IN THE UNITED STATES DISTRICT COURT
THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

CDN INNOVATIONS, LLC Plaintiff, v. MICROCHIP TECHNOLOGIES INCORPORATED, Defendant.	**Civil Action No. 6:20-cv-445** **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff CDN Innovations, LLC ("CDN" or "Plaintiff"), for its Complaint against Defendant Microchip Technologies Incorporated, (referred to herein as "Microchip" or "Defendant"), alleges the following:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*

THE PARTIES

2. Plaintiff CDN is a limited liability company organized under the laws of the State Georgia with a place of business at 44 Milton A venue, Suite 254, Alpharetta, GA 30009.

3. Upon information and belief, Microchip is a corporation organized under the laws of the State of Delaware with a place of business at 2355 W. Chandler Blvd., Chandler, AZ 85224-6199. Upon information and belief, Microchip sells, offers to sell, and/or uses products and services throughout the United States, including in this judicial district, and introduces infringing

products and services into the stream of commerce knowing that they would be sold and/or used in this judicial district and elsewhere in the United States.

JURISDICTION AND VENUE

4. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

5. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

6. Venue is proper in this judicial district under 28 U.S.C. § 1400(b).

7. This Court has personal jurisdiction over the Microchip under the laws of the State of Texas, due at least to their substantial business in the State of Texas and in this judicial district, directly or through intermediaries, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct and/or deriving substantial revenue from goods and services provided to individuals in the State of Texas. Venue is also proper in this district because Microchip has a regular and established place of business in this district. For instance, Microchip has an office in this judicial district. For example, Microchip has an office located at 8601 Ranch Rd 2222 Bldg. 3, Austin, TX 78730.

BACKGROUND

The Inventions

Adaptive Power Control

8. Sinikka Sarkkinen, Jari Isokangas, and Dimitris Koulakiotis (hereinafter "the Inventors") are the inventors of U.S. Patent Nos. 7,006,844 ("the '844 patent") and 7,860,462 ("the '462 patent"). A true and correct copy of the '844 patent is attached as Exhibit A. A true and correct copy of the '462 patent is attached as Exhibit B.

9. The '844 and '462 patents resulted from the pioneering efforts of the Inventors in the area of data transmissions in a wireless communication network, and more particularly the dynamic control of the power level of multicast data transmission. These efforts resulted in the development of a method and apparatus for adaptive power control for multicast transmission in 2002.

Recognizing Spoken Identifiers

10. David B. Anderson is the inventor of U.S. Patent No. 6,865,532 ("the '532 patent"). A true and correct copy of the '532 patent is attached as Exhibit C.

11. The '532 patent resulted from the pioneering efforts of Mr. Anderson (hereinafter "the Inventor") in the area of voice operated communication devices, and more particularly the area of recognizing spoken identifiers. These efforts resulted in the development of a novel method for recognizing spoken identifiers having predefined grammars. At the time of these pioneering efforts, the most widely implemented voice-control technology used in device communications controlled by spoken commands were either simple systems involving speech to simply activate transmission (e.g., US 4,860,359 and US 5,008,954) or voice translations systems involving complex circuitry such as a series of circuits each circuited intended to handle a different aspect of voice recognition and translation (US 6,236,969). Thus, prior art spoken

commands systems and methods were either too simple to provide sufficient voice-controlled functionality or too complex to be affordably produced and utilized in a portable apparatus and other communications devices.

12. The Inventor conceived of the inventions claimed in the ’532 patent in part as a way to allow for asynchronous communications with a relatively non-complex device using spoken commands, with a lower incidence of errors. An exemplary description of this concept includes, among other elements, defining a phrase having word slots arranged in the phrase in a predetermined order and according to a predetermined grammatical structure of a target language. A set of unique words selected from the target language is assigned to each word slot in the phrase according to the grammatical structure. Then, unique identifiers can be generated by selecting one word from each set for each slot for each identifier such that a concatenating of the selected words in the predetermined order form the unique identifier. Among other advantages, this way provides a cleverly structured simplification scheme as compared to the prior art, and one that is less prone to error.

13. By contrast, US Patent No. 6,236,969, cited in the Background section of the ’532 patent describes complex three-circuit design. (*See* ’532 patent at 2:26-38).

14. The ’532 patent further explains that its spoken phrases are easier to remember than the prior art numeric identifiers, such as telephone numbers, while still providing a large number of possible identification numbers with a fairly small number of words in the phrase. (*See* ’532 patent at 5:31-42.)

15. Because of these significant advantages that can be achieved through the use of the patented invention, the ’532 patent presents significant commercial value for companies like Microchip. Indeed, while such technology did not exist prior to the invention, since the issuance

of the ’532 patent many spoken-identifier-based voice-control technologies have emerged, utilizing features claimed in the ’532 patent.

16. The patented invention disclosed in the ’532 patent resolves technical problems related to making voice-control workable in a range of communication devices, particularly problems related to the utilization of non-complex structure to enable a robust range of easily memorable commands while reducing susceptibility to error.

17. The claims of the ’532 patent do not merely recite the performance of some well-known business practice from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claims of the ’532 patent recite inventive concepts that are deeply rooted in engineering technology, and overcome problems specifically arising out of voice-control technology, including, as noted above technology sufficient to provide robust voice-controlled functionality but not too complex to be affordably produced and utilized in a portable apparatus and other communications devices.

18. In addition, the claims of the ’532 patent recite inventive concepts that improve the functioning of a range of voice-controlled communications devices, particularly compact, portable and affordable communications device, which typically lack high-speed processing capabilities for complex tasks.

19. Moreover, the claims of the ’532 patent recite inventive concepts that are not merely routine or conventional use of a translation tool. Instead, the patented inventions disclosed in the ’532 patent provide new and novel solutions to specific problems related to improving the ability of a range of communication devices to implement voice-control through the use of recognizable spoken identifiers.

20. And finally, the patented inventions disclosed in the ’532 patent do not preempt

all the ways that voice-controlled devices may be used to improve the recognition of spoken commands, nor does the ’532 patent preempt any other well-known or prior art technology.

21. Accordingly, the claims in the ’532 patent recite a combination of elements sufficient to ensure that the claim in substance and in practice amounts to significantly more than a patent-ineligible abstract idea.

COUNT 1 – INFRINGEMENT OF U.S. PATENT NO. 7,006,844

22. The allegations set forth in the foregoing paragraphs are incorporated into this Count.

23. On February 28, 2006, the ’844 patent was duly and legally issued by the United States Patent and Trademark Office under the title “Adaptive power control for multicast transmission”.

24. CDN is the assignee and owner of the right, title and interest in and to the ’844 patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of it.

25. Upon information and belief, Microchip has and continues to directly infringe one or more claims of the ’844 patent by making, using (e.g., developing, testing, installing or otherwise using) offering to sell, selling, or importing into the United States products, specifically one or more of the products identified in Exhibit D hereto (the “*Accused 802.11 Instrumentalities*”). For example, upon information and belief, Microchip at least uses, sells and offers to sell the *Accused 802.11 Instrumentalities* in United States.

26. Exemplary infringement analysis showing infringement of at least claim 23 of the ’844 patent is set forth in Exhibit D. This infringement analysis is necessarily preliminary, as it is provided in advance of any discovery provided by Microchip with respect to the ’844 patent. CDN reserves all rights to amend, supplement and modify this preliminary infringement

analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the '844 patent.

27. Upon information and belief, users of devices containing Microchip's *Accused 802.11 Instrumentalities* have and will continue to directly infringe at least claim 23 of the '844 patent.

28. Upon information and belief, Microchip had knowledge of the '844 patent at least as early as its receipt of this complaint.

29. Microchip's encouragement of others to use the *Accused 802.11 Instrumentalities*—knowing that such use, as alleged herein, infringes at least claim 23 of the '844 patent—constitutes inducement of others under 35 U.S.C. § 271(b). Microchip's encouragement of infringement includes actively advertising, promoting and distributing technical information through its website (and other sources) that the *Accused 802.11 Instrumentalities* are not only compliant with the IEEE Std 802.11. Standard ("802.11") but specifically intended for use as an 802.11. For example, Microchip's website describes its Wi-Fi® Solutions as follows: "Robust, reliable and safe connections are what you can expect when you use Microchip's Wi-Fi® devices in your application. We extensively test our products for interoperability against hundreds of Access Points (APs) with our in-house test lab providing you with the confidence that your product will work wherever it's deployed. Whether you're looking for a chip-down solution or a plug-and-play module, our portfolio of Wi-Fi solutions has you covered. We make it easy to start developing immediately with our development kits, libraries, and individualized support. We're continuously deploying improvements to our firmware to provide additional features and functions while keeping your designs protected from the latest security threats." https://www.microchip.com/design-centers/wireless-connectivity/embedded-

wi-fi (last visited 05/28/2020). This page goes on to identify Microchip's "Wi-Fi RF Front End Components" as "802.11 a/b/g/n/ac RF Front End Modules (FEMs)" and identifies its ATSAMW25, ATWILC1000, ATWILC3000, ATWINC1500, ATWINC3400 as using "Radio Technology" compliant with "Wi-Fi 802.11 b/g/n". As another example, Microchip's website promotes its LX5584A as "a complete integrated 2.4GHz Front- End Module (FEM) for an IEEE 802.11ac system." https://www.microchip.com/wwwproducts/en/LX5584A (last visited 05/28/2020). Such conduct demonstrates Microchip's specific intent (or at least willful blindness) to actively aid and abet others to infringe, including but not limited to Microchip's partners and downstream customers, whose use of the *Accused 802.11 Instrumentalities* constitutes direct infringement of at least claim 23 of the '844 patent.

30. Upon information and belief, Microchip is also liable as a contributory infringer of the '844 patent under 35 U.S.C. § 271(c) by offering to sell, selling and/or importing into the United States componentry especially made to comply with 802.11 Standard which, as shown in Exhibit D, constitutes an infringement of the '844 patent. The *Accused 802.11 Instrumentalities* are material components for use in practicing the '844 patent and are specifically made and are not a staple article of commerce suitable for substantial non-infringing use.

31. The Accused Instrumentality infringed and continues to infringe at least claim 23 of the '844 patent during the pendency of the '844 patent.

32. CDN has been harmed by the Microchip's infringing activities.

COUNT 2 – INFRINGEMENT OF U.S. PATENT NO. 7,860,462

33. The allegations set forth in the foregoing paragraphs are incorporated into this Count.

34. On December 28, 2010, the ’462 patent was duly and legally issued by the United States Patent and Trademark Office under the title “Adaptive power control for multicast transmission” [sic].

35. CDN is the assignee and owner of the right, title and interest in and to the ’462 patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of it.

36. Upon information and belief, Microchip has and continues to directly infringe one or more claims of the ’462 patent by making, using (e.g., developing, testing, installing or otherwise using) offering to sell, selling, or importing into the United States products, specifically one or more of the products identified in Exhibit E hereto (the “*Accused 802.11 Instrumentalities*”). For example, upon information and belief, Microchip at least uses, sells and offers to sell the *Accused 802.11 Instrumentalities* in United States.

37. Exemplary infringement analysis showing infringement of at least claims 15 and 19 of the ’462 patent is set forth in Exhibit E. This infringement analysis is necessarily preliminary, as it is provided in advance of any discovery provided by Microchip with respect to the ’462 patent. CDN reserves all rights to amend, supplement and modify this preliminary infringement analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the ’462 patent.

38. Upon information and belief, users of devices containing Microchip’s *Accused 802.11 Instrumentalities* have and will continue to directly infringe at least claims 15 and 19 of the ’462 patent.

39. Upon information and belief, Microchip had knowledge of the ’462 patent at least as early as its receipt of this complaint.

40. Microchip’s encouragement of others to use the *Accused 802.11 Instrumentalities*—knowing that such use, as alleged herein, infringes at least claims 15 and 19 of the ’462 patent—constitutes inducement of others under 35 U.S.C. § 271(b). Microchip’s encouragement of infringement includes actively advertising, promoting and distributing technical information through its website (and other sources) that the *Accused 802.11 Instrumentalities* are not only compliant with the IEEE Std 802.11. Standard (“802.11”) but specifically intended for use an 802.11 product. For example, Microchip’s website describes its Wi-Fi® Solutions as follows: “Robust, reliable and safe connections are what you can expect when you use Microchip’s Wi-Fi® devices in your application. We extensively test our products for interoperability against hundreds of Access Points (APs) with our in-house test lab providing you with the confidence that your product will work wherever it’s deployed. Whether you’re looking for a chip-down solution or a plug-and-play module, our portfolio of Wi-Fi solutions has you covered. We make it easy to start developing immediately with our development kits, libraries, and individualized support. We’re continuously deploying improvements to our firmware to provide additional features and functions while keeping your designs protected from the latest security threats.” https://www.microchip.com/design-centers/wireless-connectivity/embedded-wi-fi (last visited 05/28/2020). This page goes on to identify Microchip’s “Wi-Fi RF Front End Components” as “802.11 a/b/g/n/ac RF Front End Modules (FEMs)” and identifies its ATSAMW25, ATWILC1000, ATWILC3000, ATWINC1500, ATWINC3400 as using “Radio Technology” compliant with “Wi-Fi 802.11 b/g/n”. As another example, Microchip’s website promotes its LX5584A as “a complete integrated 2.4GHz Front-

End Module (FEM) for an IEEE 802.11ac system." https://www.microchip.com/wwwproducts/en/LX5584A (last visited 05/28/2020). Such conduct demonstrates Microchip's specific intent (or at least willful blindness) to actively aid and abet others to infringe, including but not limited to Microchip's partners and downstream customers, whose use of the *Accused 802.11 Instrumentalities* constitutes direct infringement of at least claims 15 and 19 of the '462 patent.

41. Upon information and belief, Microchip is also liable as a contributory infringer of the '462 patent under 35 U.S.C. § 271(c) by offering to sell, selling and/or importing into the United States componentry especially made to comply with 802.11 Standard which, as shown in Exhibit E, constitutes an infringement of the '462 patent. The *Accused 802.11 Instrumentalities* are material components for use in practicing the '462 patent and are specifically made and are not a staple article of commerce suitable for substantial non-infringing use.

42. The Accused Instrumentality infringed and continues to infringe at least claim 15 and 19 of the '462 patent during the pendency of the '462 patent.

43. CDN has been harmed by the Microchip's infringing activities.

COUNT 3 – INFRINGEMENT OF U.S. PATENT NO. 6,865,532

44. The allegations set forth in the foregoing paragraphs are incorporated into this Count.

45. On March 8, 2005, the '532 patent was duly and legally issued by the United States Patent and Trademark Office under the title "Method for recognizing spoken identifiers having predefined grammars"

46. CDN is the assignee and owner of the right, title and interest in and to the '532 patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of it.

47. Upon information and belief, Microchip has and continues to directly infringe one or more claims of the ’532 patent by making, using (e.g., developing, testing, installing or otherwise using) offering to sell, selling, or importing into the United States products, specifically one or more of the products identified in Exhibit F hereto (the “*Accused Speech Recognition Instrumentalities*”). For example, upon information and belief, Microchip at least uses, sells and offers to sell the *Accused Speech Recognition Instrumentalities* in United States.

48. Exemplary infringement analysis showing infringement of claims 1 through 8 of the ’532 patent is set forth in Exhibit F. This infringement analysis is necessarily preliminary, as it is provided in advance of any discovery provided by Microchip with respect to the ’532 patent. CDN reserves all rights to amend, supplement and modify this preliminary infringement analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the ’532 patent.

49. Upon information and belief, users of devices containing Microchip’s *Accused Speech Recognition Instrumentalities* have and will continue to directly infringe claims 1 through 8 of the ’532 patent.

50. Upon information and belief, Microchip had knowledge of the ’532 patent at least as early as its receipt of this complaint.

51. Microchip’s encouragement of others to use the *Accused Speech Recognition Instrumentalities*—knowing that such use, as alleged herein, infringes claims 1 through 8 of the ’532 patent—constitutes inducement of others under 35 U.S.C. § 271(b). Microchip’s encouragement of infringement includes actively advertising, promoting and distributing technical information through its website (and other sources) that the *Accused Speech Recognition Instrumentalities* are not only configured to enable speech recognition but

specifically intended for use as a speech recognition tool. For example, Microchip's "dsPIC30F Speech Recognition Library User's Guide." available from its website, promotes a Microchip solution to "enable[] developers to incorporate a voice-controlled user interface in their embedded solution". http://ww1.microchip.com/downloads/en/devicedoc/dspic_speech_recognition_user_guide_70140a.pdf (last visited 05/28/2020). Upon information and belief, Microchip uses this design to promote several of its products, including its "Bluetooth® Audio and Voice Solutions" which, according to its website, "[a]dd voice control to your product that requires a Human-Machine Interface (HMI). Simplify your design using our RF-certified modules, reference designs and sample code. From start to finish we arm you with the right tools to get your product to market quickly and reliability." https://www.microchip.com/design-centers/wireless-connectivity/bluetooth/bluetooth-audio-and-voice (last visited 05/29/2020). Identified "Voice" product offerings include: ZL38050, ZL38051, ZL38052, ZL38063, ZL38067, and ZL38090. *Id*.. Such conduct demonstrates Microchip's specific intent (or at least willful blindness) to actively aid and abet others to infringe, including but not limited to Microchip's partners and downstream customers, whose use of the *Accused Speech Recognition Instrumentalities* constitutes direct infringement of claims 1 through 8 of the '532 patent.

52. Upon information and belief, Microchip is also liable as a contributory infringer of the '532 patent under 35 U.S.C. § 271(c) by offering to sell, selling and/or importing into the United States componentry especially made to enable the speech recognition functionality which, as shown in Exhibit F, constitutes an infringement of the '532 patent. The *Accused Speech Recognition Instrumentalities* are material components for use in practicing the '532 patent and are specifically made and are not a staple article of commerce suitable for substantial non-infringing use.

53. The Accused Instrumentality infringed and continues to infringe claims 1 through 8 of the ’532 patent during the pendency of the ’532 patent.

54. CDN has been harmed by the Microchip’s infringing activities.

JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, CDN demands a trial by jury on all issues triable as such.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff CDN demands judgment for itself and against Microchip as follows:

A. An adjudication that the Microchip has infringed the patents asserted herein;

B. An award of damages to be paid by Microchip adequate to compensate CDN for Microchip’s past infringement of the patents asserted herein, and any continuing or future infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;

C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of CDN’s reasonable attorneys’ fees; and

D. An award to CDN of such further relief at law or in equity as the Court deems just and proper.

Dated: May 29, 2020

DEVLIN LAW FIRM LLC

/s/ Alex Chan

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