IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

ADVANCED SILICON TECHNOLOGIES, LLC Plaintiff,	
V.	Civil Action No.
TOYOTA MOTOR CORPORATION, TOYOTA MOTOR NORTH AMERICA, INC., TOYOTA MOTOR SALES, U.S.A., INC., TOYOTA MOTOR ENGINEERING & MANUFACTURING NORTH AMERICA, INC., TOYOTA MOTOR MANUFACTURING, INDIANA, INC., TOYOTA MOTOR MANUFACTURING, KENTUCKY, INC., AND TOYOTA MOTOR MANUFACTURING, MISSISSIPPI, INC. Defendants.	

COMPLAINT

Advanced Silicon Technologies, LLC ("Advanced Silicon" or "Plaintiff"), brings this action for patent infringement against Defendants Toyota Motor Corporation; Toyota Motor North America, Inc.; Toyota Motor Sales, U.S.A., Inc.; Toyota Motor Engineering & Manufacturing North America, Inc.; Toyota Motor Manufacturing, Indiana, Inc.; Toyota Motor Manufacturing, Kentucky, Inc.; and Toyota Motor Manufacturing, Mississippi, Inc. (collectively, "Toyota" or "Defendants"), and alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement under the patent laws of the United States, Title 35 of the United States Code. Advanced Silicon seeks remedies for Defendant's infringement of Advanced Silicon's U.S. Patent Nos. 6,339,428 ("the '428 Patent"), 6,546,439 ("the '439 Patent"), and 6,630,935 ("the '935 Patent") (collectively, the "Patents-in-Suit").

THE PARTIES

2. Advanced Silicon is a Delaware limited liability company, with a principal place of business at 118 Maplewood Avenue Unit C-2/Box 8, Portsmouth, NH 03801.

3. Upon information and belief, Toyota Motor Corporation is a corporation organized and existing under the laws of Japan, with its principal place of business at 1 Toyotacho, Toyota City, Aichi Prefecture 471-8571, Japan.

4. Upon information and belief, Toyota Motor North America, Inc. is a California corporation headquartered at 601 Lexington Ave, 49th Floor, New York, NY 10022.

5. Upon information and belief, Toyota Motor Sales, U.S.A., Inc. is a California corporation headquartered at 19001 S. Western Avenue Torrance, CA 90501.

 Upon information and belief, Toyota Motor Engineering & Manufacturing North America, Inc. is a Kentucky corporation headquartered at 25 Atlantic Avenue, Erlanger, KY 41018.

7. Upon information and belief, Toyota Motor Manufacturing, Indiana, Inc. is an Indiana corporation headquartered at 4000 Tulip Tree Drive, Princeton, IN 47670.

8. Upon information and belief, Toyota Motor Manufacturing, Kentucky, Inc. is a Kentucky corporation headquartered at 1001 Cherry Blossom Way, Georgetown, KY 40324.

9. Upon information and belief, Toyota Motor Manufacturing, Mississippi, Inc. is a Mississippi corporation headquartered at 1200 Magnolia Way, Blue Springs, MS 38828.

JURISDICTION AND VENUE

10. This action arises under the Patent Act, 35 U.S.C. § 1 et seq.

11. Subject matter jurisdiction is proper in this Court under 28 U.S.C. §§ 1331 and 1338.

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12. Venue in this district is proper under 28 U.S.C. §§ 1400(b) and 1391(b) and (c).

13. This court has personal jurisdiction over Toyota by virtue of, *inter alia*, (i) maintaining a regular place of business and a continuing presence in this jurisdiction; (ii) committing at least a portion of the infringements alleged herein within this district; and (iii) regularly doing business or soliciting business, engaging in other persistent courses of conduct and/or deriving substantial revenue from good and services provided to individuals in this district at least at, for example, the Price Toyota-Scion dealership located at 168 N. Dupont Highway, New Castle, Delaware 19720.

THE PATENTS

14. United States Patent No. 6,339,428 ("the '428 Patent") is entitled "Method and Apparatus for Compressed Texture Caching in a Video Graphics System," and issued January 15, 2002 to inventors Mark C. Fowler, Paul Vella, and Michael T. Wright. The '428 Patent issued from United States Patent Application No. 09/356,398 filed on July 16, 1999. A copy of the '428 Patent is attached hereto as Exhibit A.

15. United States Patent No. 6,546,439 ("the '439 Patent") is entitled "Method and System for Improved Data Access," and issued April 8, 2003 to inventors Geoffrey S. Strongin and Qadeer A. Qureshi. The '439 Patent issued from United States Patent Application No. 09/207,970 filed on December 9, 1998. A copy of the '439 Patent is attached hereto as Exhibit B.

16. United States Patent No. 6,630,935 ("the '935 Patent") is entitled "Geometric Engine Including a Computational Module for use in a Video Graphics Controller," and issued October 7, 2003 to inventors Ralph Clayton Taylor, Michael Andrew Mang, and Michael Mantor. The '935 Patent issued from United States Patent Application No. 09/556,474 filed on April 21, 2000. A copy of the '935 Patent is attached as Exhibit C.

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17. Advanced Silicon is the lawful assignee and owner of all right, title and interest in and to the '428 Patent, the '439 Patent, and the '935 Patent (collectively, the "Patents-in-Suit").

INFRINGEMENT OF THE PATENTS-IN-SUIT

18. Toyota has infringed and continues to infringe at least four of Advanced Silicon's patents that cover important aspects of automotive infotainment systems, head-end units, navigation systems, graphics processors, microprocessors, integrated circuits, and other computing and graphics-capable electronic devices, and automobiles containing such components.

19. Advanced Silicon incorporates by reference in its allegations herein certain claim charts comparing the independent claims of the Patents-in-Suit to certain automotive infotainment systems and the automobiles containing same.

20. Exhibits D, E, and F include charts comparing exemplary independent claims of the Patents-in-Suit to the exemplary products 2015 Toyota Corolla Infotainment system and vehicles containing same. Exemplary infringing products include Defendants' vehicles and electronic control units that are used within its vehicles that include a graphics processor and/or microprocessor, including, without limitation, the Toyota Corolla Infotainment system and 2015 Toyota Corolla containing the same (the "Exemplary Toyota Products").

21. Advanced Silicon believes that the 2015 Toyota Corolla Infotainment system and vehicles containing the same are exemplary of numerous other Toyota products because such other devices feature the same or substantially similar infringing functionality. Accordingly, on information and belief, numerous other devices that are covered by the claims of the Patents-in-Suit have been imported, made, used, sold, and/or offered for sale by Toyota.

<u>COUNT I</u> (Toyota's Infringement of the '428 Patent)

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22. Paragraphs 1 through 21 are incorporated by reference as if fully restated herein.

23. Advanced Silicon is the assignee and lawful owner of all right, title and interest in and to the '428 Patent.

24. The '428 Patent is valid and enforceable.

25. Defendants have infringed, and are still infringing, one or more claims of the '428 Patent in at least this District by making, using, offering to sell, selling and/or importing products that infringe one or more claims of the '428 Patent literally or by the doctrine of equivalence. Exemplary products include Defendants' 2015 Toyota Corolla Infotainment system and vehicles containing same infringe the '428 Patent.

26. Advanced Silicon is asserting at least claims 1-6, 8-9, 10-14, 16-17, and 25-29 of the '428 Patent against the Defendants.

27. Exhibit D includes charts comparing the exemplary independent claims 1, 10, and 25 of the '428 Patent to the exemplary products 2015 Toyota Corolla Infotainment system and vehicles containing same. Accordingly, the Exemplary Toyota Products infringe at least independent claims 1, 10, and 25 of the '428 Patent.

28. Defendants, directly or through their agents, customers, and/or intermediaries, have made, used, sold, tested, imported, provided, supplied, distributed, and or/ offered for sale products, services, methods, or processes (for example automotive infotainment systems, head-end units, navigation systems, graphics processors, microprocessors, integrated circuits, and other computing and graphics-capable electronic devices, and automobiles containing such components) that directly infringe, literally and/or under the doctrine of equivalents, or which employ systems, components, and/or processes that make use of systems or processes that

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directly infringe, literally and/or under the doctrine of equivalents, at least exemplary claims 1 - 6, 8 - 9, 10 - 14, 16-17, and 25 - 29 of the '428 Patent.

29. Advanced Silicon is entitled to recover damages adequate to compensate for Defendants' infringement of the '428 Patent.

<u>COUNT II</u> (Toyota's Infringement of the '439 Patent)

30. Paragraphs 1 through 29 are incorporated by reference as if fully restated herein.

31. Advanced Silicon is the assignee and lawful owner of all right, title and interest in and to the '439 Patent.

32. The '439 Patent is valid and enforceable.

33. Defendants have infringed, and are still infringing, one or more claims of the '439 Patent in at least this District by making, using, offering to sell, selling and/or importing products that infringe one or more claims of the '439 Patent literally or by the doctrine of equivalence. Exemplary products include Defendants' 2015 Toyota Corolla Infotainment system and vehicles containing the same infringe the '439 Patent.

34. Advanced Silicon is asserting at least claims 1 - 11, and 14 - 16 of the '439 Patent against the Defendants.

35. Exhibit E includes charts comparing the exemplary independent claim 1 of the '439 Patent to the exemplary products 2015 Toyota Corolla Infotainment system and vehicles containing the same. Accordingly, the Exemplary Toyota Products infringe at least independent claim 1 of the '439 Patent.

36. Defendants, directly or through their agents, customers, and/or intermediaries, have made, used, sold, tested, imported, provided, supplied, distributed, and or/ offered for sale products, services, methods, or processes (for example automotive infotainment systems, head-

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end units, navigation systems, graphics processors, microprocessors, integrated circuits, and other computing and/or graphics-capable electronic devices, and automobiles containing such components) that directly infringe, literally and/or under the doctrine of equivalents, or which employ systems, components, and/or processes that make use of systems or processes that directly infringe, literally and/or under the doctrine of equivalents, at least claims 1 - 11, and 14 - 16 of the '439 Patent.

37. Advanced Silicon is entitled to recover damages adequate to compensate for Defendants' infringement of the '439 Patent.

<u>COUNT III</u> (Toyota's Infringement of the '935 Patent)

38. Paragraphs 1 through 37 are incorporated by reference as if fully restated herein.

39. Advanced Silicon is the assignee and lawful owner of all right, title and interest in and to the '935 Patent.

40. The '935 Patent is valid and enforceable.

41. Defendants have infringed, and are still infringing, one or more claims of the '935 Patent in at least this District by making, using, offering to sell, selling and/or importing products that infringe one or more claims of the '935 Patent literally or by the doctrine of equivalence. Exemplary products include Defendants' 2015 Toyota Corolla Infotainment system and vehicles containing the same infringe the '935 Patent.

42. Advanced Silicon is asserting at least the exemplary claims 1, 2, and 4 - 8 of the '935 Patent against the Defendants.

43. Exhibit F includes a chart comparing the exemplary independent claim 1 of the '935 Patent to the exemplary products 2015 Toyota Corolla Infotainment system and vehicles

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containing the same. Accordingly, the Exemplary Toyota Products infringe at least independent claim 1 of the '935 Patent.

44. Defendants, directly or through their agents, customers, and/or intermediaries, have made, used, sold, tested, imported, provided, supplied, distributed, and or/ offered for sale products, services, methods, or processes (for example automotive infotainment systems, head-end units, navigation systems, graphics processors, microprocessors, integrated circuits, and other computing and/or graphics-capable electronic devices, and automobiles containing such components) that directly infringe, literally and/or under the doctrine of equivalents, or which employ systems, components, and/or processes that make use of systems or processes that directly infringe, literally and/or under the doctrine, at least claim 1, 2, and 4 - 8 of the '935 Patent.

45. Advanced Silicon is entitled to recover damages adequate to compensate for Defendants' infringement of the '935 Patent.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests the following relief:

a) A judgment that the '428 Patent, the '439 Patent, and the '935 Patent are valid and enforceable.

b) A judgment that Defendants have infringed one or more claims of the '428 Patent;

c) A judgment that Defendants have infringed one or more claims of the '439 Patent;

A judgment that Defendants have infringed one or more claims of the '935 Patent;
and

f) A judgment that awards Plaintiff all appropriate damages under 35 U.S.C. § 284 for Defendants' past infringement, and any continuing or future infringement of the

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Patents-in-Suit, up until the date such judgment is entered, including pre and post interest, costs, and disbursements as justified under 35 U.S.C. § 284 and, if necessary, to adequately compensate Plaintiff for Defendants' infringement, an accounting:

- i. that this case be declared exceptional within the meaning of 35 U.S.C. § 285 and that Plaintiff be awarded its reasonable attorneys' fees against Defendants that it incurs in prosecuting this action;
- ii. that Plaintiff be awarded costs, and expenses that it incurs in prosecuting this action; and
- iii. that Plaintiff be awarded such further relief at law or in equity as the Court deems just and proper.

DEMAND FOR JURY TRIAL

Plaintiff hereby demands trial by jury on all claims and issues so triable.

Respectfully submitted,

Dated: December 21, 2015

Of Counsel: Michael T. Renaud James M. Wodarski Andrew H. DeVoogd Marguerite McConihe Adam S. Rizk MINTZ, LEVIN, COHN, FERRIS, GLOVSKY & POPEO P.C. One Financial Center Boston, MA 02111 (617) 542-6000 mtrenaud@mintz.com jwodarski@mintz.com

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