IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS AUSTIN DIVISION

FIRST AMENDEDCOMPLAINT

Plaintiff Bandspeed, Inc. ("Bandspeed"), by and through its attorneys, files its First Amended Complaint against defendant Marvell Semiconductor, Inc. ("Marvell" or "Defendant"), and hereby alleges as follows:

I. NATURE OF ACTION

- 1. This is a patent infringement action to end Defendant's unauthorized and infringing manufacture, use, sale, offering for sale, and/or importation of methods and products incorporating Bandspeed's patented inventions.
- 2. Bandspeed is the owner of all right, title, and interest in and to: United States Patent No. 7,027,418 ("the '418 Patent"), issued on April 11, 2006 for "Approach for Selecting Communications Channels Based on Performance"; United States Patent No. 7,570,614 ("the '614 patent"), issued on August 4, 2009 for "Approach for Managing Communications Channels Based on Performance"; United States Patent No. 7,477,624 ("the '624 Patent"), issued on January 13, 2009 for "Approach for Managing the Use of Communications Channels Based on Performance"; United States Patent No. 7,903,608 ("the '608 Patent"), issued on March 8, 2011 for "Approach for Managing the Use of Communications Channels Based on Performance";

United States Patent No. 8,542,643 ("the '643 Patent), issued on September 24, 2013 for "Approach for Managing the Use of Communications Channels Based on Performance"; and United States Patent No. 8,873,500 ("the '500 Patent), issued on October 28, 2014 for "Approach for Managing the Use of Communications Channels Based on Performance" (collectively, the "Patents"). Upon information and belief, the Defendant has been and currently is infringing, contributing to the infringement of, and/or inducing the infringement of Bandspeed's patents, by, among other things, making, using, selling, importing, and/or offering for sale, within the territorial boundaries of the United States, products that are covered by one or more claims of Bandspeed's patents.

- 3. Defendant manufactures, provides, sells, offers for sale, imports, and/or distributes infringing products and services; and/or induces others to make and use its products and services in an infringing manner; and/or contributes to the making and use of infringing products and services by others, including its customers, who directly infringe the Patents.
- 4. This is an exceptional case, and Bandspeed is entitled to damages, enhanced damages, attorneys' fees, costs, and expenses.

II. THE PARTIES

- 5. Plaintiff Bandspeed is a Delaware corporation with its principal place of business located in Austin, Texas.
- 6. Upon information and belief, Marvell Semiconductor, Inc. is a California corporation with its principal place of business located at 5488 Marvell Lane, Santa Clara, California 95054. Upon information and belief, Defendant Marvell Semiconductor, Inc. is authorized to do business in California. Marvell Semiconductor, Inc. may be served by serving

its registered agent CT Corporation System, 818 W. Seventh Street, Los Angeles, California 90017. Marvell has appeared in this action.

III. JURISDICTION AND VENUE

- 7. This is an action for patent infringement which arises under the Patent Laws of the United States, in particular 35 U.S.C. §271, 281, 283, 284, and 285. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §1331 and 1338(a).
- 8. This Court has personal jurisdiction over Defendant and venue is proper in this Court pursuant to 28 U.S.C. §1391(b), (c), and 1400.

IV. PLAINTIFF'S PATENTS

- 9. The '418, '624, '608, '643 and '500 Patents disclose an approach for selecting sets of communications channels that involves determining the performance of communications channels. A set of channels is selected based on the results of performance testing and specified criteria. The participant generates data that identifies the selected set of channels and provides that data to other participants of the communications network. The participants communicate over the set of channels, such as by using a frequency hopping protocol. When a specified time expires or monitoring of the performance of the channel set identifies poor performance of the set of channels, the participant selects another set of channels for use in communications based on additional performance testing.
- 10. The '614 Patent discloses an approach for managing communications channels based on performance. It involves selecting a particular channel based on channel performance. Based on the selected channel, channel identification data is provided to another participant of the communications system to determine on which channel to respond.

11. Bandspeed has all substantial right and interest to the Patents, including all rights to recover for all past and future infringement thereof.

V. DEFENDANT'S ACTS

- 12. Defendant manufactures, provides, sells, offers for sale, and/or distributes infringing products. Examples of the infringing products include integrated circuits—or a set of integrated circuits—that use an adaptive frequency hopping communication protocol in version 1.2 and any later version of the Bluetooth Specification, and all of Defendant's products that operate in a reasonably similar manner.
- 13. Defendant has had knowledge of several Patents since, upon information and belief, 2012 and in 2013. Defendant has had knowledge of the '418, '624, '608, and '643 Patents at least as early as the time of service of the Original Complaint. Defendant has had knowledge of the '500 Patent at least as early as the time of service of this First Amended Complaint.
- 14. In 2009 and 2010, Bandspeed filed suit against several Bluetooth product manufacturers alleging infringement of the '418 and '614 Patents. According to publicly available information, one or more of these Bluetooth product manufacturers provided their products using one or more of Defendant's products. Based on publicly available information and belief, one or more of these Bluetooth product manufacturers provided Defendant with notice of infringement of the '418 and/or '614 Patents.
- 15. In 2013, Plaintiff served a subpoena on Defendant seeking information regarding the use of Defendant's products in the products of Bluetooth product manufacturers against whom Plaintiff had asserted claims of infringement of the '418 and '614 Patents. The subpoenas identified the '418 and '614 Patents and numerous categories of documents and subject matters

regarding Defendant's products that are relevant to Plaintiff's claims of infringement of the '418 and '614 Patents.

- 16. Despite this knowledge, Defendant continues broadly selling its infringing devices in the marketplace. Further, with knowledge of the Patents, Defendant provides related services, specifications and instructions for the installation and infringing operation of such products to its customers, who directly infringe the Patents.
- 17. Through its actions, Defendant has infringed the '418 Patent, '614 Patent, '624 Patent, '608 Patent, '643 Patent and '500 Patent, and actively induced others to infringe and contributed to the infringement by others of the '418 Patent, '614 Patent, '624 Patent, '608 Patent, '643 Patent and '500 Patent, throughout the United States.
- 18. Defendant manufactures, provides, sells, offers for sale, and/or distributes integrated circuits that use an adaptive frequency hopping communication protocol in version 1.2 and any later version of the Bluetooth Specification.
- 19. Adaptive frequency hopping is material to practicing the invention described by the Patents.
 - 20. Defendant is a member of the Bluetooth Special Interest Group.
- 21. Defendant intentionally manufactures and sells integrated circuits that are specifically designed to provide adaptive frequency hopping and other functionalities in compliance with version 1.2 or later of the Bluetooth Specification in a manner that infringes the Patents.
- 22. Defendant takes extensive steps to test these products to ensure compliance with the Bluetooth Specification and to qualify integrated circuits and other products for Bluetooth certification.

- 23. In connection with compliance, for qualifying Bluetooth products, Defendant prepares a Core Implementation Compliance Statement (or Core ICS).
- 24. The Core ICS requires Defendant to acknowledge whether the product supports certain capabilities, including adaptive frequency hopping (AFH), which is found in Table 26 of the Link Manager Protocol section.
- 25. Defendant has submitted Core ICSs that indicate "Yes" for support of certain features of AFH that infringe the Patents. For example,
 - a. Defendant has submitted Core ICSs that indicate "Yes" for Table 26, Item 1, "Support of AFH switch as master"; and
 - b. Defendant has submitted Core ICSs that indicate "Yes" for Table 26, Item 6, "Support of Channel Classification."

Other portions of Defendant's Core ICSs also provide relevant evidence of infringement of the Patents.

- 26. Certain of Defendant's customers require features and capabilities, including among others, adaptive frequency hopping, that comply with the Bluetooth Specification, and Defendant markets and advertises the benefits of its infringing products' compliance with the Bluetooth Specification regarding such features and capabilities.
- 27. Moreover, Defendant induces its customers to infringe and contribute to the infringement of its customers by instructing or specifying that its customers install the infringing integrated circuits in products such that it operates in an infringing manner. Defendant specifies that the infringing products operate in an infringing manner by providing source code or firmware on the integrated circuit that causes it to operate in an infringing manner.

- 28. The normal, intended operation of Defendant's products to provide certain capabilities and features, including among others adaptive frequency hopping, in compliance with version 1.2 or later of the Bluetooth Specification infringes the Patents. The products therefore have no substantial non-infringing uses.
- 29. Therefore, Defendant induces their customers to directly infringe or contribute to the direct infringement of their customers.
- 30. Bandspeed has been and will continue to suffer damages as a result of Defendant's infringing acts.

COUNT ONE PATENT INFRINGEMENT – U.S. PATENT NO. 7,027,418

- 31. Plaintiff Bandspeed realleges and incorporates herein paragraphs 1- 30.
- 32. Defendant has directly infringed the '418 Patent.
- 33. Defendant has indirectly infringed the '418 Patent by inducing the infringement of the '418 Patent and contributing to the infringement of the '418 Patent.
- 34. Upon information and belief, Defendant has jointly infringed the '418 Patent, including by controlling and/or directing others to perform one or more of the claimed method steps.
- 35. Defendant's aforementioned acts have caused damage to Bandspeed and will continue to do so.

COUNT TWO PATENT INFRINGEMENT – U.S. PATENT NO. 7,570,614

- 36. Bandspeed realleges and incorporates herein paragraphs 1 30.
- 37. Defendant has directly infringed the '614 Patent.

- 38. Defendant has indirectly infringed the '614 Patent by inducing the infringement of the '614 Patent and contributing to the infringement of the '614 Patent.
- 39. Upon information and belief, Defendant has jointly infringed the '614 Patent, including by controlling and/or directing others to perform one or more of the claimed method steps.
- 40. Defendant's aforementioned acts have caused damage to Bandspeed and will continue to do so.

COUNT THREE PATENT INFRINGEMENT – U.S. PATENT NO.7,477,624

- 41. Bandspeed realleges and incorporates herein paragraphs 1- 30.
- 42. Defendant has directly infringed the '624 Patent.
- 43. Defendant has indirectly infringed the '624 Patent by inducing the infringement of the '624 Patent and contributing to the infringement of the '624 Patent.
- 44. Upon information and belief, Defendant has jointly infringed the '624 Patent, including by controlling and/or directing others to perform one or more of the claimed method steps.
- 45. Defendant's aforementioned acts have caused damage to Bandspeed and will continue to do so.

COUNT FOUR PATENT INFRINGEMENT – U.S. PATENT NO. 7,903,608

- 46. Bandspeed realleges and incorporates herein paragraphs 1- 30.
- 47. Defendant has directly infringed the '608 Patent.
- 48. Defendant has indirectly infringed the '608 Patent by inducing the infringement of the '608 Patent and contributing to the infringement of the '608 Patent.

- 49. Upon information and belief, Defendant has jointly infringed the '608 Patent, including by controlling and/or directing others to perform one or more of the claimed method steps.
- 50. Defendant's aforementioned acts have caused damage to Bandspeed and will continue to do so.

COUNT FIVE PATENT INFRINGEMENT – U.S. PATENT NO. 8,542,643

- 51. Bandspeed realleges and incorporates herein paragraphs 1-30.
- 52. Defendant has directly infringed the '643 Patent.
- 53. Defendant has indirectly infringed the '643 Patent by inducing the infringement of the '643 Patent and contributing to the infringement of the '643 Patent.
- 54. Upon information and belief, Defendant has jointly infringed the '643 Patent, including by controlling and/or directing others to perform one or more of the claimed method steps.
- 55. Defendant's aforementioned acts have caused damage to Bandspeed and will continue to do so.

COUNT SIX PATENT INFRINGEMENT – U.S. PATENT NO. 8,873,500

- 56. Bandspeed realleges and incorporates herein paragraphs 1 30.
- 57. Defendant has directly infringed the '500 Patent.
- 58. Defendant has indirectly infringed the '500 Patent by inducing the infringement of the '500 Patent and contributing to the infringement of the '500 Patent.

- 59. Upon information and belief, Defendant has jointly infringed the '500 Patent, including by controlling and/or directing others to perform one or more of the claimed method steps.
- 60. Defendant's aforementioned acts have caused damage to Bandspeed and will continue to do so.

VI. WILLFULNESS

- 61. Bandspeed realleges and incorporates herein paragraphs 1- 30. Bandspeed alleges upon information and belief that Defendant has knowingly or with reckless disregard willfully infringed the Patents. Defendant's knowledge includes knowledge of the '418 and '614 Patents and their related patents and/or applications—including the '624, '608 and '643 Patents—by virtue of Bandspeed and other parties having notified Defendant of its infringing acts. Defendant acted with knowledge of the Patents and despite an objectively high likelihood that its actions constituted infringement of Bandspeed's valid patent rights.
- 62. This objectively-defined risk was either known or so obvious that is should have been known to Defendant. Bandspeed seeks enhanced damages pursuant to 35 U.S.C. §284.

VII. JURY DEMAND

63. Plaintiff Bandspeed hereby demands a jury on all issues so triable.

VIII. REQUEST FOR RELIEF

WHEREFORE, plaintiff Bandspeed respectfully requests that the Court:

- A. Enter judgment that Defendant infringed one or more claims of the Patents literally and/or under the doctrine of equivalents;
- B. Award plaintiff Bandspeed past and future damages together with prejudgment and post-judgment interest to compensate for the infringement by Defendant of

- the Patents in accordance with 35 U.S.C. §284, and increase such award by up to three times the amount found or assessed in accordance with 35 U.S.C. §284;
- C. Declare this case exceptional pursuant to 35 U.S.C. 285; and
- D. Award plaintiff Bandspeed its costs, disbursements, attorneys' fees, and such further and additional relief as is deemed appropriate by this Court.

Dated: January 16, 2015

Respectfully submitted,

By: /s/ Christopher V. Goodpastor Christopher V. Goodpastor Texas State Bar No. 00791991 Andrew G. DiNovo Texas State Bar No. 00790594 Adam G. Price Texas State Bar No. 24027750 Gregory S. Donahue Texas State Bar No. 24012539 DINOVO PRICE ELLWANGER & HARDY LLP 7000 N. MoPac Expressway Suite 350 Austin, Texas 78731 Telephone: (512) 539-2626 Facsimile: (512) 539-2627 Email: cgoodpastor@dpelaw.com adinovo@dpelaw.com aprice@dpelaw.com

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ATTORNEYS FOR PLAINTIFFBANDSPEED, INC.

CERTIFICATE OF SERVICE

I hereby certify that on January 16, 2015, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system, which sent notification of such filing to all parties. I further certify that I have served via e-mail to the following non-CM/ECF participants.

<u>/s/ Christopher V. Goodpastor</u> Christopher V. Goodpastor