

1 Jon A. Birmingham (Cal. Bar No. 271034)
jbirmi@fitcheven.com

2 **FITCH, EVEN, TABIN & FLANNERY LLP**
3 21700 Oxnard Street, Suite 1740
4 Woodland Hills, California 91367
5 Telephone: (818) 715-7025
6 Facsimile: (818) 715-7033

7 *Attorney for Plaintiff,*
8 LONE STAR SILICON INNOVATIONS LLC

9 **UNITED STATES DISTRICT COURT**
10 **NORTHERN DISTRICT OF CALIFORNIA**
11 **SAN FRANCISCO DIVISION**

12 LONE STAR SILICON INNOVATIONS LLC,

13 Plaintiff,

14 v.

15 MICRON TECHNOLOGY, INC.,
16 MICRON SEMICONDUCTOR PRODUCTS, INC.,
17 MICRON CONSUMER PRODUCTS GROUP, INC.,
18 MICRON MEMORY JAPAN, INC., AND
19 ADVANCED MICRO DEVICES, INC.

20 Defendants.

Case No.: 3:18-cv-01680

COMPLAINT FOR PATENT INFRINGEMENT

JURY TRIAL DEMANDED

1 Plaintiff, Lone Star Silicon Innovations LLC (“Lone Star”), complains against Defendants Micron
2 Technology, Inc., Micron Semiconductor Products, Inc., Micron Consumer Products Group, Inc., Micron
3 Memory Japan, Inc. (individually or collectively, “Micron” or “the Micron Defendants”), and Advanced
4 Micro Devices, Inc. (“AMD”) (together, “Defendants”) as follows:

5 **NATURE OF ACTION**

6 1. This is an action for patent infringement of United States Patent Nos. 5,912,188; 6,023,085;
7 6,097,061; and 6,388,330 (collectively, the “Patents in Suit”) under the Patent Laws of the United States,
8 35 U.S.C. § 1, *et seq.*

9 **THE PARTIES**

10 2. Plaintiff Lone Star is a corporation organized and existing under the laws of the State of
11 Texas with its principal place of business at 8105 Razor Blvd., Suite 210, Plano, Texas 75024. Lone Star
12 is in the business of licensing patented technology.

13 3. Defendant Micron Technology, Inc. (“MTI”) is a corporation incorporated under the laws
14 of Delaware with its principal place of business at 8000 South Federal Way, Boise, Idaho 83707. MTI’s
15 registered agent for service of process in the State of California is Corporation Service Company, 2710
16 Gateway Oaks Drive, Suite 150N, Sacramento, CA 95833. MTI maintains offices at 3100 De La Cruz
17 Blvd., Suite 300, Santa Clara, CA 95054 and at 590 Alder Drive, Milpitas, California 95035. MTI
18 conducts business in and is doing business in California and in this District and elsewhere in the United
19 States, including, without limitation, using, promoting, offering to sell, importing and/or selling memory
20 devices and/or devices that incorporate memory devices that embody the patented technology, and
21 enabling end user purchasers to use such devices in this District.

22 4. Defendant Micron Semiconductor Products, Inc. (“MSP”) is an Idaho corporation with a
23 principal place of business at 3475 E. Commercial Ct., Meridian, Idaho 83642. MSP’s registered agent
24 for service of process in the State of California is Corporation Service Company, 2710 Gateway Oaks
25 Drive, Suite 150N, Sacramento, CA 95833. On information and belief, MSP is a wholly-owned subsidiary
26 of MTI. MSP conducts business in and is doing business in California and in this District and elsewhere
27 in the United States, including, without limitation, using, promoting, offering to sell, importing and/or
28

1 selling memory devices and/or devices that incorporate memory devices that embody the patented
2 technology, and enabling end user purchasers to use such devices in this District.

3 5. Defendant Micron Consumer Products Group, Inc. (“MCPG”) is a Delaware corporation
4 with its principal place of business at 47300 Bayside Parkway, Fremont, California 94538. MCPG’s
5 registered agent for service of process in the State of California is Corporation Service Company, 2710
6 Gateway Oaks Drive, Suite 150N, Sacramento, CA 95833. On information and belief, MCPG is a wholly-
7 owned subsidiary of MTI. On information and belief, Defendant MCPG conducts business in and is doing
8 business in California and in this District and elsewhere in the United States, including, without limitation,
9 using, promoting, offering to sell, importing and/or selling memory devices and/or devices that
10 incorporate memory devices that embody the patented technology, and enabling end user purchasers to
11 use such devices in this District.

12 6. Defendant Micron Memory Japan, Inc. is a corporation with a principal place of business
13 at Sumitomo Seimei Yaesu Bldg., 3F, 2-1 Yaesu 2-chome, Chuo-ku, Tokyo 104-0028, Japan. Micron
14 Memory Japan, Inc. is a wholly-owned subsidiary of Micron Asia Pacific B.V., which is a wholly-owned
15 subsidiary of Micron International B.V., which is a wholly-owned subsidiary of Micron Technology, Inc.
16 Before it was acquired by Micron, Micron Memory Japan, Inc. was known as Elpida Memory, Inc. Micron
17 Memory Japan, Inc., and Elpida Memory, Inc. are referred to collectively herein as “Micron Japan.”
18 Micron Japan is the parent company of Micron Akita, Inc., with a principal place of business at 89-2,
19 Yamada, Yuwaishida, Akita-shi, Akita 010-1222, Japan (“Micron Akita”). Micron Akita, Inc. supplies
20 Micron Japan and MTI with memory devices and/or devices that incorporate memory devices that embody
21 the patented technology. On information and belief, Micron Japan manufactures and sells memory devices
22 and/or devices that incorporate memory devices that embody the patented technology and also sells such
23 semiconductor devices manufactured by foundries such as Micron Taiwan, and Micron Akita.

24 7. Upon information and belief, MTI controls and is the majority owner of the other Micron
25 Defendants, and the Micron Defendants are joint tortfeasors with one another with respect to the matters
26 alleged herein.

1 8. Advanced Micro Devices, Inc. (“AMD”) is a corporation organized and existing under the
2 law of the State of Delaware, and maintains its principal place of business at One AMD Place, Sunnyvale,
3 California 94085.

4 9. As alleged in more detail below, AMD previously transferred rights to the Patents in Suit
5 to Lone Star pursuant to a Patent Transfer Agreement effective August 4, 2016, which was amended to
6 update a schedule thereof on or about November 23, 2016, a copy of which is attached as Exhibit 1
7 (collectively “the Patent Transfer Agreement”). The rights transferred to Lone Star included “all rights to
8 pursue damages, injunctive relief and other remedies for past, current and future infringement of” the
9 Patents in Suit. In the action captioned *Lone Star Silicon Innovations LLC v. Micron Technology, Inc., et*
10 *al.*, Case No. 3:17-cv-05458-WHA (hereinafter “the *Micron I Action*”), the Court held that Lone Star
11 lacked sufficient rights to bring suit against the Micron Defendants without AMD, and dismissed the
12 action without prejudice. (Dkt. No. 96, January 20, 2018 Order).

13 10. AMD has an implied legal obligation to Lone Star to allow its name to be used as joined
14 co-plaintiff in order to assure that Lone Star can enforce the rights granted to Lone Star under the Patent
15 Transfer Agreement. AMD was requested to join as a plaintiff in this action, but declined that request and
16 has refused to voluntarily join as a plaintiff. In view of the January 20, 2018 Order, AMD has been joined
17 as a defendant in this action, pursuant to Fed. R. Civ. P. 19(a). As the transferor of rights in the Patents in
18 Suit having a continuing financial interest in the damages relief sought herein, AMD is potentially a real
19 party-in-interest whose joinder may be necessary to enable Lone Star to secure the relief sought herein.
20 Such joinder will not divest the Court of subject matter jurisdiction or venue. Under the “primary purpose”
21 test applied in the Ninth Circuit, a district court should align those parties whose interests coincide
22 respecting the primary matter in dispute. Realignment of AMD as a plaintiff is appropriate because the
23 primary matter in dispute is infringement and validity of the Patents in Suit and Lone Star’s request for
24 infringement damages. The interests of AMD and Lone Star coincide with respect to the primary matter
25 in dispute because AMD is the former owner of the Patents in Suit, is a party to the Patent Transfer
26 Agreement, and has a contingent financial interest in any recovery.

JURISDICTION

1
2 11. This action arises under the Patent Laws of the United States, Title 35 of the United States
3 Code. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and
4 1338(a).

5 12. MTI and MCPG are subject to personal jurisdiction in this Court because they have
6 established places of business in this District. On information and belief, the Micron Defendants are also
7 subject to this Court’s specific and general personal jurisdiction pursuant to due process and/or the
8 California Long Arm Statute, due at least to their substantial business conducted in this forum, directly
9 and/or through intermediaries, including (i) having solicited business in the State of California and in this
10 District, transacted business within the State of California and in this District, and attempted to derive
11 financial benefit from residents of the State of California and this District, including benefits directly
12 related to the instant patent infringement causes of action set forth herein; (ii) having placed their products
13 and services into the stream of commerce throughout the United States and having been actively engaged
14 in transacting business in California and in this District; (iii) either alone or in conjunction with others,
15 having committed acts of infringement within California and in this District. On information and belief,
16 the Micron Defendants, directly and/or through intermediaries, have advertised (including through
17 websites), offered to sell, sold and/or distributed infringing products, and/or have induced the sale and use
18 of infringing products in the United States and in California and in this District; and (iv) through their
19 presence and physical locations in Santa Clara, Fremont, and Milpitas, California. The Micron Defendants
20 have, directly or through their distribution network, purposefully and voluntarily placed such products in
21 the stream of commerce knowing and expecting them to be purchased and used by consumers in California
22 and in this District. The Micron Defendants have either committed direct infringement in California or
23 committed indirect infringement based on acts of direct infringement in California and from MTI’s
24 locations in Santa Clara and Milpitas, California, and MCPG’s location in Fremont, California. Further,
25 on information and belief, the Micron Defendants are subject to the Court’s general jurisdiction, including
26 from regularly doing or soliciting business, engaging in other persistent courses of conduct, deriving
27 substantial revenue from goods and services provided to individuals in California and in this District,
28

1 and/or based on their presence and physical locations in Santa Clara, California and Milpitas, California,
2 and Fremont, California.

3 13. On information and belief, the Micron Defendants do one or more of the following with
4 memory devices and/or devices that incorporate memory devices that embody the patented technology
5 that they or their foundries manufacture: (a) make these devices in the United States for sale to customers,
6 including customers in California; (b) import these devices into the United States for sale to consumers,
7 including consumers in California; (c) sell them or offer them for sale in the United States, including to
8 customers in California; and/or (d) sell them to customers who incorporate them into products that such
9 customers import, sell, or offer for sale in the United States, including in California.

10 14. AMD is subject to personal jurisdiction in this Court because it has an established place of
11 business in this District. On information and belief, AMD is also subject to this Court's specific and
12 general personal jurisdiction pursuant to due process and/or the California Long Arm Statute, due at least
13 to its substantial business conducted in this forum, directly and/or through intermediaries, including (i)
14 having solicited business in the State of California, transacted business within the State of California, and
15 attempted to derive financial benefit from residents of the State of California; (ii) having placed its
16 products and services into the stream of commerce throughout the United States and having been actively
17 engaged in transacting business in California and in this District; and (iii) having consented to jurisdiction
18 and venue in the United States District Court for the Northern District of California with respect to all
19 civil actions or other legal proceedings directly arising between Lone Star and AMD under the Patent
20 Transfer Agreement.

21 **VENUE**

22 15. Venue lies in this District pursuant to 28 U.S.C. §§ 1391 and 1400. Defendants MTI and
23 MCPG are subject to personal jurisdiction in this District, have regular and established places of business
24 within this District, reside in this District, and have committed acts of infringement within the District.
25 Venue is proper in this District for Defendant Micron Japan pursuant to 28 U.S.C. § 1391(c)(3) because
26 it is not resident in the United States, and therefore may be sued in any judicial district. Venue is proper
27 in this District as to Defendant MSP because, on information and belief, MSP is an alter ego of its parent
28 company, MTI, and MSP and MTI are joint tortfeasors with respect to the matters alleged herein such that

1 venue over MTI may be properly imputed onto MSP. Moreover, venue is proper in this District as to
2 Defendant MSP because MSP consented to venue in the *Micron I* Action when it moved to transfer venue
3 from the Eastern District of Texas to this District and did not move to dismiss for lack of venue after the
4 case was transferred.

5 16. Venue is proper in this District as to AMD under 28 U.S.C. §§ 1391 and 1400 because it
6 is subject to personal jurisdiction in this District and because it resides in and has regularly conducted
7 business in this District.

8 **INTRADISTRICT ASSIGNMENT**

9 17. This is an Intellectual Property Action within the meaning of Civil Local Rule 3-2(c), and
10 is to be assigned on a district-wide basis. Lone Star notes that this case is related to Case No. 3:17-cv-
11 05458-WHA, which, prior to dismissal by the Court, was pending in the San Francisco Division before
12 the Honorable William H. Alsup.

13 **THE PATENTS IN SUIT**

14 18. On June 15, 1999, U.S. Patent No. 5,912,188 (“the ’188 patent”), entitled “Method Of
15 Forming A Contact Hole In An Interlevel Dielectric Layer Using Dual Etch Stops,” a copy of which is
16 attached hereto as Exhibit 2, was duly and legally issued. The ’188 patent issued from U.S. patent
17 application Serial Number 08/905,686 filed August 4, 1997, and discloses and relates to the design of and
18 processes for fabricating semiconductor devices.

19 19. In an assignment recorded in the United States Patent Office Reel/Frame 008657/0893 on
20 August 4, 1997, the inventors of the inventions contained in the ’188 patent assigned all right, title, and
21 interest in the ’188 patent and all inventions contained therein to AMD. In an assignment recorded in the
22 United States Patent Office on August 5, 2016, Reel/Frame 039597/0957, AMD assigned “all of [its]
23 entire right, title and interest in and to” the ’188 patent to Lone Star, including all rights “in and to causes
24 of actions and enforcement rights” and “all rights to pursue damages, injunctive relief and other remedies
25 for past, present and future infringement of” the ’188 patent. The assignment of the ’188 Patent from
26 AMD to Lone Star was made subject to the terms and conditions of the Patent Transfer Agreement (which
27 was inadvertently referenced as a Confidential Purchase and Sale Agreement in the recorded assignment
28 document). Lone Star is the sole owner of all rights to sue the Micron Defendants for infringement and

1 collect past, present, and future damages and to seek and obtain injunctive or any other relief for
2 infringement of the '188 patent.

3 20. On February 8, 2000, U.S. Patent No. 6,023,085 (“the '085 patent”), entitled “Core Cell
4 Structure And Corresponding Process For NAND-Type High Performance Flash Memory Device,” a copy
5 of which is attached hereto as Exhibit 3, was duly and legally issued. The '085 patent issued from U.S.
6 patent application Serial Number 08/993,910 filed December 18, 1997, and discloses and relates to the
7 design of and processes for fabricating NAND-type flash memory semiconductor devices.

8 21. In an assignment recorded in the United States Patent Office Reel/Frame 008928/0422 on
9 December 18, 1997, the inventors of the inventions contained in the '085 patent assigned all right, title,
10 and interest in the '085 patent and all inventions contained therein to AMD. In an assignment recorded in
11 the United States Patent Office on August 5, 2016, Reel/Frame 039597/0957, AMD assigned “all of [its]
12 entire right, title and interest in and to” the '085 patent to Lone Star, including all rights “in and to causes
13 of actions and enforcement rights” and “all rights to pursue damages, injunctive relief and other remedies
14 for past, present and future infringement of” the '085 patent. The assignment of the '085 Patent from
15 AMD to Lone Star was made subject to the terms and conditions of the Patent Transfer Agreement (which
16 was inadvertently referenced as a Confidential Purchase and Sale Agreement in the recorded assignment
17 document). Lone Star is the sole owner of all rights to sue the Micron Defendants for infringement and
18 collect past, present, and future damages and to seek and obtain injunctive or any other relief for
19 infringement of the '085 patent.

20 22. On August 1, 2000, U.S. Patent No. 6,097,061 (“the '061 patent”), entitled “Trenched Gate
21 Metal Oxide Semiconductor Device And Method,” a copy of which is attached hereto as Exhibit 4, was
22 duly and legally issued. The '061 patent issued from U.S. patent application Serial Number 09/052,051
23 filed December March 30, 1998, and discloses and relates to the design of and processes for fabricating
24 semiconductor devices.

25 23. In an assignment recorded in the United States Patent Office Reel/Frame 009083/0052 on
26 March 30, 1998, the inventors of the inventions contained in the '061 patent assigned all right, title, and
27 interest in the '061 patent and all inventions contained therein to AMD. In an assignment recorded in the
28 United States Patent Office on August 5, 2016, Reel/Frame 039597/0957, AMD assigned “all of [its]

1 entire right, title and interest in and to” the ’061 patent to Lone Star, including all rights “in and to causes
2 of actions and enforcement rights” and “all rights to pursue damages, injunctive relief and other remedies
3 for past, present and future infringement of” the ’061 patent. The assignment of the ’061 Patent from
4 AMD to Lone Star was made subject to the terms and conditions of the Patent Transfer Agreement (which
5 was inadvertently referenced as a Confidential Purchase and Sale Agreement in the recorded assignment
6 document). Lone Star is the sole owner of all rights to sue the Micron Defendants for infringement and
7 collect past, present, and future damages and to seek and obtain injunctive or any other relief for
8 infringement of the ’061 patent.

9 24. On May 14, 2002, U.S. Patent No. 6,388,330 (“the ’330 patent”), entitled “Low Dielectric
10 Constant Etch Stop Layers In Integrated Circuit Interconnects,” a copy of which is attached hereto as
11 Exhibit 5, was duly and legally issued. The ’330 patent issued from U.S. patent application Serial Number
12 09/776,012 filed February 1, 2001, and discloses and relates to the design of and processes for fabricating
13 semiconductor devices.

14 25. In an assignment recorded in the United States Patent Office on February 2, 2001,
15 Reel/Frame 011530/0755, the inventors of the inventions contained in the ’330 patent assigned all right,
16 title, and interest in the ’330 patent and all inventions contained therein to AMD. In an assignment
17 recorded in the United States Patent Office on August 5, 2016, Reel/Frame 039597/0957, AMD assigned
18 “all of [its] entire right, title and interest in and to” the ’330 patent to Lone Star, including all rights “in
19 and to causes of actions and enforcement rights” and “all rights to pursue damages, injunctive relief and
20 other remedies for past, present and future infringement of” the ’330 patent. The assignment of the ’330
21 Patent from AMD to Lone Star was made subject to the terms and conditions of the Patent Transfer
22 Agreement (which was inadvertently referenced as a Confidential Purchase and Sale Agreement in the
23 recorded assignment document). Lone Star is the sole owner of all rights to sue the Micron Defendants
24 for infringement and collect past, present, and future damages and to seek and obtain injunctive or any
25 other relief for infringement of the ’330 patent.

26 **THE MICRON I ACTION**

27 26. On October 7, 2016, Lone Star filed the *Micron I* Action against the Micron Defendants
28 under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.* in the United States District Court for

1 the Eastern District of Texas. In the *Micron I* Action, Lone Star asserted infringement of, *inter alia*, the
2 '188, '085, '061 and '330 patents.

3 27. On April 17, 2017, the Micron Defendants moved pursuant to 28 U.S.C. § 1404(a) to
4 transfer the *Micron I* Action to the District Court for the District of Idaho, or, in the alternative, the
5 Northern District of California. (Dkt. No. 34.)

6 28. On August 24, 2017, the District Court for the Eastern District of Texas granted the Micron
7 Defendants' motion to transfer to the Northern District of California. (Dkt. No. 47.) The *Micron I* Action
8 was transferred to the Northern District of California and ultimately reassigned to the Honorable William
9 H. Alsup for all proceedings under Case No. 3:17-cv-05458-WHA.

10 29. On November 16, 2017, the Micron Defendants filed a motion for judgment on the
11 pleadings for lack of standing. Lone Star opposed the motion, asserting that it has sufficient rights in the
12 Patents in Suit to enforce them against the Micron Defendants on its own, and, alternatively, seeking to
13 join AMD as a co-plaintiff in the *Micron I* Action to thereby cure any standing deficiency. (Dkt. No. 80.)

14 30. On January 20, 2018, the Court dismissed the *Micron I* Action without prejudice to refile,
15 finding that the Patent Transfer Agreement did not convey to Lone Star all substantial rights in the Patents
16 in Suit. (Dkt. No. 96.) The Court denied Lone Star's request to join AMD under Fed. R. Civ. P. 19 in the
17 *Micron I* Action.

18 **STANDING TO BRING THIS LAWSUIT**

19 31. As alleged more fully below, Lone Star asserts, on information and belief, that, as of the
20 filing date of this Complaint, it has standing to bring this action, in its own name or, at a minimum, together
21 with AMD joined as a defendant for the purpose of being judicially realigned as a co-plaintiff.

22 **The August 4, 2016 Patent Transfer Agreement**

23 32. The Patent Transfer Agreement refers interchangeably to "Listed Patents" (*see* Exhibit A
24 thereof) and "Assigned Patents" (*see* Exhibit B thereof). The Patents in Suit are included among the Listed
25 Patents and the Assigned Patents. The Patent Transfer Agreement includes a representation that AMD, or
26 one of its Affiliates, has good and marketable title to each Listed Patent, "including all rights, title, and
27 interest in each such Listed Patent and the right to sue for past, present and future infringement thereof,"
28 and is the original assignee of the Listed Patents. (Ex. 1, §§ 6.1(b)(i) and (ii).) The Patent Transfer

1 Agreement includes a grant to Lone Star of “all right, title and interest in, to and under the Assigned
2 Patents” including “any and all legal rights entitled by the original owner of the Assigned Patents and all
3 rights of AMD to sue for past, present and future infringement of any and all of the Assigned Patents.”
4 (Ex. 1, § 2.1.) The Patent Transfer Agreement also states that AMD assigned to Lone Star “all right, title
5 and interest in, to and under all causes of action and enforcement rights, whether known, unknown,
6 currently pending, filed, or otherwise, for the Assigned Patents, including all rights to pursue damages,
7 injunctive relief and other remedies for past, current and future infringement of the Assigned Patents.”
8 (Ex. 1, § 2.2.) Lone Star also received all rights “to collect royalties under such Assigned Patents, to
9 prosecute all existing Assigned Patents worldwide, to apply for additional Assigned Patents worldwide
10 and to have Assigned Patents issue in the name of Lone Star.” (Ex. 1, § 2.1.) Lone Star assumed all
11 obligations to pay any remaining maintenance fees associated with the Assigned Patents, with AMD
12 agreeing to provide logistical assistance for any payments due within sixty days of the Effective Date.
13 (Ex. 1, § 3.3(a).)

14 33. AMD did not retain any rights under the Patent Transfer Agreement to enforce the
15 Assigned Patents for past, current, or future infringement by any unauthorized third party. AMD has no
16 ongoing right under the Patent Transfer Agreement to control or influence licensing efforts or enforcement
17 actions commenced by Lone Star against the Micron Defendants. The Patent Transfer Agreement does
18 not impose any condition on Lone Star that would restrict or otherwise interfere with Lone Star’s exclusive
19 right to enforce the Patents in Suit against the Micron Defendants and to conduct and resolve Lone Star’s
20 claims against the Micron Defendants as Lone Star determines in its sole discretion.

21 34. The Patent Transfer Agreement is not limited in term, provides no right to terminate to
22 either party, and contains no provisions by which title to the Patents in Suit could ever revert to AMD.

23 35. As consideration for assigning the Assigned Patents to Lone Star, AMD is entitled to
24 deferred compensation in the form of “Contingent Payments” based on any proceeds generated by Lone
25 Star’s patent enforcement and licensing efforts. (Ex. 1 at § 5.1.) AMD has no rights to influence Lone
26 Star’s licensing or enforcement strategies or to participate in licensing or settlement negotiations.

1 36. Lone Star also contractually granted a non-exclusive license back to AMD, effective as of
2 the Effective Date. The rights granted to AMD include, *inter alia*, the right to make, offer for sale and sell
3 AMD products covered by the Assigned Patents. (Ex. 1, § 4.1.)

4 37. The Patent Transfer Agreement acknowledges that the Assigned Patents are subject to
5 certain pre-existing rights previously extended directly or indirectly by AMD to certain third parties, and
6 reflects the parties' commitment to respect those rights. These are defined as "Existing Encumbrances,"
7 which may include, for example, pre-existing patent licenses, covenants not to sue, releases for past
8 infringement granted by AMD, and pre-existing commitments relating to AMD's activities in
9 standardization activities or patent pool activities. (Ex. 1, § 1.) Lone Star acknowledged that the Assigned
10 Patents are subject to these Existing Encumbrances, and "commit[ted] to comply with such Existing
11 Encumbrances. . . ." (Ex. 1, § 2.3.)

12 38. The Patent Transfer Agreement includes a list of "Unlicensed Third Party Entities" that are
13 "not authorized or otherwise granted any rights (other than potentially by an implied license running with
14 [AMD's] Licensed Products) by AMD to the Assigned Patents to use, develop, copy, modify, import,
15 make and have made, offer for sale, sell, lease, import, export, distribute, demonstrate, display, transfer
16 and/or otherwise exploit or dispose of a product or service by the Unlicensed Third Party Entity." (Ex. 1,
17 § 1 and Exhibit E thereof.) AMD represented and warranted that to its knowledge, none of the Unlicensed
18 Third Party Entities have been granted any rights under the Assigned Patents by AMD or its Affiliates.
19 (Ex. 1, § 6.1(b)(vii).) The Micron Defendants each qualify as an Unlicensed Third Party Entity.

20 39. In order to assure that the license granted back to AMD could not interfere with Lone Star's
21 exclusive rights to sue and license any Unlicensed Third Party Entity, this license can never extend to a
22 future Affiliate of AMD "that was deemed an Unlicensed Third Party Entity prior to becoming so affiliated
23 with [AMD]." (Ex. 1, § 4.1.)

24 40. Lone Star contractually warranted that it would refrain from exercising its exclusionary
25 patent rights against any entity that is not identified as an Unlicensed Third Party Entity or an Affiliate
26 thereof, or against distributors, resellers, or customers with respect to the products of such entity. (Ex. 1,
27 § 6.2(f).)

1 41. Pursuant to Section 4.3 of the Patent Transfer Agreement, in the event that Lone Star were
2 to commence an assertion or legal action against a Person that is not an Unlicensed Third Party Entity,
3 this would be considered a breach of Section 6.2(f). The parties further agreed that, as the sole consequence
4 of such a breach, AMD's license back from Lone Star would be expanded to include the right for AMD
5 to sub-license such Person. (Ex. 1, § 4.3.) Such limited sublicensing rights vest in AMD only in the event
6 that Lone Star were to assert the Assigned Patents in violation of the warranty provided in Section 6.2(f).

7 42. Sections 6.2(f) and 4.3 of the Patent Transfer Agreement have no bearing on Lone Star's
8 exclusive right to sue and seek relief from the Micron Defendants, as the Micron Defendants are identified
9 as Unlicensed Third Party Entities.

10 43. As additional consideration for AMD's assignment of all right, title and interest in, to, and
11 under the Assigned Patents, Lone Star further contractually agreed to provide notice to AMD in the event
12 that Lone Star decided not to pay a renewal, annuity, or maintenance fee on any Assigned Patent, and to
13 assign such patent back to AMD or AMD's chosen designee upon AMD's request. (Ex. 1, § 3.4.) This
14 clause of the Patent Transfer Agreement is of no legal or practical effect on the Assigned Patents because,
15 as of the Effective Date, all maintenance fees had already been paid for the full remaining life of the
16 patents.

17 44. Lone Star also agreed that it would not transfer its ownership of any Assigned Patents
18 unless all such patents are transferred collectively, the proposed assignee agrees in writing (with copy to
19 AMD) to be bound by the Patent Transfer Agreement as Lone Star's successor-in-interest, and AMD
20 provides its written consent to the transfer, "which shall not be unreasonably withheld." (Ex. 1, § 2.6.)

21 **The Confirmatory Second Amendment To The Patent Transfer Agreement**

22 45. On March 2, 2018, AMD and Lone Star executed a Confirmatory Second Amendment To
23 Patent Transfer Agreement ("Second Amendment to PTA"), which is attached hereto as Exhibit 6. The
24 Second Amendment to PTA recites that it was entered for the purpose of clarifying and confirming their
25 original intent with the respect to certain provisions of the Patent Transfer Agreement and to amend and/or
26 strike other provisions as appropriate to the Assigned Patents. The amendments specified are to apply
27 retroactively to the August 4, 2016, Effective Date of the original Patent Transfer Agreement. (Ex. 6,
28 § 10.)

1 46. Among the clarifications included in the Second Amendment to PTA, Section 2.1 was
2 revised to confirm the parties' "original intent that, as the assignee of all right, title and interest in, to and
3 under the Assigned Patents and all inventions and discoveries claimed therein, Lone Star has the right to
4 make, use, sell, offer for sale, import and otherwise fully exploit all inventions and discoveries claimed in
5 the Assigned Patents." (Ex. 6, § 2.) The Patent Transfer Agreement includes a representation that to
6 AMD's knowledge "none of the Listed Patents is subject to any exclusive grant or right." (Ex. 1, §
7 6.1(b)(vi).) Accordingly, as of the Effective Date of the Patent Transfer Agreement, and continuing to the
8 present, there are no known encumbrances on the Patents in Suit that would prevent Lone Star from
9 exercising its right to practice the inventions claimed therein.

10 47. The Second Amendment to PTA also modified the Patent Resale provision of Section 2.6
11 to remove language indicating that the Assigned Patents would only be transferred collectively, as well as
12 the requirement of obtaining AMD's written consent. (Ex. 6, § 3.)

13 48. The Second Amendment to PTA also eliminated Section 3.4 and revised Section 6.2(e).
14 These changes removed Lone Star's obligation to notify AMD if Lone Star decided not to pay a renewal,
15 annuity, or maintenance fee on any Assigned Patent, and to assign such patent back to AMD or its
16 designee. These revisions also eliminated any obligation of Lone Star to maintain the Assigned Patents in
17 force. (Ex. 6, §§ 4, 8.)

18 49. The Second Amendment to PTA also supplemented AMD's representation and warranty
19 of Title in Section 6.1(b)(i) to expressly include the representation that "to AMD's Knowledge as of the
20 Effective Date, AMD has not granted any other Person the right to sue for past, present or future
21 infringement of any Listed Patent, or the right to license any Listed Patent to any Unlicensed Third Party
22 Entity." (Ex. 6, § 7.)

23 50. The Second Amendment to PTA also made minor clarifying revisions to the language of
24 Section 6.1(f) regarding Lone Star's representation that it would refrain from enforcement or licensing
25 activities against any Person that is not an Unlicensed Third Party Entity. (Ex. 6, § 9.)

26 51. Lone Star has standing to bring this action against the Micron Defendants. Lone Star is the
27 assignee of the Patents in Suit or of all substantial rights in the Patents in Suit such that it can be treated
28 as their owner for the purpose of standing. Lone Star pleads in the alternative that, to the extent that Lone

1 Star does not possess all substantial rights in the Patents in Suit, Lone Star holds the status of an exclusive
2 licensee of the Patents in Suit for the purpose of standing and, as such, has standing to bring this action
3 against the Micron Defendants with AMD joined as a co-plaintiff. As the assignor of rights in the Patents
4 in Suit to Lone Star and the holder of a contractual financial interest in the damages relief sought herein
5 and of other contractual warranties and covenants extended by Lone Star, AMD has been joined to assure
6 that principles of prudential standing are satisfied to enable Lone Star to secure the relief sought herein.
7 Such joinder does not divest the Court of subject matter jurisdiction or venue.

8 **THE MICRON DEFENDANTS' INFRINGING PRODUCTS AND METHODS**

9 52. The Micron Defendants make, use, sell, offer for sale, and/or import into the United States
10 NAND and NOR Flash memory semiconductor devices and products incorporating such devices. These
11 NAND and NOR Flash memory semiconductor devices are electrically re-writeable, non-volatile
12 semiconductor memory devices that retain content when power is turned off. The Micron Defendants'
13 embedded NAND Flash-based storage devices are utilized in mobile phones, tablets, computers, industrial
14 and automotive applications, networking and other personal and consumer applications. The Micron
15 Defendants' NAND Flash memory modules are also incorporated into removable storage devices, such as
16 USB and Flash memory cards used with applications such as PCs, digital still cameras, and mobile phones.
17 The Micron Defendants also provide solid state drives ("SSDs") incorporating their NAND Flash memory
18 modules, which are components of notebooks, desktops, workstations, and other consumer computing
19 products, as well as servers and storage devices. The Micron Defendants also offer Multi-Chip Package
20 ("MCP") products, which incorporate their NAND and NOR Flash modules and technology. For example,
21 the Micron Defendants' e-MMC products combine NAND Flash with a logic controller that performs
22 media management and Error Code Correction, and their e-MCP products combine e-MMC with
23 LPDRAM on the same substrate. By way of example, and without limitation, the Micron Defendants sell
24 such products under brand names that include Micron, IM Flash, Lexar, Crucial, SpecTek, Elpida and
25 private labels, in packaged form, unpackaged form, die form and wafer form, and as solid state drives,
26 memory modules, managed NAND, multi-chip packages, memory cards and USB devices. Despite not
27 having a license to the '188 patent, the Micron Defendants have used the semiconductor fabrication
28 methods claimed therein in making NAND and NOR Flash memory devices. Despite not having a license

1 to the '330 or '085 patents, the Micron Defendants Flash memory products adopt the designs claimed in
2 these patents.

3 53. The Micron Defendants also make, use, sell, offer for sale, and/or import into the United
4 States DRAM memory semiconductor devices and products incorporating these devices. These products
5 are high density, random access memory devices that provide high-speed data storage and retrieval. The
6 Micron Defendants' DRAM memory devices are provided as wafers, chips, and memory modules and are
7 integrated as components of desktop computer memories, mobile device memories, networking devices,
8 servers, consumer electronics, communications equipment, computer peripherals, automotive systems,
9 and other applications. The Micron Defendants' LPDRAM products offer lower power consumption
10 relative to other DRAM products and are used in mobile phones, tablets, embedded applications, ultra-
11 thin laptop computers and other mobile consumer devices that require low power consumption. By way
12 of example, and without limitation, the Micron Defendants sell such DRAM products under brand names
13 that include Micron, Lexar, Crucial, SpecTek, Elpida and private labels, in packaged form, unpackaged
14 form, die form and wafer form, and as memory modules and multi-chip packages. Despite not having a
15 license to the '330 or '061 patents, the Micron Defendants DRAM memory products adopt the designs
16 claimed in these patents.

17 **FIRST CAUSE OF ACTION – INFRINGEMENT OF THE '188 PATENT**

18 54. Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs 1 to 53, as if
19 fully set forth herein.

20 55. Defendants MTI, MSP, and MCPG, directly and/or through their subsidiaries, affiliates,
21 agents, and/or business partners, have directly infringed the '188 patent, including at least claims 3, 11-
22 13, 15, and 19, pursuant to 35 U.S.C. § 271(a) by practicing the methods claimed in the '188 patent in the
23 manufacture of NAND Flash memory semiconductor devices within the United States, for example by
24 practicing the steps of: (a) providing a semiconductor substrate; (b) forming a gate over the substrate; (c)
25 forming a source/drain region in the substrate; (d) providing a source/drain contact electrically coupled to
26 the source/drain region; (e) forming an interlevel dielectric layer that includes first, second, and third
27 dielectric layers over the source/drain contact; (f) forming an etch mask over the interlevel dielectric layer;
28 (g) applying a first etch which is highly selective of the first dielectric layer with respect to the second

1 dielectric layer through an opening in the etch mask using the second dielectric layer as an etch stop, to
2 form a first hole in the first dielectric layer that extends to the second dielectric layer without extending
3 to the third dielectric layer; (h) applying a second etch which is highly selective of the second dielectric
4 layer with respect to the third dielectric layer through the opening in the etch mask using the third dielectric
5 layer as an etch stop, to form a second hole in the second dielectric layer that extends to the third dielectric
6 layer without extending to the source/drain contact; (i) applying a third etch which is highly selective of
7 the third dielectric layer with respect to the source/drain contact through the opening in the etch mask,
8 form a third hole in the third dielectric layer that extends to the source/drain contact, such that the first,
9 second, and third holes in combination provide a contact hole in the interlevel dielectric layer; and (j)
10 wherein the first, second, and third etches are anisotropic etches. Defendants MTI, MSP and MCPG
11 further directly infringe the '188 patent by, for example, practicing the steps of: (k) using first, second,
12 and third etches that are anisotropic etches and forming the contact holes having straight sidewalls; (l)
13 using a second anisotropic etch that is highly selective of the source/drain contact with respect to the third
14 dielectric layer; (m) forming the source/drain contact as the source/drain region; (n) forming the interlevel
15 dielectric layer to consists of the first, second, and third dielectric layers; and/or (o) forming a conductive
16 plug in the contact hole that contacts the source/drain contact.

17 56. The Micron Defendants directly and/or through their subsidiaries, affiliates, agents, and/or
18 business partners, have also directly infringed the '188 patent, including at least claims 3, 11-13, 15, and
19 19, pursuant to 35 U.S.C. § 271(g) by importing, using, selling, or offering to sell NAND Flash memory
20 semiconductor devices in the United States made using the methods claimed in the '188 patent. NAND
21 Flash memory semiconductor devices manufactured by the Micron Defendants and/or other entities
22 owned and controlled by the Micron Defendants or by third party partner foundries under contract with
23 the Micron Defendants, are made using a process that practices the claims of the '188 patent. The Micron
24 Defendants have directly infringed when they imported, used, sold, or offered for sale in the United States
25 NAND Flash memory semiconductor devices made using the claimed methods.

26 57. The Micron Defendants have been engaged in one or more of these direct infringing
27 activities related to their NAND Flash memory semiconductor devices, including at least their NAND
28 Flash Products, including SLC NAND, MLC NAND, TLC NAND and Serial NAND products, whether

1 sold in packaged form, unpackaged form, die form, or wafer form; managed NAND Flash Products
2 incorporating such NAND flash products, such as their e-MMC and Embedded USB products; multichip
3 packages incorporating such NAND Flash Products, such as their e.MMC-Based MCP and NAND-Based
4 MCP products; solid state drives incorporating such NAND Flash Products, such as their 9100 PCIe®
5 NVMe™ SSD, S600DC, M600, M500DC, and M510DC solid state drives; all other NAND or NOR Flash
6 memory devices that include transistors having a contact hole extending through first, second, and third
7 dielectric layers to a source/drain contact formed using a process involving a first, second, and third
8 anisotropic etch and dual etch stops in accordance with the methods of the asserted claims of the '188
9 patent; and any other NAND or NOR Flash memory devices made by a substantially similar process, a
10 representative example being the NAND Flash memory device having die markings Intel L95B
11 2012(M)(C) made using the Micron Defendants' 16-nanometer process node, which has a transistor
12 structure believed to also apply to NOR Flash products ("the '188 Patent Accused Flash Products"). The
13 claim charts attached as Exhibit 7 identify specifically how each step of each asserted claim is used in
14 making the '188 Patent Accused Flash Products. The device depicted in Exhibit 7 is a NAND Flash
15 memory device made using a 16-nanometer processing node. The charts further identify the critical
16 characteristics of the '188 Patent Accused Flash Products and describe why all of the accused products
17 are made in an infringing manner under the theories identified in the charts.

18 58. On information and belief, the infringement analysis depicted in Exhibit 7 is representative
19 of all other '188 Patent Accused Flash Products made using Micron's 16-nanometer process node
20 technology. A process node is a standard process used across different products sharing a common feature
21 size. The use of process nodes is common in the semiconductor fabrication industry because they allow
22 for processes to be standardized and controlled. Therefore, all '188 Patent Accused Flash Products made
23 using Micron's 16-nanometer process node are made in the same infringing way and include the same
24 critical characteristics of a contact hole extending through first, second, and third dielectric layers to a
25 source/drain contact formed using a process involving a first, second, and third anisotropic etch and dual
26 etch stops in accordance with the methods of the asserted claims of the '188 patent. On information and
27 belief, Micron has made, sold, offered for sale, and imported '188 Patent Accused Flash Products that
28 were fabricated using other process nodes, including, but not limited to, 20-nanometer and 12-nanometer

1 process nodes. New process nodes evolve over time based on existing process nodes; one process node is
2 the basis for the next. With respect to the critical characteristics of the asserted claims of the '188 patent,
3 the process steps used in Micron's 20, 16, and 12-nanometer process nodes are substantially similar, and
4 the semiconductor devices resulting from those process nodes have substantially similar structures with
5 respect to the critical characteristics. Therefore, on information and belief, the semiconductor devices of
6 the 20-nanometer and 12-nanometer process nodes are made using the same critical steps as the
7 representative device of the 16-nanometer process node shown in Exhibit 7.

8 59. The Micron Defendants, directly and/or through their subsidiaries, affiliates, agents, and/or
9 business partners, have indirectly infringed the '188 patent, including at least claims 3, 11-13, 15, and 19,
10 pursuant to 35 U.S.C. § 271(b) by actively inducing acts of direct infringement performed by others. The
11 Micron Defendants received actual notice of the '188 patent and of Lone Star's infringement allegations
12 at least upon the service of the complaint filed on October 7, 2016, in the *Micron I* Action. Upon
13 information and belief, MTI has numerous lawyers and other active agents of MTI and of its owned and
14 controlled subsidiaries who regularly review patents and published patent applications relevant to
15 technology in the fields of the Patents in Suit, specifically including patents directed to semiconductor
16 memory devices issued to competitors such as AMD, the original assignee of the '188 patent. Upon
17 information and belief, MTI itself has been issued over 24,000 patents, including over 900 patents
18 prosecuted in the USPTO in the same classifications as the '188 patent, giving the Micron Defendants
19 intimate knowledge of the art in fields relevant to this civil action. The timing, circumstances, and extent
20 of MTI and its subsidiaries MSP, MCPG and Micron Japan obtaining actual knowledge of the '188 patent
21 prior to the commencement of this lawsuit will be confirmed during discovery.

22 60. Upon gaining knowledge of the '188 patent, it was, or became, apparent to the Micron
23 Defendants that the manufacture, sale, importation, offer for sale, and use of their '188 Patent Accused
24 Flash Products resulted in infringement of the '188 patent. Upon information and belief, the Micron
25 Defendants continued to engage in activities constituting inducement of infringement, notwithstanding
26 their knowledge, or willful blindness thereto, that the activities they induced resulted in infringement of
27 the '188 patent.

1 61. The '188 Patent Accused Flash Products are intended for integration into products known
2 to have been sold widely in the United States. MTI and/or its subsidiaries make NAND Flash
3 semiconductor devices using methods claimed in the '188 patent, which devices infringed when they were
4 imported into, or sold, used, or offered for sale in, the United States. The Micron Defendants have
5 indirectly infringed by inducing customers (such as makers of mobile devices, desktop computers, and
6 other devices that use NAND Flash memory) to import products that integrate NAND Flash
7 semiconductor devices made using the methods claimed in the '188 patent, or to sell or use such products,
8 or offer them for sale, in the United States. For example, the Micron Defendants have induced third party
9 manufacturers, original equipment manufacturers (OEMs), importers, resellers, and other customers who
10 purchase devices manufactured at Micron Japan's and other overseas facilities of MTI's owned and
11 controlled subsidiaries, or supplied under agreements with partner foundries, to import devices made using
12 the methods claimed in the '188 patent, or to sell or use such devices, or offer them for sale in the United
13 States without authority.

14 62. The Micron Defendants have encouraged customers, resellers, OEMs, or others to import
15 into the United States and sell and use in the United States the '188 Patent Accused Flash Products made
16 using the methods claimed in the '188 patent with knowledge and the specific intent to cause the acts of
17 direct infringement performed by these third parties. On information and belief, after the Micron
18 Defendants obtained knowledge of the '188 patent, the '188 Patent Accused Flash Products have been
19 imported into the United States and sold in large volumes by themselves and by others, such as customers,
20 distributors, and resellers. The Micron Defendants were aware that the '188 Patent Accused Flash
21 Products were always made using the same fabrication methods under the Micron Defendants' direction
22 and control such that the Micron Defendants' customers infringed one or more claims of the '188 patent
23 by incorporating such NAND Flash semiconductor devices in other products, and that subsequent
24 importation, sale, and use of such products in the United States was a direct infringement of the '188
25 patent.

26 63. The Micron Defendants have directly benefitted from and have actively and knowingly
27 encouraged customers', resellers', and users' importation of these products into the United States and sale
28 and use within the United States. The Micron Defendants have actively encouraged customers and

1 downstream users, OEMs, and resellers to import, use, and sell in the United States the '188 Patent
2 Accused Flash Products that they manufacture and supply, including through advertising, marketing, and
3 sales activities directed at United States sales. On information and belief, the Micron Defendants are aware
4 of the size and importance of the United States market for customers of the Micron Defendants' products,
5 and have also distributed or supplied these products intended for importation, use, and sale in the United
6 States. The Micron Defendants routinely marketed their infringing NAND Flash memory products to third
7 parties for inclusion in products that were sold to customers in the United States, as well as directly to end
8 user customers. MTI has publicly stated that its Flash products have been primarily targeted for mobile
9 phones, SSDs, tablets, computers, industrial and automotive applications, removable storage devices,
10 SSDs, and MCP products, all of which have been widely sold and used in the United States. The Micron
11 Defendants have had numerous direct sales, distributors, and reseller outlets for these products in the
12 United States. The Micron Defendants' marketing efforts show that they have specifically intended to
13 induce and have induced direct infringement in the United States.

14 64. The Micron Defendants have also provided OEMs, manufacturers, importers, resellers,
15 customers, and end users instructions, user guides, and technical specifications on how to incorporate the
16 '188 Patent Accused Flash Products into electronics products that are made, used, sold, offered for sale
17 in, and/or imported into the United States. The Micron Defendants have known that their OEMs,
18 manufacturers, importers, resellers, customers, and end users have followed such instructions, user guides,
19 and technical specifications and have embedded the products in end products and have made, used, offered
20 to sell, sold, or imported them into the United States to directly infringe one or more claims of the '188
21 patent. On information and belief, MTI and MCPG have provided technical support for the Micron
22 Defendants' '188 Patent Accused Flash Products in the United States. The Micron Defendants thus have
23 known that their actions actively induced infringement.

24 65. The Micron Defendants have engaged in additional activities to specifically target the
25 United States market for the '188 Patent Accused Flash products and actively induce OEMs,
26 manufacturers, importers, resellers, customers, and end users to directly infringe one or more claims of
27 the '188 patent in the United States. For example, the Micron Defendants have showcased their NAND
28 Flash memory technologies at various industry events, such as CES and the Flash Memory Summit, and

1 through written materials distributed in the United States, in an effort to encourage various OEMs,
2 manufacturers, importers, resellers, customers, and end users to include the infringing technology in their
3 computers, mobile devices, removable storage devices, and other products. These events are attended by
4 the direct infringers mentioned above and generally by companies that make, use, offer to sell, or sell in
5 the United States, or import into the United States, products that use NAND Flash memory components
6 such as those made by the Micron Defendants. The Micron Defendants' website also enables customers
7 to locate United States based distributors of Micron products, such as Arrow Electronics, Inc., Avnet,
8 Digi-Key, Edge Electronics, Phoenix Electronics, and WPG.

9 66. The Micron Defendants have derived significant revenue by selling their NAND Flash
10 memory products to third parties who have directly infringed the '188 patent in the United States. Further,
11 MTI has stated publicly that it has partnered with Intel for design, development, and manufacture of
12 NAND Flash semiconductor devices and has sold its NAND Flash products to Intel through its partnership
13 with Intel. The Micron Defendants have known that after selling NAND Flash to Intel, Intel would
14 incorporate the NAND Flash and directly infringe one or more claims of the '188 patents. The Micron
15 Defendants thus knew that these actions would actively induce infringement.

16 67. The Micron Defendants' extensive sales and marketing efforts, sales volume, and
17 partnerships all evidence their intent to have induced companies to infringe one or more claims of the '188
18 patent by, using, offering to sell, selling, or importing products that incorporate the '188 Patent Accused
19 Flash Products in the United States. The Micron Defendants have had specific intent to induce
20 infringement or have been willfully blind to the direct infringement they are inducing.

21 68. The Micron Defendants' direct and indirect infringement of the '188 patent has injured
22 Lone Star, and Lone Star is entitled to recover damages adequate to compensate for such infringement
23 pursuant to 35 U.S.C. § 284.

24 69. On information and belief, Defendant MTI, including its subsidiaries MSP, MCPG, and
25 Micron Japan, acted egregiously and with willful misconduct in that their actions constituted direct or
26 indirect infringement of a valid patent, and this was either known or so obvious that the Micron Defendants
27 should have known about it. The Micron Defendants continued to infringe the '188 patent by making,
28 using, selling, offering for sale, and importing in the United States the '188 Patent Accused Flash Products

1 and to induce the direct infringement of others performing these acts, or they have acted at least in reckless
2 disregard of Lone Star's patent rights. On information and belief, the Micron Defendants continued their
3 infringement notwithstanding actual knowledge of the '188 patent and without a good faith basis to believe
4 that their activities did not infringe any valid claim of the '188 patent. All infringement of the '188 patent
5 following the Micron Defendants' knowledge of the '188 patent is willful and Lone Star is entitled to
6 treble damages and attorneys' fees and costs incurred in this action under 35 U.S.C. §§ 284 and 285.

7 **SECOND CAUSE OF ACTION – INFRINGEMENT OF THE '085 PATENT**

8 70. Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs 1 to 53, as if
9 fully set forth herein.

10 71. The Micron Defendants, directly and/or through their subsidiaries, affiliates, agents, and/or
11 business partners, have directly infringed the '085 patent, including at least claims 1, 3, 4, and 6, pursuant
12 to 35 U.S.C. § 271(a) by making, using, selling, offering to sell, and/or importing NAND and NOR Flash
13 memory semiconductor devices that embody the inventions claimed in the '085 patent, within the United
14 States and within this District. In violation of the '085 patent, the Micron Defendants' accused NAND
15 and NOR Flash memory devices include these features: (a) a core region including a stacked gate flash
16 memory cell structure and a select gate transistor, and a periphery region including a low voltage transistor
17 and a high voltage transistor; and (b) the select gate transistor and the low voltage transistor both have a
18 gate oxide layer and a gate electrode layer; and (c) a thickness of the gate oxide layer of the select gate
19 transistor and the low voltage transistor are substantially the same; and (d) a thickness of the gate electrode
20 layer of the select gate transistor and the low voltage transistor are substantially the same. The Micron
21 Defendants have further directly infringed the '085 patent because these devices include these additional
22 features: (e) a tunnel oxide layer; (f) a floating gate layer overlying the tunnel oxide layer; (g) an insulating
23 layer overlying the floating gate layer; (h) a control gate layer overlying the insulating layer; (i) the high
24 voltage transistor having a structure comprising a gate oxide layer of about 400 Å and a conductive gate
25 region overlying the gate oxide layer; and/or (j) a plurality of select gate transistors that share a common
26 conductive gate region to form a select gate word line.

27 72. The Micron Defendants have been engaged in one or more of these direct infringing
28 activities related to their NAND and NOR Flash memory semiconductor devices, including at least their

1 Flash Products, including SLC NAND, MLC NAND, TLC NAND, Serial NAND, Parallel NOR Flash,
2 Serial NOR Flash, and XTRMFlash products, whether sold in packaged form, unpackaged form, die form
3 or wafer form; managed Flash Products incorporating such Flash Products, such as their e-MMC and
4 Embedded USB products; multichip packages incorporating such Flash Products, such as their e.MMC-
5 Based MCP, NAND-Based MCP, and NOR-Based MCP products; solid state drives incorporating such
6 NAND Flash Products, such as their 9100 PCIe® NVMe™ SSD, S600DC, M600, M500DC, and
7 M510DC solid state drives; all other NAND and NOR Flash memory devices having a select gate
8 transistor, a low voltage transistor, and a high voltage transistor with gate oxide layers and gate electrode
9 layers of thicknesses in accordance with the structures of the asserted claims of the '085 Patent, a
10 representative example being the NAND Flash memory device having die markings Intel L95B
11 2012(M)(C), made using the Micron Defendants' 16-nanometer processing node ("the '085 Patent
12 Accused Flash Products"). The claim charts attached as Exhibit 8 identify specifically where each element
13 of each asserted claim is found within the '085 Patent Accused Flash Products. The device depicted in
14 Exhibit 8 is a NAND Flash memory device made using a 16-nanometer processing node. The charts
15 further identify the critical characteristics of the '085 Patent Accused Flash Products and describe why all
16 of the accused products infringe under the theories identified in the charts.

17 73. On information and belief, the infringement analysis depicted in Exhibit 8 is representative
18 of all other '085 Patent Accused Flash Products made using Micron's 16-nanometer process node
19 technology. A process node is a standard process used across different products sharing a common feature
20 size. The use of process nodes is common in the semiconductor fabrication industry because they allow
21 for processes to be standardized and controlled. Therefore, all '085 Patent Accused Flash Products made
22 using Micron's 16-nanometer process node infringe in the same way and include the same critical
23 characteristics of having a select gate transistor, a low voltage transistor, and a high voltage transistor with
24 gate oxide layers and gate electrode layers of thicknesses in accordance with the structures of the asserted
25 claims of the '085 Patent. On information and belief, Micron has made, sold, offered for sale, and
26 imported '085 Patent Accused Flash Products that were fabricated using other process nodes, including
27 but not limited to, 20-nanometer and 12-nanometer process nodes. New process nodes evolve over time
28 based on existing process nodes; one process node is the basis for the next. With respect to the critical

1 characteristics of the asserted claims of the '085 patent, the process steps used in Micron's 20, 16, and 12-
2 nanometer process nodes are substantially similar, and the semiconductor devices resulting from those
3 process nodes have substantially similar structures with respect to the critical characteristics. Therefore,
4 on information and belief, the semiconductor devices of the 20-nanometer and 12-nanometer process
5 nodes include the same critical characteristics as the representative device of the 16-nanometer process
6 shown in Exhibit 8.

7 74. The Micron Defendants, directly and/or through their subsidiaries, affiliates, agents, and/or
8 business partners, have indirectly infringed the '085 patent, including at least claims 1, 3, 4, and 6,
9 pursuant to 35 U.S.C. § 271(b) by actively inducing acts of direct infringement performed by others. The
10 Micron Defendants received actual notice of the '085 patent and of Lone Star's infringement allegations
11 at least upon the service of the complaint filed on October 7, 2016 in the *Micron I* Action. Upon
12 information and belief, MTI has numerous lawyers and other active agents of MTI and of its owned and
13 controlled subsidiaries who regularly review patents and published patent applications relevant to
14 technology in the fields of the Patents in Suit, specifically including patents directed to semiconductor
15 memory devices issued to competitors such as AMD, the original assignee of the '085 patent. Upon
16 information and belief, MTI itself has been issued over 24,000 patents, including over 400 patents
17 prosecuted in the USPTO in the same classifications as the '085 patent, giving the Micron Defendants
18 intimate knowledge of the art in fields relevant to this civil action. MTI has had previous actual notice of
19 the '085 patent prior to service of the complaint in the *Micron I* Action at least through its efforts to patent
20 related technologies. The '085 patent is listed on the face of U.S. Patent No. 6,191,444 ("the '444 patent")
21 issued to Defendant MTI on February 20, 2001, indicating that it was among the references cited against
22 and considered by the USPTO and MTI during prosecution of '444 patent. Accordingly, MTI has had
23 actual notice of the '085 patent since at least the issue date of the '444 patent. The '085 patent is also listed
24 on the face of U.S. Patent No. 6,414,351, issued to MTI on July 2, 2002, and on the face of U.S. Patent
25 No. 6,551,878, issued to MTI on April 22, 2003, demonstrating that MTI had further notice of the '085
26 patent well prior to the commencement of the *Micron I* Action. The timing, circumstances, and extent of
27 MTI and its subsidiaries MSP, MCPG, and Micron Japan obtaining actual knowledge of the '085 patent
28 prior to the commencement of this lawsuit will be confirmed during discovery.

1 75. Upon gaining knowledge of the '085 patent, it was, or became, apparent to the Micron
2 Defendants that the manufacture, sale, importation, offer for sale and use of their '085 Patent Accused
3 Flash Products resulted in infringement of the '085 patent. Upon information and belief, the Micron
4 Defendants continued to engage in activities constituting inducement of infringement, notwithstanding
5 their knowledge, or willful blindness thereto, that the activities they induced resulted in infringement of
6 the '085 patent.

7 76. The '085 Patent Accused Flash Products are intended for integration into products known
8 to be sold widely in the United States. MTI and/or its subsidiaries make Flash semiconductor devices that
9 embody the inventions claimed in the '085 patent, which devices infringed when they were imported into,
10 or sold, used, or offered for sale in, the United States. The Micron Defendants have indirectly infringed
11 by inducing customers (such as makers of mobile devices, desktop computers, and other devices that use
12 Flash memory) to import products that integrate Flash semiconductor devices embodying inventions
13 claimed in the '085 patent, or to sell or use such products, or offer them for sale, in the United States. For
14 example, the Micron Defendants have induced third party manufacturers, original equipment
15 manufacturers (OEMs), importers, resellers, and other customers who purchase devices manufactured at
16 Micron Japan's and other overseas facilities of MTI's owned and controlled subsidiaries, or supplied under
17 agreements with partner foundries, to import devices embodying inventions claimed in the '085 patent, or
18 to sell or use such devices, or offer them for sale in the United States without authority.

19 77. The Micron Defendants have encouraged customers, resellers, OEMs, or others to import
20 into the United States and sell and use in the United States the '085 Patent Accused Flash Products
21 embodying inventions claimed in the '085 patent with knowledge and the specific intent to cause the acts
22 of direct infringement performed by these third parties. On information and belief, after the Micron
23 Defendants obtained knowledge of the '085 patent, the '085 Patent Accused Flash Products have been
24 imported into the United States and sold in large volumes by themselves and by others, such as customers,
25 distributors, and resellers. The Micron Defendants were aware that the '085 Patent Accused Flash
26 Products were integral components of the computer and mobile products incorporating them, that the
27 infringing Flash Products were built into the computer and other products, and could not be removed or
28 disabled by a purchaser of the consumer products containing the infringing Flash memory devices, such

1 that the Micron Defendants' customers infringed one or more claims of the '085 patent by incorporating
2 such Flash semiconductor devices in other products, and that subsequent importation, sale, and use of such
3 products in the United States was a direct infringement of the '085 patent.

4 78. The Micron Defendants have directly benefitted from and have actively and knowingly
5 encouraged customers', resellers', and users' importation of these products into the United States and sale
6 and use within the United States. The Micron Defendants have actively encouraged customers and
7 downstream users, OEMs, and resellers to import, use, and sell in the United States the '085 Patent
8 Accused Flash Products that they manufacture and supply, including through advertising, marketing, and
9 sales activities directed at United States sales. On information and belief, the Micron Defendants are aware
10 of the size and importance of the United States market for customers of the Micron Defendants' products,
11 and have also distributed or supplied these products intended for importation, use, and sale in the United
12 States. The Micron Defendants routinely marketed their infringing NAND and NOR Flash memory
13 products to third parties for inclusion in products that are sold to customers in the United States, as well
14 as directly to end user customers. MTI has publicly stated that its Flash products have been primarily
15 targeted for mobile phones, SSDs, tablets, computers, industrial and automotive applications, removable
16 storage devices, SSDs and MCP products, all of which have been widely sold and used in the United
17 States. The Micron Defendants have numerous direct sales, distributors, and reseller outlets for these
18 products in the United States. The Micron Defendants' marketing efforts show that they have specifically
19 intended to induce and have induced direct infringement in the United States.

20 79. The Micron Defendants have also provided OEMs, manufacturers, importers, resellers,
21 customers, and end users instructions, user guides, and technical specifications on how to incorporate the
22 '085 Patent Accused Flash Products into electronics products that were made, used, sold, offered for sale
23 in, and/or imported into the United States. The Micron Defendants have known that their OEMs,
24 manufacturers, importers, resellers, customers, and end users have followed such instructions, user guides,
25 and technical specifications, and have embedded the products in end products, and have made, used,
26 offered to sell, sold, or imported into the United States to directly infringe one or more claims of the '085
27 patent. On information and belief, MTI and MCPG provided technical support for the Micron Defendants'

1 '085 Patent Accused Flash Products in the United States. The Micron Defendants thus have known that
2 their actions have actively induced infringement.

3 80. The Micron Defendants have engaged in additional activities to specifically target the
4 United States market for the '085 Patent Accused Flash Products and actively induce OEMs,
5 manufacturers, importers, resellers, customers, and end users to directly infringe one or more claims of
6 the '085 patent in the United States. For example, the Micron Defendants have showcased their NAND
7 and NOR Flash memory technologies at various industry events, such as at CES and the Flash Memory
8 Summit, and through written materials distributed in the United States, in an effort to encourage various
9 OEMs, manufacturers, importers, resellers, customers, and end users to include the infringing technology
10 in their computers, mobile devices, removable storage devices, and other products. These events are
11 attended by the direct infringers mentioned above and generally by companies that make, use, offer to
12 sell, or sell in the United States, or import into the United States, products that use NAND or NOR Flash
13 memory components, such as those made by the Micron Defendants. The Micron Defendants' website
14 also enables customers to locate United States based distributors of Micron products, such as Arrow
15 Electronics, Inc., Avnet, Digi-Key, Edge Electronics, Phoenix Electronics, and WPG.

16 81. The Micron Defendants have derived significant revenue by selling the '085 Patent
17 Accused Flash Products to third parties who have directly infringed the '085 patent in the United States.
18 Further, MTI has stated publicly that it has partnered with Intel for design, development, and manufacture
19 of NAND Flash semiconductor devices and has sold its NAND Flash products to Intel through its
20 partnership with Intel. The Micron Defendants have known that after selling NAND Flash to Intel, Intel
21 would incorporate the NAND Flash and directly infringe one or more claims of the '085 patent. The
22 Micron Defendants thus know that these actions actively induce infringement.

23 82. The Micron Defendants' extensive sales and marketing efforts, sales volume, and
24 partnerships all evidence their intent to induce companies to infringe one or more claims of the '085 patent
25 by using, offering to sell, or selling in the United States, or importing into the United States, products that
26 incorporate the '085 Patent Accused Flash Products. The Micron Defendants have had specific intent to
27 induce infringement or have been willfully blind to the direct infringement that they have induced.

1 83. Upon information and belief, the Micron Defendants have continued to engage in activities
2 constituting contributory infringement of the '085 patent, including at least claims 1, 3, 4, and 6, pursuant
3 to 35 U.S.C. § 271(c). The Micron Defendants have contributorily infringed with knowledge that the '085
4 Patent Accused Flash Products, or the use thereof, infringe the '085 patent. The Micron Defendants
5 knowingly and intentionally contributed to the direct infringement of the '085 patent by others, by
6 supplying these Flash memory chipset products that embody a material part of the claimed invention of
7 the '085 patent, that are known by the Micron Defendants to have been specially made or adapted for use
8 in an infringing manner. For example, and without limitation, the '085 Patent Accused Flash Products are
9 used in end products, including solid state drives, thumb drives, computers, laptops, and mobile
10 telephones. The '085 Patent Accused Flash Products are not staple articles or commodities of commerce
11 suitable for non-infringing use and are especially made for or adapted for use in infringing the '085 patent.
12 There are no substantial uses of the '085 Patent Accused Flash Products that do not infringe the '085
13 patent. By contributing a material part of the infringing computing products sold, offered for sale, imported
14 and used by their customers, resellers and users, the Micron Defendants have been indirectly infringing
15 the '085 patent under 35 U.S.C. § 271(c).

16 84. The Micron Defendants' direct and indirect infringement of the '085 patent has injured
17 Lone Star, and Lone Star is entitled to recover damages adequate to compensate for such infringement
18 pursuant to 35 U.S.C. § 284.

19 85. On information and belief, Defendant MTI, including its subsidiaries MSP, MCPG, and
20 Micron Japan, acted egregiously and with willful misconduct in that their actions constituted direct or
21 indirect infringement of a valid patent, and this was either known or so obvious that the Micron Defendants
22 should have known about it. The Micron Defendants continued to infringe the '085 patent by making,
23 using, selling, offering for sale, and importing into the United States the '085 Patent Accused Flash
24 Products, and to induce the direct infringement of others performing these acts, or they have acted at least
25 in reckless disregard of Lone Star's patent rights. On information and belief, the Micron Defendants
26 continued their infringement notwithstanding actual knowledge of the '085 patent and without a good
27 faith basis to believe that their activities did not infringe any valid claim of the '085 patent. All
28 infringement of the '085 patent following the Micron Defendants' knowledge of the '085 patent is willful

1 and Lone Star is entitled to treble damages and attorneys' fees and costs incurred in this action under 35
2 U.S.C. §§ 284 and 285.

3 **THIRD CAUSE OF ACTION – INFRINGEMENT OF THE '061 PATENT**

4 86. Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs 1 to 53, as if
5 fully set forth herein.

6 87. The Micron Defendants, directly and/or through their subsidiaries, affiliates, agents, and/or
7 business partners, have in the past and continue to directly infringe the '061 patent, including at least
8 claims 1, 3, 4, 11, 13 and 14, pursuant to 35 U.S.C. § 271(a) by making, using, selling, offering to sell
9 and/or importing DRAM memory semiconductor devices that embody the inventions claimed in the '061
10 patent, within the United States and within this District. In violation of the '061 patent, the Micron
11 Defendants' accused DRAM memory devices include these features: (a) a semiconductor substrate of a
12 first conductivity type; (b) a source region of a second conductivity type in the semiconductor substrate;
13 (c) a drain region of the second conductivity type spaced from the source region in the semiconductor
14 substrate; (d) a trench having substantially upright vertical surfaces and a bottom surface formed in the
15 semiconductor substrate intermediate the source and drain regions; (e) a channel region formed in the
16 semiconductor substrate and forming a contiguous region beneath the bottom surface of the trench and
17 immediately contiguous to the source and drain regions; (f) a trench-to-gate insulating layer formed on
18 the substantially upright vertical surfaces and the bottom surface inside the trench and forming a
19 contiguous layer inside the trench; and (g) a trenched gate electrode having a top surface and formed on
20 the trench-to-gate insulating layer inside the trench. The Micron Defendants further directly infringe the
21 '061 patent because its devices include these additional features: (h) the first conductivity type being p-
22 type and the second conductivity type being n-type; (i) a trench spacer dielectric layer formed on the
23 substantially upright vertical surfaces inside the trench; and (j) a trench dielectric formed on the bottom
24 surface inside the trench.

25 88. The Micron Defendants have been and are engaged in one or more of these direct infringing
26 activities related to their DRAM memory semiconductor devices, including at least their DRAM Products,
27 including DDR4 SDRAM, DDR3 SDRAM, DDR2 SDRAM, DDR SDRAM, SDRAM, GDDR,
28 RLD RAM and LPDRAM, whether sold in packaged form, unpackaged form, die form or wafer form;

1 DRAM modules incorporating such DRAM Products, such as their FBDIMM, RDIMM, VLP RDIMM,
2 VLP UDIMM, UDIMM, SODIMM, SORDIMM, VLP Mini-DIMM, LRDIMM, Mini-DIMM, and
3 NVDIMM modules; multichip packages incorporating such DRAM Products, such as their e.MMC-Based
4 MCP, NAND-Based MCP, and NOR-Based MCP products; all other DRAM memory devices with
5 transistors having a trenched gate formed in a trench of a semiconductor substrate in accordance with the
6 structures of the asserted claims of the '061 patent, a representative example being the DDR3 SDRAM
7 memory device, product number MT41K512M8RH-125, made using the Micron Defendants' 30-
8 nanometer processing node ("the '061 Patent Accused DRAM Products"). The claim charts attached as
9 Exhibit 9 identify specifically where each element of each asserted claim is found within the '061 Patent
10 Accused DRAM Products. The device depicted in Exhibit 9 is a DDR3 SDRAM memory device, product
11 number MT41K512M8RH-125, made using a 30-nanometer processing node. The charts further identify
12 the critical characteristics of the '061 Patent Accused DRAM Products and describe why all of the accused
13 products infringe under the theories identified in the charts.

14 89. On information and belief, the infringement analysis depicted in Exhibit 9 is representative
15 of all other '061 Patent Accused DRAM Products made using Micron's 30-nanometer process node
16 technology. A process node is a standard process used across different products sharing a common feature
17 size. The use of process nodes is common in the semiconductor fabrication industry because they allow
18 for processes to be standardized and controlled. Therefore, all '061 Patent Accused DRAM Products made
19 using Micron's 30-nanometer process node infringe in the same way and include the same critical
20 characteristics of transistors having a trenched gate formed in a trench of a semiconductor substrate in
21 accordance with the structures of the asserted claims of the '061 patent. On information and belief, Micron
22 also makes, sells, offers for sale, and imports '061 Patent Accused DRAM Products that are fabricated
23 using other process nodes, including but not limited to, 42, 30, 25 and 20-nanometer process nodes. New
24 process nodes evolve over time based on existing process nodes; one process node is the basis for the next.
25 With respect to the critical characteristics of the asserted claims of the '061 patent, the process steps used
26 in Micron's 42, 30, 25, and 20-nanometer process nodes are substantially similar, and the semiconductor
27 devices resulting from those process nodes have substantially similar structures with respect to the critical
28 characteristics. Therefore, on information and belief, the semiconductor devices of the 42, 30, 25, and 20-

1 nanometer process nodes include the same critical characteristics as the representative device of the 30-
2 nanometer process node shown in Exhibit 9.

3 90. The Micron Defendants, directly and/or through their subsidiaries, affiliates, agents, and/or
4 business partners, have been and are now indirectly infringing the '061 patent, including at least claims 1,
5 3, 4, 11, 13 and 14, pursuant to 35 U.S.C. § 271(b) by actively inducing acts of direct infringement
6 performed by others. The Micron Defendants received actual notice of the '061 patent and Lone Star's
7 infringement allegations at least upon the service of the complaint filed on October 7, 2016, in the *Micron*
8 *I* Action. Upon information and belief, MTI has numerous lawyers and other active agents of MTI and of
9 its owned and controlled subsidiaries who regularly review patents and published patent applications
10 relevant to technology in the fields of the Patents in Suit, specifically including patents directed to
11 semiconductor memory devices issued to competitors such as AMD, the original assignee of the '061
12 patent. Upon information and belief, MTI itself has been issued over 24,000 patents, including over 150
13 patents prosecuted in the USPTO in the same classifications as the '061 patent, giving the Micron
14 Defendants intimate knowledge of the art in fields relevant to this civil action. The timing, circumstances
15 and extent of MTI and its subsidiaries MSP, MCPG, and Micron Japan obtaining actual knowledge of the
16 '061 patent prior to the commencement of this lawsuit will be confirmed during discovery.

17 91. Upon gaining knowledge of the '061 patent, it was, or became, apparent to the Micron
18 Defendants that the manufacture, sale, importation, offer for sale, and use of their '061 Patent Accused
19 DRAM Products results in infringement of the '061 patent. Upon information and belief, the Micron
20 Defendants have continued and will continue to engage in activities constituting inducement of
21 infringement, notwithstanding their knowledge, or willful blindness thereto, that the activities they induce
22 result in infringement of the '061 patent under 35 U.S.C. § 271(b).

23 92. The '061 Patent Accused DRAM Products are intended for integration into products known
24 to be sold widely in the United States. MTI and/or its subsidiaries make DRAM semiconductor devices
25 that embody the inventions claimed in the '061 patent, which devices infringe when they are imported
26 into, or sold, used, or offered for sale in, the United States. The Micron Defendants indirectly infringe by
27 inducing customers (such as makers of mobile devices, desktop computers, and other devices that use
28 DRAM memory) to import products that integrate DRAM semiconductor devices embodying inventions

1 claimed in the '061 patent, or to sell or use such products, or offer them for sale, in the United States. For
2 example, the Micron Defendants induce third party manufacturers, original equipment manufacturers
3 (OEMs), importers, resellers, and other customers who purchase devices manufactured at Micron Japan's
4 and other overseas facilities of MTI's owned and controlled subsidiaries, or supplied under agreements
5 with partner foundries, to import devices embodying inventions claimed in the '061 patent, or to sell or
6 use such devices, or offer them for sale in the United States without authority.

7 93. The Micron Defendants encourage customers, resellers, OEMs, or others to import into the
8 United States and sell and use in the United States the '061 Patent Accused DRAM Products embodying
9 inventions claimed in the '061 patent with knowledge and the specific intent to cause the acts of direct
10 infringement performed by these third parties. On information and belief, after the Micron Defendants
11 obtained knowledge of the '061 patent, the '061 Patent Accused DRAM Products have been and will
12 continue to be imported into the United States and sold in large volumes by themselves and by others,
13 such as customers, distributors, and resellers. The Micron Defendants are aware that the '061 Patent
14 Accused DRAM Products are integral components of the computer and mobile products incorporating
15 them, that the infringing DRAM Products are built into the computer and other products, and cannot be
16 removed or disabled by a purchaser of the consumer products containing the infringing DRAM memory
17 devices, such that the Micron Defendants' customers will infringe one or more claims of the '061 patent
18 by incorporating such DRAM semiconductor devices in other products, and that subsequent importation,
19 sale and use of such products in the United States is a direct infringement of the '061 patent.

20 94. The Micron Defendants directly benefit from and actively and knowingly encourage
21 customers', resellers', and users' importation of these products into the United States and sale and use
22 within the United States. The Micron Defendants actively encourage customers and downstream users,
23 OEMs, and resellers to import, use, and sell in the United States the '061 Patent Accused DRAM Products
24 that they manufacture and supply, including through advertising, marketing, and sales activities directed
25 at United States sales. On information and belief, the Micron Defendants are aware of the size and
26 importance of the United States market for customers of the Micron Defendants' products, and also
27 distribute or supply these products intended for importation, use, and sale in the United States. The Micron
28 Defendants routinely market their infringing DRAM memory products to third parties for inclusion in

1 products that are sold to customers in the United States, as well as directly to end user customers. MTI
2 has publicly stated that its DRAM products are primarily targeted for desktop computers, tablet computers,
3 mobile phones, networking devices, servers, and other products, all of which are widely sold and used in
4 the United States. The Micron Defendants have numerous direct sales, distributors, and reseller outlets for
5 these products in the United States. The Micron Defendants' marketing efforts show that they have
6 specifically intended to induce and have induced direct infringement in the United States.

7 95. The Micron Defendants also provide OEMs, manufacturers, importers, resellers,
8 customers, and end users instructions, user guides, and technical specifications on how to incorporate the
9 '061 Patent Accused DRAM Products into electronics products that are made, used, sold, offered for sale
10 in and/or imported into the United States. The Micron Defendants know that their OEMs, manufacturers,
11 importers, resellers, customers, and end users follow such instructions, user guides, and technical
12 specifications and embed the products in end products and make, use, offer to sell, sell, or import into the
13 United States to directly infringe one or more claims of the '061 patent. On information and belief, MTI
14 and MCPG provide technical support for the Micron Defendants' '061 Patent Accused DRAM Products
15 in the United States. The Micron Defendants thus know that their actions actively induce infringement.

16 96. The Micron Defendants have engaged and will continue to engage in additional activities
17 to specifically target the United States market for the '061 Patent Accused DRAM Products and actively
18 induce OEMs, manufacturers, importers, resellers, customers, and end users to directly infringe one or
19 more claims of the '061 patent in the United States. For example, the Micron Defendants have showcased
20 their DRAM memory technologies at various industry events, such as at CES, and through written
21 materials distributed in the United States, in an effort to encourage various OEMs, manufacturers,
22 importers, resellers, customers, and end users to include the infringing technology in their computers,
23 mobile devices, removable storage devices, and other products. These events are attended by the direct
24 infringers mentioned above and generally by companies that make, use, offer to sell, or sell in the United
25 States, or import into the United States, products that use DRAM memory components such as those made
26 by the Micron Defendants. The Micron Defendants' website also enables customers to locate United States
27 based distributors of Micron products, such as Arrow Electronics, Inc., Avnet, Digi-Key, Edge
28 Electronics, Phoenix Electronics, and WPG.

1 97. The Micron Defendants derive significant revenue by selling the '061 Patent Accused
2 DRAM Products to third parties who directly infringe the '061 patent in the United States. The Micron
3 Defendants' extensive sales and marketing efforts, sales volume, and partnerships all evidence their intent
4 to induce companies to infringe one or more claims of the '061 patent by using, offering to sell, or selling
5 in the United States, or importing into the United States, products that incorporate the '061 Patent Accused
6 DRAM Products. The Micron Defendants have had specific intent to induce infringement or have been
7 willfully blind to the direct infringement they are inducing.

8 98. Upon information and belief, the Micron Defendants have continued and will continue to
9 engage in activities constituting contributory infringement of the '061 patent, including at least claims 1,
10 3, 4, 11, 13 and 14, pursuant to 35 U.S.C. § 271(c). The Micron Defendants contributorily infringe with
11 knowledge that the '061 Patent Accused DRAM Products, or the use thereof, infringe the '061 patent. The
12 Micron Defendants knowingly and intentionally contributed to the direct infringement of the '061 patent
13 by others, by supplying these DRAM memory chipset products, that embody a material part of the claimed
14 invention of the '061 patent, that are known by the Micron Defendants to be specially made or adapted
15 for use in an infringing manner. For example, and without limitation, the '061 Patent Accused DRAM
16 Products are used in end products, including computers, laptops, tablets and mobile telephones. The '061
17 Patent Accused DRAM Products are not staple articles or commodities of commerce suitable for non-
18 infringing use and are especially made for or adapted for use in infringing the '061 patent. There are no
19 substantial uses of the '061 Patent Accused DRAM Products that do not infringe the '061 patent. By
20 contributing a material part of the infringing computing products sold, offered for sale, imported, and used
21 by their customers, resellers, and users, the Micron Defendants have been and are now indirectly infringing
22 the '061 patent under 35 U.S.C. § 271(c).

23 99. The Micron Defendants' direct and indirect infringement of the '061 patent has injured
24 Lone Star, and Lone Star is entitled to recover damages adequate to compensate for such infringement
25 pursuant to 35 U.S.C. § 284. Unless they cease their infringing activities, the Micron Defendants will
26 continue to injure Lone Star by infringing the '061 patent.

27 100. On information and belief, Defendant MTI, including its subsidiaries MSP, MCPG, and
28 Micron Japan, acted egregiously and with willful misconduct in that their actions constituted direct or

1 indirect infringement of a valid patent, and this was either known or so obvious that the Micron Defendants
2 should have known about it. The Micron Defendants continue to infringe the '061 patent by making, using,
3 selling, or offering for sale in the United States, and importing into the United States, the '061 Accused
4 DRAM Products and to induce the direct infringement of others performing these acts, or they have acted
5 at least in reckless disregard of Lone Star's patent rights. On information and belief, the Micron
6 Defendants will continue their infringement notwithstanding actual knowledge of the '061 patent and
7 without a good faith basis to believe that their activities do not infringe any valid claim of the '061 patent.
8 All infringement of the '061 patent following the Micron Defendants' knowledge of the '061 patent is
9 willful and Lone Star is entitled to treble damages and attorneys' fees and costs incurred in this action
10 under 35 U.S.C. §§ 284 and 285.

11 **FOURTH CAUSE OF ACTION – INFRINGEMENT OF THE '330 PATENT**

12 101. Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs 1 to 53, as if
13 fully set forth herein.

14 102. The Micron Defendants, directly and/or through their subsidiaries, affiliates, agents, and/or
15 business partners, have in the past and continue to directly infringe the '330 patent, including at least
16 claims 1 and 2, pursuant to 35 U.S.C. § 271(a) by making, using, selling, or offering to sell in the United
17 States and within this District, and/or importing into the United States and within this District, DRAM
18 memory semiconductor devices that embody the inventions claimed in the '330 patent. In violation of the
19 '330 patent, the Micron Defendants' accused DRAM memory devices include these features: (a) a
20 semiconductor substrate having a semiconductor device provided thereon; (b) a first dielectric layer
21 formed over the semiconductor substrate having a first opening; (c) a first conductor core filling the first
22 opening and connected to the semiconductor device; (d) an etch stop layer of silicon nitride formed over
23 the first dielectric layer and the first conductor core, the etch stop layer having a dielectric constant below
24 5.5; (e) a second dielectric layer formed over the etch stop layer and having a second opening open to the
25 first conductor core; and (f) a second conductor core filling the second opening and connected to the first
26 conductor core. The Micron Defendants further directly infringe the '330 patent because its devices
27 include the additional feature: (g) the etch stop layer being in the form of a multilayer structure.

1 103. The Micron Defendants have been and are engaged in one or more of these direct infringing
2 activities related to their DRAM memory semiconductor devices, including at least their DRAM Products,
3 including DDR4 SDRAM, DDR3 SDRAM, DDR2 SDRAM, DDR SDRAM, SDRAM, GDDR,
4 RLD RAM, and LPDRAM, whether sold in packaged form, unpackaged form, die form, or wafer form;
5 DRAM modules incorporating such DRAM Products, such as their FBDIMM, RDIMM, VLP RDIMM,
6 VLP UDIMM, UDIMM, SODIMM, SORDIMM, VLP Mini-DIMM, LRDIMM, Mini-DIMM and
7 NVDIMM modules; multichip packages incorporating such DRAM Products, such as their e.MMC-Based
8 MCP, NAND-Based MCP and NOR-Based MCP products; all other DRAM memory devices having
9 transistor interconnects formed with a silicon nitride etch stop layer having a dielectric constant of less
10 than 5.5 and designed in accordance with the asserted claims of the '330 patent, a representative example
11 being the DDR3 SDRAM memory device, product number MT41K512M8RH-125, made using the
12 Micron Defendants' 30-nanometer processing node ("the '330 Patent Accused DRAM Products"). The
13 claim charts attached as Exhibit 10 identify specifically where each element of each asserted claim is
14 found within the '330 Patent Accused DRAM Products. The device depicted in Exhibit 10 is a DDR3
15 SDRAM memory device, product number MT41K512M8RH-125, made using a 30-nanometer processing
16 node. The charts further identify the critical characteristics of the '330 Patent Accused DRAM Products
17 and describe why all of the accused products infringe under the theories identified in the charts.

18 104. On information and belief, the infringement analysis depicted in Exhibit 10 is
19 representative of all other '330 Patent Accused DRAM Products made using Micron's 30-nanometer
20 process node technology. A process node is a standard process used across different products sharing a
21 common feature size. The use of process nodes is common in the semiconductor fabrication industry
22 because they allow for processes to be standardized and controlled. Therefore, all '330 Patent Accused
23 DRAM Products made using Micron's 30-nanometer process node infringe in the same way and include
24 the same critical characteristics of transistors having transistor interconnects formed with a silicon nitride
25 etch stop layer having a dielectric constant of less than 5.5 and designed in accordance with the asserted
26 claims of the '330 patent. On information and belief, Micron also makes, sells, offers for sale, and imports
27 '330 Patent Accused DRAM Products that are fabricated using other process nodes, including but not
28 limited to, 42, 30, 25, and 20-nanometer process nodes. New process nodes evolve over time based on

1 existing process nodes; one process node is the basis for the next. With respect to the critical characteristics
2 of the asserted claims of the '330 patent, the process steps used in Micron's 42, 30, 25, and 20-nanometer
3 process nodes are substantially similar, and the semiconductor devices resulting from those process nodes
4 have substantially similar structures with respect to the critical characteristics. Therefore, on information
5 and belief, the semiconductor devices of the 42, 30, 25, and 20-nanometer process nodes include the same
6 critical characteristics as the representative device of the 30-nanometer process shown in Exhibit 10.

7 105. The Micron Defendants have also been and are engaged in one or more of these direct
8 infringing activities related to their NAND Flash memory semiconductor devices, including at least their
9 NAND Flash Products, including SLC NAND, MLC NAND, TLC NAND and Serial NAND products,
10 whether sold in packaged form, unpackaged form, die form, or wafer form; managed NAND Flash
11 Products incorporating such NAND flash products, such as their e-MMC and Embedded USB products;
12 multichip packages incorporating such NAND Flash Products, such as their e.MMC-Based MCP and
13 NAND-Based MCP products; solid state drives incorporating such NAND Flash Products, such as their
14 9100 PCIe® NVMe™ SSD, S600DC, M600, M500DC, and M510DC solid state drives; all other NAND
15 or NOR Flash memory devices having transistor interconnects connects formed with a silicon nitride etch
16 stop layer having a dielectric constant of less than 5.5 and designed in accordance with the asserted claims
17 of the '330 patent, a representative example being the NAND Flash memory device having die markings
18 Intel L95B 2012(M)(C), made using the Micron Defendants' 16-nanometer process node, which has a
19 transistor structure believed to also apply to NOR Flash products ("the '330 Patent Accused Flash
20 Products"). The claim charts attached as Exhibit 11 identify specifically where each element of each
21 asserted claim is found within the '330 Patent Accused Flash Products. The device depicted in Exhibit 11
22 is a NAND Flash memory device made using a 16-nanometer processing node. The charts further identify
23 the critical characteristics of the '330 Patent Accused Flash Products and describe why all of the accused
24 products infringe under the theories identified in the charts.

25 106. On information and belief, the infringement analysis depicted in Exhibit 11 is
26 representative of all other '330 Patent Accused Flash Products made using Micron's 16-nanometer process
27 node technology. A process node is a standard process used across different products sharing a common
28 feature size. The use of process nodes is common in the semiconductor fabrication industry because they

1 allow for processes to be standardized and controlled. Therefore, all '330 Patent Accused Flash Products
2 made using Micron's 16-nanometer process node infringe in the same way and include the same critical
3 characteristics of transistors having transistor interconnects formed with a silicon nitride etch stop layer
4 having a dielectric constant of less than 5.5 and designed in accordance with the asserted claims of the
5 '330 patent. On information and belief, Micron also makes, sells, offers for sale, and imports '330 Patent
6 Accused Flash Products that are fabricated using other process nodes, including but not limited to, 20-
7 nanometer and 12-nanometer process nodes. New process nodes evolve over time based on existing
8 process nodes; one process node is the basis for the next. With respect to the critical characteristics of the
9 asserted claims of the '330 patent, the process steps used in Micron's 20, 16, and 12-nanometer process
10 nodes are substantially similar, and the semiconductor devices resulting from those process nodes have
11 substantially similar structures with respect to the critical characteristics. Therefore, on information and
12 belief, the semiconductor devices of the 20-nanometer and 12-nanometer process nodes include the same
13 critical characteristics as the representative device of the 16-nanometer process shown in Exhibit 11.

14 107. The Micron Defendants, directly and/or through their subsidiaries, affiliates, agents, and/or
15 business partners, have been and are now indirectly infringing the '330 patent, including at least claims 1
16 and 2, pursuant to 35 U.S.C. § 271(b) by actively inducing acts of direct infringement performed by others.
17 The Micron Defendants received actual notice of the '330 patent and of Lone Star's infringement
18 allegations at least upon the service of the complaint filed on October 7, 2016, in the *Micron I* Action.
19 Upon information and belief, MTI has numerous lawyers and other active agents of MTI and of its owned
20 and controlled subsidiaries who regularly review patents and published patent applications relevant to
21 technology in the fields of the Patents in Suit, specifically including patents directed to semiconductor
22 memory devices issued to competitors such as AMD, the original assignee of the '330 patent. Upon
23 information and belief, MTI itself has been issued over 24,000 patents, including over 500 patents
24 prosecuted in the USPTO in the same classifications as the '330 patent, giving the Micron Defendants
25 intimate knowledge of the art in fields relevant to this civil action. The timing, circumstances and extent
26 of MTI and its subsidiaries MSP, MCPG, and Micron Japan obtaining actual knowledge of the '330 patent
27 prior to the commencement of this lawsuit will be confirmed during discovery.

1 108. Upon gaining knowledge of the '330 patent, it was, or became, apparent to the Micron
2 Defendants that the manufacture, sale, importation, offer for sale, and use of their '330 Patent Accused
3 DRAM Products and '330 Patent Accused Flash Products results in infringement of the '330 patent. Upon
4 information and belief, the Micron Defendants have continued and will continue to engage in activities
5 constituting inducement of infringement, notwithstanding their knowledge, or willful blindness thereto,
6 that the activities they induce result in infringement of the '330 patent under 35 U.S.C. § 271(b).

7 109. The '330 Patent Accused DRAM Products and '330 Patent Accused Flash Products are
8 intended for integration into products known to be sold widely in the United States. MTI and/or its
9 subsidiaries make DRAM and Flash semiconductor devices that embody the inventions claimed in the
10 '330 patent, which devices infringe when they are imported into, or sold, used, or offered for sale in, the
11 United States. The Micron Defendants indirectly infringe by inducing customers (such as makers of
12 mobile devices, desktop computers and other devices that use DRAM and Flash memory) to import
13 products that integrate DRAM and Flash semiconductor devices embodying inventions claimed in the
14 '330 patent, or to sell or use such products, or offer them for sale, in the United States. For example, the
15 Micron Defendants induce third party manufacturers, original equipment manufacturers (OEMs),
16 importers, resellers, and other customers who purchase devices manufactured at Micron Japan's and other
17 overseas facilities of MTI's owned and controlled subsidiaries, or supplied under agreements with partner
18 foundries, to import devices embodying inventions claimed in the '330 patent, or to sell or use such
19 devices, or offer them for sale in the United States without authority.

20 110. The Micron Defendants encourage customers, resellers, OEMs, or others to import into the
21 United States and sell and use in the United States the '330 Patent Accused DRAM Products and '330
22 Patent Accused Flash Products embodying inventions claimed in the '330 patent with knowledge and the
23 specific intent to cause the acts of direct infringement performed by these third parties. On information
24 and belief, after the Micron Defendants obtained knowledge of the '330 patent, the '330 Patent Accused
25 DRAM Products and '330 Patent Accused Flash Products have been and will continue to be imported into
26 the United States and sold in large volumes by themselves and by others, such as customers, distributors,
27 and resellers. The Micron Defendants are aware that the '330 Patent Accused DRAM Products and '330
28 Patent Accused Flash Products are integral components of the computer and mobile products

1 incorporating them, that the infringing Products are built into the computer and other products, and cannot
2 be removed or disabled by a purchaser of the consumer products containing the infringing DRAM and
3 Flash memory devices, such that the Micron Defendants' customers will infringe one or more claims of
4 the '330 patent by incorporating such DRAM semiconductor devices in other products, and that
5 subsequent importation, sale, and use of such products in the United States is a direct infringement of the
6 '330 patent.

7 111. The Micron Defendants directly benefit from and actively and knowingly encourage
8 customers', resellers', and users' importation of these products into the United States and sale and use
9 within the United States. The Micron Defendants actively encourage customers and downstream users,
10 OEMs, and resellers to import, use, and sell in the United States the '330 Patent Accused DRAM Products
11 and '330 Patent Accused Flash Products that they manufacture and supply, including through advertising,
12 marketing, and sales activities directed at United States sales. On information and belief, the Micron
13 Defendants are aware of the size and importance of the United States market for customers of the Micron
14 Defendants' products, and also distribute or supply these products intended for importation, use, and sale
15 in the United States. The Micron Defendants routinely market their infringing DRAM and Flash memory
16 products to third parties for inclusion in products that are sold to customers in the United States, as well
17 as directly to end user customers. MTI has publicly stated that its DRAM and Flash products are primarily
18 targeted for desktop computers, tablet computers, mobile phones, networking devices, servers, and other
19 products, all of which are widely sold and used in the United States. The Micron Defendants have
20 numerous direct sales, distributors, and reseller outlets for these products in the United States. The Micron
21 Defendants' marketing efforts show that they have specifically intended to induce and have induced direct
22 infringement in the United States.

23 112. The Micron Defendants also provide OEMs, manufacturers, importers, resellers,
24 customers, and end users instructions, user guides, and technical specifications on how to incorporate the
25 '330 Patent Accused DRAM Products and '330 Patent Accused Flash Products into electronics products
26 that are made, used, sold, offered for sale in and/or imported into the United States. The Micron
27 Defendants know that their OEMs, manufacturers, importers, resellers, customers, and end users follow
28 such instructions, user guides, and technical specifications and embed the products in end products and

1 make, use, offer to sell, or sell in the United States, or import into the United States, to directly infringe
2 one or more claims of the '330 patent. On information and belief, MTI and MCPG provide technical
3 support for the Micron Defendants' '330 Patent Accused DRAM Products and '330 Patent Accused Flash
4 Products in the United States. The Micron Defendants thus know that their actions actively induce
5 infringement.

6 113. The Micron Defendants have engaged and will continue to engage in additional activities
7 to specifically target the United States market for the '330 Patent Accused DRAM Products and '330
8 Patent Accused Flash Products and actively induce OEMs, manufacturers, importers, resellers, customers,
9 and end users to directly infringe one or more claims of the '330 patent in the United States. For example,
10 the Micron Defendants have showcased their DRAM and Flash memory technologies at various industry
11 events, such as CES and the Flash Memory Summit, and through written materials distributed in the
12 United States, in an effort to encourage various OEMs, manufacturers, importers, resellers, customers,
13 and end users to include the infringing technology in their computers, mobile devices, removable storage
14 devices and other products. These events are attended by the direct infringers mentioned above and
15 generally by companies that make, use, offer to sell, or sell in the United States, or import into the United
16 States, products that use DRAM memory components such as those made by the Micron Defendants. The
17 Micron Defendants' website also enables customers to locate United States based distributors of Micron
18 products, such as Arrow Electronics, Inc., Avnet, Digi-Key, Edge Electronics, Phoenix Electronics, and
19 WPG.

20 114. The Micron Defendants derive significant revenue by selling the '330 Patent Accused
21 DRAM Products and '330 Patent Accused Flash Products to third parties who directly infringe the '330
22 patent in the United States. The Micron Defendants' extensive sales and marketing efforts, sales volume,
23 and partnerships all evidence their intent to induce companies to infringe one or more claims of the '330
24 patent by, using, offering to sell, selling, or importing products that incorporate the '330 Patent Accused
25 DRAM Products and '330 Patent Accused Flash Products, in the United States. The Micron Defendants
26 have had specific intent to induce infringement or have been willfully blind to the direct infringement they
27 are inducing.

1 115. Upon information and belief, the Micron Defendants have continued and will continue to
2 engage in activities constituting contributory infringement of the '330 patent, including at least claims 1
3 and 2, pursuant to 35 U.S.C. § 271(c). The Micron Defendants contributorily infringe with knowledge that
4 the '330 Patent Accused DRAM Products and '330 Patent Accused Flash Products, or the use thereof,
5 infringe the '330 patent. The Micron Defendants knowingly and intentionally contributed to the direct
6 infringement of the '330 patent by others, by supplying these DRAM and Flash memory chipset products,
7 that embody a material part of the claimed invention of the '330 patent, and that are known by the Micron
8 Defendants to be specifically made or adapted for use in an infringing manner. For example, and without
9 limitation, the '330 Patent Accused DRAM Products and '330 Patent Accused Flash Products are used in
10 end products, including computers, laptops, tablets and mobile telephones. The '330 Patent Accused
11 DRAM Products and '330 Patent Accused Flash Products are not staple articles or commodities of
12 commerce suitable for non-infringing use and are especially made for or adapted for use in infringing the
13 '330 patent. There are no substantial uses of the '330 Patent Accused DRAM Products and '330 Patent
14 Accused Flash Products that do not infringe the '330 patent. By contributing a material part of the
15 infringing computing products sold, offered for sale, imported, and used by their customers, resellers, and
16 users, the Micron Defendants have been and are now indirectly infringing the '330 patent pursuant to 35
17 U.S.C. § 271(c).

18 116. The Micron Defendants' direct and indirect infringement of the '330 patent has injured
19 Lone Star, and Lone Star is entitled to recover damages adequate to compensate for such infringement
20 pursuant to 35 U.S.C. § 284. Unless they cease their infringing activities, the Micron Defendants will
21 continue to injure Lone Star by infringing the '330 patent.

22 117. On information and belief, Defendant MTI, including its subsidiaries MSP, MCPG, and
23 Micron Japan, acted egregiously and with willful misconduct in that their actions constituted direct or
24 indirect infringement of a valid patent, and this was either known or so obvious that the Micron Defendants
25 should have known about it. The Micron Defendants continue to infringe the '330 patent by making, using,
26 selling, offering for sale and importing in the United States the '330 Patent Accused DRAM Products and
27 '330 Patent Accused Flash Products and to induce the direct infringement of others performing these acts,
28 or they have acted at least in reckless disregard of Lone Star's patent rights. On information and belief,

1 the Micron Defendants will continue their infringement notwithstanding actual knowledge of the '330
2 patent and without a good faith basis to believe that their activities do not infringe any valid claim of the
3 '330 patent. All infringement of the '330 patent following the Micron Defendants' knowledge of the '330
4 patent is willful and Lone Star is entitled to treble damages and attorneys' fees and costs incurred in this
5 action under 35 U.S.C. §§ 284 and 285.

6 **PRAYER FOR RELIEF**

7 WHEREFORE, Plaintiff prays for:

- 8 1. Judgment that the '188 patent is valid and enforceable;
- 9 2. Judgment that the '085 patent is valid and enforceable;
- 10 3. Judgment that the '061 patent is valid and enforceable;
- 11 4. Judgment that the '330 patent is valid and enforceable;
- 12 5. Judgment that the '188 patent is infringed by the Micron Defendants;
- 13 6. Judgment that the '085 patent is infringed by the Micron Defendants;
- 14 7. Judgment that the '061 patent is infringed by the Micron Defendants;
- 15 8. Judgment that the '330 patent is infringed by the Micron Defendants;
- 16 9. Judgment that the Micron Defendants' acts of patent infringement relating to the patents
17 are willful;
- 18 10. An award of damages arising out of the Micron Defendants' acts of patent infringement,
19 together with pre-judgment and post-judgment interest;
- 20 11. Judgment that the damages so adjudged be trebled in accordance with 35 U.S.C. § 284;
- 21 12. An award of Plaintiff's attorneys' fees, costs and expenses incurred in this action in
22 accordance with 35 U.S.C. § 285; and
- 23 13. Such other and further relief as the Court may deem just and proper.

24 **RESERVATION OF RIGHTS**

25 Plaintiff's investigation is ongoing, and certain material information remains in the sole possession
26 of Defendants or third parties, which will be obtained via discovery herein. Plaintiff expressly reserves
27 the right to amend or supplement the causes of action set forth herein in accordance with Rule 15 of the
28 Federal Rules of Civil Procedure.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

Date: March 18, 2018

Respectfully,

FITCH, EVEN, TABIN & FLANNERY LLP

/s/ Jon A. Birmingham
Jon A. Birmingham (Cal. Bar No. 271034)

Attorney for Plaintiff
LONE STAR SILICON INNOVATIONS LLC

JURY DEMAND

Plaintiff demands trial by jury of all issues triable of right by a jury.

Date: March 18, 2018

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY LLP

/s/ Jon A. Birmingham
Jon A. Birmingham (Cal. Bar No. 271034)

Attorney for Plaintiff
LONE STAR SILICON INNOVATIONS LLC