

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK**

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)	
ANDREA ELECTRONICS)	
CORPORATION,)	
)	
)	Case No. 2:14-cv-4492 (KAM-GRB)
Plaintiff,)	
)	
)	FIRST AMENDED COMPLAINT
v.)	
)	
)	JURY TRIAL DEMANDED
TOSHIBA CORPORATION, and)	
TOSHIBA AMERICA INFORMATION)	
SYSTEMS, INC.,)	
)	
Defendants.)	
_____)	

FIRST AMENDED COMPLAINT

Pursuant to Federal Rule of Civil Procedure 15(a)(1)(B), Plaintiff Andrea Electronics Corporation (“Andrea”), by and through its counsel, Pepper Hamilton LLP, for its First Amended Complaint against defendant Toshiba Corporation and Toshiba America Information Systems, Inc. (collectively, “Toshiba” or “Defendants”) alleges as follows:

NATURE OF ACTION

1. This is an action for patent infringement under the patent laws of the United States, 35 U.S.C. §§ 271, *et seq.*, to enjoin infringement and obtain damages resulting from Defendants’ unauthorized and ongoing actions, in the state of New York and elsewhere, of

making, having made, using, selling, having sold, offering to sell, and/or importing or having imported into the United States, certain personal computer products that infringe one or more claims in Andrea's U.S. Patent No. 5,825,898 (the "'898 Patent"), U.S. Patent No. 6,049,607 (the "'607 Patent"), U.S. Patent No. 6,363,345 (the "'345 Patent"), and U.S. Patent No. 6,483,923 (the "'923 Patent") (collectively, the "Asserted Patents").

2. This is an action for direct infringement. Upon information and belief, Defendants make, have made, use, sell, offer to sell, and/or import or have imported into the United States certain personal computer products including, but not limited to, desktops, notebooks, laptops, all-in-ones, and tablets that infringe one or more of the Asserted Patents, either literally or under the doctrine of equivalents.

3. In addition, this is an action for indirect infringement. Upon information and belief, Defendants contribute to or induce the direct infringement of, either literally or under the doctrine of equivalents, one or more methods claimed in the '607, '345, and '923 Patents.

THE PARTIES

4. Plaintiff Andrea is a corporation organized and existing under the laws of the state of New York with its principal place of business at 65 Orville Drive, Suite One, Bohemia, New York 11716.

5. Upon information and belief, Toshiba Corporation is a corporation organized and existing under the laws of Japan, with its principal place of business at 1-1-1 Shibaura, Toshiba Bldg., 105-0023 Minato-Ku, 105-0023 Tokyo, Japan.

6. Upon information and belief, Toshiba America Information Systems, Inc. is a United States corporation organized under the laws of Delaware headquartered at 9740 Irvine Boulevard, Irvine, California 92618. Upon information and belief, Toshiba America Information Systems, Inc. is a subsidiary of, or in the alternative, is controlled by Toshiba America, Inc.

JURISDICTION AND VENUE

7. This is an action for patent infringement. Federal Question jurisdiction is conferred upon this Court pursuant to 28 U.S.C. § 1331 and § 1338(a).

8. Upon information and belief, Defendants are subject to personal jurisdiction in the Eastern District of New York because they regularly transact business in this judicial district by, among other things, offering their products to customers, business affiliates, and/or partners located in this judicial district. In addition, Defendants have committed acts of direct infringement of one or more claims of one or more Asserted Patents in this judicial district. Infringing products made and sold by Defendants including, but not limited to, desktops, notebooks, laptops, all-in-ones, and tablets are widely advertised in New York and are readily available at numerous retail locations throughout the state, including within the Eastern District of New York. Upon information and belief, Defendants make ongoing and continuous shipments of infringing products into the Eastern District of New York and maintain an established distribution network that encompasses New York. Infringing products are manufactured by Defendants, or at their direction, and are used or consumed within this State in the ordinary course of trade. Defendants admitted that personal jurisdiction is proper in the Eastern District of New York and that they are subject to personal jurisdiction in the Eastern District of New York in paragraphs 8 and 9 of their Answer filed on October 20, 2014.

9. Venue is proper in the Eastern District of New York under 28 U.S.C. §§ 1391(b) and (c) as well as 28 U.S.C. § 1400(b) because Defendants are subject to personal jurisdiction in this district and have committed acts of infringement in this district. Additionally, Plaintiff's principal place of business is located in this judicial district.

BACKGROUND AND FACTS RELATED TO THIS ACTION

10. Andrea is a leading industry developer of product solutions which optimize the performance of voice user interfaces and has a decorated history deeply rooted in the state of New York. Its technology has been applied to products related to, among other things, voice over internet protocol (“VoIP”) telephone, VoIP teleconferencing, video conferencing, speech recognition, computer gaming, in-car computing, and 3D audio recording.

11. The leadership of Andrea has spanned three familial generations over 80 years, and the company has been headquartered in the Long Island community since 1934. Andrea’s products are featured in the Henry Ford Museum and Smithsonian National Museum of American History.

12. In the early 1900s, Frank Andrea, an Italian immigrant, started his business career. He began as an electroplater for I.P. Frink manufacturing company and studied at night as a tool maker and machinist at the Mechanics Institute in New York City. In 1913 he joined the Frederick Pierce Company and, after the outbreak of World War I, worked to design tools to manufacture parts for a new aircraft radio receiver that he had built. Mr. Andrea soon thereafter started his own company, FADA.

13. As founder of FADA, Mr. Andrea employed his family members, including his 16 year-old brother, John. FADA picked up momentum when Mr. Andrea convinced Marconi, the predecessor of RCA, to place an order for radio parts. FADA began manufacturing parts for crystal sets and “Do It Yourself” kits. FADA also soon began manufacturing parts such as sockets and rheostats for tube type radios.

14. After selling his controlling interest in FADA, Mr. Andrea founded the Andrea Radio Corporation (“Andrea Radio”). Andrea Radio’s offerings evolved over time. In 1939, Andrea Radio developed and produced one of the first television sets, which was displayed at the

World's Fair in Queens, New York. Andrea Radio sold TV kits and the first television console models that also housed a radio and phonograph. In 1954, Andrea Radio began developing a color television and introduced a set in 1957.

15. During the Second World War, the firm engaged in the production of military electronics. In 1942, Andrea Radio was presented with the prestigious high honors Navy E Award for manufacturing excellence and providing military audio communications equipment. In the early 1960s, Andrea Radio developed and produced several types of high reliability intercommunication systems for installation in various military and commercial aircraft. Indeed, Andrea Radio produced the audio intercom system for Project Mercury's first manned spacecraft.

16. Mr. Andrea passed away in 1965, leaving his son, Frank Jr., to continue the Andrea business.

17. In the 1970s and 1980s, Andrea Radio became a premier supplier of high performance avionic intercom equipment for defense industry manufacturers like Bell Helicopter, Boeing, Sikorsky, and Lockheed, prompting Andrea Radio to change its name to Andrea Electronics Corporation. Andrea produced microphone audio pre-amplifiers for Navy aviators' oxygen mask helmet systems. The experience gained from producing audio intercom systems for high noise environments paved the way for Andrea's emphasis on active noise cancellation.

18. Product development continued in the 1990s with Andrea producing the first Active Noise Canceling ("ANC") boom microphone computer headset for deployment with computer speech recognition. Andrea shipped millions of headsets and microphone products to software OEMs. In 1998, Andrea developed and produced the first digital array microphone for

commercial use, providing hands-free voice command and control functionality. In 1999, Andrea developed and produced the first USB headset as well as the first desktop digital array microphone.

19. In the 2000s, Andrea broadened the application of its product offerings. In 2001, it developed and produced digital noise canceling array microphones for speech control systems in police cruisers. In 2002, Andrea revolutionized PC audio input by introducing the first stereo array microphone interface for integrated audio coder/decoders (“CODECs”). By the late 2000s, Andrea had shipped over one million SuperBeam stereo array microphones, and millions of DSDA stereo array microphone and EchoStop speakerphone products.

20. Andrea has continued its innovation and offers microphone and earphone technologies designed to enhance sound quality. Andrea, now led by Frank Andrea’s grandson, Douglas Andrea, successfully transformed itself from a manufacturer of industrial and military intercommunication systems into a creator of cutting-edge audio technologies. Andrea incorporates its new patented technologies to enable natural language interfaces and enhance the performance of voice-related applications. Today, Andrea offers a variety of products incorporating its technologies such as headsets and headphones, microphones, software algorithms, USB audio solutions and related accessories. Since its inception, Andrea has gone through a remarkable evolution as an audio technology leader, meeting the ever-changing needs of a demanding audio communications marketplace.

COUNT I

(Infringement of the ’898 Patent)

21. Paragraphs 1 through 20 are incorporated by reference as if fully restated herein.

22. On October 20, 1998, United States Patent No. 5,825,898 (the “’898 Patent”) was duly and legally issued for “System and Method for Adaptive Interference Cancelling.” The

'898 Patent is in full force and effect. A true and correct copy of the '898 Patent is attached hereto as Exhibit A and made part hereof.

23. Andrea is the owner of all right, title, and interest in and to the '898 Patent, with the exclusive right to enforce the '898 Patent against infringers and the exclusive right to collect damages for all relevant times, including the right to prosecute this action.

24. The '898 Patent generally relates to signal processing. Specifically, the '898 Patent discloses an adaptive signal processing system and method for reducing interference in a received signal.

25. Upon information and belief, Defendants – without authority, consent, right, or license – manufacture, make, have made, use, sell, offer for sale, and/or import into the United States certain personal computer products that directly infringe, either literally and/or under the doctrine of equivalents, at least one claim of the '898 patent. As a result of Defendants' infringing conduct, Andrea has suffered damages and will continue to suffer damages in an amount that, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by the Court under 35 U.S.C. § 284.

26. Upon information and belief, Defendants will continue their infringement of the '898 Patent unless enjoined by the Court. Defendants' infringing conduct has caused Andrea irreparable harm and will continue to cause such harm without the issuance of an injunction.

COUNT II

(Infringement of the '607 Patent)

27. Paragraphs 1 through 26 are incorporated by reference as if fully restated herein.

28. On April 11, 2000, United States Patent No. 6,049,607 (the "'607 Patent") was duly and legally issued for "Interference Canceling Method and Apparatus." The '607 Patent is

in full force and effect. A true and correct copy of the '607 Patent is attached hereto as Exhibit B and made part hereof.

29. Andrea is the owner of all right, title, and interest in and to the '607 Patent, with the exclusive right to enforce the '607 Patent against infringers and the exclusive right to collect damages for all relevant times, including the right to prosecute this action.

30. The '607 Patent generally relates to an interference canceling method and apparatus. For instance, the '607 Patent discloses an echo canceling method and apparatus which provides echo-canceling in full duplex communication.

31. Upon information and belief, Defendants – without authority, consent, right, or license – manufacture, make, have made, use, sell, offer for sale, and/or import into the United States certain personal computer products that directly infringe, either literally and/or under the doctrine of equivalents, or enable the practice of, at least one claim of the '607 Patent.

32. Further, upon information and belief, Defendants have also indirectly infringed at least one of the claims of the '607 Patent by inducing infringement of at least one claim of the '607 Patent.

33. Defendants have been aware of the '607 Patent and of Andrea's allegations of infringement since at least July 25, 2014, the filing date of the original Complaint in this action. Additionally, Defendants had constructive notice of the '607 patent prior to initiation of this action by virtue of Andrea's marking practice, as set forth in Count V below.

34. Despite Defendants' awareness of the '607 Patent and Andrea's allegations, they have knowingly and actively induced others to infringe the '607 Patent by selling personal computer products containing hardware and/or software for performing audio processing which, when used, result in the direct infringement of at least one of the method claims of the '607

Patent by end-users – *e.g.*, customers. Defendants have provided and continue to provide promotional materials advertising the audio processing functionalities described and claimed in the '607 Patent. For example, Defendants have advertised and continue to advertise that their products include dual array microphones for noise reduction and greater sound clarity. *See, e.g.*, Exhibit E (<http://www.toshiba.com/us/computers/laptops/satellite/Radius>). Upon information and belief, Defendants' implementation of noise reduction reduces or cancels interference in a manner that infringes the claims of the '607 Patent. At least by advertising such functionality, Defendants have induced and are actively inducing end-users to use that functionality and infringe at least one method claim of Andrea's '607 Patent.

35. Further, upon information and belief, Defendants have also indirectly infringed at least one of the claims of the '607 Patent by contributing to the infringement of at least one claim of the '607 Patent.

36. The noise reduction implemented in Defendants' personal computer products, which comprises a combination of hardware (*e.g.*, microphones) and software (*e.g.*, for voice/audio processing) is made solely for the purpose of reducing or eliminating noise from voice and/or other audio signals received through the microphone array in a manner that infringes at least one claim of the '607 Patent. Further, this combination of hardware and software is especially made and/or especially adapted for use in the infringement of Andrea's '607 Patent, is not a staple commodity of commerce, and is not suitable for substantial non-infringing use. By selling personal computer products containing this combination of hardware and software, Defendants have contributed to the infringement of the '607 Patent by end-users – *e.g.*, customers – who use said combination of hardware and software provided in Defendants' products.

37. As a result of Defendants' infringing conduct, Andrea has suffered damages and will continue to suffer damages in an amount that, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by the Court under 35 U.S.C. § 284.

38. Upon information and belief, Defendants will continue their infringement of the '607 Patent unless enjoined by the Court. Defendants' infringing conduct has caused Andrea irreparable harm and will continue to cause such harm without the issuance of an injunction.

COUNT III

(Infringement of the '345 Patent)

39. Paragraphs 1 through 38 are incorporated by reference as if fully restated herein.

40. On March 26, 2002, United States Patent No. 6,363,345 (the "'345 Patent'") was duly and legally issued for "System, Method and Apparatus for Cancelling Noise." The '345 Patent is in full force and effect. A true and correct copy of the '345 Patent is attached hereto as Exhibit C and made part hereof.

41. Andrea is the owner of all right, title, and interest in and to the '345 Patent, with the exclusive right to enforce the '345 Patent against infringers and the exclusive right to collect damages for all relevant times, including the right to prosecute this action.

42. The '345 Patent generally relates to noise cancellation and reduction.

43. Upon information and belief, Defendants – without authority, consent, right, or license – manufacture, make, have made, use, sell, offer for sale, and/or import into the United States certain personal computer products that directly infringe, either literally and/or under the doctrine of equivalents, or enable the practice of, at least one claim of the '345 Patent.

44. Further, upon information and belief, Defendants have also indirectly infringed at least one of the claims of the '345 Patent by inducing infringement of at least one claim of the '345 Patent.

45. Defendants have been aware of the '345 Patent and of Andrea's allegations of infringement since at least July 25, 2014, the filing date of the original Complaint in this action. Additionally, Defendants had constructive notice of the '345 patent prior to initiation of this action by virtue of Andrea's marking practice, as set forth in Count V below.

46. Despite Defendants' awareness of the '345 Patent and Andrea's allegations, they have knowingly and actively induced others to infringe the '345 Patent by selling personal computer products containing hardware and/or software for performing audio processing which, when used, result in the direct infringement of at least one of the method claims of the '345 Patent by end-users – *e.g.*, customers. Defendants have provided and continue to provide promotional materials advertising the audio processing functionalities described and claimed in the '345 Patent. For example, Defendants have advertised and continue to advertise that their products include microphones for noise reduction and greater sound clarity. *See, e.g.*, Exhibit E (<http://www.toshiba.com/us/computers/laptops/satellite/Radius>). Upon information and belief, Defendants' implementation of noise reduction reduces or cancels noise in a manner that infringes the claims of the '345 Patent. At least by advertising such functionality, Defendants have induced and are actively inducing end-users to use that functionality and infringe at least one method claim of Andrea's '345 Patent.

47. Further, upon information and belief, Defendants have also indirectly infringed at least one of the claims of the '345 Patent by contributing to the infringement of at least one claim of the '345 Patent.

48. The noise reduction implemented in Defendants' personal computer products, which comprises a combination of hardware (*e.g.*, microphone(s)) and software (*e.g.*, for voice/audio processing) is made solely for the purpose of reducing or eliminating noise from

voice and/or other audio signals received through the microphone array in a manner that infringes at least one claim of the '345 Patent. Further, this combination of hardware and software is especially made and/or especially adapted for use in the infringement of Andrea's '345 Patent, is not a staple commodity of commerce, and is not suitable for substantial non-infringing use. By selling personal computer products containing this combination of hardware and software, Defendants have contributed to the infringement of the '345 Patent by end-users – *e.g.*, customers – who use said combination of hardware and software provided in Defendants' products.

49. As a result of Defendants' infringing conduct, Andrea has suffered damages and will continue to suffer damages in an amount that, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by the Court under 35 U.S.C. § 284.

50. Upon information and belief, Defendants will continue their infringement of the '345 Patent unless enjoined by the Court. Defendants' infringing conduct has caused Andrea irreparable harm and will continue to cause such harm without the issuance of an injunction.

COUNT IV

(Infringement of the '923 Patent)

51. Paragraphs 1 through 50 are incorporated by reference as if fully restated herein.

52. On November 19, 2002, United States Patent No. 6,483,923 (the "'923 Patent") was duly and legally issued for "System and Method for Adaptive Interference Cancelling." The '923 Patent is in full force and effect. A true and correct copy of the '923 Patent is attached hereto as Exhibit D and made part hereof.

53. Andrea is the owner of all right, title, and interest in and to the '923 Patent, with the exclusive right to enforce the '923 Patent against infringers and the exclusive right to collect damages for all relevant times, including the right to prosecute this action.

54. The '923 Patent generally relates to signal processing. Specifically, the '923 Patent discloses an adaptive signal processing system and method for reducing interference in a received signal.

55. Upon information and belief, Defendants – without authority, consent, right, or license – manufacture, make, have made, use, sell, offer for sale, and/or import into the United States certain personal computer products that directly infringe, either literally and/or under the doctrine of equivalents, or enable the practice of, at least one claim of the '923 Patent.

56. Further, upon information and belief, Defendants have also indirectly infringed at least one of the claims of the '923 Patent by inducing infringement of at least one claim of the '923 Patent.

57. Defendants have been aware of the '923 Patent and of Andrea's allegations of infringement since at least July 25, 2014, the filing date of the original Complaint in this action. Additionally, Defendants had constructive notice of the '923 patent prior to initiation of this action by virtue of Andrea's marking practice, as set forth in Count V below.

58. Despite Defendants' awareness of the '923 Patent and Andrea's allegations, they have knowingly and actively induced others to infringe the '923 Patent by selling personal computer products containing hardware and/or software for performing audio processing which, when used, result in the direct infringement of at least one of the method claims of the '923 Patent by end-users – *e.g.*, customers. Defendants have provided and continue to provide promotional materials advertising the audio processing functionalities described and claimed in the '923 Patent. For example, Defendants have advertised and continue to advertise their dual array microphones with beam-forming for noise reduction and greater sound clarity in their products. *See, e.g.*, Exhibit E (<http://www.toshiba.com/us/computers/laptops/satellite/Radius>).

Upon information and belief, Defendants' implementation of noise reduction reduces or cancels interference in a received signal in a manner that infringes the claims of the '923 Patent. At least by advertising such functionality, Defendants have induced and are actively inducing end-users to use that functionality and infringe at least one method claim of Andrea's '923 Patent.

59. Further, upon information and belief, Defendants have also indirectly infringed at least one of the claims of the '923 Patent by contributing to the infringement of at least one claim of the '923 Patent.

60. Upon information and belief, the combination of hardware (*e.g.*, microphone(s)) and software (*e.g.*, voice recognition and audio processing software) in Defendants' personal computer products is made solely for the purpose of reducing or eliminating noise from voice and/or other audio signals received through the microphone array in a manner that infringes at least one claim of the '923 Patent. Further, this combination of hardware and software is especially made and/or especially adapted for use in the infringement of Andrea's '923 Patent, is not a staple commodity of commerce, and is not suitable for substantial non-infringing use. By selling personal computer products containing this combination of hardware and software, Defendants have contributed to the infringement of the '923 Patent by end-users – *e.g.*, customers – who use said combination of hardware and software provided in Defendants' products.

61. As a result of Defendants' infringing conduct, Andrea has suffered damages and will continue to suffer damages in an amount that, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by the Court under 35 U.S.C. § 284.

62. Upon information and belief, Defendants will continue their infringement of the '923 Patent unless enjoined by the Court. Defendants' infringing conduct has caused Andrea irreparable harm and will continue to cause such harm without the issuance of an injunction.

COUNT V

(Notice of the Asserted Patents under 35 U.S.C. § 287)

63. Paragraphs 1 through 62 are incorporated by reference as if fully restated herein.

64. Prior to the initiation of this action, Andrea provided constructive notice to the public, including Defendants, of the Asserted Patents, by consistently marking substantially all of their articles practicing the Asserted Patents.

65. In addition, Defendants received actual notice of Andrea's Asserted Patents on July 25, 2014 when Andrea filed its Complaint in this action.

JURY DEMAND

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

PRAYER FOR RELIEF

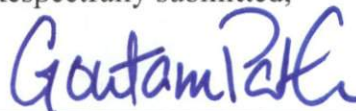
Wherefore, Andrea requests the following relief:

- a. Judgment that one or more claims of the '898, '607, '345, and '923 Patents have been directly infringed either literally and/or under the Doctrine of Equivalents by Defendants;
- b. Judgment that one or more of the method claims of the '607, '345, and '923 Patents have been indirectly infringed either literally and/or under the Doctrine of Equivalents by Defendants;
- c. Judgment that Defendants be held liable and ordered to account for and pay to Andrea:

- (1) Damages adequate to compensate Andrea for Defendants' infringement of the '898, '607, '345, and '923 Patents, for Andrea's lost profits and/or in an amount no less than a reasonable royalty, pursuant to 35 U.S.C. § 284.
 - (2) Andrea's reasonable attorneys' fees under 35 U.S.C. § 285; and
 - (3) Andrea's pre-judgment and post-judgment interest and costs pursuant to 35 U.S.C. §284;
- d. Judgment that Defendants be permanently enjoined from any further conduct that infringes one or more claims of the '898, '607, '345, and '923 Patents; and
- e. Judgment that Andrea be granted such other and further relief as the Court may deem just and proper under the circumstances.

Date: November 10, 2014

Respectfully submitted,



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Certificate of Service

I hereby certify that on November 10, 2014, the foregoing document was filed with the Clerk of the Court and served in accordance with the Federal Rules of Civil Procedure, and/or the Eastern District's Local Rules, and/or the Eastern District's Rules on Electronic Service upon the following parties and participants:

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