefer, M. et al., "The Role of Metrology and Inspection in Semiconductor Processing"

Petitioner's Reply to Patent Owner's Preliminary Response
IPR2021-01348

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1024	Tobin, K. et al, <i>Integrated applications of inspection data in the semiconductor manufacturing environment</i> , Proc. SPIE 4275, Metrology-based Control for Micro-Manufacturing, (5 June 2001)
1025	Spanos, C., et al., <i>Real-Time Statistical Process Control Using Tool Data</i> , IEEE Transactions on Semiconductor Manufacturing, Vol. 5, No. 4 (Nov. 1992).
1026	Sherry F. Lee and Costas J. Spanos, <i>Equipment Analysis and Wafer Parameter Prediction Using Real-Time Tool Data</i> , 1994 International Symposium on Semiconductor Manufacturing VI-5.
1027	Lee, S., et al., <i>RTSPC: A Software Utility for Real-Time SPC and Tool Data Analysis</i> , IEEE Transactions on Semiconductor Manufacturing, Vol. 8, No. 1 (Feb. 1995).
1028	Sherry F. Lee and Costas J. Spanos,, <i>Prediction of Wafer State After Plasma Processing Using Real-Time Tool Data</i> , IEEE Transactions on Semiconductor Manufacturing, Vol. 8, No. 3 (Aug. 1995).
1029	Byungwhan Kim and Gary S. May, <i>Real-Time Diagnosis of Semiconductor Manufacturing Equipment Using a Hybrid Neural Network Expert System</i> , IEEE Transactions on Components, Packaging, and Manufacturing Technology–Part C, Vol. 20, No. 1 (Jan. 1997).
1030	District Court Trial Dates Tend To Slip After PTAB Discretionary Denials, <i>available at</i> https://www.patentspostgrant.com/district-court-trial-dates-tend-to-slip-after-ptab-discretionary-denials/ (last visited Aug. 2, 2021)
1031	<i>Ocean Semiconductor LLC v. Analog Devices, Inc.</i> , No. 1:20-cv-12310 (D. Mass.), ECF No. 37, Sept. 20, 2021
1032	<i>Ocean Semiconductor LLC v. Infineon Tech. AG</i> , No. 1:20-cv-12311 (D. Mass.), ECF No. 38, Sept. 20, 2021
1033	<i>Ocean Semiconductor LLC v. MediaTek Inc.</i> , No. 6:20-cv-1210 (W.D. Tex.), ECF No. 49, Nov. 29, 2021
1034	<i>Tetrad Tech., LLC v. Implus Footcare, LLC</i> , No. 6:21-cv-796 (W.D. Tex.), ECF No. 15, Oct. 13, 2021

Petitioner's Reply to Patent Owner's Preliminary Response
IPR2021-01348

Exhibit No.	Description
1035	<i>Peters v. United States</i> , No. 6:21-cv-550 (W.D. Tex.), ECF No. 13, Oct. 3, 2021
1036	<i>Springman v. Fun Town Enter., LLC</i> , No. 6:21-cv-63 (W.D. Tex.), ECF No. 14, Apr. 16, 2021
1037	<i>Satco Prod., Inc. v. Signify N. Am. Corp.</i> , No. 6:21-cv-146 (W.D. Tex.), ECF No. 34, July 14, 2021
1038	How reliable are trial dates relied on by the PTAB in the Fintiv analysis? <i>available at</i> https://www.1600ptab.com/2021/10/how-reliable-are-trial-dates-relied-on-by-the-ptab-in-the-fintiv-analysis/ (last visited Dec. 7, 2021)
1039	<i>WSOU Inv., LLC v. Dell Tech. Inc.</i> , No. 6:20-cv-00473 (W.D. Tex.), ECF No. 128, Dec. 1, 2021
1040	<i>Ocean Semiconductor LLC v. MediaTek Inc.</i> , No. 6:20-cv-1210 (W.D. Tex.), ECF No. 51, Dec. 9, 2021
1041	<i>Ocean Semiconductor LLC v. MediaTek Inc.</i> , No. 6:20-cv-1210 (W.D. Tex.), Docket Report, Dec. 10, 2021

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