

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

REDWOOD TECHNOLOGIES, LLC,

Plaintiff,

v.

NETGEAR, INC.,

Defendant.

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§ **JURY TRIAL DEMANDED**
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§ **C.A. NO. _____**
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PLAINTIFF’S COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Redwood Technologies, LLC (“Redwood”) files this Complaint against Defendant Netgear, Inc. (“Netgear” or “Defendant”) for infringement of U.S. Patent No. 7,359,457 (the “457 patent”), U.S. Patent No. 7,917,102 (the “102 patent”), U.S. Patent No. 7,983,140 (the “140 patent”), U.S. Patent No. 8,111,671 (the “671 patent”) and U.S. Patent No. 9,462,536 (the “536 patent”), collectively, the “Asserted Patents.”

THE PARTIES

1. Redwood Technologies, LLC is a Texas limited liability company, with a principal place of business at 812 West McDermott Dr. #1038, Allen, TX 75013.

2. On information and belief, Netgear, Inc. is a corporation organized under the laws of Delaware that maintains an established place of business at 350 E. Plumeria Drive, San Jose, CA 95134. Netgear may be served with process through its registered agent, Incorporating Services, Ltd., 3500 S. Dupont Highway, Dover, DE 19901.

3. Prior to the filing of the Complaint, Redwood sent a letter received by Netgear on November 8, 2021, where Redwood attempted to engage Netgear in licensing discussions related to the Asserted Patents for reasonable and non-discriminatory terms for a license to be taken in the

absence of litigation. Netgear ignored Redwood's request to engage in licensing discussions. Indeed, Netgear has known about each of the Asserted Patents since at least November 8, 2021, when Netgear received notice of its infringement of the Asserted Patents via the letter sent by Redwood.

4. Prior to the filing of the Complaint, Redwood sent a reminder letter received by Netgear on January 11, 2022, where Redwood again attempted to engage Netgear in licensing discussions related to the Asserted Patents for reasonable and non-discriminatory terms for a license to be taken in the absence of litigation. Netgear ignored Redwood's request to engage in licensing discussions. Indeed, Netgear has known about each of the Asserted Patents since at least January 11, 2022, when Netgear received the reminder letter of its infringement of the Asserted Patents via the letter sent by Redwood.

5. Prior to the filing of the Complaint, Redwood sent another letter received by Netgear on May 23, 2022, where Redwood again attempted to engage Netgear in licensing discussions related to the Asserted Patents for reasonable and non-discriminatory terms for a license to be taken in the absence of litigation. Netgear again ignored Redwood's request to engage in licensing discussions. Indeed, Netgear has known about each of the Asserted Patents since at least May 23, 2022, when Netgear received the second notice of its infringement of the Asserted Patents via the letter sent by Redwood.

6. Netgear's past and continuing making, using, selling, offering for sale, and/or importing, and/or inducing its subsidiaries, affiliates, retail partners, and customers in the making, using, selling, offering for sale, and/or importing the accused Wi-Fi compliant devices throughout the United States i) willfully infringe each of the Asserted Patents and ii) impermissibly take the significant benefits of Redwood's patented technologies without fair compensation to Redwood.

7. Netgear is engaged in making, using, selling, offering for sale, and/or importing, and/or induces its subsidiaries, affiliates, retail partners, and customers in the making, using, selling, offering for sale, and/or importing throughout the United States, including within this District, products, such as access points, accused of infringement.

JURISDICTION AND VENUE

8. This action arises under the patent laws of the United States, namely 35 U.S.C. §§ 271, 281, and 284-285, among others.

9. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

10. This Court has personal jurisdiction over Netgear because it has engaged in systematic and continuous business activities in this District, and is incorporated in this District's state. As described below, Netgear has committed acts of patent infringement giving rise to this action within this District.

11. Further, this Court has personal jurisdiction over Netgear because it has engaged, and continues to engage, in continuous, systematic, and substantial activities within this State, including the substantial marketing and sale of products and services within this State and this District. Indeed, this Court has personal jurisdiction over Netgear because it has committed acts giving rise to Redwood's claims for patent infringement within and directed to this District, has derived substantial revenue from its goods and services provided to individuals in this State and this District, and maintains regular and established places of business in this District.

12. Relative to patent infringement, Netgear has committed and continues to commit acts in violation of 35 U.S.C. § 271, and has made, used, marketed, distributed, offered for sale, imported, and/or sold infringing products in this State, including in this District, and otherwise

engaged in infringing conduct within and directed at, or from, this District. Such products have been and continue to be offered for sale, distributed to, sold, and used in this District, and the infringing conduct has caused, and continues to cause, injury to Redwood, including injury suffered within this District. These are purposeful acts and transactions in this State and this District such that Netgear reasonably should know and expect that it could be haled into this Court because of such activities.

13. In addition, Netgear has knowingly induced and continues to knowingly induce infringement within this District by advertising, marketing, offering for sale and/or selling devices pre-loaded with infringing functionality within this District, to consumers, customers, manufacturers, distributors, resellers, partners, and/or end users, and providing instructions, user manuals, advertising, and/or marketing materials which facilitate, direct or encourage the use of infringing functionality with knowledge thereof.

14. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b) because Netgear is incorporated in this District, has regular and established places of business in this District, and has committed acts of infringement in this District.

15. With respect to the '457 patent, the '102 patent, and the '140 patent, the Accused Products are devices that include, but are not limited, to Defendant's devices that support IEEE 802.11n and/or IEEE 802.11ac and/or IEEE 802.11ax (e.g., Netgear Nighthawk AX5400 WiFi Gaming Router (XR1000), Netgear Meural Smart WiFi Photo Frame (MC315), Orbi Pro mesh systems and devices, Orbi Pro WiFi 6 mesh systems and devices, and Nighthawk X10 Smart WiFi Router (AD7200)) and other devices, as well as, their components, and processes related to the same. With respect to the '671 patent and the '536 patent, the Accused Products are mesh devices that include, but are not limited, to mesh devices that support IEEE 802.11 (e.g Orbi Pro mesh

systems and devices, Orbi Pro WiFi 6 mesh systems and devices), as well as, their components, and processes related to the same.

THE ASSERTED PATENTS

16. On April 15, 2008, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,359,457 (the “’457 patent”), entitled “Transmission Apparatus, Reception Apparatus and Digital Radio Communication Method[.]” A copy of the ’457 patent is attached hereto as Exhibit 1.

17. On March 29, 2011, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,917,102 (the “’102 patent”), entitled “Radio Transmitting Apparatus and Radio Transmission Method[.]” A copy of the ’102 patent is attached hereto as Exhibit 2.

18. On July 19, 2011, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,983,140 (the “’140 patent”), entitled “Transmitting Apparatus, Receiving Apparatus, and Communication System for Formatting Data[.]” A copy of the ’140 patent is attached hereto as Exhibit 3.

19. On February 7, 2012, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,111,671 (the “’671 patent”), entitled “Wireless Communication System, Wireless Communication Apparatus, Wireless Communication Method and Computer Program[.]” A copy of the ’671 patent is attached hereto as Exhibit 4.

20. On October 4, 2016, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 9,462,536 (the “’536 patent”), entitled “Wireless Communication System, Wireless Communication Apparatus, Wireless Communication Method and Computer Program[.]” A copy of the ’536 patent is attached hereto as Exhibit 5.

COUNT I

(INFRINGEMENT OF U.S. PATENT NO. 7,359,457)

21. Plaintiff incorporates paragraphs 1 through 20 herein by reference.

22. Redwood is the assignee of the '457 patent, entitled "Transmission Apparatus, Reception Apparatus and Digital Radio Communication Method," with ownership of all substantial rights in the '457 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

23. The '457 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '457 patent issued from U.S. Patent Application No. 10/827,445.

24. Netgear has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '457 patent in this judicial district and elsewhere in Delaware and the United States.

25. Netgear directly infringes the '457 patent via 35 U.S.C. § 271(a) by making, using, offering for sale, selling, and/or importing the Accused Products, their components and processes, and/or products containing the same that incorporate the fundamental technologies covered by the '457 patent.

26. For example, Netgear infringes claim 1 of the '457 patent via the Accused Products. The Accused Products each comprise a transmission apparatus of claim 1.

27. The Accused Products each comprise circuitry and/or components (hardware and/or software) that determine a modulation system from among a plurality of modulation systems based on a communication situation. For example, the Accused Products utilize a Modulation and Coding Scheme (MCS) value that is used to determine the modulation, coding, and number of spatial channels based on information associated with a channel quality assessment.

See, e.g., Sections 19.3.5 and 19.3.13.4 of Part 11: Wireless LAN Medium Access Control (MAC) and Physical (PHY) Specifications of IEEE Std 802.11™ -2016 (“IEEE 802.11 2016”). Based on the results of the channel quality assessment, an appropriate MCS value is selected from a plurality of MCS values for transmissions sent by the Accused Products. *See, e.g.*, Section 19.3.5 and Table 19-27 of IEEE 802.11 2016.

28. The Accused Products each comprise circuitry and/or components (hardware and/or software) that modulate a digital transmission signal according to the modulation system previously determined and generates a first symbol. The first symbol comprises a first quadrature baseband signal. For example, the Accused Products generate a first data symbol (e.g., data), comprising a first quadrature baseband signal, that is modulated according to the MCS value. *See, e.g.*, Section 19.3.5 and Figure 19-22 of IEEE 802.11 2016.

29. The Accused Products each comprise circuitry and/or components (hardware and/or software) that modulates the digital signal according to a predetermined modulation system and generates a second symbol. The second symbol comprises a second quadrature baseband signal. For example, the Accused Products generate a second data symbol (e.g., the HT-SIG), comprising a second quadrature baseband signal, that is modulated according to a predetermined modulation system (e.g., QBPSK). *See, e.g.*, Section 19.3.9.4.3 and Figure 19-22 of IEEE 802.11 2016.

30. The technology discussion above and the exemplary Accused Products provide context for Plaintiff’s infringement allegations.

31. At a minimum, Netgear has known of the ’457 patent at least as early as the filing date of the complaint. In addition, Netgear has known about the ’457 patent since at least November 8, 2021, when Netgear and/or its agents received notice of its infringement via a letter.

Redwood sent another letter, which referenced the prior notice letter, that was received by Netgear and/or its agents on January 11, 2022. Furthermore, Netgear has known about the '457 patent since at least May 23, 2022, when Netgear and/or its agents received notice of its infringement via another letter.

32. On information and belief, since at least the above-mentioned date when Netgear was on notice of its infringement, Netgear has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, use, purchase, offer to sell, or sell the Accused Products comprising all of the limitations of one or more claims of the '457 patent to directly infringe one or more claims of the '457 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Netgear does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '457 patent. Netgear intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing and certifying features related to infringing features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States.

33. On information and belief, despite having knowledge of the '457 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '457 patent, Netgear has nevertheless continued its infringing conduct and disregarded an objectively high

likelihood of infringement. Netgear's infringing activities relative to the '457 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

34. Redwood has been damaged as a result of Netgear's infringing conduct described in this Count. Netgear is, thus, liable to Redwood in an amount that adequately compensates Redwood for Netgear's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT II

(INFRINGEMENT OF U.S. PATENT NO. 7,917,102)

35. Plaintiff incorporates paragraphs 1 through 34 herein by reference.

36. Redwood is the assignee of the '102 patent, entitled "Radio Transmitting Apparatus and Radio Transmission Method," with ownership of all substantial rights in the '102 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

37. The '102 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '102 patent issued from U.S. Patent Application No. 11/937,422.

38. Netgear has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '102 patent in this judicial district and elsewhere in Delaware and the United States.

39. Netgear directly infringes the '102 patent via 35 U.S.C. § 271(a) by making, using, offering for sale, selling, and/or importing the Accused Products, their components and processes,

and/or products containing the same that incorporate the fundamental technologies covered by the '102 patent.

40. For example, Netgear infringes claim 3 of the '102 patent via the Accused Products. Each of the Accused Products comprise a radio transmitting apparatus that transmits a modulated signal.

41. The Accused Products each comprise circuitry and/or components (hardware and/or software) that forms a transmission frame which includes a frequency offset estimation signal for estimating frequency offset of the modulated signal at a receiving apparatus, a channel fluctuation estimation signal for estimating channel fluctuation of the modulated signal at the receiving apparatus and a gain control signal for performing gain control of the modulated signal at the receiving apparatus. *See, e.g.*, Section 19.1.4 of IEEE 802.11 2016. For example, the Accused Products each form a HT-mixed format PPDU frame, which comprises an L-LTF subframe, which is a frequency offset estimation signal. *See, e.g.*, Figure 17-4 of IEEE 802.11 2016. The HT-mixed format PPDU frame also comprises an HT-LTF subframe, which is a channel fluctuation estimation signal. *See, e.g.*, Section 19.3.9.4.6 of IEEE 802.11 2016. The HT-mixed format PPDU frame also comprises an L-STF subframe, which is a gain control signal. *See, e.g.*, Section 19.3.9.3.3 of IEEE 802.11 2016.

42. The Accused Products each comprise circuitry and/or components (hardware and/or software) that transmits the transmission frame. *See, e.g.*, Figure 19-2 of IEEE 802.11 2016. The transmission frame includes a first gain control signal and a second gain control signal. For example, the HT-mixed format PPDU comprises a first gain control signal in the L-STF subframe and a second gain control signal in the HT-STF subframe. *See, e.g.*, Sections 19.3.9.3.3 and 19.3.9.4.5 of IEEE 802.11 2016. The first gain control signal is arranged prior to the frequency

offset estimation signal. For example, the L-STF subframe is arranged prior to the L-LTF subframe. *See, e.g.*, Section 19.1.4 of IEEE 802.11 2016. The second gain control is arranged subsequent to the frequency offset estimation signal and prior to the channel fluctuation estimation signal. For example, the HT-STF subframe is arranged subsequent to the L-LTF subframe and prior to the HT-LTF subframe. *See, e.g.*, Section 19.1.4 of IEEE 802.11 2016.

43. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

44. At a minimum, Netgear has known of the '102 patent at least as early as the filing date of the complaint. In addition, Netgear has known about the '102 patent since at least November 8, 2021, when Netgear and/or its agents received notice of its infringement via a letter. Redwood sent another letter, which referenced the prior notice letter, that was received by Netgear and/or its agents on January 11, 2022. Furthermore, Netgear has known about the '102 patent since at least May 23, 2022, when Netgear and/or its agents received notice of its infringement via another letter.

45. On information and belief, since at least the above-mentioned date when Netgear was on notice of its infringement, Netgear has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, use, purchase, offer to sell, or sell the Accused Products comprising all of the limitations of one or more claims of the '102 patent to directly infringe one or more claims of the '102 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Netgear does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '102 patent. Netgear intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries,

and/or consumers by at least, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing and certifying features related to infringing features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States.

46. On information and belief, despite having knowledge of the '102 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '102 patent, Netgear has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. Netgear's infringing activities relative to the '102 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

47. Redwood has been damaged as a result of Netgear's infringing conduct described in this Count. Netgear is, thus, liable to Redwood in an amount that adequately compensates Redwood for Netgear's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT III

(INFRINGEMENT OF U.S. PATENT NO. 7,983,140)

48. Plaintiff incorporates paragraphs 1 through 47 herein by reference.

49. Redwood is the assignee of the '140 patent, entitled "Transmitting Apparatus, Receiving Apparatus, and Communication System for Formatting Data," with ownership of all

substantial rights in the '140 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

50. The '140 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '140 patent issued from U.S. Patent Application No. 11/004,256.

51. Netgear has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '140 patent in this judicial district and elsewhere in Delaware and the United States.

52. Netgear directly infringes the '140 patent via 35 U.S.C. § 271(a) by making, using, offering for sale, selling, and/or importing the Accused Products, their components and processes, and/or products containing the same that incorporate the fundamental technologies covered by the '140 patent.

53. For example, Netgear infringes claim 1 of the '140 patent via the Accused Products. The Accused Products comprise a transmitting apparatus, in an orthogonal frequency division multiplexing communication system. *See, e.g.*, Sections 17.3.8.2 and 19.1.1 of IEEE 802.11 2016.

54. The Accused Products each comprise circuitry and/or components (hardware and/or software) for converting a transmission signal into a transmission time slot. *See, e.g.*, Section 17.3.8.2 of IEEE 802.11 2016. For example, the Accused Products convert PSDUs into PPDUs. *See, e.g.*, Sections 17.3.1 and 17.3.2.1 of IEEE 802.11 2016.

55. The Accused Products each comprise circuitry and/or components (hardware and/or software) for generating a frame that includes a series of n (greater than 1) time slots and a frame guard period added to the series of n time slots, where each time slot includes an effective symbol period and guard period added to the effective symbol period, where the length of the

series of n time slots is less than the length of the frame. For example, each of the Accused Products generates a PPDU frame that comprises a series of time slots associated with the signal and data OFDM symbols. *See, e.g.*, Figures 17-1 and 17-4 of IEEE 802.11 2016. Each of the Accused Products generates cyclic shifts that are added to the series of n time slots. *See, e.g.*, Sections 19.3.4 and 19.3.9.3.2 of IEEE 802.11 2016. Each time slot in the PPDU frame comprises an effective symbol period, and a guard period is added at the start of each effective symbol period. *See, e.g.*, Table 19-6 and Figure 17-4 of IEEE 802.11 2016. Further, the length of the series of n time slots is less than the total length of the PPDU frame. *See, e.g.*, Figure 17-4 of IEEE 802.11 2016.

56. The Accused Products each comprise circuitry and/or components (hardware and/or software) for transmitting the generated frame as a radio signal. *See, e.g.*, Section 17.3.8.2 of IEEE 802.11 2016.

57. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

58. At a minimum, Netgear has known of the '140 patent at least as early as the filing date of the complaint. In addition, Netgear has known about the '140 patent since at least November 8, 2021, when Netgear and/or its agents received notice of its infringement via a letter. Redwood sent another letter, which referenced the prior notice letter, that was received by Netgear and/or its agents on January 11, 2022. Furthermore, Netgear has known about the '140 patent since at least May 23, 2022, when Netgear and/or its agents received notice of its infringement via another letter.

59. On information and belief, since at least the above-mentioned date when Netgear was on notice of its infringement, Netgear has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, use, purchase, offer

to sell, or sell the Accused Products comprising all of the limitations of one or more claims of the '140 patent to directly infringe one or more claims of the '140 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Netgear does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '140 patent. Netgear intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing and certifying features related to infringing features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States.

60. On information and belief, despite having knowledge of the '140 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '140 patent, Netgear has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. Netgear's infringing activities relative to the '140 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

61. Redwood has been damaged as a result of Netgear's infringing conduct described in this Count. Netgear is, thus, liable to Redwood in an amount that adequately compensates

Redwood for Netgear's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT IV

(INFRINGEMENT OF U.S. PATENT NO. 8,111,671)

62. Plaintiff incorporates paragraphs 1 through 61 herein by reference.

63. Redwood is the assignee of the '671 patent, entitled "Wireless Communication System, Wireless Communication Apparatus, Wireless Communication Method and Computer Program," with ownership of all substantial rights in the '671 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

64. The '671 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '671 patent issued from U.S. Patent Application No. 12/610,058.

65. Netgear has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '671 patent in this judicial district and elsewhere in Delaware and the United States.

66. Netgear directly infringes the '671 patent via 35 U.S.C. § 271(a) by making, using, offering for sale, selling, and/or importing the Accused Products, their components and processes, and/or products containing the same that incorporate the fundamental technologies covered by the '671 patent.

67. For example, Netgear infringes claim 4 of the '671 patent via the Accused Products. Each of the Netgear Accused Products comprise a wireless communication station. *See, e.g.*, Section 14.14.2.1 and Figure 14-5 of IEEE 802.11 2016.

68. The Accused Products each comprise a transmitter configured to transmit a beacon with information associated with a network being described therein to another communication

station to construct a network, where the beacon also includes timing information indicating which time periods during which the communication station cannot receive a transmission. For example, a transmitter of each of the Accused Products is configured to transmit a beacon containing a Mesh Configuration element advertising the mesh services of a mesh network. *See, e.g.*, Sections 9.4.2.98.1 and 14.13.3.1 of IEEE 802.11 2016. The beacon contains timing information (e.g., the Mesh Awake Window element), indicating which time periods during which the communication station can and cannot receive a transmission in accordance with the communication station's Mesh Power Save Level field. *See, e.g.*, Sections 9.3.3.3, 9.4.2.104, 9.4.2.98.8, 14.14.7, and 14.14.2.2 of IEEE 802.11 2016.

69. The Accused Products each comprise a receiver configured to receive timing information from the another communication station, where the timing information indicates which time periods during which the another communication station cannot receive a transmission. For example, a receiver of each of the Accused Products is configured to receive a beacon containing the Mesh Awake Window and the Neighbor Beacon Interval contained in the Beacon Timing Element. *See, e.g.*, Sections 9.3.3.3, 9.4.2.105, and 14.14.7 of IEEE 802.11 2016. The Mesh Awake Window and the Neighbor Beacon Interval indicate the time periods during which a neighboring communication station can and cannot receive a transmission. *See, e.g.*, Section 14.14.7 and Figure 14-6 of IEEE 802.11 2016.

70. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

71. At a minimum, Netgear has known of the '671 patent at least as early as the filing date of the complaint. In addition, Netgear has known about the '671 patent since at least November 8, 2021, when Netgear and/or its agents received notice of its infringement via a letter.

Redwood sent another letter, which referenced the prior notice letter, that was received by Netgear and/or its agents on January 11, 2022. Furthermore, Netgear has known about the '671 patent since at least May 23, 2022, when Netgear and/or its agents received notice of its infringement via another letter.

72. On information and belief, since at least the above-mentioned date when Netgear was on notice of its infringement, Netgear has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, use, purchase, offer to sell, or sell the Accused Products comprising all of the limitations of one or more claims of the '671 patent to directly infringe one or more claims of the '671 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Netgear does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '671 patent. Netgear intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing and certifying features related to infringing features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States.

73. On information and belief, despite having knowledge of the '671 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '671 patent, Netgear has nevertheless continued its infringing conduct and disregarded an objectively high

likelihood of infringement. Netgear's infringing activities relative to the '671 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

74. Redwood has been damaged as a result of Netgear's infringing conduct described in this Count. Netgear is, thus, liable to Redwood in an amount that adequately compensates Redwood for Netgear's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT V

(INFRINGEMENT OF U.S. PATENT NO. 9,462,536)

75. Plaintiff incorporates paragraphs 1 through 74 herein by reference.

76. Redwood is the assignee of the '536 patent, entitled "Wireless Communication System, Wireless Communication Apparatus, Wireless Communication Method, and Computer Program," with ownership of all substantial rights in the '536 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

77. The '536 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '536 patent issued from U.S. Patent Application No. 14/507,258.

78. Netgear has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '536 patent in this judicial district and elsewhere in Delaware and the United States.

79. Netgear directly infringes the '536 patent via 35 U.S.C. § 271(a) by making, using, offering for sale, selling, and/or importing the Accused Products, their components and processes,

and/or products containing the same that incorporate the fundamental technologies covered by the '536 patent.

80. For example, NETGEAR infringes claim 3 of the '536 patent via the Accused Products. The Accused Products are a mesh station that perform a communication method using a signal described in IEEE 802.11. *See, e.g.*, Sections 14 and 14.13.2.1 of IEEE 802.11 2016.

81. The Accused Products each comprise circuitry and/or components (hardware and/or software) for converting a transmission signal into a transmission time slot. *See, e.g.*, Section 17.3.8.2 of IEEE 802.11 2016. For example, the Accused Products convert PSDUs into PPDUs. *See, e.g.*, Sections 17.3.1 and 17.3.2.1 of IEEE 802.11 2016.

82. The Accused Products each output, with circuitry, a modulated signal based on information specifying a duration of transmission opportunities and information specifying a periodicity of the transmission opportunities. For example, the accused mesh station includes one or more transmitters that transmit modulated signals based on information contained in the Mesh Beacon. *See, e.g.*, Sections 9.3.3.3, 9.4.2.105, 14.13.3.1, 14.13.4.2.5, and Figure 9-464 of IEEE 802.11 2016. The Mesh Beacon includes the Mesh Awake Window, which specifies the duration of transmission opportunities, and the Beacon Timing element, which contains the Neighbor Target Beacon Transmission Time ("Neighbor TBTT") and Neighbor Beacon Interval, which specify the periodicity of the transmission opportunities. *See, e.g.*, Sections 9.3.3.3, 9.4.2.104, 9.4.2.105, and 14.13.4 of IEEE 802.11 2016.

83. The Accused Products each set, with the circuitry, an offset of the transmission opportunity indicating a beginning of the transmission opportunity with respect to a beginning of a transmission interval. For example, the Accused Products each perform a TBTT adjustment procedure by subtracting a delay amount from the TBTT, which indicates a beginning of the Mesh

Awake Window. *See, e.g.*, Section 14.13.4.4.3 and Figure 14-6 of IEEE 802.11 2016. The adjusted TBTT indicates a beginning of the Mesh Awake Window with respect to the beginning of a Beacon Interval. *See, e.g.*, Section 14.13.4.4.3 and Figure 14-6 of IEEE 802.11 2016.

84. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

85. At a minimum, Netgear has known of the '536 patent at least as early as the filing date of the complaint. In addition, Netgear has known about the '536 patent since at least November 8, 2021, when Netgear and/or its agents received notice of its infringement via a letter. Redwood sent another letter, which referenced the prior notice letter, that was received by Netgear and/or its agents on January 11, 2022. Furthermore, Netgear has known about the '536 patent since at least May 23, 2022, when Netgear and/or its agents received notice of its infringement via another letter.

86. On information and belief, since at least the above-mentioned date when Netgear was on notice of its infringement, Netgear has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, use, purchase, offer to sell, or sell the Accused Products comprising all of the limitations of one or more claims of the '536 patent to directly infringe one or more claims of the '536 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Netgear does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '536 patent. Netgear intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the

Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing and certifying features related to infringing features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States.

87. On information and belief, despite having knowledge of the '536 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '536 patent, Netgear has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. Netgear's infringing activities relative to the '536 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

88. Redwood has been damaged as a result of Netgear's infringing conduct described in this Count. Netgear is, thus, liable to Redwood in an amount that adequately compensates Redwood for Netgear's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

CONCLUSION

89. Plaintiff Redwood is entitled to recover from Netgear the damages sustained by Plaintiff as a result of Netgear's wrongful acts, and willful infringement, in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court.

90. Plaintiff has incurred and will incur attorneys' fees, costs, and expenses in the prosecution of this action. The circumstances of this dispute may give rise to an exceptional case within the meaning of 35 U.S.C. § 285, and Plaintiff is entitled to recover its reasonable and necessary attorneys' fees, costs, and expenses.

JURY DEMAND

91. Plaintiff hereby requests a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

PRAYER FOR RELIEF

92. Plaintiff respectfully requests that the Court find in its favor and against Netgear, and that the Court grant Plaintiff the following relief:

1. A judgment that Netgear has infringed the Asserted Patents as alleged herein, directly and/or indirectly by way of inducing infringement of such patents;
2. A judgment for an accounting of all damages sustained by Plaintiff as a result of the acts of infringement by Netgear;
3. A judgment and order requiring Netgear to pay Plaintiff damages under 35 U.S.C. § 284, including up to treble damages as provided by 35 U.S.C. § 284, and any royalties determined to be appropriate;
4. A judgment and order requiring Netgear to pay Plaintiff pre-judgment and post-judgment interest on the damages awarded;
5. A judgment and order finding this to be an exceptional case and requiring Netgear to pay the costs of this action (including all disbursements) and attorneys' fees as provided by 35 U.S.C. § 285; and
6. Such other and further relief as the Court deems just and equitable.

Dated: September 27, 2022

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