



Plaintiff Parthenon Unified Memory Architecture LLC (“PUMA” or “Plaintiff”) hereby submits this Complaint against Defendants Qualcomm Incorporated and Qualcomm Technologies, Inc. (collectively “Qualcomm” or “Defendants”) and states as follows:

**THE PARTIES**

1. PUMA is a Texas limited liability company, having a principal place of business at 2400 Dallas Parkway, Suite 200, Plano, Texas 75093.

2. On information and belief, Defendant Qualcomm Incorporated is a corporation organized and existing under the laws of California, having a principal place of business at 5775 Morehouse Drive, San Diego, California 92121. On information and belief, Defendant Qualcomm Inc. is registered to do business in the State of Texas and has appointed the Prentice-Hall Corporation System, Inc. as its agent for service of process.

3. On information and belief, Defendant Qualcomm Technologies, Inc. is a corporation organized and existing under the laws of California, having a principal place of business at 5775 Morehouse Drive, San Diego, California 92121. On information and belief, Defendant Qualcomm Inc. is registered to do business in the State of Texas and has appointed the Company Corporation as its agent for service of process.

**JURISDICTION AND VENUE**

4. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. §§ 101 *et seq.*

5. Venue is proper in this federal district pursuant to 28 U.S.C. §§1391(b)–(c) and 1400(b) in that Defendants have done business in this District, have committed acts of

infringement in this District, and continue to commit acts of infringement in this District, entitling PUMA to relief.

**COUNT I: INFRINGEMENT OF U.S. PATENT NO. 5,812,789**

6. On September 22, 1998, the United States Patent and Trademark Office (“USPTO”) duly and legally issued United States Patent No. 5,812,789 (“the ’789 Patent”), entitled “Video And/Or Audio Decompression And/Or Compression Device That Shares a Memory Interface.” PUMA holds all rights, title, and interest in and to the ’789 Patent. Qualcomm is not licensed to the ’789 Patent, yet Qualcomm knowingly, actively, and lucratively practices the patents.

7. Upon information and belief, Qualcomm has infringed directly and continues to infringe directly the ’789 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products and/or methods encompassed by the claims of the ’789 Patent. Qualcomm’s infringing products include, but are not limited to, at least the Snapdragon family of system-on-chips, including but not limited to, the S1, S2, S3, S4, 200, 400, 600, and 800 series.

8. The acts of infringement by Qualcomm have caused damage to PUMA, and PUMA is entitled to recover from Qualcomm the damages sustained by PUMA as a result of Qualcomm’s wrongful acts in an amount subject to proof at trial. The infringement of PUMA’s exclusive rights under the ’789 Patent by Qualcomm has damaged and will continue to damage PUMA, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

9. At least as early as its receipt of this Complaint, Qualcomm has had knowledge of the ’789 Patent and written notice of the infringement. PUMA intends to seek discovery on the

issue of willfulness and reserves the right to seek a willfulness finding and increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

**COUNT II: INFRINGEMENT OF U.S. PATENT NO. 5,960,464**

10. On September 28, 1999, the USPTO duly and legally issued United States Patent No. 5,960,464 ("the '464 Patent"), entitled "Memory Sharing Architecture For A Decoding In A Computer System." PUMA holds all rights, title, and interest in and to the '464 Patent. Qualcomm is not licensed to the '464 Patent, yet Qualcomm knowingly, actively, and lucratively practices the patents.

11. Upon information and belief, Qualcomm has infringed directly and continues to infringe directly the '464 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products and/or methods encompassed by the claims of the '464 Patent. Qualcomm's infringing products include, but are not limited to, at least the Snapdragon family of system-on-chips, including but not limited to, the S1, S2, S3, S4, 200, 400, 600, and 800 series.

12. The acts of infringement by Qualcomm have caused damage to PUMA, and PUMA is entitled to recover from Qualcomm the damages sustained by PUMA as a result of Qualcomm's wrongful acts in an amount subject to proof at trial. The infringement of PUMA's exclusive rights under the '464 Patent by Qualcomm has damaged and will continue to damage PUMA, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

13. At least as early as its receipt of this Complaint, Qualcomm has had knowledge of the '464 Patent and written notice of the infringement. PUMA intends to seek discovery on the

issue of willfulness and reserves the right to seek a willfulness finding and increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

**COUNT III: INFRINGEMENT OF U.S. PATENT NO. 6,058,459**

14. On May 2, 2000, the USPTO duly and legally issued United States Patent No. 6,058,459 (“the ’459 Patent”), entitled “Video/Audio Decompression/Compression Device Including An Arbiter And Method For Accessing A Shared Memory.” PUMA holds all rights, title, and interest in and to the ’459 Patent. Qualcomm is not licensed to the ’459 Patent, yet Qualcomm knowingly, actively, and lucratively practices the patents.

15. Upon information and belief, Qualcomm has infringed directly and continues to infringe directly the ’459 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products and/or methods encompassed by the claims of the ’459 Patent. Qualcomm’s infringing products include, but are not limited to, at least the Snapdragon family of system-on-chips, including but not limited to, the S1, S2, S3, S4, 200, 400, 600, and 800 series.

16. The acts of infringement by Qualcomm have caused damage to PUMA, and PUMA is entitled to recover from Qualcomm the damages sustained by PUMA as a result of Qualcomm’s wrongful acts in an amount subject to proof at trial. The infringement of PUMA’s exclusive rights under the ’459 Patent by Qualcomm has damaged and will continue to damage PUMA, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

17. At least as early as its receipt of this Complaint, Qualcomm has had knowledge of the ’459 Patent and written notice of the infringement. PUMA intends to seek discovery on the

issue of willfulness and reserves the right to seek a willfulness finding and increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

**COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 6,427,194**

18. On July 30, 2002, the USPTO duly and legally issued United States Patent No. 6,427,194 ("the '194 Patent"), entitled "Electronic System And Method For Display Using A Decoder And Arbiter To Selectively Allow Access To A Shared Memory." PUMA holds all rights, title, and interest in and to the '194 Patent. Qualcomm is not licensed to the '194 Patent, yet Qualcomm knowingly, actively, and lucratively practices the patents.

19. Upon information and belief, Qualcomm has infringed directly and continues to infringe directly the '194 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products and/or methods encompassed by the claims of the '194 Patent. Qualcomm's infringing products include, but are not limited to, at least the Snapdragon family of system-on-chips, including but not limited to, the S1, S2, S3, S4, 200, 400, 600, and 800 series.

20. The acts of infringement by Qualcomm have caused damage to PUMA, and PUMA is entitled to recover from Qualcomm the damages sustained by PUMA as a result of Qualcomm's wrongful acts in an amount subject to proof at trial. The infringement of PUMA's exclusive rights under the '194 Patent by Qualcomm has damaged and will continue to damage PUMA, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

21. At least as early as its receipt of this Complaint, Qualcomm has had knowledge of the '194 Patent and written notice of the infringement. PUMA intends to seek discovery on the

issue of willfulness and reserves the right to seek a willfulness finding and increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

**COUNT V: INFRINGEMENT OF U.S. PATENT NO. 7,321,368**

22. On January 22, 2008, the USPTO duly and legally issued United States Patent No. 7,321,368 ("the '368 Patent"), entitled "Electronic System And Method For Display Using A Decoder And Arbiter To Selectively Allow Access To A Shared Memory." PUMA holds all rights, title, and interest in and to the '368 Patent. Qualcomm is not licensed to the '368 Patent, yet Qualcomm knowingly, actively, and lucratively practices the patents.

23. Upon information and belief, Qualcomm has infringed directly and continues to infringe directly the '368 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products and/or methods encompassed by the claims of the '368 Patent. Qualcomm's infringing products include, but are not limited to, at least the Snapdragon family of system-on-chips, including but not limited to, the S1, S2, S3, S4, 200, 400, 600, and 800 series.

24. The acts of infringement by Qualcomm have caused damage to PUMA, and PUMA is entitled to recover from Qualcomm the damages sustained by PUMA as a result of Qualcomm's wrongful acts in an amount subject to proof at trial. The infringement of PUMA's exclusive rights under the '368 Patent by Qualcomm has damaged and will continue to damage PUMA, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

25. At least as early as its receipt of this Complaint, Qualcomm has had knowledge of the '368 Patent and written notice of the infringement. PUMA intends to seek discovery on the

issue of willfulness and reserves the right to seek a willfulness finding and increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

**COUNT VI: INFRINGEMENT OF U.S. PATENT NO. 7,542,045**

26. On June 2, 2009, the USPTO duly and legally issued United States Patent No. 7,542,045 ("the '045 Patent"), entitled "Electronic System And Method For Display Using A Decoder And Arbiter To Selectively Allow Access To A Shared Memory." PUMA holds all rights, title, and interest in and to the '045 Patent. Qualcomm is not licensed to the '045 Patent, yet Qualcomm knowingly, actively, and lucratively practices the patents.

27. Upon information and belief, Qualcomm has infringed directly and continues to infringe directly the '045 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products and/or methods encompassed by the claims of the '045 Patent. Qualcomm's infringing products include, but are not limited to, at least the Snapdragon family of system-on-chips, including but not limited to, the S1, S2, S3, S4, 200, 400, 600, and 800 series.

28. The acts of infringement by Qualcomm have caused damage to PUMA, and PUMA is entitled to recover from Qualcomm the damages sustained by PUMA as a result of Qualcomm's wrongful acts in an amount subject to proof at trial. The infringement of PUMA's exclusive rights under the '045 Patent by Qualcomm has damaged and will continue to damage PUMA, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

29. At least as early as its receipt of this Complaint, Qualcomm has had knowledge of the '045 Patent and written notice of the infringement. PUMA intends to seek discovery on the



issue of willfulness and reserves the right to seek a willfulness finding and increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

**COUNT VII: INFRINGEMENT OF U.S. PATENT NO. 7,777,753**

30. On August 17, 2010, the USPTO duly and legally issued United States Patent No. 7,777,753 (“the ’753 Patent”), entitled “Electronic System And Method For Selectively Allowing Access To A Shared Memory.” PUMA holds all rights, title, and interest in and to the ’753 Patent. Qualcomm is not licensed to the ’753 Patent, yet Qualcomm knowingly, actively, and lucratively practices the patents.

31. Upon information and belief, Qualcomm has infringed directly and continues to infringe directly the ’753 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products and/or methods encompassed by the claims of the ’753 Patent. Qualcomm’s infringing products include, but are not limited to, at least the Snapdragon family of system-on-chips, including but not limited to, the S1, S2, S3, S4, 200, 400, 600, and 800 series.

32. The acts of infringement by Qualcomm have caused damage to PUMA, and PUMA is entitled to recover from Qualcomm the damages sustained by PUMA as a result of Qualcomm’s wrongful acts in an amount subject to proof at trial. The infringement of PUMA’s exclusive rights under the ’753 Patent by Qualcomm has damaged and will continue to damage PUMA, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

33. At least as early as its receipt of this Complaint, Qualcomm has had knowledge of the ’753 Patent and written notice of the infringement. PUMA intends to seek discovery on the

issue of willfulness and reserves the right to seek a willfulness finding and increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

**COUNT VIII: INFRINGEMENT OF U.S. PATENT NO. 8,054,315**

34. On November 8, 2011, the USPTO duly and legally issued United States Patent No. 8,054,315 ("the '315 Patent"), entitled "Electronic System And Method For Selectively Allowing Access To A Shared Memory." PUMA holds all rights, title, and interest in and to the '315 Patent. Qualcomm is not licensed to the '315 Patent, yet Qualcomm knowingly, actively, and lucratively practices the patents.

35. Upon information and belief, Qualcomm has infringed directly and continues to infringe directly the '315 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products and/or methods encompassed by the claims of the '315 Patent. Qualcomm's infringing products include, but are not limited to, at least the Snapdragon family of system-on-chips, including but not limited to, the S1, S2, S3, S4, 200, 400, 600, and 800 series.

36. The acts of infringement by Qualcomm have caused damage to PUMA, and PUMA is entitled to recover from Qualcomm the damages sustained by PUMA as a result of Qualcomm's wrongful acts in an amount subject to proof at trial. The infringement of PUMA's exclusive rights under the '315 Patent by Qualcomm has damaged and will continue to damage PUMA, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

37. At least as early as its receipt of this Complaint, Qualcomm has had knowledge of the '315 Patent and written notice of the infringement. PUMA intends to seek discovery on the

issue of willfulness and reserves the right to seek a willfulness finding and increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

**COUNT IX: INFRINGEMENT OF U.S. PATENT NO. 8,681,164**

38. On March 25, 2014, the USPTO duly and legally issued United States Patent No. 8,681,164 ("the '164 Patent"), entitled "Electronic System And Method For Selectively Allowing Access To A Shared Memory." PUMA holds all rights, title, and interest in and to the '164 Patent. Qualcomm is not licensed to the '164 Patent, yet Qualcomm knowingly, actively, and lucratively practices the patents.

39. Upon information and belief, Qualcomm has infringed directly and continues to infringe directly the '164 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products and/or methods encompassed by the claims of the '164 Patent. Qualcomm's infringing products include, but are not limited to, at least the Snapdragon family of system-on-chips, including but not limited to, the S1, S2, S3, S4, 200, 400, 600, and 800 series.

40. The acts of infringement by Qualcomm have caused damage to PUMA, and PUMA is entitled to recover from Qualcomm the damages sustained by PUMA as a result of Qualcomm's wrongful acts in an amount subject to proof at trial. The infringement of PUMA's exclusive rights under the '164 Patent by Qualcomm has damaged and will continue to damage PUMA, causing irreparable harm, for which there is no adequate remedy at law, unless enjoined by this Court.

41. At least as early as its receipt of this Complaint, Qualcomm has had knowledge of the '164 Patent and written notice of the infringement. PUMA intends to seek discovery on the

issue of willfulness and reserves the right to seek a willfulness finding and increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

**JURY DEMAND**

42. PUMA hereby demands a trial by jury on all issues.

**PRAYER FOR RELIEF**

WHEREFORE, PUMA requests entry of judgment in its favor and against Qualcomm as follows:

- a. A declaration that Qualcomm has infringed and is infringing the '789, '464, '459, '194, '368, '045, '753, '315, and '164 Patents;
- b. An Order permanently enjoining Qualcomm, its officers, agents, employees, and those acting in privity with it, from further direct and/or indirect infringement of the '789, '464, '459, '194, '368, '045, '753, '315, and '164 Patents;
- c. An award of damages to PUMA arising out of Qualcomm's infringement of the '789, '464, '459, '194, '368, '045, '753, '315, and '164 Patents, including enhanced damages pursuant to 35 U.S.C. § 284, together with prejudgment and post-judgment interest, in an amount according to proof;
- d. An award of attorneys' fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law; and,
- e. Granting PUMA its costs and further relief as the Court may deem just and proper.

Dated: October 1, 2014

Respectfully submitted,

*/s/ Amir Alavi*

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