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BROADCOM CORPORATION

8
9 **UNITED STATES DISTRICT COURT**
10 **FOR THE CENTRAL DISTRICT OF CALIFORNIA**
11 **SOUTHERN DIVISION**

12
13 BROADCOM CORPORATION,

14 Plaintiff,

15 v.

16 MEDIATEK INC. and MEDIATEK
USA INC.,

17 Defendants.

Case No. 17 Civ. 405

COMPLAINT FOR PATENT
INFRINGEMENT

DEMAND FOR JURY TRIAL

18
19 Plaintiff Broadcom Corporation (“Broadcom”), by and through its
20 undersigned counsel, files this Complaint for Patent Infringement relating to several
21 U.S. patents as identified below (collectively, the “Patents-in-Suit”) and alleges as
22 follows:

23 **THE PARTIES**

24 1. Plaintiff Broadcom Corporation (“Broadcom” or “Plaintiff”) is a
25 California corporation having its principal place of business at 5300 California
26 Avenue, Irvine, CA 92617. It was acquired by Avago Technologies, Ltd. in 2016
27 and currently operates as a wholly-owned subsidiary of the merged entity now
28 known as Broadcom Limited.

1 2. MediaTek Inc. is a corporation organized under the laws of Taiwan
2 with its principal place of business at No. 1, Dusing 1st Road, Hsinchu Science
3 Park, Hsinchu City 30078, Taiwan.

4 3. MediaTek USA Inc. (“MediaTek USA”) is a corporation organized
5 under the laws of Delaware with its principal place of business at 2840 Junction
6 Avenue, San Jose, CA 95134. On information and belief, MediaTek USA is a
7 wholly-owned subsidiary of MediaTek Inc.

8 **JURISDICTION AND VENUE**

9 4. Broadcom brings this civil action for patent infringement pursuant to
10 the Patent Laws of the United States, 35 U.S.C. § 1, *et. seq.*, including 35 U.S.C.
11 §§ 271, 281-285. This Court has subject matter jurisdiction over this action
12 pursuant to 28 U.S.C. §§ 1331 and 1338.

13 5. Upon information and belief, Defendants MediaTek Inc. and MediaTek
14 USA (collectively, “MediaTek” or “Defendants”) transact and conduct business in
15 this District and the State of California, and are subject to the personal jurisdiction
16 of this Court. Upon information and belief, MediaTek has minimum contacts within
17 the State of California and this District and has purposefully availed itself of the
18 privileges of conducting business in the State of California and in this District by,
19 *inter alia*, maintaining a regional office or offices in this District, in Irvine, CA.
20 Broadcom’s causes of action arise directly from MediaTek’s business contacts and
21 other activities in the State of California and in this District. Upon information and
22 belief, MediaTek has committed acts of infringement, both directly and indirectly,
23 within this District and the State of California by, *inter alia*, using, selling, offering
24 for sale, importing, advertising, and/or promoting products that infringe one or more
25 claims of the Patents-in-Suit. More specifically, MediaTek, directly and/or through
26 intermediaries, uses, sells, ships, distributes, offers for sale, advertises, and
27 otherwise promotes its products in the United States, the State of California, and this
28 District. Upon information and belief, MediaTek solicits customers in the State of

1 California and this District, and has customers who are residents of the State of
2 California and this District and who use MediaTek's products in the State of
3 California and in this District.

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

5 **THE PATENTS-IN-SUIT**

6 7. Broadcom owns by assignment the entire right, title, and interest in
7 U.S. Patent No. 8,284,844 (the "MacInnis '844 patent"), which is entitled "Video
8 Decoding System Supporting Multiple Standards." The MacInnis '844 patent
9 issued on October 9, 2012 to inventors Alexander MacInnis, Jose Alvarez, Sheng
10 Zhong, Xiaodong Xie, and Vivian Hsiun from United States Patent Application
11 No. 10/114,798, filed on April 1, 2002. A true and correct copy of the MacInnis
12 '844 patent is attached as **Exhibit A** to this Complaint.

13 8. Broadcom owns by assignment the entire right, title, and interest in
14 U.S. Patent No. 7,590,059 (the "Gordon '059 patent"), which is entitled
15 "Multistandard Video Decoder." The Gordon '059 patent issued on September 15,
16 2009 to inventor Stephen Gordon from United States Patent Application
17 No. 11/000,731, filed on December 1, 2004. A true and correct copy of the Gordon
18 '059 patent is attached as **Exhibit B** to this Complaint.

19 9. Broadcom owns by assignment the entire right, title, and interest in
20 U.S. Patent No. 7,310,104 (the "MacInnis '104 patent"), which is entitled "Graphics
21 Display System with Anti-Flutter Filtering and Vertical Scaling." The MacInnis
22 '104 patent issued on December 18, 2007 to inventors Alexander MacInnis,
23 Chengfuh Jeffrey Tang, Xiaodong Xie, James Patterson, and Greg Kranawetter from
24 United States Patent Application No. 11/511,042, filed on August 28, 2006. A true
25 and correct copy of the MacInnis '104 patent is attached as **Exhibit C** to this
26 Complaint.

27 10. Broadcom owns by assignment the entire right, title, and interest in
28 U.S. Patent No. 7,342,967 (the "Aggarwal '967 patent"), which is entitled "System

1 and Method for Enhancing Performance of Personal Video Recording (PVR)
2 Functions on HITS Digital Video Streams.” The Aggarwal ‘967 patent issued on
3 March 11, 2008 to inventors Gaurav Aggarwal, Marcus Kellerman, David Erickson,
4 Jason Demas, Sandeep Bhatia, Girish Hulmani, and Arun Gopalakrishna Rao from
5 United States Patent Application No. 10/317,642, filed on December 11, 2002. A
6 true and correct copy of the Aggarwal ‘967 patent is attached as **Exhibit D** to this
7 Complaint.

8 **BACKGROUND**

9 11. Founded by Henry Samuelli and Henry Nicholas in 1991 in Los
10 Angeles, California, Broadcom has grown to be a global leader in the semiconductor
11 industry. Broadcom provides one of the industry’s broadest portfolios of highly-
12 integrated SoCs that seamlessly deliver voice, video, data and multimedia
13 connectivity in the home, office and mobile environments. From its headquarters in
14 Irvine, California, Broadcom has expanded its footprint across the United States and
15 around the world, employing thousands of individuals globally and in the United
16 States. A brief overview of Broadcom’s history can be found on its website at:
17 <https://www.broadcom.com/company/about-us/company-history/>.

18 12. Broadcom’s continued success depends in substantial part upon its
19 constant attention to research and development. From 2015 to 2016, Broadcom
20 spent \$3.7 billion on research and development for its products. \$2.7 billion of this
21 \$3.7 billion was spent in 2016 alone. **Exhibit E** (Broadcom Limited 2016 Form 10-
22 K), at 47. Prior to its acquisition, Broadcom Corporation’s research and
23 development expense was \$2.37 billion, \$2.49 billion and \$2.32 billion in 2014,
24 2013, and 2012, respectively. **Exhibit F** (Broadcom Limited 2014 Form 10-K), at
25 6.

26 13. Broadcom relies on the patent system as an important part of its
27 intellectual property program to protect the valuable technology and inventions
28 resulting from this research and development. As of October 30, 2016, Broadcom

1 Limited had approximately 27,640 U.S. and other patents and approximately 3,020
2 U.S. and other pending patent applications. Broadcom Limited’s research and
3 development efforts are presently resulting in approximately 350 new patent
4 applications per year. **Exhibit E** (Broadcom Limited 2016 Form 10-K), at 8.

5 14. The Accused Products are generally semiconductor components (such
6 as, for example, various system on a chip (“SoC”) and similar processing
7 components and circuits).

8 15. On information and belief, Defendants directly infringe, induce
9 infringement of, and contributorily infringe the Patents-In-Suit by making, using,
10 selling, offering for sale, and importing articles, including specific SoCs and any
11 processing components and circuits that feature the same or substantially similar
12 infringing functionality, which are covered by the claims of the Patents-In-Suit.

13 16. On information and belief, in addition to the specific SoCs listed below
14 in Count 1-4, any processing components and circuits of MediaTek that feature the
15 same or substantially similar infringing functionality, infringe the Patents-In-Suit.

16 **COUNT 1**

17 **(Infringement of the MacInnis ‘844 Patent)**

18 17. Broadcom incorporates by reference each and every allegation in the
19 preceding paragraphs.

20 18. Defendants are making, using, offering to sell, selling, and/or importing
21 into the United States products that infringe at least claim 1 of the MacInnis ‘844
22 patent, including but not limited to the following products:

- 23 • MediaTek ARM MT5580KUF1 1543-BCSH AC4KKFQF; MediaTek
24 ARM MT5580KUF1 1546-BCSH ACMKPTR

25 19. The MediaTek Defendants had actual knowledge of the MacInnis ‘844
26 patent since at least as of the date they were served with this Complaint, and at least
27 since that date have had actual knowledge that one or more of their products
28 infringes one or more claims of the MacInnis ‘844 patent.

1 20. On information and belief, Defendants have induced and will continue
2 to induce the infringement of at least one claim of the MacInnis ‘844 patent, in
3 violation of 35 U.S.C. § 271(b), by, among other things, actively and knowingly
4 aiding and abetting others (including Defendants’ sales and service subsidiaries,
5 Defendants’ authorized dealers and repair service providers, manufacturers who
6 incorporate Defendants’ products into downstream consumer products, retailers of
7 downstream consumer products that incorporate Defendants’ products, and
8 consumers and end users) to infringe the MacInnis ‘844 patent with the specific
9 intent to encourage their infringement, through activities such as marketing
10 Defendants’ products, creating and/or distributing drivers, data sheets, application
11 notes, and/or similar materials with instructions on using or rendering operable
12 downstream consumer products that incorporate Defendants’ products.

13 21. On information and belief, the Defendants contribute to the
14 infringement of one or more claims of the MacInnis ‘844 patent, in violation of 35
15 U.S.C. § 271(c), by, among others, the downstream product customers, because they
16 know that the Accused Products – and, by way of example, the above-mentioned
17 SoCs – embody a material part of the claimed inventions of the MacInnis ‘844
18 patent, that they are specially made or specially adapted for use in an infringement
19 of the claims, and that they are not staple articles of commerce suitable for
20 substantial non-infringing use.

21 22. On information and belief, Defendants’ past and continuing
22 infringement has been deliberate and willful, and this case is therefore an
23 exceptional case, which warrants an award of treble damages and attorneys’ fees to
24 Plaintiff pursuant to 35 U.S.C. § 285. After receiving actual knowledge of the
25 MacInnis ‘844 patent, Defendants have continued to make, use, sell, offer for sale,
26 and/or import infringing products into the United States despite knowing that there
27 was an objectively high likelihood of infringement of the MacInnis ‘844 patent. To
28

1 the extent Defendants did not know of the objectively high likelihood of
2 infringement, it was so obvious that it should have been known to Defendants.

3 23. The infringement of the MacInnis '844 patent by Defendants will
4 continue unless enjoined by this Court.

5 24. The infringing activities by Defendants have caused and will continue
6 to cause irreparable injury to Broadcom for which there exists no adequate remedy
7 at law.

8 **COUNT 2**

9 **(Infringement of the Gordon '059 Patent)**

10 25. Broadcom incorporates by reference each and every allegation in the
11 preceding paragraphs.

12 26. Defendants are making, using, offering to sell, selling, and/or importing
13 into the United States products that infringe at least claims 11 and 21 of the Gordon
14 '059 patent, including but not limited to the following products:

- 15 • MediaTek ARM MT5580KUF1 1543-BCSH AC4KKFQF; MediaTek
16 ARM MT5580KUF1 1546-BCSH ACMKPTR

17 27. The MediaTek Defendants had actual knowledge of the Gordon '059
18 patent since at least as of the date they were served with this Complaint, and at least
19 since that date have had actual knowledge that one or more of their products
20 infringes one or more claims of the Gordon '059 patent.

21 28. On information and belief, Defendants have induced and will continue
22 to induce the infringement of at least one claim of the Gordon '059 patent, in
23 violation of 35 U.S.C. § 271(b), by, among other things, actively and knowingly
24 aiding and abetting others (including Defendants' sales and service subsidiaries,
25 Defendants' authorized dealers and repair service providers, manufacturers who
26 incorporate Defendants' products into downstream consumer products, retailers of
27 downstream consumer products that incorporate Defendants' products, and
28 consumers and end users) to infringe the Gordon '059 patent with the specific intent

1 to encourage their infringement, through activities such as marketing Defendants'
2 products, creating and/or distributing drivers, data sheets, application notes, and/or
3 similar materials with instructions on using or rendering operable downstream
4 consumer products that incorporate Defendants' products.

5 29. On information and belief, the Defendants contribute to the
6 infringement of one or more claims of the Gordon '059 patent, in violation of 35
7 U.S.C. § 271(c), by, among others, the downstream product customers, because they
8 know that the Accused Products – and, by way of example, the above-mentioned
9 SoCs – embody a material part of the claimed inventions of the Gordon '059 patent,
10 that they are specially made or specially adapted for use in an infringement of the
11 claims, and that they are not staple articles of commerce suitable for substantial non-
12 infringing use.

13 30. On information and belief, Defendants' past and continuing
14 infringement has been deliberate and willful, and this case is therefore an
15 exceptional case, which warrants an award of treble damages and attorneys' fees to
16 Plaintiff pursuant to 35 U.S.C. § 285. After receiving actual knowledge of the
17 Gordon '059 patent, Defendants have continued to make, use, sell, offer for sale,
18 and/or import infringing products into the United States despite knowing that there
19 was an objectively high likelihood of infringement of the Gordon '059 patent. To
20 the extent Defendants did not know of the objectively high likelihood of
21 infringement, it was so obvious that it should have been known to Defendants.

22 31. The infringement of the Gordon '059 patent by Defendants will
23 continue unless enjoined by this Court.

24 32. The infringing activities by Defendants have caused and will continue
25 to cause irreparable injury to Broadcom for which there exists no adequate remedy
26 at law.

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COUNT 3

(Infringement of the MacInnis ‘104 Patent)

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3 33. Broadcom incorporates by reference each and every allegation in the
4 preceding paragraphs.

5 34. Defendants are making, using, offering to sell, selling, and/or importing
6 into the United States products that infringe at least claims 1, 6, and 7 of the
7 MacInnis ‘104 patent, including but not limited to the following products:

- 8 • MediaTek ARM MT5580KUF1 1543-BCSH AC4KKFQF; MediaTek
9 ARM MT5580KUF1 1546-BCSH ACMKPTKR

10 35. The MediaTek Defendants had actual knowledge of the MacInnis ‘104
11 patent since at least as of the date they were served with this Complaint, and at least
12 since that date have had actual knowledge that one or more of their products
13 infringes one or more claims of the MacInnis ‘104 patent.

14 36. On information and belief, Defendants have induced and will continue
15 to induce the infringement of at least one claim of the MacInnis ‘104 patent, in
16 violation of 35 U.S.C. § 271(b), by, among other things, actively and knowingly
17 aiding and abetting others (including Defendants’ sales and service subsidiaries,
18 Defendants’ authorized dealers and repair service providers, manufacturers who
19 incorporate Defendants’ products into downstream consumer products, retailers of
20 downstream consumer products that incorporate Defendants’ products, and
21 consumers and end users) to infringe the MacInnis ‘104 patent with the specific
22 intent to encourage their infringement, through activities such as marketing
23 Defendants’ products, creating and/or distributing drivers, data sheets, application
24 notes, and/or similar materials with instructions on using or rendering operable
25 downstream consumer products that incorporate Defendants’ products.

26 37. On information and belief, the Defendants contribute to the
27 infringement of one or more claims of the MacInnis ‘104 patent, in violation of 35
28 U.S.C. § 271(c), by, among others, the downstream product customers, because they

1 know that the Accused Products – and, by way of example, the above-mentioned
2 SoCs – embody a material part of the claimed inventions of the MacInnis ‘104
3 patent, that they are specially made or specially adapted for use in an infringement
4 of the claims, and that they are not staple articles of commerce suitable for
5 substantial non-infringing use.

6 38. On information and belief, Defendants’ past and continuing
7 infringement has been deliberate and willful, and this case is therefore an
8 exceptional case, which warrants an award of treble damages and attorneys’ fees to
9 Plaintiff pursuant to 35 U.S.C. § 285. After receiving actual knowledge of the
10 MacInnis ‘104 patent, Defendants have continued to make, use, sell, offer for sale,
11 and/or import infringing products into the United States despite knowing that there
12 was an objectively high likelihood of infringement of the MacInnis ‘104 patent. To
13 the extent Defendants did not know of the objectively high likelihood of
14 infringement, it was so obvious that it should have been known to Defendants.

15 39. The infringement of the MacInnis ‘104 patent by Defendants will
16 continue unless enjoined by this Court.

17 40. The infringing activities by Defendants have caused and will continue
18 to cause irreparable injury to Broadcom for which there exists no adequate remedy
19 at law.

20 COUNT 4

21 (Infringement of the Aggarwal ‘967 Patent)

22 41. Broadcom incorporates by reference each and every allegation in the
23 preceding paragraphs.

24 42. Defendants are making, using, offering to sell, selling, and/or importing
25 into the United States products that infringe at least claim 1 of the Aggarwal ‘967
26 patent, including but not limited to the following products:

- 27 • MediaTek ARM MT5580KUF1 1543-BCSH AC4KKFQF; MediaTek
28 ARM MT5580KUF1 1546-BCSH ACMKPTR

1 43. The MediaTek Defendants had actual knowledge of the Aggarwal ‘967
2 patent since at least as of the date they were served with this Complaint, and at least
3 since that date have had actual knowledge that one or more of their products
4 infringes one or more claims of the Aggarwal ‘967 patent.

5 44. On information and belief, Defendants have induced and will continue
6 to induce the infringement of at least one claim of the Aggarwal ‘967 patent, in
7 violation of 35 U.S.C. § 271(b), by, among other things, actively and knowingly
8 aiding and abetting others (including Defendants’ sales and service subsidiaries,
9 Defendants’ authorized dealers and repair service providers, manufacturers who
10 incorporate Defendants’ products into downstream consumer products, retailers of
11 downstream consumer products that incorporate Defendants’ products, and
12 consumers and end users) to infringe the Aggarwal ‘967 patent with the specific
13 intent to encourage their infringement, through activities such as marketing
14 Defendants’ products, creating and/or distributing drivers, data sheets, application
15 notes, and/or similar materials with instructions on using or rendering operable
16 downstream consumer products that incorporate Defendants’ products.

17 45. On information and belief, the Defendants contribute to the
18 infringement of one or more claims of the Aggarwal ‘967 patent, in violation of 35
19 U.S.C. § 271(c), by, among others, the downstream product customers, because they
20 know that the Accused Products – and, by way of example, the above-mentioned
21 SoCs – embody a material part of the claimed inventions of the Aggarwal ‘967
22 patent, that they are specially made or specially adapted for use in an infringement
23 of the claims, and that they are not staple articles of commerce suitable for
24 substantial non-infringing use.

25 46. On information and belief, Defendants’ past and continuing
26 infringement has been deliberate and willful, and this case is therefore an
27 exceptional case, which warrants an award of treble damages and attorneys’ fees to
28 Plaintiff pursuant to 35 U.S.C. § 285. After receiving actual knowledge of the

1 Aggarwal '967 patent, Defendants have continued to make, use, sell, offer for sale,
2 and/or import infringing products into the United States despite knowing that there
3 was an objectively high likelihood of infringement of the Aggarwal '967 patent. To
4 the extent Defendants did not know of the objectively high likelihood of
5 infringement, it was so obvious that it should have been known to Defendants.

6 47. The infringement of the Aggarwal '967 patent by Defendants will
7 continue unless enjoined by this Court.

8 48. The infringing activities by Defendants have caused and will continue
9 to cause irreparable injury to Broadcom for which there exists no adequate remedy
10 at law.

11 **PRAYER FOR RELIEF**

12 49. WHEREFORE, Broadcom requests that judgment be entered in its
13 favor and against Defendants as follows:

14 A. Entering judgment declaring that Defendants have infringed,
15 directly and/or indirectly, literally and/or under the doctrine of equivalents,
16 the Patents-in-Suit in violation of 35 U.S.C. § 271;

17 B. Issuing preliminary and permanent injunctions enjoining
18 Defendants, their officers, agents, subsidiaries and employees, and those in
19 privity or in active concert with them, from further activities that constitute
20 infringement of the Patents-in-Suit, within the State of California and across
21 the United States;

22 C. Declaring that Defendants' infringement of the Patents-in-Suit is
23 willful and deliberate pursuant to 35 U.S.C. § 284;

24 D. Ordering that Broadcom be awarded damages in an amount no
25 less than a reasonable royalty for each asserted patent arising out of
26 Defendants' infringement of the Patents-in-Suit, together with costs, and pre-
27 and post-judgment interest;

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E. Declaring this an exceptional case under 35 U.S.C. § 285 and awarding attorneys’ fees and trebling of damages; and

F. Awarding Broadcom such other costs and further relief as the Court deems just and proper.

DEMAND FOR JURY TRIAL

50. Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Broadcom demands a trial by jury on all issues so triable.

DATED: March 7, 2017

Respectfully submitted,

By: /s/ Laurie Edelstein

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