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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 SIGMA DESIGNS, INC.,

17 Defendant.  
18

Case No. 17 Civ. 407

COMPLAINT FOR PATENT  
INFRINGEMENT

**DEMAND FOR JURY TRIAL**

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

22 **THE PARTIES**

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

1           2.     Sigma Designs, Inc. (“Sigma”) is a corporation organized under the  
2 laws of California with its principal place of business at 47467 Fremont Boulevard,  
3 Fremont, CA 94538.

4                               **JURISDICTION AND VENUE**

5           3.     Broadcom brings this civil action for patent infringement pursuant to  
6 the Patent Laws of the United States, 35 U.S.C. § 1, *et. seq.*, including 35 U.S.C.  
7 §§ 271, 281-285. This Court has subject matter jurisdiction over this action  
8 pursuant to 28 U.S.C. §§ 1331 and 1338.

9           4.     Upon information and belief, Defendant Sigma transacts and conducts  
10 business in this District and the State of California, and is subject to the personal  
11 jurisdiction of this Court. Upon information and belief, Sigma has minimum  
12 contacts within the State of California and this District and has purposefully availed  
13 itself of the privileges of conducting business in the State of California and in this  
14 District. Broadcom’s causes of action arise directly from Sigma’s business contacts  
15 and other activities in the State of California and in this District. Upon information  
16 and belief, Sigma has committed acts of infringement, both directly and indirectly,  
17 within this District and the State of California by, *inter alia*, using, selling, offering  
18 for sale, importing, advertising, and/or promoting products that infringe one or more  
19 claims of the Patent-in-Suit. More specifically, Sigma, directly and/or through  
20 intermediaries, uses, sells, ships, distributes, offers for sale, advertises, and  
21 otherwise promotes its products in the United States, the State of California, and this  
22 District. Upon information and belief, Sigma solicits customers in the State of  
23 California and this District, and has customers who are residents of the State of  
24 California and this District and who use Sigma’s products in the State of California  
25 and in this District.

26           5.     Venue is proper in this district under 28 U.S.C. §§ 1391 and 1400(b).  
27  
28

## **THE PATENT-IN-SUIT**

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

## **BACKGROUND**

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

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



1           15. Defendant has had actual knowledge of the MacInnis ‘844 patent since  
2 at least as of the date it was served with this Complaint, and at least since that date  
3 has had actual knowledge that one or more of its products infringes one or more  
4 claims of the MacInnis ‘844 patent.

5           16. On information and belief, Defendant has induced and will continue to  
6 induce the infringement of at least one claim of the MacInnis ‘104 patent, in  
7 violation of 35 U.S.C. § 271(b), by, among other things, actively and knowingly  
8 aiding and abetting others (including Defendant’ sales and service subsidiaries,  
9 Defendant’ authorized dealers and repair service providers, manufacturers who  
10 incorporate Defendant’ products into downstream consumer products, retailers of  
11 downstream consumer products that incorporate Defendant’ products, and  
12 consumers and end users) to infringe the MacInnis ‘104 patent with the specific  
13 intent to encourage their infringement, through activities such as marketing  
14 Defendant’ 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 Defendant’ products.

17           17. On information and belief, the Defendant contributes to the  
18 infringement of one or more claims of the MacInnis ‘104 patent, in violation of 35  
19 U.S.C. § 271(c), by, among others, the downstream product customers, because it  
20 knows that the Accused Products – and, by way of example, the above-mentioned  
21 SoCs – embody a material part of the claimed inventions of the MacInnis ‘104  
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           18. On information and belief, Defendant’ 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 MacInnis '104 patent, Defendant has 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 MacInnis '104 patent. To  
4 the extent Defendant did not know of the objectively high likelihood of  
5 infringement, it was so obvious that it should have been known to Defendant.

6 19. The infringement of the MacInnis '104 patent by Defendant will  
7 continue unless enjoined by this Court.

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

11 **PRAYER FOR RELIEF**

12 21. 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 Patent-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 Patent-in-Suit, within the State of California and across  
21 the United States;

22 C. Declaring that Defendants' infringement of the Patent-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 Patent-in-Suit, together with costs, and pre-  
27 and post-judgment interest;  
28

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

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

5 **DEMAND FOR JURY TRIAL**

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

8 DATED: March 7, 2017

9  
10 Respectfully submitted,

11  
12 By: /s/ Laurie Edelstein

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