

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTER DISTRICT OF TEXAS  
AUSTIN DIVISION**

BANDSPEED, LLC,

Plaintiff,

v.

ITRON, INC.

Defendant.

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CASE NO. 1:22-cv-709

**JURY TRIAL DEMANDED**

**ORIGINAL COMPLAINT**

Plaintiff Bandspeed, LLC (“Bandspeed”), by and through its attorneys, files its Original Complaint against defendant Itron, Inc. (“Itron” 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. 6,987,955 (the “’955 Patent”), issued on January 17, 2006 for “Approach for Managing Power for Communications Channels Based on Performance.”

3. Bandspeed is the owner of all right, title, and interest in and to 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.”

4. Bandspeed is the owner of all right, title, and interest in and to 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.”

5. Bandspeed is the owner of all right, title, and interest in and to 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.”

6. Bandspeed is the owner of all right, title, and interest in and to United States Patent No. 9,379,769 (the “’769 Patent), issued on June 28, 2016 for “Approach for Managing the Use of Communications Channels Based on Performance.”

7. Bandspeed is the owner of all right, title, and interest in and to United States Patent No. 9,883,520 (the “’520 Patent), issued on January 30, 2018 for “Approach for Managing the Use of Communications Channels Based on Performance.”

8. Bandspeed is the owner of all right, title, and interest in and to United States Patent No. 10,602,528 (the “’528 Patent”), issued on March 24, 2020 for “Approach for Managing the Use of Communication Channels Based on Performance.”

9. Bandspeed is the owner of all right, title, and interest in and to United States Patent No. 10,791,565 (the “’565 Patent”), issued on September 29, 2020 for “Approach for Managing the Use of Communications Channels Based on Performance.”

10. Bandspeed is the owner of all right, title, and interest in and to United States Patent No. 10,887,893 (the “’893 Patent”), issued on January 5, 2021 for “Approach for Managing the Use of Communications Channels Based on Performance.”

11. The ’955 Patent and ’893 Patent are, collectively, the “Zigbee Patents.”

12. The ’608 Patent, ’643 Patent, ’500 Patent, ’769 Patent, ’520 Patent, ’528 Patent, and ’565 Patent are, collectively, the “Bluetooth LE Patents.”

13. The ’608 Patent, ’500 Patent, ’769 Patent, ’520 Patent, ’528 Patent, and ’565 Patent are, collectively, the “Wi-SUN FAN Patents.”

14. The Zigbee Patents, the Bluetooth LE Patents and the Wi-SUN FAN Patents are, collectively, the “Patents.”

15. Upon information and belief, 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.

16. 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.

## **II. THE PARTIES**

17. Plaintiff Bandspeed is a Texas limited liability company with its principal place of business located in Austin, Texas.

18. Upon information and belief, Defendant is a Washington corporation with an established place of business within this District at 1250 S. Capital of Texas Highway Building 3, Suite 200, Austin, Texas 78746. Upon information and belief, Defendant is authorized to do business in Texas. Defendant may be served by serving its registered agent, National Registered Agents, Inc., 1999 Bryan St., Suite 900, Dallas, Texas 75201.

## **III. JURISDICTION AND VENUE**

19. This is an action for patent infringement arising 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).

20. This Court has personal jurisdiction over Defendant and venue is proper in this Court pursuant to 28 U.S.C. §1391(c).

#### **IV. NOTICE**

21. On April 6, 2020, Bandspeed sent a letter to Defendant notifying Defendant of its current patent portfolio and the nature of Defendant's infringing activities. Bandspeed provided notice of the following Bandspeed patents: '955 Patent, '608 Patent, '643 Patent, '500 Patent, '769 Patent and '520 Patent. Defendant did not respond.

22. On April 27, 2021, Bandspeed supplemented its original Notice Letter to Defendant with an additional notice letter that provided notice of the following Bandspeed patents: '528 Patent, '565 Patent and '893 Patent. Defendant did not respond.

23. Additionally, Defendant had knowledge of the Patents and the infringing conduct as early as the date when Bandspeed effected service of the Complaint.

#### **V. PLAINTIFF'S PATENTS**

24. The claims of the Patents describe inventive features and combinations relating to the ability to avoid interference over communications channels that improved upon prior art systems and methods. In other words, the claims of the Patents generally describe novel techniques "for selecting sets of communications channels based on channel performance."

25. The Patents improve upon frequency hopping communications systems that existed at the time of the invention. One problem with frequency hopping communications systems is that coexistence problems arise between the frequency hopping communications system and non-frequency hopping communications systems that operate in the same frequency band. While the frequency hopping communications system hops over the entire frequency band, the non-frequency hopping communications systems occupy separate parts of the frequency band. When the frequency hopping communications system hops over part of the frequency band occupied by

a non-frequency hopping communications system, there may be interference between the systems. Although the use of a frequency hopping protocol helps to lessen the interference problem because not all of the frequency hopping channels will interfere with other communications systems, there nevertheless remains interference on those channels that coincide with the non-frequency hopping communications systems. An example of the interference situation is the coexistence problem between the frequency hopping IEEE 802.15.1 WPAN and the non-frequency hopping IEEE 802.11b Wireless Local Area Network (WLAN) because both share the 2.4 GHz ISM band. '565 Patent at 3:51-4:2. Interference results in data transmission errors, such as an increase in the bit error rate (BER) or the loss of data packets, resulting in reduced transmission quality and performance and the need to retransmit the data.'565 Patent at 4:17-20.

26. One approach for managing the coexistence problem is to skip a "bad" channel that suffers from interference, such as by moving onto the next channel in the sequence or by jumping to another randomly selected channel. However, this skipping approach does not necessarily avoid other bad channels because the next channel used may also have an interference problem. Also, known "bad" and "good" channels may change over time due to the transient nature of some types of interference. '565 Patent at 4:30-38.

27. The claims of the Patents solve the coexistence problem by using a method or system not conventional at the time of the invention. The Patents teach a method or device using a frequency hopping protocol that "transmits data on one channel, hops to the next channel in the hopping sequence to transmit more data, and continues by transmitting data on subsequent channels in the hopping sequence." *See, e.g.*, '500 Patent at 2:34-38. "When the FH communications system hops over part of the frequency band occupied by an NFH [non-frequency hopping] communications system, there may be interference between the systems." *Id.* at 3:33-36.

“Interference results in data transmission errors, such as an increase in the bit error rate (BER) or the loss of data packets, resulting in reduced transmission quality and performance and the need to retransmit the data.” *Id.* at 3:58-61. The invention avoids these problems by using a subset of channels that have been identified as good for communications between participants using a hopping sequence. *Id.* at 12:34-41 and 18:8-12.

## **VI. DEFENDANT’S ACTS**

### **A. Infringing Zigbee Products**

28. The Zigbee Specification and IEEE Standard 802.15.4-2003 (“Zigbee Standard”) provide specifications for wireless connectivity in personal area networks. On information and belief, Defendant manufactures, provides, sells, offers for sale, and/or distributes infringing products, such as products that use, practice and/or comply with the Zigbee Standard using unlicensed integrated circuits (“Infringing Zigbee Products”).

29. The Infringing Zigbee Products infringe the Zigbee Patents.

30. Through its actions, Defendant has infringed the Zigbee Patents, has actively induced others to infringe, and has contributed to the infringement by others of the Zigbee Patents, throughout the United States.

31. Defendant manufactures, provides, sells, offers for sale, and/or distributes Infringing Zigbee Products and are compliant with the Zigbee Standard.

32. Certain of Defendant’s customers request, require, and/or engage features and capabilities that comply with the Zigbee Standard, and Defendant markets and advertises its Infringing Zigbee Products’ compliance with the Zigbee Standard regarding such features and capabilities.

33. Defendant induces its customers to infringe and contributes to such infringement by instructing or specifying that its customers install the infringing integrated circuits in products

such that the Infringing Zigbee Products operate in an infringing manner. Defendant specifies that the Infringing Zigbee 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.

34. Defendant advertises Infringing Zigbee Products and other similar Zigbee devices to customers on its website: <https://www.itron.com/>.

35. The Infringing Zigbee Products are compliant with the Zigbee Standard.

36. Defendant markets the Infringing Zigbee Products as suitable for a variety of applications.

37. Defendant provides instructions on how to set up and use the Infringing Zigbee Products in an infringing manner.

38. Certain of Defendant's Infringing Zigbee Products have been certified by the Zigbee Alliance.

39. Upon information and belief, Defendant sells and has sold the Infringing Zigbee Products to customers in the United States, including to customers in the State of Texas and to customers within this District.

40. The normal, intended operation of the Infringing Zigbee Products is to provide certain capabilities and features that infringe the Zigbee Patents, including Zigbee capabilities and features in compliance with the Zigbee Standard. The Infringing Zigbee Products have no substantial non-infringing uses.

41. Therefore, Defendant induces its customers to directly infringe or contributes to the direct infringement of its customers.

42. Bandspeed has been suffering and will continue to suffer damages as a result of Defendant's infringing acts.

**B. Infringing Bluetooth Low Energy Products**

43. Defendant manufactures, provides, sells, offers for sale, and/or distributes infringing products that use unlicensed integrated circuits for wireless communications devices, that use, practice and/or comply with the Bluetooth low energy protocol as described in Version 4.0 and any later version of the Bluetooth Core Specification (“Infringing Bluetooth LE Products”).

44. The Infringing Bluetooth LE Products infringe the Bluetooth LE Patents.

45. Through its actions, Defendant has infringed, actively induced others to infringe, and contributed to the infringement by others of the Patents, throughout the United States and in Texas.

46. Upon information and belief, Defendant takes steps to test these products to ensure compliance with the relevant Bluetooth Core Specification and to qualify the Infringing Bluetooth LE Products for Bluetooth certification.

47. Upon information and belief, Defendant certifies to the Bluetooth Special Interest Group (“Bluetooth SIG”) that the Infringing Bluetooth LE Products are compliant with the Bluetooth Core Specification Version 4.0 or higher.

48. Certain of Defendant’s customers request, require, and/or engage features and capabilities, including the low energy protocol, that comply with the Bluetooth Core Specification, and Defendant markets and advertises its Infringing Bluetooth LE Products’ compliance with the Bluetooth Core Specification regarding such features and capabilities.

49. Defendant induces its customers to infringe and contributes to such infringement by instructing or specifying that its customers install the unlicensed, infringing integrated circuits in products such that the Infringing Bluetooth LE Products operate in an infringing manner. Defendant specifies that the Infringing Bluetooth LE 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.

50. Defendant advertises Infringing Bluetooth LE Products and other similar Bluetooth low energy devices to customers on its website: <https://www.itron.com/>.

51. Defendant provides downloadable product literature including but not limited to datasheets, user guides & manuals, technical updates, application notes, and developer's guides for the Infringing Bluetooth LE Products on its website.

52. Defendant encourages, directs and/or controls customers to use the infringing Bluetooth low energy functionality in the Infringing Bluetooth LE Products by marketing the Infringing Bluetooth LE Products as suitable for a variety of applications.

53. Defendant further encourages, directs and/or controls customers to use the infringing Bluetooth low energy functionality in the Infringing Bluetooth LE Products by providing instructional materials.

54. Upon information and belief, Defendant submits Infringing Bluetooth LE Products to the United States Federal Communications Commission (FCC) for certification of their Bluetooth low energy capabilities and for approval to sell the Infringing Bluetooth LE Products in the United States.

55. Upon information and belief, Defendant sells and has sold the Infringing Bluetooth LE Products to customers in the United States, including to customers in the State of Texas and to customers within this District.

56. The normal, intended operation of the Infringing Bluetooth LE Products is to provide certain capabilities and features that infringe the Patents, including Bluetooth low energy

capabilities and features in compliance with Version 4.0 or later of the Bluetooth Core Specification. The Infringing Bluetooth LE Products have no substantial non-infringing uses.

57. Therefore, Defendant induces its customers to directly infringe or contribute to the direct infringement of its customers.

58. Bandspeed has been and will continue to suffer damages as a result of Defendant's infringing acts.

**C. Infringing Wi-SUN FAN Products**

59. Defendant manufactures, provides, sells, offers for sale, and/or distributes infringing products that use unlicensed integrated circuits for wireless communications devices, that use, practice and/or comply with the Wi-SUN FAN Profile as described in the IEEE 802.15.4e standard ("Infringing Wi-SUN FAN Products").

60. The Infringing Wi-SUN FAN Products infringe the Wi-SUN FAN Patents.

61. Through its actions, Defendant has infringed, actively induced others to infringe, and contributed to the infringement by others of the Wi-SUN FAN Patents, throughout the United States and in Texas.

62. Defendant certifies that the Infringing Wi-SUN FAN Products are compliant with the wireless communication protocol of Wi-SUN FAN as described in the IEEE 802.15.4e standard.

63. Upon information and belief, Defendant takes steps to test these products to ensure compliance with the Wi-SUN FAN profile and to qualify the Infringing Wi-SUN FAN Products for Wi-SUN FAN certification through the Wi-SUN Alliance.

64. Certain of Defendant's customers request, require, and/or engage features and capabilities, including the Wi-SUN FAN profile, that comply with the IEEE 802.15.4e standard,

and Defendant markets and advertises its Infringing Wi-SUN FAN Products' compliance with the IEEE 802.15.4e standard regarding such features and capabilities.

65. Defendant induces its customers to infringe and contributes to such infringement by instructing or specifying that its customers install the infringing integrated circuits in products such that the Infringing Wi-SUN FAN Products operate in an infringing manner.

66. Defendant advertises the Infringing Wi-SUN FAN Products and other similar Wi-SUN FAN devices to customers on its website: <https://www.itron.com/>.

67. Defendant provides downloadable product literature including but not limited to datasheets, user guides & manuals, technical updates, application notes, and developer's guides for the Infringing Wi-SUN FAN Products on its website.

68. The Infringing Wi-SUN FAN Products implement the Wi-SUN FAN protocol and are compliant with the IEEE 802.15.4e standard.

69. Defendant encourages, directs and/or controls customers to use the infringing slotted channel hopping functionality in the Infringing Wi-SUN FAN Products by marketing the Infringing Wi-SUN FAN Products as suitable for a variety of applications.

70. Upon information and belief, Defendant submits the Infringing Wi-SUN FAN Products to the Wi-SUN Alliance for certification of their Wi-SUN FAN capabilities.

71. Upon information and belief, Defendant sells and has sold the Infringing Wi-SUN FAN Products to customers in the United States, including to customers in the State of Texas and to customers within this District.

72. The normal, intended operation of the Infringing Wi-SUN FAN Products is to provide certain capabilities and features that infringe the Wi-SUN FAN Patents, including Wi-

SUN FAN capabilities and features in compliance with the IEEE 802.15.4e standard. The Infringing Wi-SUN FAN Products have no substantial non-infringing uses.

73. Therefore, Defendant induces its customers to directly infringe or contribute to the direct infringement of its customers.

74. 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. 6,987,955 (AGAINST INFRINGING ZIGBEE PRODUCTS)**

75. Bandspeed realleges and incorporates preceding paragraphs herein.

#### **A. Direct Infringement (35 U.S.C. § 271(a))**

76. Defendant has directly infringed, and continues to directly infringe, individually and/or jointly with others, one or more claims of the '955 Patent by, among other things, making, using, offering for sale, selling, and/or importing Infringing Zigbee Products.

77. For example, claim 1 of the '955 Patent states:

1. A method for managing power for a plurality of communications channels based on communications channel performance, the method comprising the computer-implemented steps of:

generating performance data based on communications at a first power over a first communications channel of the plurality of communications channels and communications at a second power over a second communications channel of the plurality of communications channels;

based on the performance data, determining a third power that is different than the first power;

causing the third power to be used for subsequent communications over the first communications channel;

based on the performance data, determining a fourth power that is different than the second power, wherein the fourth power is different than the third power; and

causing the fourth power to be used for subsequent communications over the second communications channel.

78. Defendant's Infringing Zigbee Products meet each and every claim limitation of claim 1 of the '955 Patent.

79. Defendant's Infringing Zigbee Products meet each and every claim limitation of other claims of the '955 Patent.

80. Defendant jointly infringes the '955 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party but can be legally attributed to Defendant. Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.

81. Specifically, Defendant provides third parties, including customers and/or end-users, with Infringing Zigbee Products. Defendant directs and controls its customers to use Zigbee functionality in an infringing manner by providing user manuals containing instructions about how to activate, pair, set up and engage infringing Zigbee functionality in the Infringing Products. When an Infringing Zigbee Product is engaged to use Zigbee functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Zigbee Products that dictate when and how the performance of the infringing functionality occurs.

**B. Indirect Infringement (Inducement - 35 U.S.C. § 271(b))**

82. Defendant has indirectly infringed and continues to indirectly infringe, the '955 Patent by inducing direct infringement of the '955 Patent by third parties, including without

limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Zigbee Products, in this District and elsewhere in the United States.

83. Upon information and belief, despite having knowledge of the '955 Patent, Defendant has specifically intended for persons who acquire and use the Infringing Zigbee Products, including without limitation Defendant's customers and manufacturers, resellers, and/or end-users of the products that contain the Infringing Zigbee Products, to acquire and use such devices in such a way that infringes one or more claims of the '955 Patent.

84. Defendant knew or should have known that its actions were inducing infringement.

85. Defendant has knowledge of the '955 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

86. Direct infringement is the result of activities performed by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end-users of the products that contain the Infringing Zigbee Products, enabled and encouraged by Defendant to use the Infringing Zigbee Products in their normal, customary way to infringe the '955 Patent.

87. With knowledge of the '955 Patent, Defendant directs and aids third parties to infringe the '955 Patent by, among other things, (i) enabling a user of the Infringing Zigbee Products to use functionality in the Zigbee Standard; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Zigbee Products in their customary way; (iii) advertising the Infringing Zigbee Products' support and compliance with the Zigbee Standard; and (iv) providing to third parties the products and software and related equipment that may be required for or

associated with infringement of the '955 Patent, all with knowledge that the induced acts constitute patent infringement.

88. Defendant possesses specific intent to encourage infringement by third parties, including Defendant's customers and end users of the Infringing Zigbee Products.

**C. Indirect Infringement (Contribution - 35 U.S.C. §§ 271(c) and/or 271(f))**

89. Defendant has indirectly infringed and continues to indirectly infringe one or more claims of the '955 patent by contributing to the infringement of the '955 patent under 35 U.S.C. § 271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the Infringing Zigbee Products.

90. Defendant has knowledge of the '955 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

91. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the Zigbee communication functionality described in the Zigbee Standard, and other infringing Zigbee functionality. The infringing Zigbee functionality in the Infringing Zigbee Products constitutes a material part of the inventions claimed in the '955 Patent. The combination of hardware and software used to provide Zigbee functionality in the Infringing Zigbee Products is especially made or adapted to infringe the '955 Patent. Moreover, the Zigbee combination of hardware and software used in the Infringing Zigbee Products are specially designed such that the infringing Zigbee functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

92. Bandspeed is informed and believes that Defendant intends to and will continue to directly and indirectly infringe the '955 Patent. Bandspeed has been damaged as a result of

Defendant's infringing conduct described in this Count. Defendant is, thus, liable to Bandspeed in an amount that adequately compensates Bandspeed for its infringement.

**COUNT TWO**

**PATENT INFRINGEMENT – U.S. PATENT NO. 7,903,608  
(AGAINST INFRINGING BLUETOOTH LE  
AND INFRINGING WI-SUN FAN PRODUCTS)**

93. Bandspeed realleges and incorporates preceding paragraphs herein.

**A. Direct Infringement (35 U.S.C. § 271(a))**

94. Defendant has directly infringed, and continues to directly infringe, individually and/or jointly with others, one or more claims of the '608 Patent by, among other things, making, using, offering for sale, selling, and/or importing Infringing Bluetooth LE Products and Infringing Wi-SUN FAN Products (collectively, "Infringing Products.")

95. For example, claim 1 of the '608 Patent states:

1. A communications device for use in a network of devices, comprising:

a memory for storing instructions;

a processor that is communicatively coupled to the memory, wherein the memory includes instructions which, when processed by the processor, causes:

selecting, based upon performance of a plurality of communications channels at a first time, a first set of two or more communications channels from the plurality of communications channels;

selecting, based upon performance of the plurality of communications channels at a second time that is later than the first time, a second set of two or more communications channels from the plurality of communications channels; and

a transceiver that is communicatively coupled to the memory and that is configured to transmit to and receive from another communications device, wherein:

for a first period of time, the first set of two or more communications channels is used to transmit to and receive from the other communications device; and

for a second period of time that is after the first period of time, the second set of two or more communications channels is used to transmit to and receive from the other



communications device instead of the first set of two or more communications channels, and

wherein the number of distinct channels in the first set of two or more communications channels varies from the number of distinct channels in the second set of two or more communications channels.

96. Defendant's Infringing Products meet each and every claim limitation of claim 1 of the '608 Patent.

97. Defendant's Infringing Products meet each and every claim limitation of other claims of the '608 Patent.

98. Defendant jointly infringes the '608 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party but can be legally attributed to Defendant. Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.

99. Specifically, Defendant provides third parties, including customers and/or end-users, with Infringing Bluetooth LE Products. Defendant directs and controls its customers to use Bluetooth functionality in an infringing manner by providing user manuals containing instructions about how to activate, pair, set up and engage infringing Bluetooth functionality in the Infringing Bluetooth LE Products. When an Infringing Bluetooth LE Product is engaged to use Bluetooth functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Bluetooth LE Products that dictate when and how the performance of the infringing functionality occurs.

100. In addition, Defendant provides third parties, including customers and/or end-users, with Infringing Wi-SUN FAN Products. Defendant directs and controls its customers to use slotted

channel hopping functionality in an infringing manner by providing product literature containing instructions about how to enable, configure, and/or apply infringing slotted channel hopping functionality in the Infringing Wi-SUN FAN Products. When an Infringing Wi-SUN FAN Product is engaged to use slotted channel hopping functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Wi-SUN FAN Products that dictate when and how the performance of the infringing functionality occurs.

**B. Indirect Infringement (Inducement - 35 U.S.C. § 271(b))**

101. Defendant has indirectly infringed and continues to indirectly infringe, the '608 Patent by inducing direct infringement of the '608 Patent by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, in this District and elsewhere in the United States.

102. Upon information and belief, despite having knowledge of the '608 Patent, Defendant has specifically intended for persons who acquire and use the Infringing Products, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, to acquire and use such devices in such a way that infringes one or more claims of the '608 Patent.

103. Defendant knew or should have known that its actions were inducing infringement.

104. Defendant has knowledge of the '608 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

105. Direct infringement is the result of activities performed by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the

products that contain Infringing Products, enabled and encouraged by Defendant to use the Infringing Products in their normal, customary way to infringe the '608 Patent.

106. With knowledge of the '608 Patent, Defendant directs and aids third parties to infringe the '608 Patent by, among other things, (i) enabling a user of the Infringing Bluetooth LE Products to use Bluetooth low energy functionality in Version 4.0 and any later version of the Bluetooth Core Specification; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Bluetooth LE Products in their customary way; (iii) advertising the Infringing Bluetooth LE Products' support and compliance with the Bluetooth Core Specification; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '608 Patent, all with knowledge that the induced acts constitute patent infringement.

107. With knowledge of the '608 Patent, Defendant directs and aids third parties to infringe the '608 Patent by, among other things, (i) enabling a user of the Infringing Wi-SUN FAN Products to use slotted channel hopping functionality in the IEEE 802.15.4e standard; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Wi-SUN FAN Products in their customary way; (iii) advertising the Infringing Wi-SUN FAN Products' support and compliance with the IEEE 802.15.4e standard; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '608 Patent, all with knowledge that the induced acts constitute patent infringement.

108. Defendant possesses specific intent to encourage infringement by third parties, including Defendant's customers and end users of the Infringing Products.

**C. Indirect Infringement (Contribution - 35 U.S.C. §§ 271(c) and/or 271(f))**

109. Defendant has indirectly infringed and continues to indirectly infringe one or more claims of the '608 patent by contributing to the infringement of the '608 patent under 35 U.S.C. § 271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the Infringing Products.

110. Defendant has knowledge of the '608 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

111. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the low energy protocol in Version 4.0 and later versions of the Bluetooth Core Specification, and other infringing Bluetooth functionality. The infringing Bluetooth low energy functionality in the Infringing Bluetooth LE Products constitutes a material part of the inventions claimed in the '608 Patent. The combination of hardware and software used to provide Bluetooth low energy functionality in the Infringing Bluetooth LE Products is especially made or adapted to infringe the '608 Patent. Moreover, the Bluetooth combination of hardware and software used in the Infringing Bluetooth LE Products is specially designed such that the infringing Bluetooth functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

112. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the Wi-SUN FAN profile, that comply with the IEEE 802.15.4e standard, and other infringing slotted channel hopping functionality. The infringing slotted channel hopping functionality in the Infringing Wi-SUN FAN Products constitutes a material part of the inventions claimed in the '608 Patent. The

combination of hardware and software used to provide slotted channel hopping functionality in the Infringing Wi-SUN FAN Products is especially made or adapted to infringe the '608 Patent. Moreover, the combination of hardware and software used in the Infringing Wi-SUN FAN Products is specially designed such that the infringing slotted channel hopping functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

113. Bandspeed is informed and believes that Defendant intends to and will continue to directly and indirectly infringe the '608 Patent. Bandspeed has been damaged as a result of Defendant's infringing conduct described in this Count. Defendant is, thus, liable to Bandspeed in an amount that adequately compensates Bandspeed for its infringement.

### **COUNT THREE**

#### **PATENT INFRINGEMENT – U.S. PATENT NO. 8,542,643 (AGAINST INFRINGING BLUETOOTH LE PRODUCTS)**

114. Bandspeed realleges and incorporates preceding paragraphs herein.

#### **A. Direct Infringement (35 U.S.C. § 271(a))**

115. Defendant has directly infringed, and continues to directly infringe, individually and/or jointly with others, one or more claims of the '643 Patent by, among other things, making, using, offering for sale, selling, and/or importing Infringing Bluetooth LE Products.

116. For example, claim 5 of the '643 Patent states:

1. A method, comprising:

loading a set of default channels into a default channel register;

loading a set of good channels into a good channel register;

if a selection kernel addresses a bad channel stored in a particular location of the default channel register, then replacing, by the selection kernel, the bad channel stored in the particular location of the default channel register with a good channel selected from the set of good channels loaded in the good channel register;

wherein the method is performed using one or more computing devices.

5. The method of claim 1, further comprising: rescanning the default channels, based at least in part on the number of good channels.

117. Defendant's Infringing Bluetooth LE Products meet each and every claim limitation of claim 5 of the '643 Patent.

118. Defendant's Infringing Bluetooth LE Products meet each and every claim limitation of other claims of the '643 Patent.

119. Defendant jointly infringes the '643 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party but can be legally attributed to Defendant. Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.

120. Specifically, Defendant provides third parties, including customers and/or end-users, with Infringing Bluetooth LE Products. Defendant directs and controls its customers to use Bluetooth functionality in an infringing manner by providing user manuals containing instructions about how to activate, pair, set up and engage infringing Bluetooth functionality in the Infringing Products. When an Infringing Bluetooth LE Product is engaged to use Bluetooth functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Bluetooth LE Products that dictate when and how the performance of the infringing functionality occurs.

**B. Indirect Infringement (Inducement - 35 U.S.C. § 271(b))**

121. Defendant has indirectly infringed and continues to indirectly infringe, the '643 Patent by inducing direct infringement of the '643 Patent by third parties, including without

limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Bluetooth LE Products, in this District and elsewhere in the United States.

122. Upon information and belief, despite having knowledge of the '643 Patent, Defendant has specifically intended for persons who acquire and use the Infringing Bluetooth LE Products, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Bluetooth LE Products to acquire and use such devices in such a way that infringes one or more claims of the '643 Patent.

123. Defendant knew or should have known that its actions were inducing infringement.

124. Defendant has knowledge of the '643 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

125. Direct infringement is the result of activities performed by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Bluetooth LE Products, enabled and encouraged by Defendant to use the Infringing Bluetooth LE Products in their normal, customary way to infringe the '643 Patent.

126. With knowledge of the '643 Patent, Defendant directs and aids third parties to infringe the '643 Patent by, among other things, (i) enabling a user of the Infringing Bluetooth LE Products to use Bluetooth low energy functionality in Version 4.0 and any later version of the Bluetooth Core Specification; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Bluetooth LE Products in their customary way; (iii) advertising the Infringing Bluetooth LE Products' support and compliance with the Bluetooth Core Specification; and (iv)

providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '643 Patent, all with knowledge that the induced acts constitute patent infringement.

127. Defendant possesses specific intent to encourage infringement by third parties, including Defendant's customers and end users of the Infringing Bluetooth LE Products.

**C. Indirect Infringement (Contribution - 35 U.S.C. §§ 271(c) and/or 271(f))**

128. Defendant has indirectly infringed and continues to indirectly infringe one or more claims of the '643 patent by contributing to the infringement of the '643 patent under 35 U.S.C. § 271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the Infringing Bluetooth LE Products.

129. Defendant has knowledge of the '643 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

130. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the low energy protocol in Version 4.0 and later versions of the Bluetooth Core Specification, and other infringing Bluetooth functionality. The infringing Bluetooth low energy functionality in the Infringing Bluetooth LE Products constitutes a material part of the inventions claimed in the '643 Patent. The combination of hardware and software used to provide Bluetooth low energy functionality in the Infringing Bluetooth LE Products is especially made or adapted to infringe the '643 Patent. Moreover, the Bluetooth combination of hardware and software used in the Infringing Bluetooth LE Products is specially designed such that the infringing Bluetooth functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.



131. Bandspeed is informed and believes that Defendant intends to and will continue to directly and indirectly infringe the '643 Patent. Bandspeed has been damaged as a result of Defendant's infringing conduct described in this Count. Defendant is, thus, liable to Bandspeed in an amount that adequately compensates Bandspeed for its infringement.

**COUNT FOUR**

**PATENT INFRINGEMENT – U.S. PATENT NO. 8,873,500  
(AGAINST INFRINGING BLUETOOTH LE PRODUCTS AND  
INFRINGING WI-SUN FAN PRODUCTS)**

132. Bandspeed realleges and incorporates preceding paragraphs herein.

**A. Direct Infringement (35 U.S.C. § 271(a))**

133. Defendant has directly infringed, and continues to directly infringe, individually and/or jointly with others, one or more claims of the '500 Patent by, among other things, making, using, offering for sale, selling, and/or importing Infringing Bluetooth LE Products and Infringing Wi-SUN FAN Products (collectively, "Infringing Products".)

134. For example, claim 28 of the '500 Patent states:

16. A frequency hopping wireless communication device comprising:  
at least one processor;

a memory storing instructions which, when executed by the at least one processor,  
causes:

communicating with another frequency hopping wireless communication device over a  
plurality of communication channels according to a default hopping sequence;

testing the plurality of communication channels;

selecting a subset of the plurality of communication channels based on results of the  
testing;

communicating with the other device over the subset of communication channels  
according to an adapted hopping sequence;

monitoring the subset of communications channels;

based on results of the monitoring or after a specified period of time, reverting back to communicating with the other device over the plurality of communication channels according to the default hopping sequence.

28. The device of claim 16, wherein monitoring the subset of communications channels is performed while communicating with the other device over the subset of communication channels according to the adapted hopping sequence.

135. Defendant's Infringing Products meet each and every claim limitation of claim 28 of the '500 Patent.

136. Defendant's Infringing Products meet each and every claim limitation of other claims of the '500 Patent.

137. Defendant jointly infringes the '500 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party but can be legally attributed to Defendant. Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.

138. Specifically, Defendant provides third parties, including customers and/or end-users, with Infringing Bluetooth LE Products. Defendant directs and controls its customers to use Bluetooth functionality in an infringing manner by providing user manuals containing instructions about how to activate, pair, set up and engage infringing Bluetooth functionality in the Infringing Bluetooth LE Products. When an Infringing Bluetooth LE Product is engaged to use Bluetooth functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Bluetooth LE Products that dictate when and how the performance of the infringing functionality occurs.

139. In addition, Defendant provides third parties, including customers and/or end-users, with Infringing Wi-SUN FAN Products. Defendant directs and controls its customers to use slotted

channel hopping functionality in an infringing manner by providing product literature containing instructions about how to enable, configure, and/or apply infringing slotted channel hopping functionality in the Infringing Wi-SUN FAN Products. When an Infringing Wi-SUN FAN Product is engaged to use slotted channel hopping functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Wi-SUN FAN Products that dictate when and how the performance of the infringing functionality occurs.

**B. Indirect Infringement (Inducement - 35 U.S.C. § 271(b))**

140. Defendant has indirectly infringed and continues to indirectly infringe, the '500 Patent by inducing direct infringement of the '500 Patent by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, in this District and elsewhere in the United States.

141. Upon information and belief, despite having knowledge of the '500 Patent, Defendant has specifically intended for persons who acquire and use the Infringing Products, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, to acquire and use such devices in such a way that infringes one or more claims of the '500 Patent.

142. Defendant knew or should have known that its actions were inducing infringement.

143. Defendant has knowledge of the '500 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

144. Direct infringement is the result of activities performed by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the

products that contain Infringing Products, enabled and encouraged by Defendant to use the Infringing Products in their normal, customary way to infringe the '500 Patent.

145. With knowledge of the '500 Patent, Defendant directs and aids third parties to infringe the '500 Patent by, among other things, (i) enabling a user of the Infringing Bluetooth LE Products to use Bluetooth low energy functionality in Version 4.0 and any later version of the Bluetooth Core Specification; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Bluetooth LE Products in their customary way; (iii) advertising the Infringing Bluetooth LE Products' support and compliance with the Bluetooth Core Specification; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '500 Patent, all with knowledge that the induced acts constitute patent infringement.

146. With knowledge of the '500 Patent, Defendant directs and aids third parties to infringe the '500 Patent by, among other things, (i) enabling a user of the Infringing Wi-SUN FAN Products to use slotted channel hopping functionality in the IEEE 802.15.4e standard; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Wi-SUN FAN Products in their customary way; (iii) advertising the Infringing Wi-SUN FAN Products' support and compliance with the IEEE 802.15.4e standard; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '500 Patent, all with knowledge that the induced acts constitute patent infringement.

147. Defendant possesses specific intent to encourage infringement by third parties, including Defendant's customers and end users of the Infringing Products.

**C. Indirect Infringement (Contribution - 35 U.S.C. §§ 271(c) and/or 271(f))**

148. Defendant has indirectly infringed and continues to indirectly infringe one or more claims of the '500 patent by contributing to the infringement of the '500 patent under 35 U.S.C. § 271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the Infringing Products.

149. Defendant has knowledge of the '500 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

150. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the low energy protocol in Version 4.0 and later versions of the Bluetooth Core Specification, and other infringing Bluetooth functionality. The infringing Bluetooth low energy functionality in the Infringing Bluetooth LE Products constitutes a material part of the inventions claimed in the '500 Patent. The combination of hardware and software used to provide Bluetooth low energy functionality in the Infringing Bluetooth LE Products is especially made or adapted to infringe the '500 Patent. Moreover, the Bluetooth combination of hardware and software used in the Infringing Bluetooth LE Products is specially designed such that the infringing Bluetooth functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

151. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the Wi-SUN FAN profile, that comply with the IEEE 802.15.4e standard, and other infringing slotted channel hopping functionality. The infringing slotted channel hopping functionality in the Infringing Wi-SUN FAN Products constitutes a material part of the inventions claimed in the '500 Patent. The

combination of hardware and software used to provide slotted channel hopping functionality in the Infringing Wi-SUN FAN Products is especially made or adapted to infringe the '500 Patent. Moreover, the combination of hardware and software used in the Infringing Wi-SUN FAN Products is specially designed such that the infringing slotted channel hopping functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

152. Bandspeed is informed and believes that Defendant intends to and will continue to directly and indirectly infringe the '500 Patent. Bandspeed has been damaged as a result of Defendant's infringing conduct described in this Count. Defendant is, thus, liable to Bandspeed in an amount that adequately compensates Bandspeed for its infringement.

**COUNT FIVE**

**PATENT INFRINGEMENT – U.S. PATENT NO. 9,379,769  
(AGAINST INFRINGING BLUETOOTH LE PRODUCTS  
AND INFRINGING WI-SUN FAN PRODUCTS)**

153. Bandspeed realleges and incorporates the preceding paragraphs herein.

**A. Direct Infringement (35 U.S.C. § 271(a))**

154. Defendant has directly infringed, and continues to directly infringe, individually and/or jointly with others, one or more claims of the '769 Patent by, among other things, making, using, offering for sale, selling, and/or importing Infringing Bluetooth LE Products and Infringing Wi-SUN FAN Products (collectively, "Infringing Products.")

155. For example, claim 1 of the '769 Patent states:

1. A wireless communications device for use in a frequency hopping communication system, the wireless communications device comprising:

one or more processors; and

one or more memories storing instructions which, when processed by the one or more processors, cause the wireless communications device to perform:

monitoring a plurality of communication channels, the plurality of communication channels used by the wireless communications device for communicating, according to a frequency hopping sequence, with another wireless communications device in the frequency hopping communication system;

based at least on results of the monitoring, classifying one or more communications channels of the plurality of communication channels as good and classifying one or more communications channels of the plurality of communication channels as bad;

transmitting information to the other wireless communications device identifying at least one of: a) the one or more communication channels classified as good, or b) the one or more communication channels classified as bad;

communicating, according to a frequency hopping sequence, with the other wireless communications device over the one or more communication channels classified as good while avoiding communicating with the other wireless communications device over the one or more communication channels classified as bad.

156. Defendant's Infringing Products meet each and every claim limitation of claim 1 of the '769 Patent.

157. Defendant's Infringing Products meet each and every claim limitation of other claims of the '769 Patent.

158. Defendant jointly infringes the '769 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party but can be legally attributed to Defendant. Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.

159. Specifically, Defendant provides third parties, including customers and/or end-users, with Infringing Bluetooth LE Products. Defendant directs and controls its customers to use Bluetooth functionality in an infringing manner by providing user manuals containing instructions about how to activate, pair, set up and engage infringing Bluetooth functionality in the Infringing Products. When an Infringing Bluetooth LE Product is engaged to use Bluetooth functionality in the manner designed and established by Defendant, the performance of the infringing functionality

occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Bluetooth LE Products that dictate when and how the performance of the infringing functionality occurs.

160. In addition, Defendant provides third parties, including customers and/or end-users, with Infringing Wi-SUN FAN Products. Defendant directs and controls its customers to use slotted channel hopping functionality in an infringing manner by providing product literature containing instructions about how to enable, configure, and/or apply infringing slotted channel hopping functionality in the Infringing Wi-SUN FAN Products. When an Infringing Wi-SUN FAN Product is engaged to use slotted channel hopping functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Wi-SUN FAN Products that dictate when and how the performance of the infringing functionality occurs.

**B. Indirect Infringement (Inducement - 35 U.S.C. § 271(b))**

161. Defendant has indirectly infringed and continues to indirectly infringe, the '769 Patent by inducing direct infringement of the '769 Patent by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, in this District and elsewhere in the United States.

162. Upon information and belief, despite having knowledge of the '769 Patent, Defendant has specifically intended for persons who acquire and use the Infringing Products, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, to acquire and use such devices in such a way that infringes one or more claims of the '769 Patent.

163. Defendant knew or should have known that its actions were inducing infringement.



164. Defendant has knowledge of the '769 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

165. Direct infringement is the result of activities performed by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, enabled and encouraged by Defendant to use the Infringing Products in their normal, customary way to infringe the '769 Patent.

166. With knowledge of the '769 Patent, Defendant directs and aids third parties to infringe the '769 Patent by, among other things, (i) enabling a user of the Infringing Bluetooth LE Products to use Bluetooth low energy functionality in Version 4.0 and any later version of the Bluetooth Core Specification; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Bluetooth LE Products in their customary way; (iii) advertising the Infringing Bluetooth LE Products' support and compliance with the Bluetooth Core Specification; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '769 Patent, all with knowledge that the induced acts constitute patent infringement.

167. With knowledge of the '769 Patent, Defendant directs and aids third parties to infringe the '769 Patent by, among other things, (i) enabling a user of the Infringing Wi-SUN FAN Products to use slotted channel hopping functionality in the IEEE 802.15.4e standard; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Wi-SUN FAN Products in their customary way; (iii) advertising the Infringing Wi-SUN FAN Products' support

and compliance with the IEEE 802.15.4e standard; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '769 Patent, all with knowledge that the induced acts constitute patent infringement.

168. Defendant possesses specific intent to encourage infringement by third parties, including Defendant's customers and end users of the Infringing Products.

**C. Indirect Infringement (Contribution - 35 U.S.C. §§ 271(c) and/or 271(f))**

169. Defendant has indirectly infringed and continues to indirectly infringe one or more claims of the '769 patent by contributing to the infringement of the '769 patent under 35 U.S.C. § 271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the Infringing Products.

170. Defendant has knowledge of the '769 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

171. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the low energy protocol in Version 4.0 and later versions of the Bluetooth Core Specification, and other infringing Bluetooth functionality. The infringing Bluetooth low energy functionality in the Infringing Bluetooth LE Products constitutes a material part of the inventions claimed in the '769 Patent. The combination of hardware and software used to provide Bluetooth low energy functionality in the Infringing Bluetooth LE Products is especially made or adapted to infringe the '769 Patent. Moreover, the Bluetooth combination of hardware and software used in the Infringing Bluetooth LE Products is specially designed such that the infringing Bluetooth functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

172. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the Wi-SUN FAN profile, that comply with the IEEE 802.15.4e standard, and other infringing slotted channel hopping functionality. The infringing slotted channel hopping functionality in the Infringing Wi-SUN FAN Products constitutes a material part of the inventions claimed in the '769 Patent. The combination of hardware and software used to provide slotted channel hopping functionality in the Infringing Wi-SUN FAN Products is especially made or adapted to infringe the '769 Patent. Moreover, the combination of hardware and software used in the Infringing Wi-SUN FAN Products is specially designed such that the infringing slotted channel hopping functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

173. Bandspeed is informed and believes that Defendant intends to and will continue to directly and indirectly infringe the '769 Patent. Bandspeed has been damaged as a result of Defendant's infringing conduct described in this Count. Defendant is, thus, liable to Bandspeed in an amount that adequately compensates Bandspeed for its infringement.

### **COUNT SIX**

#### **PATENT INFRINGEMENT – U.S. PATENT NO. 9,883,520 (AGAINST INFRINGING BLUETOOTH LE PRODUCTS AND INFRINGING WI-SUN FAN PRODUCTS)**

174. Bandspeed realleges and incorporates the preceding paragraphs herein.

#### **A. Direct Infringement (35 U.S.C. § 271(a))**

175. Defendant has directly infringed, and continues to directly infringe, individually and/or jointly with others, one or more claims of the '520 Patent by, among other things, making, using, offering for sale, selling, and/or importing Infringing Bluetooth LE Products and Infringing Wi-SUN FAN Products (collectively, "Infringing Products.")

176. For example, claim 1 of the '520 Patent states:

1. A wireless communications device configured to:

send packet data to another wireless communications device in a wireless communications network, the packet data specifying a subset of communications channels used for frequency hopping communications of a set of communications channels in a frequency band, the packet data further comprising timing information indicating when to begin using the subset of communications channels for frequency hopping communications;

identify a communications channel from the set of communications channels;

use the identified communications channel for frequency hopping communications with the other wireless communications device at a time slot at or after the wireless communications device and the other wireless communications device begin using the subset of communications channels for frequency hopping communications, if the identified communications channel is used for frequency hopping communications; and

use a communications channel in the subset of communications channels for frequency hopping communications with the other wireless communications device at the time slot, if the identified communications channel is not used for frequency hopping communications.

177. Defendant's Infringing Products meet each and every claim limitation of claim 1 of the '520 Patent.

178. Defendant's Infringing Products meet each and every claim limitation of other claims of the '520 Patent.

179. Defendant jointly infringes the '520 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party but can be legally attributed to Defendant. Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.

180. Specifically, Defendant provides third parties, including customers and/or end-users, with Infringing Bluetooth LE Products. Defendant directs and controls its customers to use Bluetooth functionality in an infringing manner by providing user manuals containing instructions

about how to activate, pair, set up and engage infringing Bluetooth functionality in the Infringing Products. When an Infringing Bluetooth LE Product is engaged to use Bluetooth functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Products that dictate when and how the performance of the infringing functionality occurs.

181. In addition, Defendant provides third parties, including customers and/or end-users, with Infringing Wi-SUN FAN Products. Defendant directs and controls its customers to use slotted channel hopping functionality in an infringing manner by providing product literature containing instructions about how to enable, configure, and/or apply infringing slotted channel hopping functionality in the Infringing Wi-SUN FAN Products. When an Infringing Wi-SUN FAN Product is engaged to use slotted channel hopping functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Wi-SUN FAN Products that dictate when and how the performance of the infringing functionality occurs.

**B. Indirect Infringement (Inducement - 35 U.S.C. § 271(b))**

182. Defendant has indirectly infringed and continues to indirectly infringe, the '520 Patent by inducing direct infringement of the '520 Patent by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, in this District and elsewhere in the United States.

183. Upon information and belief, despite having knowledge of the '520 Patent, Defendant has specifically intended for persons who acquire and use the Infringing Products, including without limitation Defendant's customers and manufacturers, resellers, and/or end users

of the products that contain Infringing Products, to acquire and use such devices in such a way that infringes one or more claims of the '520 Patent.

184. Defendant knew or should have known that its actions were inducing infringement.

185. Defendant has knowledge of the '520 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

186. Direct infringement is the result of activities performed by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, enabled and encouraged by Defendant to use the Infringing Products in their normal, customary way to infringe the '520 Patent.

187. With knowledge of the '520 Patent, Defendant directs and aids third parties to infringe the '520 Patent by, among other things, (i) enabling a user of the Infringing Bluetooth LE Products to use Bluetooth low energy functionality in Version 4.0 and any later version of the Bluetooth Core Specification; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Bluetooth LE Products in their customary way; (iii) advertising the Infringing Bluetooth LE Products' support and compliance with the Bluetooth Core Specification; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '520 Patent, all with knowledge that the induced acts constitute patent infringement.

188. With knowledge of the '520 Patent, Defendant directs and aids third parties to infringe the '520 Patent by, among other things, (i) enabling a user of the Infringing Wi-SUN FAN Products to use slotted channel hopping functionality in the IEEE 802.15.4e standard; (ii)

providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Wi-SUN FAN Products in their customary way; (iii) advertising the Infringing Wi-SUN FAN Products' support and compliance with the IEEE 802.15.4e standard; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '520 Patent, all with knowledge that the induced acts constitute patent infringement.

189. Defendant possesses specific intent to encourage infringement by third parties, including Defendant's customers and end users of the Infringing Products.

**C. Indirect Infringement (Contribution - 35 U.S.C. §§ 271(c) and/or 271(f))**

190. Defendant has indirectly infringed and continues to indirectly infringe one or more claims of the '520 patent by contributing to the infringement of the '520 patent under 35 U.S.C. § 271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the Infringing Products.

191. Defendant has knowledge of the '520 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

192. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the low energy protocol in Version 4.0 and later versions of the Bluetooth Core Specification, and other infringing Bluetooth functionality. The infringing Bluetooth low energy functionality in the Infringing Bluetooth LE Products constitutes a material part of the inventions claimed in the '520 Patent. The combination of hardware and software used to provide Bluetooth low energy functionality in the Infringing Bluetooth LE Products is especially made or adapted to infringe the '520 Patent. Moreover, the Bluetooth combination of hardware and software used in the Infringing Bluetooth

LE Products is specially designed such that the infringing Bluetooth functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

193. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the Wi-SUN FAN profile, that comply with the IEEE 802.15.4e standard, and other infringing slotted channel hopping functionality. The infringing slotted channel hopping functionality in the Infringing Wi-SUN FAN Products constitutes a material part of the inventions claimed in the '520 Patent. The combination of hardware and software used to provide slotted channel hopping functionality in the Infringing Wi-SUN FAN Products is especially made or adapted to infringe the '520 Patent. Moreover, the combination of hardware and software used in the Infringing Wi-SUN FAN Products is specially designed such that the infringing slotted channel hopping functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

194. Bandspeed is informed and believes that Defendant intends to and will continue to directly and indirectly infringe the '520 Patent. Bandspeed has been damaged as a result of Defendant's infringing conduct described in this Count. Defendant is, thus, liable to Bandspeed in an amount that adequately compensates Bandspeed for its infringement.

**COUNT SEVEN**

**PATENT INFRINGEMENT – U.S. PATENT NO. 10,602,528  
(AGAINST INFRINGING BLUETOOTH LE PRODUCTS  
AND INFRINGING WI-SUN FAN PRODUCTS)**

195. Bandspeed realleges and incorporates the preceding paragraphs herein.



**A. Direct Infringement (35 U.S.C. § 271(a))**

196. Defendant has directly infringed, and continues to directly infringe, individually and/or jointly with others, one or more claims of the '528 Patent by, among other things, making, using, offering for sale, selling, and/or importing Infringing Bluetooth LE Products and Infringing WI-SUN FAN Products (collectively, "Infringing Products.")

197. For example, claim 1 of the '528 Patent states:

1. A wireless communications device adapted to manage a power level required to achieve a specified level of transmission quality, wherein being adapted to control the power level required to achieve the specified level of transmission quality device includes being configured to:

determine a plurality of instances of a subset of communications channels available to be used for frequency hopping communications of a set of communications channels in a frequency band, wherein being configured to determine the plurality of instances of the subset of communications channels includes being configured to, for each instance of the subset of communications channels, assess a level of channel performance of at least a portions of the communications channels of the set of communications channels and exclude, from the respective instance of the subset of communications channels, each channel of the set of communications channels exhibiting an assessed level of channel performance outside of a target threshold level of the channel performance;

send packet data including information defining a current instance of the subset of communications channels to another wireless communications device in a wireless communications network;

use at least one of the communications channels of the current instance of the subset of communications channels as one of a plurality of communication channels for frequency hopping communications with the other wireless communications device;

and cause a next instance of the subset of communications channels to be determined after said use of the at least one of the communications channels of the current instance of the subset of communications channels, at least one of the communications channels of the next instance of the subset of communications channels to be sent to the other wireless communications device via a new instance of the packet and the at least one of the communications channels of the next instance to be used for said frequency hopping communications with the other wireless communications device.

198. Defendant's Infringing Products meet each and every claim limitation of claim 1 of the '528 Patent.

199. Defendant's Infringing Products meet each and every claim limitation of other claims of the '528 Patent.

200. Defendant jointly infringes the '528 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party but can be legally attributed to Defendant. Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.

201. Specifically, Defendant provides third parties, including customers and/or end-users, with Infringing Bluetooth LE Products. Defendant directs and controls its customers to use Bluetooth functionality in an infringing manner by providing user manuals containing instructions about how to activate, pair, set up and engage infringing Bluetooth functionality in the Infringing Products. When an Infringing Bluetooth LE Product is engaged to use Bluetooth functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Products that dictate when and how the performance of the infringing functionality occurs.

202. In addition, Defendant provides third parties, including customers and/or end-users, with Infringing Wi-SUN FAN Products. Defendant directs and controls its customers to use slotted channel hopping functionality in an infringing manner by providing product literature containing instructions about how to enable, configure, and/or apply infringing slotted channel hopping functionality in the Infringing Wi-SUN FAN Products. When an Infringing Wi-SUN FAN Product is engaged to use slotted channel hopping functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and

how infringement occurs by virtue of providing software and hardware in the Infringing Wi-SUN FAN Products that dictate when and how the performance of the infringing functionality occurs.

**B. Indirect Infringement (Inducement - 35 U.S.C. § 271(b))**

203. Defendant has indirectly infringed and continues to indirectly infringe, the '528 Patent by inducing direct infringement of the '528 Patent by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, in this District and elsewhere in the United States.

204. Upon information and belief, despite having knowledge of the '528 Patent, Defendant has specifically intended for persons who acquire and use the Infringing Products, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, to acquire and use such devices in such a way that infringes one or more claims of the '528 Patent.

205. Defendant knew or should have known that its actions were inducing infringement.

206. Defendant has knowledge of the '528 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

207. Direct infringement is the result of activities performed by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, enabled and encouraged by Defendant to use the Infringing Products in their normal, customary way to infringe the '528 Patent.

208. With knowledge of the '528 Patent, Defendant directs and aids third parties to infringe the '528 Patent by, among other things, (i) enabling a user of the Infringing Bluetooth LE Products to use Bluetooth low energy functionality in Version 4.0 and any later version of the Bluetooth Core Specification; (ii) providing instructions (including, by way of example, the

tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Bluetooth LE Products in their customary way; (iii) advertising the Infringing Bluetooth LE Products' support and compliance with the Bluetooth Core Specification; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '528 Patent, all with knowledge that the induced acts constitute patent infringement.

209. With knowledge of the '528 Patent, Defendant directs and aids third parties to infringe the '528 Patent by, among other things, (i) enabling a user of the Infringing Wi-SUN FAN Products to use slotted channel hopping functionality in the IEEE 802.15.4e standard; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Wi-SUN FAN Products in their customary way; (iii) advertising the Infringing Wi-SUN FAN Products' support and compliance with the IEEE 802.15.4e standard; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '528 Patent, all with knowledge that the induced acts constitute patent infringement.

210. Defendant possesses specific intent to encourage infringement by third parties, including Defendant's customers and end users of the Infringing Products.

**C. Indirect Infringement (Contribution - 35 U.S.C. §§ 271(c) and/or 271(f))**

211. Defendant has indirectly infringed and continues to indirectly infringe one or more claims of the '528 Patent by contributing to the infringement of the '528 Patent under 35 U.S.C. § 271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the Infringing Products.

212. Defendant has knowledge of the '528 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

213. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the low energy protocol in Version 4.0 and later versions of the Bluetooth Core Specification, and other infringing Bluetooth functionality. The infringing Bluetooth low energy functionality in the Infringing Bluetooth LE Products constitutes a material part of the inventions claimed in the '528 Patent. The combination of hardware and software used to provide Bluetooth low energy functionality in the Infringing Bluetooth LE Products is especially made or adapted to infringe the '528 Patent. Moreover, the Bluetooth combination of hardware and software used in the Infringing Bluetooth LE Products are specially designed such that the infringing Bluetooth functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

214. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the Wi-SUN FAN profile, that comply with the IEEE 802.15.4e standard, and other infringing slotted channel hopping functionality. The infringing slotted channel hopping functionality in the Infringing Wi-SUN FAN Products constitutes a material part of the inventions claimed in the '528 Patent. The combination of hardware and software used to provide slotted channel hopping functionality in the Infringing Wi-SUN FAN Products is especially made or adapted to infringe the '528 Patent. Moreover, the combination of hardware and software used in the Infringing Wi-SUN FAN Products is specially designed such that the infringing slotted channel hopping functionality has

no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

215. Bandspeed is informed and believes that Defendant intends to and will continue to directly and indirectly infringe the '528 Patent. Bandspeed has been damaged as a result of Defendant's infringing conduct described in this Count. Defendant is, thus, liable to Bandspeed in an amount that adequately compensates Bandspeed for its infringement.

### **COUNT EIGHT**

#### **PATENT INFRINGEMENT – U.S. PATENT NO. 10,791,565 (AGAINST INFRINGING BLUETOOTH LE PRODUCTS AND INFRINGING WI-SUN FAN PRODUCTS)**

216. Bandspeed realleges and incorporates the preceding paragraphs herein.

#### **A. Direct Infringement (35 U.S.C. § 271(a))**

217. Upon information and belief, Defendant has directly infringed, and continues to directly infringe, individually and/or jointly with others, one or more claims of the '565 Patent by, among other things, making, using, offering for sale, selling, and/or importing Infringing Bluetooth LE Products and Infringing Wi-SUN FAN Products (collectively, "Infringing Products.")

218. For example, claim 1 of the '565 Patent states:

1. A wireless communications device adapted to manage a power level required to achieve a specified level of transmission quality, wherein being adapted to manage the power level required to achieve the specified level of transmission quality includes being configured to:

determine a subset of communications channels available to be used for frequency hopping communications of a set of communications channels in a frequency band, wherein being configured to determine the subset of communications channels includes being configured to exclude each channel of the set of communications channels exhibiting an assessed level of channel performance outside of a target threshold level of channel performance;

send packet data including information defining the subset of communications channels to another wireless communications device in a wireless communications network;

and use at least one of the communications channels of the subset of communications channels as one of a plurality of communication channels for frequency hopping communications with the other wireless communications device.

219. Defendant's Infringing Products meet each and every claim limitation of claim 1 of the '565 Patent.

220. Defendant's Infringing Products meet each and every claim limitation of other claims of the '565 Patent.

221. Defendant jointly infringes the '565 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party but can be legally attributed to Defendant. Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.

222. Specifically, Defendant provides third parties, including customers and/or end-users, with Infringing Bluetooth LE Products. Defendant directs and controls its customers to use Bluetooth functionality in an infringing manner by providing user manuals containing instructions about how to activate, pair, set up and engage infringing Bluetooth functionality in the Infringing Products. When an Infringing Bluetooth LE Product is engaged to use Bluetooth functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Products that dictate when and how the performance of the infringing functionality occurs.

223. In addition, Defendant provides third parties, including customers and/or end-users, with Infringing Wi-SUN FAN Products. Defendant directs and controls its customers to use slotted channel hopping functionality in an infringing manner by providing product literature containing instructions about how to enable, configure, and/or apply infringing slotted channel hopping

functionality in the Infringing Wi-SUN FAN Products. When an Infringing Wi-SUN FAN Product is engaged to use slotted channel hopping functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and hardware in the Infringing Wi-SUN FAN Products that dictate when and how the performance of the infringing functionality occurs.

**B. Indirect Infringement (Inducement - 35 U.S.C. § 271(b))**

224. Defendant has indirectly infringed and continues to indirectly infringe, the '565 Patent by inducing direct infringement of the '565 Patent by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, in this District and elsewhere in the United States.

225. Upon information and belief, despite having knowledge of the '565 Patent, Defendant has specifically intended for persons who acquire and use the Infringing Products, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, to acquire and use such devices in such a way that infringes one or more claims of the '565 Patent.

226. Defendant knew or should have known that its actions were inducing infringement.

227. Defendant has knowledge of the '565 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

228. Direct infringement is the result of activities performed by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Products, enabled and encouraged by Defendant to use the Infringing Products in their normal, customary way to infringe the '565 Patent.



229. With knowledge of the '565 Patent, Defendant directs and aids third parties to infringe the '565 Patent by, among other things, (i) enabling a user of the Infringing Bluetooth LE Products to use Bluetooth low energy functionality in Version 4.0 and any later version of the Bluetooth Core Specification; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Bluetooth LE Products in their customary way; (iii) advertising the Infringing Bluetooth LE Products' support and compliance with the Bluetooth Core Specification; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '565 Patent, all with knowledge that the induced acts constitute patent infringement.

230. With knowledge of the '565 Patent, Defendant directs and aids third parties to infringe the '565 Patent by, among other things, (i) enabling a user of the Infringing Wi-SUN FAN Products to use slotted channel hopping functionality in the IEEE 802.15.4e standard; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to third parties for using the Infringing Wi-SUN FAN Products in their customary way; (iii) advertising the Infringing Wi-SUN FAN Products' support and compliance with the IEEE 802.15.4e standard; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '565 Patent, all with knowledge that the induced acts constitute patent infringement.

231. Defendant possesses specific intent to encourage infringement by third parties, including Defendant's customers and end users of the Infringing Products.

**C. Indirect Infringement (Contribution - 35 U.S.C. §§ 271(c) and/or 271(f))**

232. Defendant has indirectly infringed and continues to indirectly infringe one or more claims of the '565 Patent by contributing to the infringement of the '565 Patent under 35 U.S.C. §

271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the Infringing Products.

233. Defendant has knowledge of the '565 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

234. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the low energy protocol in Version 4.0 and later versions of the Bluetooth Core Specification, and other infringing Bluetooth functionality. The infringing Bluetooth low energy functionality in the Infringing Bluetooth LE Products constitutes a material part of the inventions claimed in the '565 Patent. The combination of hardware and software used to provide Bluetooth low energy functionality in the Infringing Bluetooth LE Products is especially made or adapted to infringe the '565 Patent. Moreover, the Bluetooth combination of hardware and software used in the Infringing Bluetooth LE Products are specially designed such that the infringing Bluetooth functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

235. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the Wi-SUN FAN profile, that comply with the IEEE 802.15.4e standard, and other infringing slotted channel hopping functionality. The infringing slotted channel hopping functionality in the Infringing Wi-SUN FAN Products constitutes a material part of the inventions claimed in the '565 Patent. The combination of hardware and software used to provide slotted channel hopping functionality in the Infringing Wi-SUN FAN Products is especially made or adapted to infringe the '565 Patent.

Moreover, the combination of hardware and software used in the Infringing Wi-SUN FAN Products is specially designed such that the infringing slotted channel hopping functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

236. Bandspeed is informed and believes that Defendant intends to and will continue to directly and indirectly infringe the '565 Patent. Bandspeed has been damaged as a result of Defendant's infringing conduct described in this Count. Defendant is, thus, liable to Bandspeed in an amount that adequately compensates Bandspeed for its infringement.

### **COUNT NINE**

#### **PATENT INFRINGEMENT – U.S. PATENT NO. 10,887,893 (AGAINST INFRINGING ZIGBEE PRODUCTS)**

237. Bandspeed realleges and incorporates the preceding paragraphs herein.

#### **A. Direct Infringement (35 U.S.C. § 271(a))**

238. Upon information and belief, Defendant has directly infringed, and continues to directly infringe, individually and/or jointly with others, one or more claims of the '893 Patent by, among other things, making, using, offering for sale, selling, and/or importing Infringing Zigbee Products.

239. For example, claim 1 of the '893 Patent states:

1. A wireless communications device of a wireless communications network, the wireless communications device being one of a plurality of the wireless communications devices of the wireless communications network and being adapted to manage power consumption of the wireless communications devices during wireless communication therebetween, and the wireless communications device being adapted to manage the power consumption includes the wireless communications device being configured to:

cause wireless communication between two or more of the wireless communications devices to be performed using a presently-selected communications channel, wherein the presently-selected communications channel is one of a plurality of communications channels available for performing said wireless communication between the two or more wireless communications devices;

cause a channel performance assessment of the said available communications channels to be performed for determining if performing said wireless communications using one of said available communications channels different than the presently-selected communications channel enables improved communications performance between at least two of the wireless communications devices in comparison to the presently-selected communications channel;

and cause said wireless communication to be performed using a communications channel different than the presently-selected communications channel when the channel performance assessment indicates that a communications channel different than the presently-selected communications channel enables improved communications performance between at least two of the wireless communications devices in comparison to the presently-selected communications channel.

240. Defendant's Infringing Zigbee Products meet each and every claim limitation of claim 1 of the '893 Patent.

241. Defendant's Infringing Zigbee Products meet each and every claim limitation of other claims of the '893 Patent.

242. Defendant jointly infringes the '893 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party but can be legally attributed to Defendant. Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.

243. Specifically, Defendant provides third parties, including customers and/or end-users, with Infringing Zigbee Products. Defendant directs and controls its customers to use Zigbee functionality in an infringing manner by providing user manuals containing instructions about how to activate, pair, set up and engage infringing Zigbee functionality in the Infringing Zigbee Products. When an Infringing Zigbee Product is engaged to use Zigbee functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing software and

hardware in the Infringing Zigbee Products that dictate when and how the performance of the infringing functionality occurs.

**B. Indirect Infringement (Inducement - 35 U.S.C. § 271(b))**

244. Defendant has indirectly infringed and continues to indirectly infringe, the '893 Patent by inducing direct infringement of the '893 Patent by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end users of the products that contain Infringing Zigbee Products in this District and elsewhere in the United States.

245. Upon information and belief, despite having knowledge of the '893 Patent, Defendant has specifically intended for persons who acquire and use the Infringing Zigbee Products, including without limitation Defendant's customers and manufacturers, resellers, and/or end-users of the products that contain Infringing Zigbee Products, to acquire and use such devices in such a way that infringes one or more claims of the '893 Patent.

246. Defendant knew or should have known that its actions were inducing infringement.

247. Defendant has knowledge of the '893 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

248. Direct infringement is the result of activities performed by third parties, including without limitation Defendant's customers and manufacturers, resellers, and/or end-users of the products that contain the Infringing Zigbee Products, enabled and encouraged by Defendant to use the Infringing Zigbee Products in their normal, customary way to infringe the '893 Patent.

249. With knowledge of the '893 Patent, Defendant directs and aids third parties to infringe the '893 Patent by, among other things, (i) enabling a user of the Infringing Zigbee Products to use functionality in the Zigbee standard; (ii) providing instructions (including, by way of example, the tutorials, user guides, product guides, help library, and other documentation) to

third parties for using the Infringing Zigbee Products in their customary way; (iii) advertising the Infringing Zigbee Products' support and compliance with the Zigbee standard; and (iv) providing to third parties the products and software and related equipment that may be required for or associated with infringement of the '893 Patent, all with knowledge that the induced acts constitute patent infringement.

250. Defendant possesses specific intent to encourage infringement by third parties, including Defendant's customers and end users of the Infringing Zigbee Products.

**C. Indirect Infringement (Contribution - 35 U.S.C. §§ 271(c) and/or 271(f))**

251. Defendant has indirectly infringed and continues to indirectly infringe one or more claims of the '893 Patent by contributing to the infringement of the '893 Patent under 35 U.S.C. § 271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the Infringing Zigbee Products.

252. Defendant has knowledge of the '893 Patent and the infringing nature of its activities when it received the Notice Letters or at least as early as the date when Plaintiff effected service of the original Complaint.

253. Defendant sells, or offers to sell, a component of a patented combination or material, and more specifically, components used for or in systems that use the Zigbee communication functionality described in the Zigbee Standard, and other infringing Zigbee functionality. The infringing Zigbee functionality in the Infringing Zigbee Products constitutes a material part of the inventions claimed in the '893 Patent. The combination of hardware and software used to provide Zigbee functionality in the Infringing Zigbee Products is especially made or adapted to infringe the '893 Patent. Moreover, the Zigbee combination of hardware and software used in the Infringing Zigbee Products is specially designed such that the infringing Zigbee

functionality has no non-infringing use, and therefore are not staple articles or commodities of commerce suitable for non-infringing use.

254. Bandspeed is informed and believes that Defendant intends to and will continue to directly and indirectly infringe the '893 Patent. Bandspeed has been damaged as a result of Defendant's infringing conduct described in this Count. Defendant is, thus, liable to Bandspeed in an amount that adequately compensates Bandspeed for its infringement.

## **VII. WILLFULNESS**

255. Bandspeed realleges and incorporates the preceding paragraphs herein.

256. On April 6, 2020, Bandspeed sent a letter to Defendant notifying Defendant of its current patent portfolio and the nature of Defendant's infringing activities. Bandspeed provided notice of the following Bandspeed patents: '955 Patent, '608 Patent, '643 Patent, '500 Patent, '769 Patent and '520 Patent. Defendant did not respond.

257. On April 27, 2021, Bandspeed supplemented its original Notice Letter to Defendant with an additional notice letter that provided notice of the following Bandspeed patents: '528 Patent, '565 Patent and '893 Patent. Defendant did not respond.

258. Defendant actually knew of, or was willfully blind to, the Patents and the infringing nature of its activities when it received the notice letters, or at least as early as the date when Plaintiff effected service of the original Complaint.

259. Despite being notified of the Patents, Defendant nonetheless continued to make, use, sell and/or import Infringing Products, to induce others to engage in such conduct, and/or to contribute to others engaging in such conduct despite knowing that its actions constituted infringement of a valid patent.

260. Accordingly, Defendant acted egregiously and/or knowingly or intentionally when it infringed the Patents.

261. Bandspeed seeks enhanced damages pursuant to 35 U.S.C. §284.

**VIII. JURY DEMAND**

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

**IX. REQUEST FOR RELIEF**

WHEREFORE, Plaintiff Bandspeed respectfully requests that the Court:

- A. Enter judgment that Defendant infringes 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. Award plaintiff Bandspeed its costs, disbursements, attorneys' fees, and such further and additional relief as is deemed appropriate by this Court.



Dated: July 15, 2022

Respectfully submitted,

By: /s/ Adam G. Price  
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Texas State Bar No. 24027750  
Christopher V. Goodpastor  
Texas State Bar No. 00791991  
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**ATTORNEYS FOR PLAINTIFF  
BANDSPEED, LLC**