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14	POWEŘCHIP SEMICONDUCTOR CORPORATION							
15								
16	IN THE UNITED STATES DISTRICT COURT							
17	FOR THE NORTHERN DISTRICT OF CALIFORNIA							
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19	MICRON TECHNOLOGY, INC.,	Case No.: 5:06-CV-04496-JF						
20	Plaintiff,	POWERCHIP'S FIRST AMENDED						
21	v.	COMPLAINT IN INTERVENTION FOR: DECLARATION OF						
22	MOSAID TECHNOLOGIES INCORPORATED,	NONINFRINGEMENT, INVALIDITY, UNENFORCEABILITY, AND/OR						
23	Defendant.	LICENSE						
24		DEMAND FOR JURY TRIAL						
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POWERCHIP'S FIRST AMENDED COMPLAINT IN INTERVENTION

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Intervenor Powerchip Semiconductor Corporation. hereby alleges for its Complaint-in-Intervention, on personal knowledge regarding its own activities and on information and belief regarding the activities of others, as follows:

PARTIES

- 1. Powerchip is a corporation organized under the laws of Taiwan, R.O.C., with its principal place of business at No. 12, Li-Hsin Road 1, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C. Powerchip is engaged in the business of manufacturing and selling dynamic random access memories (DRAMs).
- 2. MOSAID is a foreign corporation with its principal place of business at 11 Hines Road, Kanata, Ontario K2K 2X1, Canada. Upon information and belief, MOSAID's primary business is licensing and enforcing patents whose claims purportedly cover semiconductor technology.
- 3. Micron is a Delaware corporation with its principal place of business in Boise, Idaho. Upon information and belief, Micron is engaged in the business of designing, manufacturing and selling semiconductor products.

JURISDICTION AND VENUE

- 4. Powerchip's claims against MOSAID arise under Title 35 of the United States Code. The Court has subject matter jurisdiction over these Counterclaims pursuant to 28 U.S.C. §§ 1331, 1338(a), 2201, and 2202.
- 5. Venue is proper in this judicial district under 28 U.S.C. §§ 1391 and 1400, because, among other reasons, MOSAID is an alien corporation subject to jurisdiction in any venue in which jurisdiction is proper. MOSAID is subject to personal jurisdiction in this district because, among other reasons, it has purposefully directed activities to this district, maintains an office in this district, and has general and systematic contacts with this district.

INTRADISTRICT ASSIGNMENT

6. Pursuant to Northern District Local Rules 3-5(b) and 3-2(c), this action is properly assigned to the San Jose Division of the Northern District Court on the basis that a substantial part of the events or omissions which give rise to the claims herein occurred within this county.

BACKGROUND

- 7. Powerchip incorporates and realleges the allegations set forth in the paragraphs above as if set forth fully herein.
- 8. Upon information and belief, MOSAID is a patent holding company that acquires and licenses patents in the area of dynamic random access memory (DRAM).
- 9. Between 2001 and 2005, MOSAID systematically filed, litigated, and ultimately settled patent infringement actions against Samsung Electronics Company, Ltd., Hynix Semiconductor, Inc., and Infineon Technologies North America Corporation, all DRAM product manufacturers.
- 10. Micron filed the present declaratory judgment action against MOSAID on July 24, 2006, seeking a declaratory judgment of patent non-infringement and invalidity of fourteen patents: U.S. Patent Nos. 5,214,602; 5,751,643; 5,822,253, 6,278,640; and 6,603,703 (collectively referred to as the "Lines Family Patents); U.S. Patent Nos. 5,824620; 6,055,201; 6,236,581 and 6,580,654 (collectively referred to as the "Foss Family Patents"); U.S. Patent Nos. 6,067,272, 6,657,919, 6992,950 (collectively referred to as the "DLL Family Patents"); and U.S. Patent Nos. 6,056,676 and RE37,641. The fourteen patents will be referred to herein as the "California patents-in-suit."
- 11. Upon information and belief, MOSAID is the assignee and owner of the California patents-in-suit.
- 12. On July 25, 2006, MOSAID filed a patent infringement suit against defendants Micron and Powerchip in the Eastern District of Texas, alleging infringement of U.S. Patent Nos. 5,751,253; 5,822,253; 6,278,640; 6,603,703; and 7,038,927 (all of which are the same as or related to the Lines Family Patents); U.S. Patent No. 5,406,523; 5,828,520; 6,236,581, and 6,980,448 (all of which are the same as or related to the Foss Family Patents); and U.S. Patent Nos. 6,657,919 and 6,992,950 (all of which are the same as or related to the DLL Family Patents). These eleven patents will be referred to herein as the "Texas patents-in-suit."
 - 13. MOSAID alleges that it is the assignee and owner of the Texas patents-in-suit.
- 14. On October 23, 2006 this Court dismissed Micron's declaratory relief action for lack of subject matter jurisdiction.

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- 15. On February 29, 2008, the Federal Circuit reversed the dismissal, and remanded the case to this Court for judgment on the merits. The Federal Circuit's mandate issued on April 14, 2008.
- 16. Powerchip has denied infringement and has sought a declaration of noninfringement, invalidity and unenforceability of the Texas patents-in-suit.
- 17. Because of the overlap between the Texas patents-in-suit and the California patents-in-suit, at least the background technology, claim construction, validity, and enforceability of the patents are issues common to both the Texas case and this action.
- 18. In its Second Amended Complaint in the Texas action, MOSAID alleges direct and indirect infringement of the Texas patents-in-suit and names Powerchip as a defendant. Therefore, a valid and justiciable controversy has arisen and exists between MOSAID and Powerchip within the meaning of 28 U.S.C. § 2201. Powerchip desires a judicial determination and declaration of the respective rights of the parties regarding the Texas patents-in-suit.
- 19. On July 2, 2008, the Eastern District of Texas transferred the Texas action to this District.
- 20. On July 28, 2008, Micron filed its First Amended Complaint for declaratory judgment in this action.
- 21. Under these circumstances, a judicial declaration of non-infringement, invalidity, and unenforceability is necessary and appropriate to resolve this controversy.

COUNT I

(Declaration of Noninfringement, Invalidity, Unenforceability, and License of U.S. Patent No. 6,657,919)

- 22. Powerchip incorporates and realleges the allegations set forth in the paragraphs above as if set forth fully herein.
- 23. U.S. Patent No. 6,657,919 (the "'919 patent") was filed on January 17, 2003 and issued on December 2, 2003. The named inventors of the '919 patent are Richard C. Foss, Peter B. Gillingham and Graham Allan. A copy of the '919 patent is attached hereto as Exhibit A.

- 24. Powerchip has not infringed and is not now infringing, directly or indirectly, any valid claim of the '919 patent, either literally or under the doctrine of equivalents.
- 25. The '919 patent is invalid because it fails to meet the requirements for patentability as set forth in 35 U.S.C. §§ 102, 103, 112 and/or other section set forth in Title 35 of the United States Code.
- 26. MOSAID is barred from asserting infringement by Powerchip of the '919 patent because Powerchip is licensed to make products covered by the '919 patent pursuant to the terms of license agreement(s) between MOSAID and one or more third parties.
- 27. Powerchip is a member of the JEDEC Solid State Technology Association ("JEDEC") and is entitled to all rights, benefits, defenses, remedies and other claims that are available to JEDEC members, including the right to license the '919 patent under reasonable terms and conditions that are demonstrably free of any unfair discrimination.
- 28. MOSAID is barred from obtaining a license from Powerchip under the '919 patent on anything more than reasonable terms and conditions that are demonstrably free of any unfair discrimination.
- 29. The '919 patent is unenforceable due to laches, equitable estoppel, prosecution laches, patent misuse and/or inequitable conduct.
- a. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. 1.56(c) with regard to the '919 patent and its predecessor applications were aware of U.S. Patent Nos. 5,220,206 ("the '206 patent"), 5,497,115 ("the '115 patent"), 5,610,543 ("the 543 patent") and 5,657,481 ("the '481 patent") prior to the issuance of the '919 patent. Prior to issuance of the '919 patent, the '206, '115, '543 and '481 patents were variously cited during prosecution of the applications corresponding to U.S. Patents Nos. 5,777,501, 5,991,226 and 6,087,868, which are also assigned to MOSAID. Pascal & Associates was counsel of records for the '501, '226 and '868 patents and for at least part of the prosecution of the '919 patent and/or its predecessor applications. The information contained in the '206, '115, '643 and '481 patents is material to one or more claims of the '919 patent and/or its predecessor applications. Nevertheless, the '206, '115, '543 and '481 patents were not disclosed to

the PTO during the prosecution of the '919 patent and its predecessor applications. The failure to disclose this material information was knowing, willful and done with the intent to deceive the PTO into issuing the '919 patent. As a result, the '919 patent is unenforceable due to inequitable conduct.

- b. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. 1.56(c) with regard to the '919 patent and its predecessor applications were aware of U.S. Patent Nos. 5,295,164 ("the '164 patent"), 5,544,203 ("the '203 patent") and 5,604,775 ("the '775 patent") prior to the issuance of the '919 patent. For example, prior to the issuance of the '919 patent, the '164 patent was cited during prosecution of the application corresponding to U.S. Patent No. 6,327,318 ("the '318 patent") which is also assigned to MOSAID and includes MOSAID personnel as inventors (including Graham Allan, who is also a named inventor of the '919 patent). In addition, the '203 and '775 patents are described in the specification of the '318 patent, and, upon information and belief, MOSAID personnel reviewed and approved the specification of the '318 patent. The information contained in the '164, '203, and '775 patents is material to one or more claims of the '919 patent and/or its predecessor applications. Nevertheless, the '164, '203, and '774 patents were not disclosed to the PTO during the prosecution of the '919 patent and its predecessor applications. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '919 patent. As a result, the '919 patent is unenforceable due to inequitable conduct.
- c. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. 1.56(c) with regard to the '919 patent and its predecessor applications, including Richard Foss, Peter Gillingham, Graham Allen, James Smith, and Ed Pascal, were aware of Rambus, Inc. ("Rambus") patents and Rambus publications relating to DLL technology, including U.S. Patent Nos. 5,243,703, 5,319,755, 5,355,391, 5,809,263, 5,657,481, 6,067,592; the 1993 Rambus Product Catalog; the 1993 RDRAM Reference Manual; and Horowitz et. al., "Clocking Strategies in High Performance Processors," 1992 Symposium on VLSI Circuits Digest of Technical Papers ("the Horowitz Reference");, and other literature relating to Rambus DLL technology, including the 1994 New DRAM Technologies text by Steven Przybylski, prior to the issuance of the '919 patent as well as prior to issuance of the following predecessor patents: U.S.

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Patent Nos. 5,796,673, 6,067,272, 6,205,083, 6,314,052, and 6,657,918. Peter Gillingham, Richard Foss, and Graham Allan, named inventors of the '919 patent, gained knowledge of the Rambus patents through knowledge of the litigation between Infineon and Rambus (Civil Action No. 3:00CV524) and through knowledge of the JEDEC patent tracking list, which included a reference to U.S. Patent No. 5,243,703 as of the September 13, 1994 JC-42.3 meeting. Peter Gillingham, a named inventor of the '919 patent, also cites and discusses Rambus DLL patents in his U.S. Patent No. 6,510,503, assigned to MOSAID. Further still, Richard Foss, a named inventor of the '919 patent, attended the June 1992 VLSI Symposium at which the Horowitz reference was presented. Yet further, Cormac O'Connell assisted Steven Przybylski in drafting "New DRAM Technologies" (1994), a text which notes Rambus' use of delay locked loops in its commercial RDRAM products. The materials listed above relating to Rambus DLL technology are material to the claims of the '919' patent and the claims of its predecessors listed above, which are directed toward similar technology. Nevertheless, the materials listed above relating to the Rambus DLL technology were not disclosed to the PTO during the prosecution of the '919 patent and its predecessors listed above. Upon information and belief, the failure to disclose this material information was knowing, willful and done with the intent to deceive the PTO into issuing the '919 patent. As a result, the '919 patent is unenforceable due to inequitable conduct.

d. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '919 patent and its predecessor applications were aware of U.S. Patent No. 5,317,202 (the "'202 patent") prior to the issuance of the '919 patent. For examples, prior to the issuance of the '919 patent, the '202 patent was cited by MOSAID in connection with U.S. Patent No. 6,320,437, which is also assigned to MOSAID. The information contained in the '202 patent is material to one or more claims of the '919 patent and/or its predecessor applications. Nevertheless, the '202 patent was not disclosed to the PTO during prosecution of the '919 patent and its predecessor applications. Upon information and belief, the failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '919 patent. As a result, the '919 patent is unenforceable due to inequitable conduct.

- e. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '919 patent and its predecessor applications were aware of U.S. Patent No. 5,463,337 ("the '337 patent") prior to the issuance of the '919 patent. For example, prior to issuance of the '919 patent, the '337 patent was cited by MOSAID in connection with U.S. Patent No. 6,441,659, which is also assigned to MOSAID. The information contained in the '337 patent is material to one or more claims of the '919 patent and/or its predecessor applications. Nevertheless, the '337 patent was not disclosed to the PTO during the prosecution of the '919 patent and its predecessor applications. Upon information and belief, the failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '919 patent. As a result, the '919 patent is unenforceable due to inequitable conduct.
- f. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '919 patent and its predecessor applications were aware of a 1992 presentation given by Xerox disclosing the use of an on-chip DLL prior to the issuance of the '919 patent. For example, Richard Foss and Peter Gillingham, named inventors of the '919 patent are listed as attendees of the December 18, 1992 JEDEC JC42.3 DRAM Task Group Special Meeting at which the Xerox presentation was delivered. Information relating to the Xerox presentation is material to one or more claims of the '919 patent and/or its predecessor applications. Nevertheless, the Xerox presentation was not disclosed to the PTO during the prosecution of the '919 patent and its predecessor applications. Upon information and belief, the failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '919 patent. As a result, the '919 patent is unenforceable due to inequitable conduct.
- g. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '919 patent and its predecessor applications were aware of Waizman et al., "A delay Line Loop for Frequency Synthesis of De-Skewed Clock," IEEE International Solid-State Circuits Conference (1994) ("the Waizman Reference") and Lee et al., "A 2.5V Delay-Locked Loop for an 18Mb 500MB/s DRAM," IEEE

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International Solid-State Circuits Conference (1994) ("the Lee Reference") prior to the issuance of the '919 patent and its predecessor applications. For example, Richard Foss, a named inventor of the '919 patent, attended the February 1994 ISSC Conference at which the Waizman and Lee References were presented. Information relating to the Waizman and Lee References is material to one or more claims of the '919 patent. Nevertheless, the Waizman and Lee References were not disclosed to the PTO during the prosecution of the '919 patent and its predecessor applications. Upon information and belief, the failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '919 patent and its predecessors. As a result, the 919 patent is unenforceable due to inequitable conduct.

- h. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '919 patent and its predecessor applications were aware of a presentation given by NEC concerning a "PLL Enable Mode" prior to the issuance of the '919 patent ("the NEC Presentation"). For example, named inventors of the '919 patent are listed as attendees of the JEDEC JC-42.3 meeting at which the NEC Presentation was delivered. Information relating to the NEC Presentation is material to one or more claims of the '919 patent and/or its predecessor applications. Upon information and belief, the failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '919 patent. As a result, the '919 patent is unenforceable due to inequitable conduct.
- 30. A judicial declaration of noninfringement, invalidity, unenforceability, and license is necessary and appropriate to resolve this controversy.

COUNT II

(Declaration of Noninfringement, Invalidity, Unenforceability, and License of U.S. Patent No. 6,992,950)

31. Powerchip incorporates and realleges the allegations set forth in the paragraphs above as if set forth fully herein.

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- 32. U.S. Patent No. 6,992,950 (the "'950 patent") was filed on August 21, 2003 and issued on January 31, 2006. The named inventors of the '950 patent are Richard C. Foss, Peter B. Gillingham and Graham Allan. A copy of the '950 patent is attached hereto as Exhibit B.
- 33. Powerchip has not infringed and is not now infringing, directly or indirectly, any valid claim of the '950 patent, either literally or under the doctrine of equivalents.
- 34. The '950 patent is invalid because it fails to meet the requirements for patentability as set forth in 35 U.S.C. §§ 102, 103, 112 and/or other sections set forth in Title 35 of the United States Code.
- 35. MOSAID is barred from asserting infringement by Powerchip of the '950 patent because Powerchip is licensed to make products covered by the '950 patent pursuant to the terms of license agreement(s) between MOSAID and one or more third parties.
- 36. Powerchip is a member of JEDEC and is entitled to all rights, benefits, defenses, remedies and other claims that are available to JEDEC members, including the right to license the '950 patent under reasonable terms and conditions that are demonstrably free of any unfair discrimination.
- 37. MOSAID is barred from obtaining a license from Powerchip under the '950 patent on anything more than reasonable terms and conditions that are demonstrably free of any unfair discrimination.
- 38. The '950 patent is unenforceable due to laches, equitable estoppel, prosecution laches, patent misuse and/or inequitable conduct.
- a. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. 1.56(c) with regard to the '950 patent and its predecessor applications were aware of U.S. Patent Nos. 5,220,206 ("the '206 patent"), 5,497,115 ("the '115 patent"), 5,610,543 ("the '543 patent") and 5,657,481 ("the '481 patent") prior to the issuance of the '950 patent. Prior to the issuance of the '950 patent, the '206, '115, '543 and '481 patents were variously cited during prosecution of the applications corresponding to U.S. Patent Nos. 5,777,501, 5,991,226 and 6,087,868, which are also assigned to MOSAID. Pascal & Associates was counsel of record for the '501, '226 and '868 patents and for at least part of the prosecution of the

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'950 patent and/or its predecessor applications. The information contained in the '206, '115, '543 and '481 patents is material to one or more claims of the '950 patent and/or its predecessor applications. Nevertheless, the '206, '115, '543 and '481 patents were not disclosed to the PTO during the prosecution of the '950 patent and its predecessor applications. The failure to disclose this material information was knowing, willful and done with the intent to deceive the PTO into issuing the '950 patent. As a result, the '950 patent is unenforceable due to inequitable conduct.

- Upon information and belief, the inventors of, prosecuting attorneys of, and/or other b. individuals subject to the requirements of 37 C.F.R. 1.56(c) with regard to the '950 patent and its predecessor applications were aware of U.S. Patent Nos. 5,295,164 ("the '164 patent"), 5,544,203 ("the '203 patent") and 5,604,775 ("the '775 patent") prior to the issuance of the '950 patent. For example, prior to the issuance of the '950 patent, the '164 patent was cited during prosecution of the application corresponding to U.S. Patent No. 6,327,318 ("the '318 patent") which is also assigned to MOSAID and includes MOSAID personnel as inventors (including Graham Allan, who is also a named inventor of the '950 patent). In addition, the '203 and '775 patents are described in the specification of the '318 patent, and, upon information and belief, MOSAID personnel reviewed and approved the specification of the '318 patent. The information contained in the '164, '203, and '775 patents is material to one or more claims of the '950 patent and/or its predecessor applications. Nevertheless, the '164, '203, and '775 patents were not disclosed to the PTO during the prosecution of the '950 patent and its predecessor applications. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '950 patent. As a result, the '950 patent is unenforceable due to inequitable conduct.
- c. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. 1.56(c) with regard to the '950 patent and its predecessor applications, including Richard Foss, Peter Gillingham, Graham Allen, James Smith, and Ed Pascal, were aware of Rambus, Inc. ("Rambus") patents and Rambus publications relating to DLL technology, including U.S. Patent Nos. 5,243,703, 5,319,755, 5,355,391, 5,809,263, 5,657,481, 6,067,592; the 1993 Rambus Product Catalog; the 1993 RDRAM Reference Manual; and Horowitz et. al., "Clocking Strategies in High Performance Processors," 1992 Symposium on VLSI Circuits

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Digest of Technical Papers ("the Horowitz Reference"), and other literature relating to Rambus DLL technology, including the 1994 New DRAM Technologies text by Steven Przybylski, prior to the issuance of the '950 patent as well as prior to issuance of the following predecessor patents: U.S. Patent Nos. 5,796,673, 6,067,272, 6,205,083, 6,314,052, 6,657,918, and 6,657,919. Peter Gillingham, Richard Foss, and Graham Allan, named inventors of the '950 patent, gained knowledge of the Rambus patents through knowledge of the litigation between Infineon and Rambus (Civil Action No. 3:00CV524) and through knowledge of the JEDEC patent tracking list, which includes a reference to U.S. Patent No. 5,243,703 as of the September 13, 1994 JC-42.3 meeting. Peter Gillingham, a named inventor on the '950 patent, also cites and discusses Rambus DLL patents in his U.S. Patent No. 6,510,503, assigned to MOSAID. Further still, Richard Foss, a named inventor of the '950 patent, attended the June 1992 VLSI Symposium at which the Horowitz reference was presented. Yet further, Cormac O'Connell assisted Steven Przybylski in drafting "New DRAM Technologies" (1994), a text which notes Rambus' use of delay locked loops in its commercial RDRAM products. The materials listed above relating to Rambus' DLL technology are material to the claims of the '950 patent and the claims of its predecessors listed above, which are directed toward similar technology. Nevertheless, the materials listed above relating to the Rambus DLL technology were not disclosed to the PTO during the prosecution of the '950 patent and its predecessors listed above. Upon information and belief, the failure to disclose this material information was knowing, willful and done with the intent to deceive the PTO into issuing the '950 patent. As a result, the '950 patent is unenforceable due to inequitable conduct.

d. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '919 patent and its predecessor applications were aware of U.S. Patent No. 5,317,202 (the "'202 patent") prior to the issuance of the '950 patent. For examples, prior to the issuance of the '950 patent, the '202 patent was cited by MOSAID in connection with U.S. Patent No. 6,320,437, which is also assigned to MOSAID. The information contained in the '202 patent is material to one or more claims of the '950 patent and/or its predecessor applications. Nevertheless, the '202 patent was not disclosed to the PTO during prosecution of the '950 patent and its predecessor applications. Upon information

and belief, the failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '950 patent. As a result, the '950 patent is unenforceable due to inequitable conduct.

- e. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '950 patent and its predecessor applications were aware of U.S. Patent No. 5,463,337 ("the '337 patent") prior to the issuance of the '950 patent. For example, prior to issuance of the '950 patent, the '337 patent was cited by MOSAID in connection with U.S. Patent No. 6,441,659, which is also assigned to MOSAID. The information contained in the '337 patent is material to one or more claims of the '950 patent and/or its predecessor applications. Nevertheless, the '337 patent was not disclosed to the PTO during the prosecution of the '950 patent and its predecessor applications. Upon information and belief, the failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '950 patent. As a result, the '950 patent is unenforceable due to inequitable conduct.
- f. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '950 patent and its predecessor applications were aware of a 1992 presentation given by Xerox disclosing the use of an on-chip DLL prior to the issuance of the '950 patent. For example, Richard Foss and Peter Gillingham, named inventors of the '950 patent are listed as attendees of the December 18, 1992 JEDEC JC42.3 DRAM Task Group Special Meeting at which the Xerox presentation was delivered. Information relating to the Xerox presentation is material to one or more claims of the '950 patent and/or its predecessor applications. Nevertheless, the Xerox presentation was not disclosed to the PTO during the prosecution of the '950 patent and its predecessor applications. Upon information and belief, the failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '950 patent. As a result, the '950 patent is unenforceable due to inequitable conduct.
- g. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '950 patent and its

predecessor applications were aware of Waizman et al., "A delay Line Loop for Frequency Synthesis of De-Skewed Clock," IEEE International Solid-State Circuits Conference (1994) ("the Waizman Reference") and Lee et al., "A 2.5V Delay-Locked Loop for an 18Mb 500MB/s DRAM," IEEE International Solid-State Circuits Conference (1994) ("the Lee Reference") prior to the issuance of the '950 patent and its predecessor applications. For example, Richard Foss, a named inventor of the '950 patent, attended the February 1994 ISSC Conference at which the Waizman and Lee References were presented. Information relating to the Waizman and Lee References is material to one or more claims of the '950 patent. Nevertheless, the Waizman and Lee References were not disclosed to the PTO during the prosecution of the '950 patent and its predecessor applications. Upon information and belief, the failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '950 patent and its predecessors. As a result, the 950 patent is unenforceable due to inequitable conduct.

- h. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '950 patent and its predecessor applications were aware of a presentation given by NEC concerning a "PLL Enable Mode" prior to the issuance of the '950 patent ("the NEC Presentation"). For example, named inventors of the '950 patent are listed as attendees of the JEDEC JC-42.3 meeting at which the NEC Presentation was delivered. Information relating to the NEC Presentation is material to one or more claims of the '950 patent and/or its predecessor applications. Upon information and belief, the failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '950 patent. As a result, the '950 patent is unenforceable due to inequitable conduct.
- i. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '950 patent were aware of pleadings from *MOSAID Technologies Inc. v. Infineon Technologies North America Corp.*, Case No. 6:05CV120 (E.D. Tex. 2005) directly related to the scope and validity of the '950 patent while the '950 patent was pending. For example, Infineon filed and served Invalidity Contentions in its litigation with MOSAID setting forth element-by-element comparisons of the '950 patent and

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material prior art, MOSAID responded to an interrogatory regarding Infineon's Invalidity Contentions as to the '950 patent, and both parties served pleadings pertaining to the scope of the '950 patent. Pursuant to MPEP § 2001.06(c), MOSAID had an affirmative duty to (1) identify to the PTO that the '950 patent was the subject of litigation (2) disclose pleadings such as Infineon's Invalidity Contentions, MOSAID's responses to Infineon's interrogatories, and the parties claim construction pleadings; and (3) U.S. Patent Nos. 4,463,440, 5,111,063, 5,272,390, 5,371,764, 5,414,381, 5,657,481, 5,812,832 and the NEC Presentation, all of which were specifically identified in Infineon's Invalidity Contentions. Upon information and belief, at least the prosecuting attorneys were aware of MPEP § 2001.06(c) and its requirements while the '950 patent was pending. Information served in this litigation relating to the scope and validity of the '950 patent is material to one or more claims of the '950 patent. Nevertheless, no information from this litigation was disclosed to the PTO during the prosecution of the '950 patent. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '950 patent. As a result, the '950 patent is unenforceable due to inequitable conduct.

39. A judicial declaration of noninfringement, invalidity, unenforceability, and license is necessary and appropriate to resolve this controversy.

COUNT III

(Declaration of Noninfringement, Invalidity, Unenforceability, and License of U.S. Patent No. 5,751,643)

- 40. Powerchip incorporates and realleges the allegations set forth in the paragraphs above as if set forth fully herein.
- 41. U.S. Patent No. 5,751,643 (the "'643 patent") was filed on March 6, 1996 and issued on May 12, 1998. The named inventor on the '643 patent is Valerie L. Lines. A copy of the '643 patent is attached hereto as Exhibit C.
- 42. Powerchip has not infringed and is not now infringing, directly or indirectly, any valid claim of the '643 patent, either literally or under the doctrine of equivalents.

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- 43. The '643 patent is invalid because it fails to meet the requirements for patentability as set forth in 35 U.S.C. §§ 102, 103, 112 and/or other sections set forth in Title 35 of the United States Code.
- 44. MOSAID is barred from asserting infringement by Powerchip of the '643 patent because Powerchip is licensed to make products covered by the '643 patent pursuant to the terms of license agreement(s) between MOSAID and one or more third parties.
- 45. The '643 patent is unenforceable due to laches, equitable estoppel, prosecution laches, and/or inequitable conduct.
- Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to U.S. Patent No. 5,214,602 ("the '602 patent") and its related applications were aware of Fujii, Syuso, et al., "A 45ns 16-Mbit DRAM with Triple-Well Structure," IEEE International Solid-State Circuits Conference (February 17, 1989) ("Fujii (Feb. 1989)") and/or Fujii, Syuso, et al., "A 45-ns 16-Mbit DRAM with Triple-Well Structure," IEEE J. of Solid State Circuits, vol. 24(5), at 1170-74 (Oct. 1989) ("Fujii (Oct. 1989)") prior to the issuance of the '602 patent. For example, on March 26, 1990, Richard C. Foss sent a fax to at least four other MOSAID employees in which he expressed concern that MOSAID would not be able to receive a patent for its word line driver because of Fujii (Feb. 1989) and/or Fujii (Oct. 1989). On April 5, 1990, Edward. E. Pascal sent a draft U.K. Patent Application for the word line to Tibor Z. Gold, in which Fujii (Oct. 1989) was listed as a prior art reference. Yet, a redacted version of the U.K. application, without reference to Fujii (Oct. 1989), was filed with the PTO during the prosecution of the 602 patent in support of MOSAID's claim that the 602 patent was entitled to the filing date of the U.K. application. The information contained in Fujii (Feb. 1989) and Fujii (Oct. 1989) is material to one or more claims of the '602 patent. Nevertheless, Fujii (Feb. 1989) and Fujii (Oct. 1989) were not disclosed to the PTO during the prosecution of the '602 patent. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '602 patent. The '643 patent is a continuation-in-part patent that claims priority to the '602 patent. As a result, the '643 patent is unenforceable due to inequitable conduct and infectious unenforceability.

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b. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other
individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '643 patent and its
related applications were aware of U.S. Patent No. 4,486,670 ("Chan") prior to the issuance of the
'643 patent and the '253 patent. For example, on June 29, 1995, Richard C. Foss (MOSAID's co-
founder) and Peter Gillingham (responsible for the patent prosecution group at MOSAID) received a
fax requesting MOSAID to evaluate whether its 4M DRAM infringed Chan for potential licensing
negotiations. A copy of Chan was attached to the fax. On or before November 19, 1996, MOSAID
discussed attempting to invalidate Japanese Patent No. 58-125298 which is the Japanese counterpart
to Chan. The communications regarding an attempt to invalidate Japanese Patent No. 58-125298
were sent between James M. Smith (the attorney responsible for prosecuting the '643 and '253
patents) and Michael Vladescu (the employee responsible for the day-to-day management of patent
prosecution at MOSAID under Peter Gillingham). The information contained in Chan is material to
one or more claims of the '643 and '253 patents. Nevertheless, Chan was not disclosed to the PTO
during the prosecution of the '643 and '253 patents and their related applications. The failure to
disclose this material information was knowing, willful, and done with the intent to deceive the PTO.
The '643 patent is a continuation-in-part of the '253 patent. As a result, the '643 patent is
unenforceable due to inequitable conduct and infectious unenforceability.

46. A judicial declaration of noninfringement, invalidity, unenforceability, and license is necessary and appropriate to resolve this controversy.

COUNT IV

(Declaration of Noninfringement, Invalidity, Unenforceability, and License of U.S. Patent No. 5,822,253)

- 47. Powerchip incorporates and realleges the allegations set forth in the paragraphs above as if set forth fully herein.
- 48. U.S. Patent No. 5,822,253 (the "'253 patent") was filed on August 16, 1995 and issued on October 13, 1998. The named inventor of the '253 patent is Valerie L. Lines. A copy of the '253 patent is attached hereto as Exhibit D.

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- 49. Powerchip has not infringed and is not now infringing, directly or indirectly, any valid claim of the '253 patent, either literally or under the doctrine of equivalents.
- 50. The '253 patent is invalid because it fails to meet the requirements for patentability as set forth in 35 U.S.C. §§ 102, 103, 112 and/or other sections set forth in Title 35 of the United States Code.
- 51. MOSAID is barred from asserting infringement by Powerchip of the '253 patent because Powerchip is licensed to make products covered by the '253 patent pursuant to the terms of license agreement(s) between MOSAID and one or more third parties.
- 52. The '253 patent is unenforceable due to laches, equitable estoppel, prosecution laches, and/or inequitable conduct.
- Upon information and belief, the inventors of, prosecuting attorneys of, and/or other a. individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to U.S. Patent No. 5,214,602 ("the '602 patent") and its related applications were aware of Fujii, Syuso, et al., "A 45ns 16-Mbit DRAM with Triple-Well Structure," IEEE International Solid-State Circuits Conference (February 17, 1989) ("Fujii (Feb. 1989)") and/or Fujii, Syuso, et al., "A 45-ns 16-Mbit DRAM with Triple-Well Structure," IEEE J. of Solid State Circuits, vol. 24(5), at 1170-74 (Oct. 1989) ("Fujii (Oct. 1989)") prior to the issuance of the '602 patent. For example, on March 26, 1990, Richard C. Foss sent a fax to at least four other MOSAID employees in which he expressed concern that MOSAID would not be able to receive a patent for its word line driver because of Fujii (Feb. 1989) and/or Fujii (Oct. 1989). On April 5, 1990, Edward. E. Pascal sent a draft U.K. Patent Application for the word line to Tibor Z. Gold, in which Fujii (Oct. 1989) was listed as a prior art reference. Yet, a redacted version of the U.K. application, without reference to Fujii (Oct. 1989), was filed with the PTO during the prosecution of the '602 patent in support of MOSAID's claim that the '602 patent was entitled to the filing date of the U.K. application. The information contained in Fujii (Feb. 1989) and Fujii (Oct. 1989) is material to one or more claims of the '602 patent. Nevertheless, Fujii (Feb. 1989) and Fujii (Oct. 1989) were not disclosed to the PTO during the prosecution of the '602 patent. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '602 patent. The '253 patent is a continuation that claims

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priority to the '602 patent. As a result, the '253 patent is unenforceable due to inequitable conduct and infectious unenforceability.

- Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '253 patent and its related applications were aware of U.S. Patent No. 4,486,670 ("Chan") prior to the issuance of the '253 patent. For example, on June 29, 1995, Richard C. Foss (MOSAID's co-founder) and Peter Gillingham (responsible for the patent prosecution group at MOSAID) received a fax requesting MOSAID to evaluate whether its 4M DRAM infringed Chan for potential licensing negotiations. A copy of Chan was attached to the fax. On or before November 19, 1996, MOSAID discussed attempting to invalidate Japanese Patent No. 58-125298 which is the Japanese counterpart to Chan. The communications regarding an attempt to invalidate Japanese Patent No. 58-125298 were sent between James M. Smith (the attorney responsible for prosecuting the '253 patent) and Michael Vladescu (the employee responsible for the day-to-day management of patent prosecution at MOSAID under Peter Gillingham). The information contained in Chan is material to one or more claims of the '253 patent. Nevertheless, Chan was not disclosed to the PTO during the prosecution of the '253 patent and its related applications. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO. As a result, the '253 patent is unenforceable due to inequitable conduct.
- 53. A judicial declaration of noninfringement, invalidity, unenforceability, and license is necessary and appropriate to resolve this controversy.

COUNT V

(Declaration of Noninfringement, Invalidity, Unenforceability, and License of U.S. Patent No. 6,278,640)

- 54. Powerchip incorporates and realleges the allegations set forth in the paragraphs above as if set forth fully herein.
- 55. U.S. Patent No. 6,278,640 (the "'640 patent") was filed on April 13, 2000 and issued on August 21, 2001. The named inventor on the '640 patent is Valerie L. Lines. A copy of the '640 patent is attached hereto as Exhibit E.

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- 56. Powerchip has not infringed and is not now infringing, directly or indirectly, any valid claim of the '640 patent, either literally or under the doctrine of equivalents.
- 57. The '640 patent is invalid because it fails to meet the requirements for patentability as set forth in 35 U.S.C. §§ 102, 103, 112 and/or other sections set forth in Title 35 of the United States Code.
- 58. MOSAID is barred from asserting infringement by Powerchip of the '640 patent because Powerchip is licensed to make products covered by the '640 patent pursuant to the terms of license agreement(s) between MOSAID and one or more third parties.
- 59. The '640 patent is unenforceable due to laches, equitable estoppel, prosecution laches, and/or inequitable conduct.
- Upon information and belief, the inventors of, prosecuting attorneys of, and/or other a. individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to U.S. Patent No. 5,214,602 ("the '602 patent") and its related applications were aware of Fujii, Syuso, et al., "A 45ns 16-Mbit DRAM with Triple-Well Structure," IEEE International Solid-State Circuits Conference (February 17, 1989) ("Fujii (Feb. 1989)") and/or Fujii, Syuso, et al., "A 45-ns 16-Mbit DRAM with Triple-Well Structure," IEEE J. of Solid State Circuits, vol. 24(5), at 1170-74 (Oct. 1989) ("Fujii (Oct. 1989)") prior to the issuance of the '602 patent. For example, on March 26, 1990, Richard C. Foss sent a fax to at least four other MOSAID employees in which he expressed concern that MOSAID would not be able to receive a patent for its word line driver because of Fujii (Feb. 1989) and/or Fujii (Oct. 1989). On April 5, 1990, Edward. E. Pascal sent a draft U.K. Patent Application for the word line to Tibor Z. Gold, in which Fujii (Oct. 1989) was listed as a prior art reference. Yet, a redacted version of the U.K. application, without reference to Fujii (Oct. 1989), was filed with the PTO during the prosecution of the '602 patent in support of MOSAID's claim that the '602 patent was entitled to the filing date of the U.K. application. The information contained in Fujii (Feb. 1989) and Fujii (Oct. 1989) is material to one or more claims of the '602 patent. Nevertheless, Fujii (Feb. 1989) and Fujii (Oct. 1989) were not disclosed to the PTO during the prosecution of the '602 patent. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '602 patent. The '640 patent is a continuation that claims

priority to the '602 patent. As a result, the '640 patent is unenforceable due to inequitable conduct and infectious unenforceability.

- Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '640 patent and its related applications were aware of U.S. Patent No. 4,486,670 ("Chan") prior to the issuance of the '640 and '253 patents. For example, on June 29, 1995, Richard C. Foss (MOSAID's co-founder) and Peter Gillingham (responsible for the patent prosecution group at MOSAID) received a fax requesting MOSAID to evaluate whether its 4M DRAM infringed Chan for potential licensing negotiations. A copy of Chan was attached to the fax. On or before November 19, 1996, MOSAID discussed attempting to invalidate Japanese Patent No. 58-125298 which is the Japanese counterpart to Chan. The communications regarding an attempt to invalidate Japanese Patent No. 58-125298 were sent between James M. Smith (the attorney responsible for prosecuting the '640 and '253 patents) and Michael Vladescu (the employee responsible for the day-to-day management of patent prosecution at MOSAID under Peter Gillingham). The information contained in Chan is material to one or more claims of the '640 and '253 patents. Nevertheless, Chan was not disclosed to the PTO during the prosecution of the '640 and '253 patents and its related applications. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO. The '640 patent is a continuation that claims priority to the '253 patent. As a result, the '640 patent is unenforceable due to inequitable conduct and infectious unenforceability.
- 60. A judicial declaration of noninfringement, invalidity, unenforceability, and license is necessary and appropriate to resolve this controversy.

COUNT VI

(Declaration of Noninfringement, Invalidity, Unenforceability, and License of U.S. Patent No. 6,603,703)

61. Powerchip incorporates and realleges the allegations set forth in the paragraphs above as if set forth fully herein.

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- 62. U.S. Patent No. 6,603,703 (the "'703 patent") was filed on July 31, 2001 and issued on August 5, 2003. The named inventor on the '703 patent is Valerie L. Lines. A copy of the '703 patent is attached hereto as Exhibit F.
- 63. Powerchip has not infringed and is not now infringing, directly or indirectly, any valid claim of the '703 patent, either literally or under the doctrine of equivalents.
- 64. The '703 patent is invalid because it fails to meet the requirements for patentability as set forth in 35 U.S.C. §§ 102, 103, 112 and/or other sections set forth in Title 35 of the United States Code.
- 65. MOSAID is barred from asserting infringement by Powerchip of the '703 patent because Powerchip is licensed to make products covered by the '703 patent pursuant to the terms of license agreement(s) between MOSAID and one or more third parties.
- 66. The '703 patent is unenforceable due to laches, equitable estoppel, prosecution laches, and/or inequitable conduct.
- Upon information and belief, the inventors of, prosecuting attorneys of, and/or other a. individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to U.S. Patent No. 5,214,602 ("the '602 patent") and its related applications were aware of Fujii, Syuso, et al., "A 45ns 16-Mbit DRAM with Triple-Well Structure," IEEE International Solid-State Circuits Conference (February 17, 1989) ("Fujii (Feb. 1989)") and/or Fujii, Syuso, et al., "A 45-ns 16-Mbit DRAM with Triple-Well Structure," IEEE J. of Solid State Circuits, vol. 24(5), at 1170-74 (Oct. 1989) ("Fujii (Oct. 1989)") prior to the issuance of the '602 patent. For example, on March 26, 1990, Richard C. Foss sent a fax to at least four other MOSAID employees in which he expressed concern that MOSAID would not be able to receive a patent for its word line driver because of Fujii (Feb. 1989) and/or Fujii (Oct. 1989). On April 5, 1990, Edward. E. Pascal sent a draft U.K. Patent Application for the word line to Tibor Z. Gold, in which Fujii (Oct. 1989) was listed as a prior art reference. Yet, a redacted version of the U.K. application, without reference to Fujii (Oct. 1989), was filed with the PTO during the prosecution of the '602 patent in support of MOSAID's claim that the '602 patent was entitled to the filing date of the U.K. application. The information contained in Fujii (Feb. 1989) and Fujii (Oct. 1989) is material to one or more claims of the '602 patent. Nevertheless, Fujii

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(Feb. 1989) and Fujii (Oct. 1989) were not disclosed to the PTO during the prosecution of the '602 patent. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '602 patent. The '703 patent is a continuation that claims priority to the '602 patent. As a result, the '703 patent is unenforceable due to inequitable conduct and infectious unenforceability.

- b. The '703 patent is a continuation of the '253 and '640 patents. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '253, '640 and '703 patents and their related applications were aware of U.S. Patent No. 4,486,670 ("Chan") prior to the issuance of the '253, '640 and '703 patents. For example, on June 29, 1995, Richard C. Foss (MOSAID's co-founder) and Peter Gillingham (responsible for the patent prosecution group at MOSAID) received a fax requesting MOSAID to evaluate whether its 4M DRAM infringed Chan for potential licensing negotiations. A copy of Chan was attached to the fax. On or before November 19, 1996, MOSAID discussed attempting to invalidate Japanese Patent No. 58-125298 which is the Japanese counterpart to Chan. The communications regarding an attempt to invalidate Japanese Patent No. 58-125298 were sent between James M. Smith (the attorney responsible for prosecuting the '253, '640 and '703 patents) and Michael Vladescu (the employee responsible for the day-to-day management of patent prosecution at MOSAID under Peter Gillingham). The information contained in Chan is material to one or more claims of the '253, '640 and '703 patents. Nevertheless, Chan was not disclosed to the PTO during the prosecution of the '253 and '640 patents and their related applications. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO. Because the '703 patent is a continuation of the '253 and '640 patents, the '703 patent is unenforceable due to inequitable conduct and infectious unenforceability.
- 67. A judicial declaration of noninfringement, invalidity, unenforceability, and license is necessary and appropriate to resolve this controversy.

POWERCHIP'S FIRST AMENDED

COMPLAINT IN INTERVENTION

COUNT VII

(Declaration of Noninfringement, Invalidity, Unenforceability, and License of U.S. Patent No. 7,038,937)

- 68. Powerchip incorporates and realleges the allegations set forth in the paragraphs above as if set forth fully herein.
- 69. U.S. Patent No. 7,038,937 (the "'937 patent") was filed on March 2, 2004 and issued on May 2, 2006. The named inventor on the '937 patent is Valerie L. Lines. A copy of the '937 patent is attached hereto as Exhibit G.
- 70. Powerchip has not infringed and is not now infringing, directly or indirectly, any valid claim of the '937 patent, either literally or under the doctrine of equivalents.
- 71. The '937 patent is invalid because it fails to meet the requirements for patentability as set forth in 35 U.S.C. §§ 102, 103, 112 and/or other sections set forth in Title 35 of the United States Code.
- 72. MOSAID is barred from asserting infringement by Powerchip of the '937 patent because Powerchip is licensed to make products covered by the '937 patent pursuant to the terms of license agreement(s) between MOSAID and one or more third parties.
- 73. The '937 patent is unenforceable due to laches, equitable estoppel, prosecution laches, and/or inequitable conduct.
- a. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to U.S. Patent No. 5,214,602 ("the '602 patent") and its related applications were aware of Fujii, Syuso, et al., "A 45-ns 16-Mbit DRAM with Triple-Well Structure," IEEE International Solid-State Circuits Conference (February 17, 1989) ("Fujii (Feb. 1989)") and/or Fujii, Syuso, et al., "A 45-ns 16-Mbit DRAM with Triple-Well Structure," IEEE J. of Solid State Circuits, vol. 24(5), at 1170-74 (Oct. 1989) ("Fujii (Oct. 1989)") prior to the issuance of the '602 patent. For example, on March 26, 1990, Richard C. Foss sent a fax to at least four other MOSAID employees in which he expressed concern that MOSAID would not be able to receive a patent for its word line driver because of Fujii (Feb. 1989) and/or Fujii (Oct. 1989). On April 5, 1990, Edward. E. Pascal sent a draft U.K. Patent Application

for the word line to Tibor Z. Gold, in which Fujii (Oct. 1989) was listed as a prior art reference. Yet, a redacted version of the U.K. application, without reference to Fujii (Oct. 1989), was filed with the PTO during the prosecution of the '602 patent in support of MOSAID's claim that the '602 patent was entitled to the filing date of the U.K. application. The information contained in Fujii (Feb. 1989) and Fujii (Oct. 1989) is material to one or more claims of the '602 patent. Nevertheless, Fujii (Feb. 1989) and Fujii (Oct. 1989) were not disclosed to the PTO during the prosecution of the '602 patent. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '602 patent. The '937 patent is a continuation that claims priority to the '602 patent. As a result, the '937 patent is unenforceable due to inequitable conduct and infectious unenforceability.

The '937 patent is a continuation of the '253 and '640 patents. Upon information and b. belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '253, '640 and '937 patents and their related applications were aware of U.S. Patent No. 4,486,670 ("Chan") prior to the issuance of the '253, '640 and '937 For example, on June 29, 1995, Richard C. Foss (MOSAID's co-founder) and Peter Gillingham (responsible for the patent prosecution group at MOSAID) received a fax requesting MOSAID to evaluate whether its 4M DRAM infringed Chan for potential licensing negotiations. A copy of Chan was attached to the fax. On or before November 19, 1996, MOSAID discussed attempting to invalidate Japanese Patent No. 58-125298 which is the Japanese counterpart to Chan. The communications regarding an attempt to invalidate Japanese Patent No. 58-125298 were sent between James M. Smith (the attorney responsible for prosecuting the '253, '640 and '937 patents) and Michael Vladescu (the employee responsible for the day-to-day management of patent prosecution at MOSAID under Peter Gillingham). The information contained in Chan is material to one or more claims of the '253, '640 and '937 patents. Nevertheless, Chan was not disclosed to the PTO during the prosecution of the '253 and '640 patents and their related applications. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO. Because the '937 patent is a continuation of the '253 and '640 patents, the '937 patent is unenforceable due to inequitable conduct and infectious unenforceability.

c. In addition, upon information and belief, the inventors of, prosecuting attorneys of,
and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '937
patent were aware of at least a portion of W. Pribyl, et al., "New Concepts for Wordline Driving
Circuits in CMOS" (the "Pribyl Reference") prior to the issuance of the '448 patent. For example,
the Pribyl Reference was published at the Fourteenth European Solid-State Circuits Conference in
Manchester, UK held on September 21-23, 1988. Upon information and belief, on October 12,
2004, IBM provided a slide show presentation to MOSAID which included Figure 4 of the Pribyl
Reference and asserted that Figure 4 constituted prior art to U.S. Patent No. 6,603,703 (the "'703
patent"). On information and belief, Michael Vladescu and James Skippen of MOSAID attended
this presentation. In addition, on information and belief, on October 14, 2004, IBM provided James
Skippen with a copy of the slide show. The application for the '937 patent was filed on June 17,
2003 and the patent issued on December 27, 2005. The '937 patent is a continuation that claims
priority to the '703 patent. The information contained in Figure 4 of the Pribyl Reference and the
Pribyl Reference as a whole is material to the patentability of one or more claims of the '937 patent.
Nevertheless, the Pribyl Reference, in whole or in part, was not disclosed to the PTO during the
prosecution of the '937 patent. The failure to disclose this material information was knowing,
willful, and done with the intent to deceive the PTO. As a result, the '937 patent is unenforceable
due to inequitable conduct.

74. A judicial declaration of noninfringement, invalidity, unenforceability, and license is necessary and appropriate to resolve this controversy.

COUNT VIII

(Declaration of Noninfringement, Invalidity, Unenforceability, and License of U.S. Patent No. 5,828,620)

- 75. Powerchip incorporates and realleges the allegations set forth in the paragraphs above as if set forth fully herein.
- 76. U.S. Patent No. 5,828,620 (the "'620 patent") was filed on September 2, 1997 and issued on October 27, 1998. The named inventors on the '620 patent are Richard C. Foss, Peter B.

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Gillingham, Robert F. Harland, and Valerie L. Lines. A copy of the '620 patent is attached hereto as Exhibit H.

- 77. Powerchip has not infringed and is not now infringing, directly or indirectly, any valid claim of the '620 patent, either literally or under the doctrine of equivalents.
- 78. The '620 patent is invalid because it fails to meet the requirements for patentability as set forth in 35 U.S.C. §§ 102, 103, 112 and/or other sections set forth in Title 35 of the United States Code.
- 79. MOSAID is barred from asserting infringement by Powerchip of the '620 patent because Powerchip is licensed to make products covered by the '620 patent pursuant to the terms of license agreement(s) between MOSAID and one or more third parties.
- 80. The '620 patent is unenforceable due to laches, equitable estoppel, prosecution laches, and/or inequitable conduct.
- a. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '523, '620, '581 and '448 patents and their predecessor applications were aware of U.S. Patent No. 5,150,325 ("the '325 patent") prior to the issuance of the '523, '620, '581 and '448 patents. For example, on April 5, 1991, Richard C. Foss, Peter B. Gillingham, Robert F. Harland, and Valerie C. Lines ("the Foss inventors") filed U.S. Patent App. Ser. No. 07/680,994 (the "'994 application") which resulted in the issuance of U.S. Patent No. 5,267,201 ("the '201 patent"). The Foss inventors filed several applications claiming priority to the '994 application, each assigned to MOSAID or a predecessor, including the applications that resulted in the issuance of the '523, '620, '581 and '448 patents. The law firm of Antonelli, Terry, Stout & Kraus, prosecuted the '325 patent as well as the '201 and '523 patents. Gregory E. Montone and others at Antonelli, Terry, Stout & Kraus signed papers on behalf of the applicants for submission to the PTO in both the prosecution of the '325 patent, as well as the '201 and '523 patents. In addition, the '325 patent was identified to MOSAID by a potential licensee and disclosed during the prosecution of other MOSAID applications. For example, on April 5, 1991, Ms. Lines filed U.S. Patent App. Ser. No. 07/680,746 ("the '746 application") which resulted in the issuance of U.S. Patent No. 5,214,602 ("the '602 patent"). Upon information and

belief, the '325 patent was disclosed to the PTO during the prosecution of several applications claiming priority to the '746 application, including U.S. Patent App. Ser. Nos. 08/5115,904; 08/611,558; and 08/705,534 ("the Lines applications"). Upon information and belief, the Lines applications were prosecuted by the law firms of Antonelli, Terry, Stout & Kraus and Hamilton, Brooke, Smith & Reynolds. P.C. For instance, James M. Smith of Hamilton, Brooke, Smith & Reynolds. P.C. signed papers on behalf of the applicant during the prosecution of the Lines applications. Mr. Smith also signed paper on behalf on the Foss inventors during the prosecution of the '620 '581, and '448 patents and related applications. More than one Information Disclosure Statement was submitted during the prosecution of the Lines applications that listed the '325 patent and in which the applicant stated that the '325 patent, "may be the most pertinent." The '325 patent was also the subject of rejections by the examiner and amendments and arguments by the applicant during the prosecution of the Lines applications. Further, the examiner for the Lines applications discussed the '325 patent with Mr. Smith, Ms. Lines, Peter B. Gillingham and Michael Vladescu during an interview conducted on or about October 15, 1997. The information contained in the '325 patent is material to one or more claims of the '523, '620, '581 and '448 patents and/or their predecessor applications. Nevertheless, the '325 patent was not disclosed to the United States Patent and Trademark Office ("PTO") during the prosecution of the '523, '620, and '581 patents and their predecessor applications. The '325 patent was not disclosed to the PTO during the prosecution of the Foss family of patents until August 2002, after it was identified as prior art during litigation by an alleged infringer. The '325 patent was one of 74 new references disclosed in a Request for Continued Examination filed during the prosecution of U.S. Patent App. Serial No. US 09/819,488 on or about August 20, 2002, after the applicants received their second Notice of Allowability and Notice of Allowance. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '523, '620 and '581 patents. The '448 patent is a continuation of a patent related to the '523, '620, and '581 patents. As a result, the '523, '620, '581 and '448 patents are unenforceable due to inequitable conduct and infectious unenforceability.

b. Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '523, '620, '581 and '448 patents and their predecessor applications were aware of U.S. Patent No. 4,878,201 ("the '8,201 patent") prior to the issuance of the '523, '620, '581 and '448 patents. For example, on April 5, 1991, the Foss inventors filed U.S. Patent App. Ser. No. 07/680,994 which resulted in the issuance of U.S. Patent No. 5,267,201 ("the '201 patent"). The Foss inventors filed several applications claiming priority to the '994 application, each assigned to MOSAID or a predecessor, including U.S. Patent No. 5,406,523 ("the '523 patent"). On April 5, 1991, Ms. Lines filed U.S. Patent App. Ser. No. 07/680,746 ("the '746 application") which resulted in the issuance of U.S. Patent No. 5,214,602 ("the '602 patent") also assigned to MOSAID. The law firm of Antonelli, Terry, Stout & Kraus, prosecuted the '746 application as well as the '201 and '523 patents. Gregory E. Montone and others at Antonelli, Terry, Stout & Kraus signed papers on behalf of the applicants for submission to the PTO in both the prosecution of the '746 application as well as the '201 and '523 patents. Antonelli, Terry, Stout and Kraus were aware of the '8,201 patent from an office action dated September 13, 1991 in the '746 application. Antonelli, Terry, Stout and Kraus submitted an IDS disclosing prior art on April 2, 1993 during the prosecution of the '201 patent but failed to disclose art cited by the examiner on September 13, 1991 in the '746 application, including the '8,201 patent. The '8,201 patent was disclosed to the PTO during the prosecution of several applications ("the Lines applications") claiming priority to the '746 application. For example, the applicant submitted more than one Information Disclosure Statement during the prosecution of the Lines applications that listed the '8,201 patent. In addition, the Lines applications were prosecuted by the law firms of Antonelli, Terry, Stout & Kraus and Hamilton, Brooke, Smith & Reynolds. P.C. For instance, James M. Smith of Hamilton, Brooke, Smith & Reynolds. P.C. signed papers on behalf of the applicants during the prosecution of the Lines applications as well as during the prosecution of the '620 '581, and '448 patents and related applications. The information contained in the '8,201 patent is material to one or more claims of the '523, '620, '581 and '448 patents and/or their predecessor applications. Nevertheless, the 8'201 patent was not disclosed to the United States Patent and Trademark Office ("PTO") during the prosecution of the '523, '620, and '581 patents and their predecessor

applications. The '8,201 patent was not disclosed to the PTO during the prosecution of the Foss family of patents until August 2002, after it was identified as prior art during litigation by an alleged infringer. The '8,201 patent was one of 74 new references disclosed in a Request for Continued Examination filed during the prosecution of U.S. Patent App. Serial No. US 09/819,488 on or about August 20, 2002, after the applicants received their second Notice of Allowability and Notice of Allowance. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '523, '620, and '581 patents. The '448 patent is a continuation of a patent related to the '523, '620, and '581 patents. As a result, the '523, '620, '581 and '448 patents are unenforceable due to inequitable conduct and infectious unenforceability.

Upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '523, '620, '581 and '448 patents and their predecessor applications were aware of a report titled "An Analysis of the Hitachi HM511000/HM511001/HM511002 1Mx1 CMOS DRAMs" ("Hitachi Report") prior to the issuance of the '523, '620, '581 and '448 patents. In the mid-late 1980's, MOSAID's business included reverse engineering memory and other chips, drafting reports on those reverse engineering studies, and selling those reports to customers. Prior to March 1988, MOSAID acquired samples of Hitachi's HM511000, HM511001, and HM511002 Mxl CMOS DRAMS. MOSAID studied and analyzed those parts and published the Hitachi Report in March 1988. Some of the inventors of the '523, '620, '581, and '448 patents participated in the drafting of the Hitachi Report and/or reviewed the report. In addition, upon information and belief, on April 5, 1991, three Foss inventors (Messrs. Foss, Gillingham and Harland), Masami Mitsuhashi, and Atsushi Wada filed U.S. Patent App. Ser. No. 07/680,747 (the "'747 application") with the PTO. The '747 application was assigned to MOSAID. Upon information and belief, the applicants filed U.S. Patent App. Ser. No. 08/147,038 (the "'038 application) on November 4, 1993 as a continuation of the '747 application. The '038 application was assigned to MOSAID and resulted in the issuance of U.S. Patent No. 5,414,662 (the "662 patent") on May 9, 1995. U.S. Patent App. Ser. No. 08/853,507 ("the '507 application"), a reissue application of the '662 patent, was filed on May 8, 1997. Upon information and belief, Mr. Gillingham, Mr. Vladescu, and Mr. Smith (at least) reviewed and disclosed certain MOSAID reverse

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engineering reports to the PTO during the prosecution of the '507 application, including a portion of the Hitachi Report. The information contained in the Hitachi Report is material to one or more claims of the '523, '620, '581 and '448 patents and/or their predecessor applications. Nevertheless, the Hitachi Report was not disclosed to the PTO during the prosecution of the '523, '620, '581 and '448 patents and their predecessor applications. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO into issuing the '523, '620, '581 and '448 patents. As a result, the '523, '620, '581 and '448 patents are unenforceable due to inequitable conduct.

81. A judicial declaration of noninfringement, invalidity, unenforceability, and license is necessary and appropriate to resolve this controversy.

COUNT IX

(Declaration of Noninfringement, Invalidity, Unenforceability, and License of U.S. Patent No. 6,980,448)

- 82. Powerchip incorporates and realleges the allegations set forth in the paragraphs above as if set forth fully herein.
- 83. U.S. Patent No. 6,980,448 (the "'448 patent") was filed on June 17, 2003 and issued on December 27, 2005. The named inventors on the '448 patent are Richard C. Foss, Peter B. Gillingham, Robert F. Harland, and Valerie L. Lines. A copy of the '448 patent is attached hereto as Exhibit I.
- 84. Powerchip has not infringed and is not now infringing, directly or indirectly, any valid claim of the '448 patent, either literally or under the doctrine of equivalents.
- 85. The '448 patent is invalid because it fails to meet the requirements for patentability as set forth in 35 U.S.C. §§ 102, 103, 112 and/or other sections set forth in Title 35 of the United States Code.
- 86. MOSAID is barred from asserting infringement by Powerchip of the '448 patent because Powerchip is licensed to make products covered by the '448 patent pursuant to the terms of license agreement(s) between MOSAID and one or more third parties.

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	87.	The	' 448	patent	is	unenforceable	due	to	laches,	equitable	estoppel,	prosecution
laches,	and/or	inequ	itable	conduc	et (a	as detailed in pa	ıragra	phs	s 79a-c a	bove).		

- In addition, upon information and belief, the inventors of, prosecuting attorneys of, and/or other individuals subject to the requirements of 37 C.F.R. § 1.56(c) with regard to the '448 patent were aware of at least a portion of W. Pribyl, et al., "New Concepts for Wordline Driving Circuits in CMOS" (the "Pribyl Reference") prior to the issuance of the '448 patent. For example, the Pribyl Reference was published at the Fourteenth European Solid-State Circuits Conference in Manchester, UK held on September 21-23, 1988. Upon information and belief, on October 12, 2004, IBM provided a slide show presentation to MOSAID which included Figure 4 of the Pribyl Reference. On information and belief, IBM asserted at the presentation that Figure 4 had been disclosed in a printed publication prior to at least April 6, 1990. On information and belief, Michael Vladescu and James Skippen of MOSAID attended this presentation. In addition, on information and belief, on October 14, 2004, IBM provided James Skippen with a copy of the slide show. The application for the '448 patent was filed on June 17, 2003 and the patent issued on December 27, 2005. The information contained in Figure 4 of the Pribyl Reference and the Pribyl Reference as a whole is material to the patentability of one or more claims of the '448 patent. Nevertheless, the Pribyl Reference, in whole or in part, was not disclosed to the PTO during the prosecution of the '448 patent. The failure to disclose this material information was knowing, willful, and done with the intent to deceive the PTO. As a result, the '448 patent is unenforceable due to inequitable conduct.
- A judicial declaration of noninfringement, invalidity, unenforceability, and license is necessary and appropriate to resolve this controversy.

COUNT X

(Declaration of Noninfringement, Invalidity, Unenforceability, and License of U.S. Patent No. 6,236,581)

89. Powerchip incorporates and realleges the allegations set forth in the paragraphs above as if set forth fully herein.

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- 90. U.S. Patent No. 6,236,581 (the "'581 patent") was filed on January 14, 2000 and issued on May 22, 2001. The named inventors on the '581 patent are Richard C. Foss, Peter B. Gillingham, Robert F. Harland, and Valerie L. Lines. A copy of the '581 patent is attached hereto as Exhibit J.
- 91. Powerchip has not infringed and is not now infringing, directly or indirectly, any valid claim of the '581 patent, either literally or under the doctrine of equivalents.
- 92. The '581 patent is invalid because it fails to meet the requirements for patentability as set forth in 35 U.S.C. §§ 102, 103, 112 and/or other sections set forth in Title 35 of the United States Code.
- 93. MOSAID is barred from asserting infringement by Powerchip of the '581 patent because Powerchip is licensed to make products covered by the '581 patent pursuant to the terms of license agreement(s) between MOSAID and one or more third parties.
- 94. The '581 patent is unenforceable due to laches, equitable estoppel, prosecution laches, and/or inequitable conduct (as detailed in paragraphs 79a-c above).
- 95. A judicial declaration of noninfringement, invalidity, unenforceability, and license is necessary and appropriate to resolve this controversy.

COUNT XI

(Declaration of Noninfringement, Invalidity, Unenforceability, and License of U.S. Patent No. 5,406,523)

- 96. Powerchip incorporates and realleges the allegations set forth in the paragraphs above as if set forth fully herein.
- 97. U.S. Patent No. 5,406,523 (the "'523 patent") was filed on October 12, 1993 and issued on April 11, 1995. The named inventors on the '523 patent are Richard C. Foss, Peter B. Gillingham, Robert F. Harland, and Valerie L. Lines. A copy of the '523 patent is attached hereto as Exhibit K.
- 98. Powerchip has not infringed and is not now infringing, directly or indirectly, any valid claim of the '523 patent, either literally or under the doctrine of equivalents.

- 99. The '523 patent is invalid because it fails to meet the requirements for patentability as set forth in 35 U.S.C. §§ 102, 103, 112 and/or other sections set forth in Title 35 of the United States Code.
- 100. MOSAID is barred from asserting infringement by Powerchip of the '523 patent because Powerchip is licensed to make products covered by the '523 patent pursuant to the terms of license agreement(s) between MOSAID and one or more third parties.
- 101. The '523 patent is unenforceable due to laches, equitable estoppel, prosecution laches, and/or inequitable conduct (as detailed in paragraphs 79a-c above).101. A judicial declaration of noninfringement, invalidity, unenforceability, and license is necessary and appropriate to resolve this controversy.

PRAYER FOR RELIEF

WHEREFORE, Powerchip requests that this Court:

- (a) Declare that Powerchip has not infringed, contributed to the infringement of, or induced others to infringe, either directly or indirectly or either literally or under the doctrine of equivalents, any valid claim of U.S. Patent Nos. 6,657,919; 6,992,950; 5,751,643; 5,822,253; 6,278,640; 6,603,703; 7,038,937; 5,828,620; 6,980,448; 6,236,581; and 5,406,523;
- (b) Declare that U.S. Patent Nos. 6,657,919; 6,992,950; 5,751,643; 5,822,253; 6,278,640; 6,603,703; 7,038,937; 5,828,620; 6,980,448; 6,236,581; and 5,406,523 are invalid and/or unenforceable;
- (c) Declare that Powerchip is licensed to make products covered by U.S. Patent Nos. 6,657,919; 6,992,950; 5,751,643; 5,822,253; 6,278,640; 6,603,703; 7,038,937; 5,828,620; 6,980,448; 6,236,581; and 5,406,523 pursuant to the terms of license agreements between MOSAID and one or more third parties.
- (d) Declare that MOSAID's inequitable conduct in the prosecution of MOSAID's patents and/or their related applications renders those patents unenforceable;
- (e) Order that MOSAID, its agents, and all persons acting in concert or participation with MOSAID, be enjoined from asserting claims against Powerchip for infringement of any of U.S.

POWERCHIP'S FIRST AMENDED COMPLAINT IN INTERVENTION

CASE No. 5:06-CV-04496-JF

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1	DEMAND FOR JURY TRIAL					
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3	Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure and United States District					
	Court for the Northern District of California Local Rule 3-6, Intervenor hereby demands a jury trial.					
4 5	DATED: August 11, 2008 DUANE MORRIS LLP					
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8	By: <u>/s/ Lina M. Brenner</u> LINA M. BRENNER					
9	Attorneys for Intervenor POWERCHIP SEMICONDUCTOR					
10	CORPORATION					
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POWERCHIP'S FIRST AMENDED COMPLAINT IN INTERVENTION