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	Attorneys for Plaintiffs SAMSUNG ELECTRONICS CO., LTD. and	
17	SAMSUNG SEMICONDUCTOR, INC.	
18	LINITED STATE	S DISTRICT COURT
19		
	FOR THE NORTHERN I	DISTRICT OF CALIFORNIA
20		
21	SAMSUNG ELECTRONICS CO., LTD.) Case No.
,	and SAMSUNG SEMICONDUCTOR, INC.))
22		COMPLAINT FOR DECLARATORY
23	Plaintiffs,	JUDGMENT OF NON-INFRINGEMENTAND ENFORCEMENT OF COVENANT
24	v.	NOT TO SUE
24)
25	TRENCHANT BLADE TECHNOLOGIES, LLC and) DEMAND FOR JURY TRIAL
26	LONGHORN IP LLC,	,)
	Defendants.)
27	Detendants.	<i>,</i>)
28)
- 1	1	

Plaintiffs, Samsung Electronics Co., Ltd. ("SEC") and Samsung Semiconductor, Inc. ("SSI") (collectively, "Samsung" or "Plaintiffs"), by their attorneys, Arnold & Porter Kaye Scholer LLP, file this Complaint against Defendants Trenchant Blade Technologies LLC ("Trenchant") and Longhorn IP LLC ("Longhorn") (collectively, "Defendants"). Each allegation in this Complaint either has evidentiary support based on public information available to Plaintiffs or disclosures from Defendants, or is likely to have evidentiary support after a reasonable opportunity for further investigation and discovery. Plaintiffs hereby allege as follows:

NATURE OF THE ACTION

1. This action arises from Defendants' efforts at enforcement of U.S. Patent Nos. 7,494,846, entitled "Design techniques for stacking identical memory dies" (the "846 Patent"); 7,056,821, entitled "Method for manufacturing dual damascene structure with a trench formed first" (the "821 Patent"); and 6,720,619, entitled "Semiconductor-on-insulator chip incorporating partially depleted, fully-depleted, and multiple-gate devices" (the "619 Patent") (collectively, the "Patents-in-Suit"). Samsung asserts claims for declaratory judgment of non-infringement of the Patents-in-Suit and declaratory judgment of unenforceability and lack of liability on the part of Samsung for any alleged infringement of the Patents-in-Suit because Defendants previously covenanted not to sue Samsung for alleged infringement of various forms of intellectual property, including, without limitation, the Patents-In-Suit.

THE PARTIES

- 2. Plaintiff SEC is a corporation organized and existing under the laws of the Republic of Korea with a principal place of business at 129 Samsung-ro, Yeongtong-gu Suwon-si, Gyeonggido, Korea.
- 3. Plaintiff SSI is a California corporation and has a principal place of business at 3655 North First Street, San Jose, California 95134. SSI is a wholly owned subsidiary of Samsung Electronics America, Inc ("SEA"). SEA is a wholly owned subsidiary of SEC.

- 4. Samsung designs, develops, manufactures, and supplies leading consumer electronics, including semiconductor chips and products containing such chips, among other products.
- 5. Upon information and belief, defendant Trenchant is a limited liability company existing under the laws of the state of Texas having its principal place of business at 1700 Pacific Ave, Suite 4650, Dallas TX 75201. Upon information and belief, Trenchant is a non-practicing entity, which aims to license its patent portfolio to others.
- 6. Upon information and belief, defendant Longhorn is a limited liability company existing under the laws of the state of Texas having its principal place of business at 8105 Rasor Boulevard, Suite 210, Plano, TX 75024. Upon information and belief, Longhorn is a non-practicing entity, which aims to license its patent portfolio to others.

VENUE AND JURISDICTION

- 7. This action arises under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*, and the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202. The amount in controversy in light of Defendants' allegations of infringement exceeds \$75,000. Subject matter jurisdiction is thus proper based at least upon 28 U.S.C. §§ 1331 and 1338(a), as well as under 28 U.S.C. § 1367.
- 8. This Court has personal jurisdiction over Trenchant and Longhorn in the Northern District of California ("District"). Upon information and belief, Defendants, directly or through their agents and alter egos, have regularly conducted business activities in California, and this action arises out of and relates to activities that Defendants have purposefully directed at California and this District. Among other things, Defendants purposefully directed allegations of patent infringement to SSI, a resident of this District, by sending a patent assertion letter to SEC alleging that SEC and various subsidiaries infringe one or more claims of the Patents-in-Suit. The Samsung products and activities that Defendants accuse of infringing the Patents-in-Suit were developed and/or performed by SEC and SSI, with portions of the development and sales activities taking place in this District. Defendants made such allegations of patent infringement despite having previously issued a covenant not to sue to Samsung with respect to certain future-acquired IP. The terms of

the covenant not to sue encompass the Patents-in-Suit and apply to and were intended to benefit SEC and SSI, as well as SEC's other subsidiaries.

- 9. Upon information and belief, Longhorn's associated entities, including Trenchant, Katana Silicon Technologies, LLC ("KST"), Lone Star Silicon Innovations LLC ("Lone Star"), and others, are alter egos of Longhorn. Upon information and belief, Longhorn dominates and controls the actions of its associated entities, such as Trenchant, and, specifically, directs and controls their patent enforcement activities. Mr. Khaled Fekih-Romdhane is the common representative of these associated entities, and he acts and negotiates on their collective behalf.
- 10. Upon information and belief, Defendants and their agents and alter egos have sent, or caused to be sent, other patent assertion and/or licensing demand letters to other persons and/or companies in this District. Upon information and belief, Defendants and their agents and alter egos have charged infringement and threatened litigation against numerous companies residing and conducting business in this District. In the patent assertion letter directed to SEC giving rise to this matter, Defendants stated their intent to negotiate and enter into license agreements for the Patents-in-Suit with companies either resident in this District or with operations and/or subsidiaries located in this District, including Intel, Micron, SK hynix, GLOBALFOUNDRIES, UMC and SMIC.
- 11. In addition, Defendants have entered into an agreement with Taiwan Semiconductor Manufacturing Company, Ltd. and two of its California subsidiaries residing in this District (collectively "TSMC"), whereby TSMC assigned the Patents-in-Suit to Trenchant. As a part of this agreement, Longhorn announced an IP collaboration and service agreement with TSMC. Upon information and belief, this assignment establishes an ongoing relationship between TSMC and Defendants in this District. It was due to a prior lawsuit and ensuing relationship between Longhorn, KST, and TSMC that the Patents-in-Suit were assigned to Trenchant.
- 12. By and through its subsidiary, Lone Star, Longhorn has also filed multiple suits within this District and has consented to transfer other lawsuits to this District. Lone Star acquired the patents asserted in these actions from Advanced Micro Devices, Inc. ("AMD"), which has its headquarters in Santa Clara, California, in this District.

- 13. Upon information and belief, each of Longhorn's associated entities are controlled by and subject to the decision-making authority of Mr. Fekih-Romdhane. Upon information and belief, Mr. Fekih-Romdhane treats the Longhorn associated entities as alter egos of Longhorn, and causes individual portfolios of patents to be assigned to separate limited liability companies for the purpose of attempting to avoid the jurisdiction of federal and state courts outside of Texas. Upon information and belief, when Longhorn acquires new intellectual property assets through its enforcement efforts, Mr. Fekih-Romdhane and Longhorn cause such assets to be assigned to newly created holding entities as a part of this scheme. For at least these reasons, and on the basis of the factual allegations set forth below, Defendants are subject to personal jurisdiction in this District.
- 14. Because the Court can exercise personal jurisdiction over Defendants in this District, venue is also proper in this District pursuant to 28 U.S.C. §§ 1391(b) and 1391(c).

INTRADISTRICT ASSIGNMENT

15. This case is an Intellectual Property Action under Civil Local Rule 3-2(c) and, pursuant to Civil Local Rule 3-5(b), shall be assigned on a district-wide basis.

FACTUAL ALLEGATIONS

PATENTS-IN-SUIT

- 16. The '846 Patent states on its cover that it was issued on February 24, 2009, and names as inventors Chao-Shun Hsu of San-Shin, Taiwan; Louis Liu of Hsin-Chu Taiwan; Clinton Chao of Hsin-Chu, Taiwan; and Mark Shane Peng of Hsin-Chu, Taiwan. The '846 Patent also states that the initial assignee of the '846 Patent was Taiwan Semiconductor Manufacturing Company, Ltd. of Hsin-Chu, Taiwan. A copy of the '846 patent is attached hereto as Exhibit A.
- 17. The '821 Patent states on its cover that it was issued on June 6, 2006, and names as inventors Chin-Tien Yang of Hsinchu, Taiwan; Juan-Jann Jou of Tainan Hsien, Taiwan; Yu-Hua Lee of Hsinchu, Taiwan; and Chia-Hung Lai of Hsinchu, Taiwan. The '821 Patent also states that the initial assignee of the '821 Patent was Taiwan Semiconductor Manufacturing Company, Ltd. of Hsin-Chu, Taiwan. A copy of the '821 patent is attached hereto as Exhibit B.

18. The '619 Patent states on its cover that it was issued on April 13, 2004, and names as inventors Hao-Yu Chen, of Kaoshiung, Taiwan; Yee-Chia Yeo of Albany, CA; Fu-Liang Yang of Hsin-Chu, Taiwan; and Chenming Hu of Hsin-Chu, Taiwan. The '619 Patent also states that the initial assignee of the '619 Patent was Taiwan Semiconductor Manufacturing Company, Ltd. of HsinChu, Taiwan. A copy of the '619 patent is attached hereto as Exhibit C.

LONGHORN AND ITS ASSOCIATED ENTITIES

- 19. Longhorn is incorporated under the laws of the state of Texas. Longhorn's registered agent, president, and director is the same individual: Khaled Fekih-Romdhane. Other members of Longhorn include Christian Dubac and Tanit Ventures Inc. ("Tanit Ventures"). Tanit Ventures is incorporated under the laws of the state Texas and its sole officer is Mr. Fekih-Romdhane.
- 20. Upon information and belief, Mr. Fekih-Romdhane and Longhorn create entities for the purpose of assigning intellectual property rights, widely licensing such rights, and bringing infringement suits by and through its associated entities. Upon information and belief, Longhorn has created its associated entities to allow its alter egos to assert infringement claims nationally or globally while attempting to limit or insulate itself and its associated entities from being subject to personal jurisdiction outside of Texas.
- 21. Upon information and belief, Longhorn's associated entities created, directed, and controlled pursuant to this scheme include Defendant Trenchant, KST, and Lone Star, among others.
- 22. KST is incorporated under the laws of the state of Texas. KST's members include Mr. Fekih-Romdhane. KST has previously filed an action for patent infringement against Samsung.
- 23. Trenchant was incorporated under the laws of the state of Texas on January 8, 2020. Upon information and belief, Trenchant's sole member is Tanit Ventures. Trenchant is the current assignee of the Patents-in-Suit.
- 24. Lone Star is incorporated under laws of the state of Texas. Lone Star's members include Mr. Fekih-Romdhane.
- 25. Upon information and belief, Longhorn's associated entities, under the control of Mr. Fekih-Romdhane, have accused several companies residing in this District of patent infringement.

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- Upon information and belief, in settling such claims, Longhorn's associated entities required the assignment of patents to new patent holding subsidiaries controlled by Longhorn. Longhorn announces and advertises the licensing, patent acquisition, and litigation activities of its associated entities in this District on Longhorn's website, www.longhornip.com/news.
- 26. For example, Lone Star has previously filed actions for patent infringement in this District and consented to the transfer of other actions for patent infringement to this District.
- 27. In 2017, Lone Star filed a lawsuit in this District against STMicroelectronics, Inc. ("STM") (Case No. 3:17-cv-07206), asserting three patents assigned to Lone Star by AMD.
- 28. In 2018, Lone Star filed a lawsuit in this District against Micron Technology, Inc. ("Micron") (Case No. 3:18-cv-01680), asserting four patents assigned to Lone Star by AMD.
- 29. Lone Star has also consented to transfer of cases to this District from the Eastern District of Texas on several occasions. See Lone Star Silicon Innovations LLC v. Renesas Electronics Corporation et al., Case No. 3:17-cv-03981 (N.D. Cal.) (Dkt. No. 43); Lone Star Silicon Innovations LLC v. Semiconductor Manufacturing International Corporation et al., Case No. 3:17-cv-03980 (N.D. Cal.) (Dkt. No. 33); Lone Star Silicon Innovations LLC v. United Microelectronics Corporation et al., Case No. 3:17-cv-04033 (N.D. Cal.) (Dkt. No. 28); Lone Star Silicon Innovations LLC v. Toshiba Corporation et al., Case No. 3:17-cv-04034 (N.D. Cal.) (Dkt. No. 153); Lone Star Silicon Innovations LLC v. Nanya Technology Corporation et al., Case No. 3:17-cv-04032 (N.D. Cal.) (Dkt. No. 28).
- 30. Upon information and belief, Mr. Fekih-Romdhane operates on behalf of Longhorn's associated entities interchangeably and does not observe corporate formalities. For example, Mr. Fekih-Romdhane uses Longhorn IP letterhead and his Longhorn IP email address when communicating on behalf of Longhorn's alter ego entities, including KST and Trenchant. Longhorn's associated entities do not appear to have separate websites, and are identified on Longhorn's website, longhornip.com, as mere "Portfolio" entities holding IP assets for the benefit of Longhorn.

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TRENCHANT'S ACQUISITION OF THE PATENTS-IN-SUIT

- 31. In December 2019, KST brought an action for patent infringement against TSMC, including two of its subsidiaries based in this District, in the Western District of Texas ("WDTX") (Case No. 6:19-cv-00695).
- 32. Upon information and belief, KST settled the lawsuit with TSMC in March 2020. Upon information and belief, as a part of the settlement, Longhorn announced an IP collaboration and service agreement with TSMC and its two subsidiaries based in this District. Longhorn was not a party to the lawsuit, but, upon information and belief, had influence over and/or exercised control over reaching a settlement with TSMC on behalf of KST.
- 33. In a press release, Longhorn touted the fact that "[t]he parties agree to collaborate on current and future patent opportunities, including the [KST] patent portfolio and the dismissal of the related action, and commercial transactions in a mutually beneficial framework." Upon information and belief, this agreement contemplates continued collaboration between Longhorn and TSMC.
- 34. On March 24, 2020, TSMC assigned the Patents-in-Suit directly to Trenchant, despite the fact that Trenchant was incorporated under the law of the state of Texas only two months earlier, in January 2020, and was never a party to the lawsuit brought by KST against TSMC.
- 35. Upon information and belief, Trenchant in turn granted back to TSMC a perpetual, unconditional, irrevocable worldwide license to the patents. Upon information and belief, Mr. Fekih-Romdhane exercised control over the settlement between KST and TSMC, allocating obligations and benefits among Longhorn, KST, and Trenchant. Upon information and belief, Mr. Fekih-Romdhane, acting on behalf of Longhorn, caused the TSMC patents to be assigned to Trenchant, not KST or Longhorn, even though Trenchant was a newly formed limited liability corporation and had no involvement in the litigation between TSMC and KST. Upon information and belief, Trenchant had no other assets and no other *bona fide* interest in the dispute between KST and TSMC at the time the TSMC patents were assigned to Trenchant. Upon information and belief, Longhorn, KST, and Mr. Fekih-Romdhane caused this assignment to be made to Trenchant, in part, to circumvent the covenant not to sue with Samsung.

COVENANT NOT TO SUE

- 36. In May 2019, KST filed an action for patent infringement against Samsung in WDTX (Case No. 6:19-cv-00344). Subsequently, KST and Samsung engaged in settlement negotiations. During the course of such negotiations, Mr. Fekih-Romdhane negotiated on behalf of KST and did so from his Longhorn email address.
- 37. On July 4, 2019, Mr. Fekih-Romdhane, signing on behalf of Longhorn and KST, executed a settlement agreement (the "Settlement Agreement") with Samsung. Among other terms, the Settlement Agreement included a covenant not to sue granted by Longhorn to Samsung with respect to certain future-acquired IP. The terms of the covenant not to sue encompass the Patents-in-Suit and apply to and were intended to benefit SEC and SSI, as well as SEC's other subsidiaries.

DISPUTE BETWEEN SAMSUNG AND DEFENDANTS

- 38. On April 9, 2020, Mr. Fekih-Romdhane, purportedly speaking on behalf of Trenchant, sent a letter ("Notice Letter") to SEC alleging infringement of the Trenchant patent portfolio. However, the Notice Letter was sent on Longhorn letterhead.
- 39. The Notice Letter defines Samsung to include its "subsidiaries/affiliates" and specifically accuses Samsung of importing into the United States, and selling and offering to sell in the United States certain accused semiconductor products and semiconductor products made according to certain accused process nodes.
- 40. The Notice Letter further discusses Longhorn's intent to license the patent portfolio to other companies either resident in this District or with operations and/or subsidiaries located in this District, including Intel, Micron, SK hynix, GLOBALFOUNDRIES, UMC and SMIC.
- 41. Subsequently, individuals at SEC and SSI engaged with Mr. Fekih-Romdhane concerning the allegations in the Notice Letter. Among other things, Samsung raised the covenant not to sue in the Samsung-KST Settlement Agreement, and requested that Longhorn and Trenchant withdraw the claims as barred by this covenant.
- 42. On July 1, 2020, Mr. Fekih-Romdhane asserted that Trenchant was not bound by the covenant not to sue, purportedly because Trenchant is not a subsidiary of Longhorn, but rather,

because "Trenchant has a service agreement with [Longhorn]." Upon information and belief, the "service agreement" alluded to by Mr. Fekih-Romdhane was crafted to allow Longhorn to control the IP assigned to Trenchant by TSMC, and assert claims of infringement on behalf of Longhorn, while circumventing the covenant not to sue granted to Samsung.

43. Subsequently, individuals at SEC and SSI continued to discuss with Mr. Fekih-Romdhane potential resolutions of the claims in the Notice Letter. These discussions took place via video conference in light of presently prevailing travel restrictions. Several SSI representatives participated in such discussions from within this District. Among other steps, Mr. Fekih-Romdhane transmitted claim charts regarding the Trenchant patent portfolio. Despite several conversations involving, among others, Mr. Fekih-Romdhane, SSI representatives in this District, and SEC representatives, the parties did not reach agreement and concluded their discussions without a resolution to the allegations raised in the Notice Letter.

FIRST CLAIM FOR RELIEF

DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF U.S. PATENT NO. 7,494,846

- 44. Plaintiffs incorporate by reference the allegations of paragraphs 1-43 as though fully set forth therein.
- 45. As a result of the acts described herein, there exists an actual and justiciable controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment that Samsung has not infringed and does not infringe any claim of the '846 Patent.
- 46. Defendants have asserted and continue to assert that allegedly infringing Samsung products are imported into and sold and offered for sale in the United States and that Samsung induces others to perform infringing acts in the United States. In particular, Defendants alleged that "all integrated circuit devices made using the Samsung M393A8G40D40-CRB with TSVs manufacturing process, and Samsung HBM2 GDDR5 DRAM manufacturing process, for example, Samsung M393A8G40D40-CRB DIMM" (collectively, "'846 Patent Accused Products") infringe at least claims 1, 2, 3, 4 (or 7), 5 (or 6), 8, 9, 11, 12, 13, 14, and 15 (or 16) of the '846 Patent.

- 47. The '846 Patent purports to describe "design techniques for stacking identical memory dies." '846 Patent at Title. Specifically, the purported invention "provides [the] ability for stacking identical dies without the need of redistribution lines and/or interposers," id. at 3:29-31, by using "a programmable identification (ID) circuit (denoted as ID), which comprises at least one, and likely more, programmable elements," id. at 4:22-24. Such programmable elements are described in the specification of the '846 Patent as "fuses ... [or] other nonvolatile devices, such as flash memories, providing they can be programmed after fabrication of the dies." *Id.* at 4:27-32.
- 48. In particular, independent claims 1 and 12 of the '846 Patent recite a "method of forming a semiconductor structure" (claim 1) or "forming and operating a semiconductor structure" (claim 12) that include, among other steps, "programming the identification circuit."
- 49. Claims 2 through 11 of the '846 Patent depend (directly or indirectly) from claim 1, and claims 13 through 16 of the '846 Patent depend (directly or indirectly) from claim 12.
- 50. Samsung has not infringed and does not infringe any claim of the '846 Patent directly or indirectly, literally or under the doctrine of equivalents, through the importation, manufacture, use, sale, and/or offer for sale of the '846 Patent Accused Products. Samsung does not indirectly infringe any claim of the '846 Patent at least because there is no direct infringement.
- 51. The methods of forming and operating the '846 Patent Accused Products do not meet all limitations of independent claims 1 and 12 of the '846 Patent. For example, when making and/or operating the '846 Patent Accused Products Samsung does not "program[] the identification circuit." Accordingly, Samsung does not infringe claims 1 and 12 of the '846 Patent.
- 52. Likewise, Samsung does not infringe any dependent claims of the '846 Patent for at least the same reasons.
- 53. Accordingly, Samsung is entitled to a judgment declaring that it has not infringed and is not infringing any claim of the '846 Patent.

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SECOND CLAIM FOR RELIEF

DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF U.S. PATENT NO.

7<u>,056,821</u>

- 54. Plaintiffs incorporate by reference the allegations of paragraphs 1-53 as though fully set forth therein.
- 55. As a result of the acts described herein, there exists an actual and justiciable controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment that Samsung has not infringed and does not infringe any claim of the '821 Patent.
- 56. Defendants have asserted and continue to assert that allegedly infringing Samsung products are imported into and sold and offered for sale in the United States and that Samsung induces others to perform infringing acts in the United States. In particular, Defendants alleged that "all integrated circuit devices made using the 28 nm node and advanced process nodes as shown, for example, Samsung's Exynos 9810 Application Processor 10 LPP FinFET Process ACMOS" (collectively, "821 Patent Accused Products") infringe at least claims 1, 2, 3, 4, 5, 6, 9, 10, 11,12, 13, and 14 of the '821 Patent.
- The '821 Patent purports to describe the formation of metal interconnects and vias in 57. integrated circuits. '821 Patent at 1:7-26. Specifically, the '821 Patent purports to describe a method of manufacturing a "dual damascene structure" in which a trench is formed first. *Id.* The '821 Patent states that the purported invention "reduces the Q-time when copper is exposed to the air;" "eliminates allegedly solves "problems of micro trenches and fences" and one step of baking;" and "neutralization of the photoresist layer with the NH-group components." *Id.* at 3:10-19.
- 58. Independent claim 1 recites a dual damascene process that includes, among other steps, "forming a trench by etching though the second etching stop layer and stopping in the dielectric layer at a predetermined depth;" "filling with a sacrificial layer into the trench;" and "planarizing the sacrificial layer."
 - 59. Every other claim of the '821 Patent depends from independent claim 1.

- 60. Samsung has not infringed and does not infringe any claim of the '821 Patent directly or indirectly, literally or under the doctrine of equivalents, through the importation, manufacture, use, sale, and/or offer for sale of the '821 Patent Accused Products. Samsung does not indirectly infringe any claim of the '821 Patent at least because there is no direct infringement.
- 61. The processes for manufacturing the '821 Patent Accused Products do not meet all limitations of claim 1 of the '821 Patent. For example, when making the '821 Patent Accused Products Samsung does not "form[] a trench by etching though the second etching stop layer and stopping in the dielectric layer at a predetermined depth" and/or "planariz[e] the sacrificial layer." Accordingly, Samsung does not infringe claim 1 of the '821 Patent.
- 62. Likewise, Samsung does not infringe any dependent claims of the '821 Patent for at least the same reasons.
- 63. Accordingly, Samsung is entitled to a judgment declaring that it has not infringed and is not infringing any claims of the '821 Patent.

THIRD CLAIM FOR RELIEF

<u>DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF U.S. PATENT</u> <u>NO. 6,720,619</u>

- 64. Plaintiffs incorporate by reference the allegations of paragraphs 1-63 as though fully set forth therein.
- 65. As a result of the acts described herein, there exists an actual and justiciable controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment that Samsung has not infringed and does not infringe any claim of the '619 Patent.
- 66. Defendants have asserted and continue to assert that allegedly infringing Samsung products are imported into and sold and offered for sale in the United States and that Samsung induces others to perform infringing acts in the United States. In particular, Defendants alleged that "all integrated circuit devices made using the 7 nm node, 10 nm node and 14 nm node FinFET transistors process, as shown, for example, in Samsung's Exynos 9810 Application Processor 10 LPP FinFET

Process ACMOS" (collectively, "'619 Patent Accused Products") infringe at least claims 1, 3, 4, 5, 6, 7, 10, 13, 14, and 15 of the '619 Patent.

- 67. The '619 Patent purports to describe a "new semiconductor-on-insulator chip and method of manufacture." '619 Patent at 3:25-26. In particular, the '619 Patent describes a multiple gate device with a "fin-like" active region. *Id.* at 4:40-45. One feature of the purported invention is "corner rounding at the isolation edge of the active region." *Id.* at 5:6-8. The "corner rounding" purportedly avoids "double-hump I_{GS}-V_{GS} characteristics." *Id.*
- 68. Independent claim 1 of the '619 Patent requires "an active region . . . wherein the exposed top portion of the active region has its top corners rounded."
- 69. Every other dependent claim of the '619 Patent depends, directly or indirectly, from claim 1.
- 70. Samsung has not infringed and does not infringe claim of the '619 Patent directly or indirectly, literally or under the doctrine of equivalents, through the importation, manufacture, use, sale, and/or offer for sale of the '619 Patent Accused Products. Samsung does not indirectly infringe any claim of the '619 Patent at least because there is no direct infringement.
- 71. The '619 Patent Accused Products do not meet all limitations of claim 1 of the '619 Patent. For example, the '619 Patent Accused Products do not include an active region that has its "top corners rounded" as would have been understood by a person of ordinary skill in the art at the time of the invention, in light of the teachings of the specification and the other intrinsic record.
- 72. Likewise, Samsung does not infringe any dependent claims of the '619 Patent for at least the same reasons.
- 73. Accordingly, Samsung is entitled to a judgment declaring that it has not infringed and is not infringing any claims of the '619 Patent.

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FOURTH CLAIM FOR RELIEF

SAMSUNG IS NOT LIABLE TO DEFENDANTS FOR ALLEGED INFRINGEMENT OF THE PATENTS-IN-SUIT BECAUSE OF THE COVENANT NOT TO SUE

- 74. Plaintiffs incorporate by reference the allegations in paragraphs 1-73 as though fully set forth herein.
- 75. As a result of the acts described herein, and in light of the Notice Letter and subsequent discussions between the parties concerning the covenant not to sue, an actual controversy of a justiciable nature presently exists between Samsung and Defendants concerning the proper construction of the covenant not to sue in the Settlement Agreement, and the rights and obligations of the parties thereto, with respect to the enforceability of the Patents-In-Suit against Samsung.
- 76. Pursuant to the terms of the Settlement Agreement, Defendants cannot enforce the Patents-In-Suit against Samsung, and Samsung cannot be held liable to Defendants for monetary damages or non-monetary relief, because the covenant not to sue binds Defendants and includes the Patents-In-Suit.
- 77. Samsung has complied with all terms and conditions under the Settlement Agreement, and thus is entitled to the benefit of the covenant not to sue.
- 78. Samsung therefore seeks a declaratory judgment in favor of Samsung and against Defendants declaring that the covenant not to sue is binding as to Defendants and their alter egos, that as a result of the covenant not to sue the Patents-In-Suit cannot be enforced against Samsung, and further that Samsung cannot be held liable for any alleged infringement of the Patents-In-Suit.

PRAYER FOR RELIEF

- WHEREFORE, Samsung prays for the following relief:
- A. The Court enter a declaratory judgment in favor of Samsung and against Defendants declaring that (i) Samsung is not infringing and has not infringed, directly or indirectly, literally or under the doctrine of equivalents, willfully or otherwise, any claim of each of the Patents-in-Suit, and (ii) the covenant not to sue is binding as to Defendants and their alter egos, that as a result of

the covenant not to sue the Patents-In-Suit cannot be enforced against Samsung, and further that Samsung cannot be held liable for any alleged infringement of the Patents-In-Suit; В. Preliminarily and permanently enjoining Defendants, their officers, agents, servants, employees, attorneys, alter egos, and those persons in active concert or participation with Defendants who receive actual notice by personal service or otherwise, from asserting or threatening to assert against Samsung or its customers, potential customers, or users of Samsung products, any charge of infringement of any claims of the Patents-in-Suit; C. Awarding to Samsung its costs and attorneys' fees; and D. Granting to Samsung such other and further relief as this Court may deem just and proper. **DEMAND FOR JURY TRIAL** Pursuant to Federal Rule of Civil Procedure 38 and Civil Local Rule 3-6, Plaintiffs hereby demand a jury trial on all issues so triable.

1	Dated: November 20, 2020	
2		
3	F	By: /s/ Sean M. Callagy
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