UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SMIC, AMERICAS,
Petitioner,

v.

INNOVATIVE FOUNDRY TECHNOLOGIES LLC,
Patent Owner

Case No.: IPR2020-01003
U.S. Patent No. 6,580,122

PETITIONER'S REPLY TO PATENT OWNER'S PRELIMINARY RESPONSE

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Exhibit 1001	U.S. Patent No. 6,580,122 to Wristers et al. (the "**'122 patent**")
Exhibit 1002	Declaration of Dr. Sayfe Kiaei ("**Kiaei**")
Exhibit 1003	Korean Laid-Open Patent Application No. KR1998-074469 (with associated certified English translation and translator's declaration) ("**Yun**")
Exhibit 1004	U.S. Patent No. 5,859,466 ("**Wada**")
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Exhibit 1012	Prosecution History of U.S. Patent No. 6,580,122
Exhibit 1013	Excerpt from Chapter 4 of Sedra & Smith, *Microelectronic Circuits*, 5th Ed. (2004)
Exhibit 1014	R. K. Pancholy, *Gate Protection for CMOS/SOS*, 15th Int'l Reliability Physics Symposium, pp. 132-37 (1977)
Exhibit 1015	A. Chatterjee et al., *A Shallow Trench Isolation Study for 0.25/0.18 μm CMOS Technologies and Beyond*, Symposium on VLSI Technology Digest of Technical Papers, pp. 156-57 (1996)
Exhibit 1016	A. C. Ipri, *Sub-Micron Polysilicon Gate CMOS/SOS Technology*, 1978 International Electron Devices Meeting, pp. 46-49 (1978)
Exhibit 1017	K. Ahmed et al., *Transistor Wars*, IEEE Spectrum, Vol. 48, No. 11, pp. 50-66 (2011)
Exhibit 1018	S. Aur et al., *Circuit Hot Electron Effect Simulation*, International Electron Devices Meeting, pp. 498-501 (1987)

Exhibit	Description
Exhibit 1019	W. K. Henson et al., *Analysis of Leakage Currents and Impact on Off-State Power Consumption for CMOS Technology in the 100-nm Regime*, IEEE Transactions on Electron Devices, Vol. 47, No. 7, pp. 1393-1400 (2000)
Exhibit 1020	Email from the Board to Counsel for Petitioner and Counsel for Patent Owner (Oct. 1, 2020)
Exhibit 1021	Complaint for Patent Infringement, No. 6:19-cv-00719-ADA (W.D. Tex. Dec. 20, 2019) (D.I. 1)
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Exhibit 1026	*True Chemical Solutions, LLC v. Performance Chemical Co.*, No. 18-cv-78-ADA (W.D. Tex. Jul. 1, 2020) (D.I. 143)
Exhibit 1027	Plaintiff's Opposition To Semiconductor Manufacturing International (BVI) Corporation's Motion To Dismiss IFT's First Amended Complaint Pursuant To Fed. R. Civ. P. 12(b)(7), No. 6:19-cv-00719-ADA (W.D. Tex. Jul. 20, 2020) (D.I. 120)

Pursuant to the Board's authorization in an email dated Oct. 1, 2020 (Ex. 1020), Petitioner submits this Reply to Patent Owner's Preliminary Response ("**POPR**," Paper 6). For the reasons provided herein and in the Board's Oct. 5, 2020 Decision Granting Institution of IPR in related Case No. IPR2020-00786 (Paper 10 at 18-26) ("**Related Decision**"), Petitioner respectfully requests that the Board not exercise its discretion to deny institution under 35 U.S.C. § 314(a).

I. The Six *Fintiv* Factors Favor Institution.

Factor 1. This factor favors institution or is at least neutral because there is potential for a stay in the parallel litigation ("**WDTX Case**"). *See, e.g.*, *NFC Tech. LLC v. HTC Am., Inc.*, No. 13-cv-1058, 2015 WL 1069111, *2 (E.D. Tex. Mar. 11, 2015). A stay will not unduly prejudice Patent Owner (a non-practicing entity) because it has not sought any temporary restraining order or preliminary injunction. *See id.*; Ex. 1021. Further, Petitioner presents a strong, targeted challenge to all claims of the '122 Patent asserted in the WDTX Case. Indeed, IFT has already disclaimed 28 of the 31 Challenged Claims. Ex. 2001. Instituting IPR will streamline, if not moot altogether, the related claims in the WDTX Case.

Further, as the Board recognized in the Related Decision, "[t]he district court has not granted a stay and there is no specific evidence that a stay will or will not be granted in this case." Related Decision at 19. *See also Sand Revolution II, LLC v. Continental Intermodal Group – Trucking LLC*, IPR2019-01393, Paper 24 at 7

(P.T.A.B. June 16, 2020) ("***Sand***") (designated "Informative" on July 13, 2020; reversing discretionary denial of institution on rehearing and finding the first *Fintiv* factor to be neutral regarding a parallel litigation also before Judge Albright).

Factor 2. The "relatively close proximity" of the currently scheduled trial date of August 30, 2021 in the WDTX Case to the deadline for a FWD of December 16, 2021 in this proceeding also favors institution. *Sand* at 9; *see* Related Decision at 19-20. Indeed, the Board has recognized that a district court's trial schedule is inherently unpredictable, as the court will often "modify case schedules for myriad reasons." *Precision Planting, LLC v. Deere & Co*., IPR2019-01044, Paper 17 at 15 (P.T.A.B. Dec. 2, 2019); *Sand* at 8-10 (this factor weighs against denying institution when trial was scheduled to occur *five* months before a FWD and then extended to occur two months before a FWD, and trial scheduling before Judge Albright has "uncertainty").

Further, the current circumstances in WDTX strongly suggest that trial is unlikely to go forward as scheduled. Judge Albright—who took the bench in September 2018—has by far the busiest patent docket in the country, with over 600 new cases assigned to him this year alone. Ex. 1022. Moreover, Judge Albright has repeatedly extended trial dates well beyond his usual practice of setting a trial date of 12 months after *Markman*, including in the *Fintiv* parallel proceeding. *See, e.g.*, *Fintiv, Inc. v. Apple Inc*., No. 19-cv-1238-ADA (W.D. Tex.

Apr. 24, 2020) (trial extended to 16 months after *Markman*) (Ex. 1023 at 2-3); *MV3 Partners LLC v. Roku, Inc*., No. 18-cv-308-ADA (W.D. Tex. Aug. 10, 2020) (more than 14 months) (Ex. 1024 at 7-8); *Continental Intermodal Group - Trucking LLC v. Sand Revolution LLC*, No. 18-cv-147-ADA (W.D. Tex. Jul. 12, 2020) (trial extended to 22 months after *Markman*) (Ex. 1025 at 3, 6); *True Chemical Solutions, LLC v. Performance Chemical Co.*, No. 18-cv-78-ADA (W.D. Tex. Jul. 1, 2020) (trial extended to 17 months after *Markman*) (Ex. 1026 at 7, 12).

Factor 3. This factor favors institution because the court and parties in the WDTX Case "have not invested substantially in the merits of the invalidity positions," rather, "the district court's investment relates to ancillary matters untethered to the validity issue itself." *Sand* at 10-11. Indeed, the WDTX Case addressed only one claim term of the '122 patent during the recent *Markman* hearing. *See* Related Decision at 23 ("the current record does not support a conclusion that the district court and parties in the parallel proceeding have invested significant resources towards resolving invalidity issues"). Further, Petition diligently prepared and filed the Petition just two months after receiving Patent Owner's Preliminary Infringement Contentions. *Id.*

Factor 4. To promote efficiency across this proceeding and the related litigation, Petitioner stipulates that, if an IPR proceeding is instituted, it will not pursue the invalidity grounds to be tried in the instituted IPR proceeding. Thus,

this factor favors institution. *See Sand* at 12 (finding that this factor does not favor denial due to the same stipulation).

Factor 5. Petitioner SMIC, Americas is not a defendant in the WDTX Case. Ex. 1021. Indeed, Patent Owner has argued in the litigation that Petitioner is not a necessary party and has refused to foreclose the possibility of separately pursuing claims against Petitioner. *See* Ex. 1027 at 23. Thus, Petitioner is justified in seeking redress through the IPR process. *Cf. Sand* at 12-13.

Factor 6. This factor also favors institution. The Petition presents prior art that is directly on point with respect to the Challenged Claims. *See Sand* at 13. This is shown at least by the fact that IFT disclaimed 28 of the 31 Challenged Claims and made no attempt to uphold their validity. POPR at 4-5.

Further, IFT does not dispute that the Wada reference teaches the limitations of remaining claims 5, 16 and 27. *E.g.*, POPR at 36. IFT contends only that the grounds for combining Yun or Saki with Wada are unsupported. *Id.* at 34-35, 37-38. But IFT ignores evidence on which the Petition relies, including the Declaration of Dr. Sayfe Kiaei and relevant technical literature discussed therein. For example, Dr. Kiaei explains that Yun and Wada focus on improving isolation techniques and that a POSITA would have found it obvious to form the trench in Yun (which contemplates "adjusting the depth") using the dimensions described in Wada. Ex. 1002 at ¶¶ 120-126; *see also id.* at ¶¶ 210-214 (addressing Saki).

Date: October 8, 2020

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on October 8, 2020, a true and correct copy of the foregoing **PETITIONER'S REPLY TO PATENT OWNER'S PRELIMINARY RESPONSE** is being served via electronic mail as agreed by the parties on the following attorneys of record:

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