

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TEXARKANA DIVISION**

MAXELL, LTD.,

Plaintiff,

v.

ZTE CORP. and ZTE USA INC.,

Defendants.

Civil Action No. _____

**COMPLAINT AND DEMAND
FOR JURY TRIAL**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Maxell, Ltd. (“Maxell”), by and through its undersigned counsel, files this complaint under 35 U.S.C. § 271 for Patent Infringement against Defendants ZTE Corporation and ZTE USA Inc. (collectively, “Defendants”) and further alleges as follows, upon actual knowledge with respect to itself and its own acts, and upon information and belief as to all other matters.

OVERVIEW

1. This is an action for patent infringement brought by Maxell. Founded in 1961 as Maxell Electric Industrial Co., Ltd., Maxell is a leading global manufacturer of information storage media products, including magnetic tapes, optical discs, and battery products such as lithium ion rechargeable micro batteries and alkaline dry batteries, and the company has over 50 years of experience producing industry-leading recordable media and energy products for both the consumer and the professional markets.

2. Maxell has built an international reputation for excellence and reliability, for pioneering the power supplies and digital recording for today's mobile and multi-media devices, and leading the electronics industry in the fields of storage media and batteries.

3. Since being one of the first companies to develop alkaline batteries and Blu Ray camcorder discs, Maxell has always assured its customers of industry leading product innovation and is one of the world's foremost suppliers of memory, power, audio, and visual goods.

4. As set forth below, in 2009 Hitachi, Ltd. assigned intellectual property, including the patents in this case, to Hitachi Consumer Electronics Co., Ltd. Then, in 2013, Hitachi Consumer Electronics Co., Ltd. assigned the intellectual property, including the patents in this case, to Hitachi Maxell, Ltd., which later assigned the patents to Maxell as a result of a reorganization and name change. This was an effort to align its intellectual property with the licensing, business development, and research and development efforts of Maxell, including in the mobile and mobile-media device market (Hitachi, Ltd., Hitachi Consumer Electronics Co., Ltd., and Hitachi Maxell, Ltd. are referred to herein collectively as "Hitachi"). Maxell continues to sell products in the mobile device market including wireless charging solutions, wireless flash drives, multimedia players, storage devices, and headphones. Maxell also maintains intellectual property related to televisions, tablets, digital cameras, video streaming technologies, and mobile phones, to name a few. As a mobile technology developer and industry leader, and due to its historical and continuous investment in research and development, Maxell owns a portfolio of patents related to such technologies and actively enforces its patents through licensing and/or litigation if necessary. Maxell is forced to bring this action against Defendants as a result of Defendants' knowing and ongoing infringement of Maxell's patents.

5. As further detailed below, beginning in June 2013, Maxell had numerous meetings and interactions with Defendants, providing Defendants' representatives with detailed information regarding Maxell's patents, the technology that Maxell had developed, and Defendants' ongoing use of this patented technology. Through this process, Defendants' representatives requested and Maxell provided detailed explanations of its patents and allegations. For more than three years, Maxell answered multiple inquiries from Defendants, believing that a business transaction between the parties would be mutually beneficial. Defendants elected, however, not to enter into an agreement with Maxell and/or license Maxell's patents. Instead, Defendants continued, and continue today, to make, use, sell, and offer for sale Maxell's patented technology without license.

6. One November 18, 2016, Maxell filed Case No. 5:16-cv-00179-RWS against ZTE Corporation and ZTE USA Inc. in this district. This case is still pending. During the course of litigation, Maxell identified additional patents in its portfolio, including the patents at issue in this complaint, which Defendants' infringe. In particular, Maxell provided on September 29, 2017 a list of its patents that relate to certain software and hardware incorporated in at least Defendants' smartphones products. Maxell also directed Defendants to other active litigation brought by Maxell against Defendants' competitors to demonstrate evidence of Defendants' infringement of Maxell's patents. Thereafter, on November 15, 2017 the parties mediated the above mentioned lawsuit, during which time a license to Maxell's portfolio, including the patents at issue here was discussed. On information and belief, Defendants were aware of the patents at issue in this complaint and had notice of their infringement by at least November 15, 2017 when the parties met for mediation.

PARTIES

7. Plaintiff Maxell, Ltd. is a Japanese corporation with a registered place of business at 1 Koizumi, Oyamazaki, Oyamazaki-cho, Otokuni-gun, Kyoto, Japan.

8. On information and belief, Defendant ZTE Corporation is a Chinese corporation with a principal place of business located at ZTE Plaza, Keji Road South, Hi-tech Industrial Park Nansha, Shenzhen, Guangdong, 518057, China.

9. On information and belief, Defendant ZTE USA Inc. is a Texas company with a principal place of business located at 2425 N. Central Expy, Ste 323, Richardson, Texas 75080.

10. On information and belief, Defendant ZTE USA Inc. is in the business of providing information and communications technology solutions. Specifically, ZTE USA Inc. provides wireless telecommunications equipment, including smart phones, tablets, and mobile phones.

NATURE OF THE ACTION, JURISDICTION, AND VENUE

11. Maxell brings this action for patent infringement under the patent laws of the United States, 35 U.S.C. § 271 *et seq.*

12. This Court has subject matter jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because the action arises under the patent laws of the United States.

13. The Court has personal jurisdiction over the Defendants because (1) Maxell's claims arise in whole or in part from Defendants' conduct in Texas; (2) ZTE USA Inc. is organized under the laws of Texas, and maintains its principal place of business in Texas; and (3) Defendants are subject to personal jurisdiction under the provisions of the Texas Long Arm Statute, TX CIV PRAC. & REM CODE §17.041 *et seq.*, by virtue of the fact that, upon information and belief, Defendants have availed themselves of the privilege of conducting and

soliciting business within this State, including engaging in at least some of the infringing acts alleged herein through the sales and marketing of infringing products in this State. The allegations and claims set forth in this action arise out of Defendants' infringing activities in this State, as well as by others acting as Defendants' agents and/or representatives, such that it would be reasonable for this Court to exercise jurisdiction consistent with the principles underlying the U.S. Constitution, and would not offend traditional notions of fair play and substantial justice.

14. Upon further information and belief, Defendants have also established minimum contacts with this District and regularly transact and do business within this District, including advertising, promoting and selling products over the internet, through intermediaries, representatives and/or agents located within this District, that infringe Maxell's patents, which products are then sold, packaged and shipped directly to citizens residing within this State and this District. Upon further information and belief, Defendants have purposefully directed activities at citizens of this State and located within this District.

15. On information and belief, Defendants have purposefully and voluntarily placed their products into the stream of commerce with the expectation that they will be purchased and used by customers located in the State of Texas and the Eastern District of Texas. On information and belief, Defendants' customers in the Eastern District of Texas have purchased and used and continue to purchase and use Defendants' products.

16. Venue in the Eastern District of Texas is proper pursuant to 28 U.S.C. §§ 1391(b)(2) and 1400. Defendants have committed acts of infringement in this judicial district, have purposely transacted business involving the accused products in this judicial district, and have regular and established places of business in this district. In particular, ZTE USA Inc. has a regular and established place of business in this district at least at a local call center located at

6865 Windcrest Dr., Plano, TX 75024. ZTE Corp. is a foreign entity, and thus, venue is proper in this judicial district. Currently there are no venue challenges pending in front of the Court in the prior case between the two parties, *i.e.*, Case No. 5:16-cv-00179-RWS.

COUNT 1 - INFRINGEMENT OF U.S. PATENT NO. 7,324,487

17. Maxell incorporates paragraphs 1-16 above by reference.

18. U.S. Patent No. 7,324,487 (the “’487 Patent,” attached hereto at Exhibit A) duly issued on January 29, 2008, and is entitled *Wireless LAN System and Method For Roaming in a Multiple Base Station*.

19. Maxell is the owner by assignment of the ’487 Patent and possesses all rights of recovery under the ’487 Patent, including the exclusive right to recover for past infringement.

20. Defendants have directly infringed one or more claims of the ’487 Patent in this judicial district and elsewhere in Texas, including at least claims 1-5 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their telecommunications technology, including by way of example a product known as the Axon 7.

21. The Axon 7 implements a method for connecting to base stations that are, for example, connected via a wired network. For example, the Axon 7 includes one or more communication components that can concurrently connect to at least two base stations and performs data communications with at least one base station using the one or more communication components.

22. The foregoing features and capabilities of the Axon 7, and Defendants’ description and/or demonstration thereof, including in user manuals and advertising, reflect

Defendants' direct infringement by satisfying every element of at least claims 1-5 of the '487 Patent, under 35 U.S.C. § 271(a).

23. On information and belief, Defendants further infringe the '487 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the Axon 7 (collectively, "the '487 Accused Products"). The '487 Accused Products include, by way of examples, ZTE N-Series phones (e.g., Reef, Anthem 4G, Engage LT, Director, Flash, Fury, Imperial, Nubia Z5, Render, Supreme, Vital, Warp, Force, Speed, Prestige, Warp Sync, Grand S Pro, Max XL, Prestige 2, Blade Force, Tempo X), ZTE V-Series phones (e.g., Concord, Engage, Grand S, Optik, Nova 4), ZTE X-Series phones (e.g., Groove, Score, Score M), ZTE Z-Series phones (e.g., Majesty, Overture, Savvy, Whirl, Unico LTE, Prelude 2, Paragon, Concord II, Zephyr, Rapido LTE, Quartz, Max Duo LTE, Atrium, Grand X3, Grand X Max, Grand X Max 2, Avid Plus, Obsidian, Sonata, Sonata 2, Maven, Zmax, Merit, Fanfare, Lever LTE, Trek 2, Compel, Midnight Pro LTE, Overture 2, Warp 7, Warp Elite, ZMAX Pro, Max Blue LTE, Blade Spark, Axon M, Maven 3, Blade ZMAX, Blade X Max, Blade Max 3, Majesty Pro LTE, ZFive 2 LTE, Jasper LTE, Avid Trio, ZMAX Grand LTE, ZMAX Champ LTE, ZFive L LTE, Blade Vantage, Overture 3, Fanfare 3, Blade X), ZTE Nubia Series phones (e.g., Z5), and ZTE Axon Series phones (e.g., Axon A1, Axon Pro, Maven 2, Imperial II, Zinger, Prelude, Avid 828, Blade V8 Pro, Sonata 3, Fanfare 2, Grand X 4, Axon 7 mini). These additional products each include all necessary hardware and operating systems and work as described above with respect to the Axon 7. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '487 Accused Products are identified to describe the Defendants'

infringement and in no way limit the discovery and infringement allegations against Defendants concerning other devices that incorporate the same or reasonably similar functionalities.

24. Defendants have indirectly infringed at least claims 1-5 of the '487 Patent in this judicial district and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '487 Accused Products. Defendants' customers who purchase devices and components thereof and operate such devices and components in accordance with Defendants' instructions directly infringe one or more claims of the '487 Patent in violation of 35 U.S.C. § 271. Defendants instruct their customers through at least user guides, such as those for the Axon 7 located at the following website: https://d28dq596ebml6z.cloudfront.net/media/wysiwyg/Axon7/ZTE_AXON_7_User_Manual_V1.0.pdf. Defendants are thereby liable for infringement of the '487 Patent pursuant to 35 U.S.C. § 271(b).

25. Defendants have indirectly infringed at least claims 1-5 of the '487 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '487 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '487 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

26. For example, the '487 Accused Products include one or more communication components for concurrently connecting with at least two base stations and performs data communications with at least one base station. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process.

Furthermore, such component is a material part of the invention and upon information and belief is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Defendants are liable for infringement of the '487 Patent pursuant to 35 U.S.C. § 271(c).

27. Defendants have been on notice of the '487 Patent since, at the least, the mediation held between the parties on November 15, 2017. By the time of trial, Defendants will thus have known and intended (since receiving such notice) that their continued actions would actively induce and contribute to actual infringement of at least claims 1-5 of the '487 Patent.

28. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '487 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at the least, the mediation held between the parties on November 15, 2017, Defendants have been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '487 Patent, and that the '487 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '487 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that their actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '487 Patent.

29. Maxell has been damaged by Defendants' infringement of the '487 Patent.

COUNT 2 – INFRINGEMENT OF U.S. PATENT NO. 7,068,503

30. Maxell incorporates paragraphs 1-29 above by reference.

31. U.S. Patent No. 7,068,503 (the “’503 Patent,” attached hereto at Exhibit B) duly issued on June 27, 2006, and is entitled *Information Processing Unit And Information Processing Related Units*.

32. Maxell is the owner by assignment of the ’503 Patent and possesses all rights of recovery under the ’503 Patent, including the exclusive right to recover for past infringement.

33. Defendants have directly infringed one or more claims of the ’503 Patent in this judicial district and elsewhere in Texas, including at least claims 1-3, 6, 10, 11, 12, 15, 19, 20, 21, 24, 25, and 26 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their telecommunications technology, including by way of example a product known as the Axon 7.

34. The Axon 7 is a smartphone, which is an information processing apparatus. The Axon 7 includes a display and a processor. The Axon 7 includes memory. The Axon 7 has a USB Type-C port that receives power in order to charge the phone’s battery. The Axon 7 has a USB cable that includes a second electricity terminal that is capable of sending and receiving electric power (e.g., the USB Type-A end of the cable). The Axon 7 also includes a power controller that supplies the power received via at least one of the electricity terminal to at least any one of the display, CPU, and memory.

35. The foregoing features and capabilities of the Axon 7, and Defendants’ description and/or demonstration thereof, including in user manuals and advertising, reflect Defendants’ direct infringement by satisfying every element of at least claims 1-3, 6, 10, 11, 12, 15, 19, 20, 21, 24, 25, and 26 of the ’503 Patent, under 35 U.S.C. § 271(a).

36. On information and belief, Defendants further infringe the ’503 Patent through additional products utilizing the same or reasonably similar functionalities as described above

with respect to the Axon 7 (collectively, “the ’503 Accused Products”). The ’503 Accused Products include, by way of examples, ZTE N-Series phones (e.g., Reef, Anthem 4G, Engage LT, Director, Flash, Fury, Imperial, Nubia Z5, Render, Supreme, Vital, Warp, Force, Speed, Prestige, Warp Sync, Grand S Pro, Max XL, Prestige 2, Blade Force, Tempo X), ZTE V-Series phones (e.g., Concord, Engage, Grand S, Optik, Nova 4), ZTE X-Series phones (e.g., Groove, Score, Score M), ZTE Z-Series phones (e.g., Majesty, Overture, Savvy, Whirl, Unico LTE, Prelude 2, Paragon, Concord II, Zephyr, Rapido LTE, Quartz, Max Duo LTE, Atrium, Grand X3, Grand X Max, Grand X Max 2, Avid Plus, Obsidian, Sonata, Sonata 2, Maven, Zmax, Merit, Fanfare, Lever LTE, Trek 2, Compel, Midnight Pro LTE, Overture 2, Warp 7, Warp Elite, ZMAX Pro, Max Blue LTE, Blade Spark, Axon M, Maven 3, Blade ZMAX, Blade X Max, Blade Max 3, Majesty Pro LTE, ZFive 2 LTE, Jasper LTE, Avid Trio, ZMAX Grand LTE, ZMAX Champ LTE, ZFive L LTE, Blade Vantage, Overture 3, Fanfare 3, Blade X), ZTE Nubia Series phones (e.g., Z5), and ZTE Axon Series phones (e.g., Axon A1, Axon Pro, Maven 2, Imperial II, Zinger, Prelude, Avid 828, Blade V8 Pro, Sonata 3, Fanfare 2, Grand X 4, Axon 7 mini). These additional products each include all necessary hardware and operating systems and work as described above with respect to the Axon 7. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’503 Accused Products are identified to describe the Defendants’ infringement and in no way limit the discovery and infringement allegations against Defendants concerning other devices that incorporate the same or reasonably similar functionalities.

37. Defendants have indirectly infringed at least claims 1-3, 6, 10, 11, 12, 15, 19, 20, 21, 24, 25, and 26 of the ’503 Patent in this judicial district and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at

least the '503 Accused Products. Defendants' customers who purchase devices and components thereof and operate such devices and components in accordance with Defendants' instructions directly infringe one or more claims of the '503 Patent in violation of 35 U.S.C. § 271. Defendants instruct their customers through at least user guides, such as those for the Axon 7 located at the following website: https://d28dq596ebml6z.cloudfront.net/media/wysiwyg/Axon7/ZTE_AXON_7_User_Manual_V1.0.pdf. Defendants are thereby liable for infringement of the '503 Patent pursuant to 35 U.S.C. § 271(b).

38. Defendants have indirectly infringed at least claims 1-3, 6, 10, 11, 12, 15, 19, 20, 21, 24, 25, and 26 of the '503 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '503 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '503 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

39. For example, the '503 Accused Products include a connector with an electricity terminal that can send and receive power. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and upon information and belief is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Defendants are liable for infringement of the '503 Patent pursuant to 35 U.S.C. § 271(c).

40. Defendants have been on notice of the '503 Patent since, at the least, the invitation for negotiations sent by Hitachi, Ltd. on June 10, 2013. By the time of trial, Defendants will thus have known and intended (since receiving such notice) that their continued actions would actively induce and contribute to actual infringement of at least claims 1-3, 6, 10, 11, 12, 15, 19, 20, 21, 24, 25, and 26 of the '503 Patent.

41. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '503 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at the least, the invitation for negotiations sent by Hitachi, Ltd. on June 10, 2013, Defendants have been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '503 Patent, and that the '503 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '503 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that their actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '503 Patent.

42. Maxell has been damaged by Defendants' infringement of the '503 Patent.

COUNT 3 – INFRINGEMENT OF U.S. PATENT NO. 8,982,086

43. Maxell incorporates paragraphs 1-42 above by reference.

44. U.S. Patent No. 8,982,086 (the "'086 Patent," attached hereto at Exhibit C) duly issued on March 17, 2015, and is entitled *Information Processing Apparatus*.

45. Maxell is the owner by assignment of the '086 Patent and possesses all rights of recovery under the '086 Patent, including the exclusive right to recover for past infringement.

46. Defendants have directly infringed one or more claims of the '086 Patent in this judicial district and elsewhere in Texas, including at least claims 1 and 4 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their telecommunications technology, including by way of example a product known as the Axon 7.

47. The Axon 7 is a smartphone, which is an information processing apparatus. The Axon 7 includes a touch panel, for example, a fingerprint sensor, configured to detect a contact of a finger of a user. The Axon 7 includes a detector configured to detect information, such as a user's fingerprint, to identify the user when the contact is detected between the touch panel and the finger of the user. The Axon 7 includes a memory that is configured to store information relating to the identification of the user, The Axon 7 includes one controller configured to control the information processing apparatus to operate into two operating modes and another controller configured to execute a specified process when the information of the detected user and the information stored in the memory are coincident within one of the modes.

48. The foregoing features and capabilities of the Axon 7, and Defendants' description and/or demonstration thereof, including in user manuals and advertising, reflect Defendants' direct infringement by satisfying every element of at least claims 1 and 4 of the '086 Patent, under 35 U.S.C. § 271(a).

49. On information and belief, Defendants further infringe the '086 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the Axon 7 (collectively, "the '086 Accused Products"). The '086 Accused Products include, by way of examples, the ZMAX PRO (001), Grand X 4, ZMAX PRO, Blade X Max, Blade Z Max, Blade X, Blade Spark, Max XL, Blade Max 3, Axon 7 Mini, Axon M, MAX

Blue LTE. These additional products each include all necessary hardware and operating systems and work as described above with respect to the Axon 7. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '086 Accused Products are identified to describe the Defendants' infringement and in no way limit the discovery and infringement allegations against Defendants concerning other devices that incorporate the same or reasonably similar functionalities.

50. Defendants have indirectly infringed at least claims 1 and 4 of the '086 Patent in this judicial district and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '086 Accused Products. Defendants' customers who purchase devices and components thereof and operate such devices and components in accordance with Defendants' instructions directly infringe one or more claims of the '086 Patent in violation of 35 U.S.C. § 271. Defendants instruct their customers through at least user guides, such as those for the Axon 7 located at the following website: https://d28dq596ebml6z.cloudfront.net/media/wysiwyg/Axon7/ZTE_AXON_7_User_Manual_V1.0.pdf. Defendants are thereby liable for infringement of the '086 Patent pursuant to 35 U.S.C. § 271(b).

51. Defendants have indirectly infringed at least claims 1 and 4 of the '086 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '086 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '086 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

52. For example, the '086 Accused Products include a component for detecting a finger of a user. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and upon information and belief is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Defendants are liable for infringement of the '086 Patent pursuant to 35 U.S.C. § 271(c).

53. Defendants have been on notice of the '086 Patent since, at the least, the mediation held between the parties on November 15, 2017. By the time of trial, Defendants will thus have known and intended (since receiving such notice) that their continued actions would actively induce and contribute to actual infringement of at least claims 1 and 4 of the '086 Patent.

54. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '086 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at the least, the mediation held between the parties on November 15, 2017, Defendants have been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '086 Patent, and that the '086 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '086 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that their actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '086 Patent.

55. Maxell has been damaged by Defendants' infringement of the '086 Patent.

COUNT 4 – INFRINGEMENT OF U.S. PATENT NO. 6,928,306

56. Maxell incorporate paragraphs 1-55 above by reference.

57. U.S. Patent No. 6,928,306 (the "'306 Patent," attached hereto at Exhibit D) duly issued on August 9, 2005, and is entitled *Portable Mobile Unit*.

58. Maxell is the owner by assignment of the '306 Patent and possesses all rights of recovery under the '306 Patent, including the exclusive right to recover for past and future infringement.

59. Defendants have directly infringed one or more claims of the '306 Patent in this judicial district and elsewhere in Texas, including at least claims 2, 5, 6, 13, 14 and 15 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their telecommunications technology, including by way of example a product known as the Axon 7.

60. The Axon 7 is a portable smartphone that is capable of alerting the user to an incoming phone call by a ringing sound. For example, the Axon 7 includes a ringtone sound source, as well as a vibration sound source. The Axon 7 includes a processor that controls the operations of the smartphone. The Axon 7 can be configured to generate a ringing sound for an incoming phone call using two sound sources. The Axon 7 includes a controller that controls the ringing sound generator so as to generate the ringing sound when the signal comes within a time zone which is set up in advance or within a period based on a calendar function which is set up in advance.

61. The foregoing features and capabilities of the Axon 7, and Defendants' description and/or demonstration thereof, including in user manuals and advertising, reflect Defendants' direct infringement by satisfying every element of at least claims 2, 5, 6, 13, 14 and 15 of the '306 Patent, under 35 U.S.C. § 271(a).

62. On information and belief, Defendants further infringe the '306 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the Axon 7 (collectively, "the '306 Accused Products"). The '306 Accused Products include, by way of examples, ZTE N-Series phones (e.g., Reef, Anthem 4G, Engage LT, Director, Flash, Fury, Imperial, Nubia Z5, Render, Supreme, Vital, Warp, Force, Speed, Prestige, Warp Sync, Grand S Pro, Max XL, Prestige 2, Blade Force, Tempo X), ZTE V-Series phones (e.g., Concord, Engage, Grand S, Optik, Nova 4), ZTE X-Series phones (e.g., Groove, Score, Score M), ZTE Z-Series phones (e.g., Majesty, Overture, Savvy, Whirl, Unico LTE, Prelude 2, Paragon, Concord II, Zephyr, Rapido LTE, Quartz, Max Duo LTE, Atrium, Grand X3, Grand X Max, Grand X Max 2, Avid Plus, Obsidian, Sonata, Sonata 2, Maven, Zmax, Merit, Fanfare, Lever LTE, Trek 2, Compel, Midnight Pro LTE, Overture 2, Warp 7, Warp Elite, ZMAX Pro, Max Blue LTE, Blade Spark, Axon M, Maven 3, Blade ZMAX, Blade X Max, Blade Max 3, Majesty Pro LTE, ZFive 2 LTE, Jasper LTE, Avid Trio, ZMAX Grand LTE, ZMAX Champ LTE, ZFive L LTE, Blade Vantage, Overture 3, Fanfare 3, Blade X), ZTE Nubia Series phones (e.g., Z5), and ZTE Axon Series phones (e.g., Axon A1, Axon Pro, Maven 2, Imperial II, Zinger, Prelude, Avid 828, Blade V8 Pro, Sonata 3, Fanfare 2, Grand X 4, Axon 7 mini). These additional products each include all necessary hardware and operating systems and work as described above with respect to the Axon 7. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '306 Accused Products are identified to describe the Defendants' infringement and in no way limit the discovery and infringement allegations against Defendants concerning other devices that incorporate the same or reasonably similar functionalities.

63. Defendants have indirectly infringed at least claims 2, 5, 6, 13, 14 and 15 of the '306 Patent in this judicial district and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '306 Accused Products. Defendants' customers who purchase devices and components thereof and operate such devices and components in accordance with Defendants' instructions directly infringe one or more claims of the '306 Patent in violation of 35 U.S.C § 271. Defendants instruct their customers through at least user guides, such as those for the Axon 7 located at the following webpage:

https://d28dq596ebml6z.cloudfront.net/media/wysiwyg/Axon7/ZTE_AXON_7_User_Manual_V1.0.pdf. Defendants are thereby liable for infringement of the '306 Patent pursuant to 35 U.S.C § 271(b).

64. Defendants have indirectly infringed at least claims 2, 5, 6, 13, 14 and 15 of the '306 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '306 Accused Products, by making, offering to sell, or selling in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '306 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

65. For example, the '306 Accused Products include a call alert component. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and upon information and belief is not a staple article or commodity of commerce suitable for

substantial non-infringing use. Thus, Defendants are liable for infringement of the '306 Patent pursuant to 35 U.S.C § 271(c).

66. Defendants have been on notice of the '306 Patent since, at the least, the mediation held between the parties on November 15, 2017. By the time of trial, Defendants will thus have known and intended (since receiving such notice) that their continued actions would actively induce and contribute to actual infringement of at least claims 2, 5, 6, 13, 14 and 15 of the '306 Patent.

67. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '306 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at the least, the mediation held between the parties on November 15, 2017, Defendants have been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '306 Patent, and that the '306 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '306 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that their actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '306 Patent.

68. Maxell has been damaged by Defendants' infringement of the '306 Patent.

COUNT 5 – INFRINGEMENT OF U.S. PATENT NO. 6,983,140

69. Maxell incorporate paragraphs 1-68 above by reference.

70. U.S. Patent No. 6,983,140 (the "'140 Patent," attached hereto at Exhibit E) duly issued on January 3, 2006, and is entitled *Portable Mobile Unit*.

71. Maxell is the owner by assignment of the '140 Patent and possesses all rights of recovery under the '140 Patent, including the exclusive right to recover for past infringement.

72. Defendants have directly infringed one or more claims of the '140 Patent in this judicial district and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their telecommunications technology, including by way of example a product known as the Axon 7.

73. The Axon 7 is a portable mobile unit that contains a receiver circuit for bi-directional communication made between itself and a base station. The Axon 7 also contains a signal processor that includes a controller and signal modulator that divides output from the receiver circuit into a communication signal and control signal. The Axon 7 contains a transmitter and displays the signal intensity on its display. Also, the control processor generates an alarm associated with the uplink signal in response to receipt of an intensity control signal included in the control signal for maximizing the intensity of the uplink signal while the downlink signal is normally received. By performing power control in accordance with the 3GPP standards, the controllers in the Axon 7 control the transmitted power to converge into a range required by the cell-site station bounded by a maximum output power (base station).

74. The foregoing features and capabilities of the Axon 7, and Defendants' description and/or demonstration thereof, including in user manuals and advertising, reflect Defendants' direct infringement by satisfying every element of at least claim 1 of the '140 Patent, under 35 U.S.C. § 271(a).

75. On information and belief, Defendants further infringe the '140 Patent through additional products utilizing the same or reasonably similar functionalities as described above

with respect to the Axon 7 (collectively, “the ’140 Accused Products”). The ’140 Accused Products include, by way of examples, ZTE N-Series phones (e.g., Reef, Anthem 4G, Engage LT, Director, Flash, Fury, Imperial, Nubia Z5, Render, Supreme, Vital, Warp, Force, Speed, Prestige, Warp Sync, Grand S Pro, Max XL, Prestige 2, Blade Force, Tempo X), ZTE V-Series phones (e.g., Concord, Engage, Grand S, Optik, Nova 4), ZTE X-Series phones (e.g., Groove, Score, Score M), ZTE Z-Series phones (e.g., Majesty, Overture, Savvy, Whirl, Unico LTE, Prelude 2, Paragon, Concord II, Zephyr, Rapido LTE, Quartz, Max Duo LTE, Atrium, Grand X3, Grand X Max, Grand X Max 2, Avid Plus, Obsidian, Sonata, Sonata 2, Maven, Zmax, Merit, Fanfare, Lever LTE, Trek 2, Compel, Midnight Pro LTE, Overture 2, Warp 7, Warp Elite, ZMAX Pro, Max Blue LTE, Blade Spark, Axon M, Maven 3, Blade ZMAX, Blade X Max, Blade Max 3, Majesty Pro LTE, ZFive 2 LTE, Jasper LTE, Avid Trio, ZMAX Grand LTE, ZMAX Champ LTE, ZFive L LTE, Blade Vantage, Overture 3, Fanfare 3, Blade X), ZTE Nubia Series phones (e.g., Z5), and ZTE Axon Series phones (e.g., Axon A1, Axon Pro, Maven 2, Imperial II, Zinger, Prelude, Avid 828, Blade V8 Pro, Sonata 3, Fanfare 2, Grand X 4, Axon 7 mini). These additional products each include all necessary hardware and operating systems and work as described above with respect to the Axon 7. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’140 Accused Products are identified to describe the Defendants’ infringement and in no way limit the discovery and infringement allegations against Defendants concerning other devices that incorporate the same or reasonably similar functionalities.

76. Defendants have indirectly infringed at least claim 1 of the ’140 Patent in this judicial district and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the ’140 Accused Products. Defendants’

customers who purchase devices and components thereof and operate such devices and components in accordance with Defendants' instructions directly infringe one or more claims of the '140 Patent in violation of 35 U.S.C. § 271. Defendants instruct their customers through at least user guides, such as those for the Axon 7 located at the following website: https://d28dq596ebml6z.cloudfront.net/media/wysiwyg/Axon7/ZTE_AXON_7_User_Manual_V1.0.pdf. Defendants are thereby liable for infringement of the '140 Patent pursuant to 35 U.S.C. § 271(b).

77. Defendants have indirectly infringed at least claim 1 of the '140 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '140 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '140 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

78. For example, the '140 Accused Products include components for generating an indication. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and upon information and belief is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Defendants are liable for infringement of the '140 Patent pursuant to 35 U.S.C. § 271(c).

79. Defendants have been on notice of the '140 Patent since, at the least, the mediation held between the parties on November 15, 2017. By the time of trial, Defendants will

thus have known and intended (since receiving such notice) that their continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '140 Patent.

80. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '140 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at the least, the mediation held between the parties on November 15, 2017, Defendants have been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '140 Patent, and that the '140 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '140 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that their actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '140 Patent.

81. Maxell has been damaged by Defendants' infringement of the '140 Patent.

COUNT 6 – INFRINGEMENT OF U.S. PATENT NO. 7,995,897

82. Maxell incorporates paragraphs 1-81 above by reference.

83. U.S. Patent No. 7,995,897 (the "897 Patent," attached hereto as Exhibit F) duly issued on August 9, 2011, and is entitled *Video Recording and Reproducing Method, and Video Reproducing Apparatus and Method*.

84. Maxell is the owner by assignment of the '897 Patent and possesses all rights of recovery under the '897 Patent, including the exclusive right to recover for past and future infringement.

85. Defendants have directly infringed one or more claims of the '897 Patent in this judicial district and elsewhere in the United States, including at least claim 10 literally and/or

under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their telecommunications technology, including by way of example a product known as the Axon 7.

86. The Axon 7 is a mobile communications terminal that is capable of reproducing video by one encoding method, such as MPEG-4 and pictures by a second encoding method, such as JPEG. The Axon 7 also produces thumbnails having a smaller number of pixels than the pictures as evidenced by, for example, the file size. The Axon 7 has a recording medium for storing the videos, pictures, and thumbnails and a display for reproducing the same.

87. The foregoing features and capabilities of the Axon 7, and Defendants' description and/or demonstration thereof, including in user manuals and advertising, reflect Defendants' direct infringement by satisfying every element of at least claim 10 of the '897 Patent, under 35 U.S.C. § 271(a).

88. On information and belief, Defendants further infringes the '897 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the Axon 7 (collectively, "the '897 Accused Products"). The '897 Accused Products include, by way of examples, ZTE N-Series phones (e.g., Reef, Anthem 4G, Engage LT, Director, Flash, Fury, Imperial, Nubia Z5, Render, Supreme, Vital, Warp, Force, Speed, Prestige, Warp Sync, Grand S Pro, Max XL, Prestige 2, Blade Force, Tempo X), ZTE V-Series phones (e.g., Concord, Engage, Grand S, Optik, Nova 4), ZTE X-Series phones (e.g., Groove, Score, Score M), ZTE Z-Series phones (e.g., Majesty, Overture, Savvy, Whirl, Unico LTE, Prelude 2, Paragon, Concord II, Zephyr, Rapido LTE, Quartz, Max Duo LTE, Atrium, Grand X3, Grand X Max, Grand X Max 2, Avid Plus, Obsidian, Sonata, Sonata 2, Maven, Zmax, Merit, Fanfare, Lever LTE, Trek 2, Compel, Midnight Pro LTE, Overture 2, Warp 7, Warp Elite,

ZMAX Pro, Max Blue LTE, Blade Spark, Axon M, Maven 3, Blade ZMAX, Blade X Max, Blade Max 3, Majesty Pro LTE, ZFive 2 LTE, Jasper LTE, Avid Trio, ZMAX Grand LTE, ZMAX Champ LTE, ZFive L LTE, Blade Vantage, Overture 3, Fanfare 3, Blade X), ZTE Nubia Series phones (e.g., Z5), and ZTE Axon Series phones (e.g., Axon A1, Axon Pro, Maven 2, Imperial II, Zinger, Prelude, Avid 828, Blade V8 Pro, Sonata 3, Fanfare 2, Grand X 4, Axon 7 mini). These additional products each include all necessary hardware and operating systems and work as described above with respect to the Axon 7. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '897 Accused Products are identified to describe the Defendants' infringement and in no way limit the discovery and infringement allegations against Defendants concerning other devices that incorporate the same or reasonably similar functionalities.

89. Defendants have indirectly infringed at least claim 10 of the '897 Patent in this judicial district and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '897 Accused Products. Defendants' customers who purchase devices and components thereof and operate such devices and components in accordance with Defendants' instructions directly infringe one or more claims of the '897 Patent in violation of 35 U.S.C. § 271. Defendants instruct their customers through at least user guides, such as those for the Axon 7 located at the following website: https://d28dq596ebml6z.cloudfront.net/media/wysiwyg/Axon7/ZTE_AXON_7_User_Manual_V1.0.pdf. Defendants are thereby liable for infringement of the '897 Patent pursuant to 35 U.S.C. § 271(b).

90. Defendants have indirectly infringed at least claim 10 of the '897 Patent, by, among other things, contributing to the direct infringement of others, including customers of the

'897 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '897 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

91. For example, the '897 Accused Products include components for moving and still picture encoding and reproducing functionalities. These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not staple articles or commodities of commerce suitable for substantial non-infringing use. Thus, Defendants are liable for infringement of the '897 Patent pursuant to 35 U.S.C. § 271(c).

92. Defendants have been on notice of the '897 Patent since, at the least, the invitation for negotiations sent by Hitachi, Ltd. on June 10, 2013. By the time of trial, Defendants will thus have known and intended (since receiving such notice), that their continued actions would actively induce and contribute to actual infringement of at least claim 10 of the '897 Patent.

93. Defendants undertook and continues their infringing actions despite an objectively high likelihood that such activities infringed the '897 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at the least, the invitation for negotiations sent by Hitachi, Ltd. on June 10, 2013, Defendants have been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '897 Patent, and that the '897 Patent is valid. On information and belief, Defendants could

not reasonably, subjectively believe that their actions do not constitute infringement of the '897 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that their actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '897 Patent.

94. Maxell has been damaged by Defendants' infringement of the '897 Patent.

COUNT 7 – INFRINGEMENT OF U.S. PATENT NO. 6,347,068

95. Maxell incorporates paragraphs 1-94 above by reference.

96. U.S. Patent No. 6,347,068 (the "'068 Patent," attached hereto as Exhibit G) duly issued on February 12, 2002, and is entitled *Information Recording Medium, Enclosing Casing of Information Recording Medium, and Information Recording Apparatus Using the Same*.

97. Maxell is the owner by assignment of the '068 Patent and possesses all rights of recovery under the '068 Patent, including the exclusive right to recover for past and future infringement.

98. Defendants have directly infringed one or more claims of the '068 Patent in this judicial district and elsewhere in the United States, including at least claim 2 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their telecommunications technology, including by way of example a product known as the Axon 7.

99. The Axon 7 is an information recording apparatus with a recording medium for storing data such as pictures and videos. The Axon 7 has electrical components for controlling and interfacing with the recording medium. The Axon 7 also has a processor for processing data stored on the recording medium. The Axon 7 has a battery for supplying electric power to the information recording apparatus. The Axon 7 has a battery indicator to show the amount of

remaining battery power as the battery power decreases over time. The recording medium in Axon 7 records pictures and videos and records information with the pictures and videos such as time, data, format, size etc. in order to manage the stored data.

100. The foregoing features and capabilities of the Axon 7, and Defendants' description and/or demonstration thereof, including in user manuals and advertising, reflect Defendants' direct infringement by satisfying every element of at least claim 2 of the '068 Patent, under 35 U.S.C. § 271(a).

101. On information and belief, Defendants further infringe the '068 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the Axon 7 (collectively, "the '068 Accused Products"). The '068 Accused Products include, by way of examples, ZTE N-Series phones (e.g., Reef, Anthem 4G, Engage LT, Director, Flash, Fury, Imperial, Nubia Z5, Render, Supreme, Vital, Warp, Force, Speed, Prestige, Warp Sync, Grand S Pro, Max XL, Prestige 2, Blade Force, Tempo X), ZTE V-Series phones (e.g., Concord, Engage, Grand S, Optik, Nova 4), ZTE X-Series phones (e.g., Groove, Score, Score M), ZTE Z-Series phones (e.g., Majesty, Overture, Savvy, Whirl, Unico LTE, Prelude 2, Paragon, Concord II, Zephyr, Rapido LTE, Quartz, Max Duo LTE, Atrium, Grand X3, Grand X Max, Grand X Max 2, Avid Plus, Obsidian, Sonata, Sonata 2, Maven, Zmax, Merit, Fanfare, Lever LTE, Trek 2, Compel, Midnight Pro LTE, Overture 2, Warp 7, Warp Elite, ZMAX Pro, Max Blue LTE, Blade Spark, Axon M, Maven 3, Blade ZMAX, Blade X Max, Blade Max 3, Majesty Pro LTE, ZFive 2 LTE, Jasper LTE, Avid Trio, ZMAX Grand LTE, ZMAX Champ LTE, ZFive L LTE, Blade Vantage, Overture 3, Fanfare 3, Blade X), ZTE Nubia Series phones (e.g., Z5), and ZTE Axon Series phones (e.g., Axon A1, Axon Pro, Maven 2, Imperial II, Zinger, Prelude, Avid 828, Blade V8 Pro, Sonata 3, Fanfare 2, Grand X 4, Axon 7

mini). These additional products each include all necessary hardware and operating systems and work as described above with respect to the Axon 7. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '068 Accused Products are identified to describe the Defendants' infringement and in no way limit the discovery and infringement allegations against Defendants concerning other devices that incorporate the same or reasonably similar functionalities.

102. Defendants have indirectly infringed at least claim 2 of the '068 Patent in this judicial district and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '068 Accused Products. Defendants' customers who purchase devices and components thereof and operate such devices and components in accordance with Defendants' instructions directly infringe one or more claims of the '068 Patent in violation of 35 U.S.C. § 271. Defendants instruct their customers through at least user guides, such as those for the Axon 7 located at the following website: https://d28dq596ebml6z.cloudfront.net/media/wysiwyg/Axon7/ZTE_AXON_7_User_Manual_V1.0.pdf. Defendants are thereby liable for infringement of the '068 Patent pursuant to 35 U.S.C. § 271(b).

103. Defendants have indirectly infringed at least claim 2 of the '068 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '068 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '068 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

104. For example, the '068 Accused Products include an information recording component. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and upon information and belief is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Defendants are liable for infringement of the '068 Patent pursuant to 35 U.S.C. § 271(c).

105. Defendants have been on notice of the '068 Patent since, at the least, the mediation held between the parties on November 15, 2017. By the time of trial, Defendants will thus have known and intended (since receiving such notice), that their continued actions would actively induce and contribute to actual infringement of at least claim 2 of the '068 Patent.

106. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '068 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at the least, the mediation held between the parties on November 15, 2017, Defendants have been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '068 Patent, and that the '068 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '068 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that their actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringes the '068 Patent.

107. Maxell has been damaged by Defendants' infringement of the '068 Patent.

COUNT 8 – INFRINGEMENT OF U.S. PATENT NO. 6,973,334

108. Maxell incorporates paragraphs 1-107 above by reference.

109. U.S. Patent No. 6,973,334 (the “’334 Patent,” attached hereto as Exhibit H) duly issued on December 6, 2005, and is entitled *Cellular Telephone*.

110. Maxell is the owner by assignment of the ’334 Patent and possesses all rights of recovery under the ’334 Patent, including the exclusive right to recover for past and future infringement.

111. Defendants have directly infringed one or more claims of the ’334 Patent in this judicial district and elsewhere in the United States, including at least claim 4 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their telecommunications technology, including by way of example a product known as the Axon 7.

112. The Axon 7 is a cellular telephone used in a CDMA system, such as WCDMA, TD-SCDMA, and CDMA 1x.

113. The Axon 7 has at least one antenna for receiving signals from and transmitting signals to cell-site stations, such as a base station. The Axon 7 supports and implements at least the UMTS (universal mobile telecommunications service) standards and relevant technical specifications promulgated by the 3GPP. For example, the Axon 7’s antenna receives a first communication signal (such as data signals transmitted on a downlink channel) and a transmitting power control signal (such as a TPC transmitted on a downlink channel) from a cell-site station (such as a base station), as evidenced by the 3GPP Standards.

114. The Axon 7 is configured to derive and output a power control signal from the transmitting power control signal (TPC) sent from the cell-site station, as required by the 3GPP standards. The Axon 7 converts speech spoken into RF signals that are transmitted at an antenna of the device in accordance with the supported technical standards.

115. The Axon 7 has a controller that controls the transmitter so that an open-loop power control is performed at first and operates such that a closed-loop power control is performed according to the power control signal so as to control the transmitted power to converge into a range required by the cell-site station.

116. The Axon 7 has a variable amplitude amplifier which it controls the gain of and a bias condition using a function defining a relation between bias data and gain data stored in said memory. The control is such that function uses bias conditions defined in a ratio to the maximum bias voltage value and that said bias condition increases gradually to the maximum value when output intensity increases to the value taken when said cellular telephone is very far from the cell-site station.

117. The foregoing features and capabilities of the Axon 7, and Defendants' description and/or demonstration thereof, including in user manuals and advertising, reflect Defendants' direct infringement by satisfying every element of at least claim 4 of the '334 Patent, under 35 U.S.C. § 271(a).

118. On information and belief, Defendants further infringe the '334 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the Axon 7 (collectively, "the '334 Accused Products"). The '334 Accused Products include, by way of examples, ZTE N-Series phones (e.g., Reef, Anthem 4G, Engage LT, Director, Flash, Fury, Imperial, Nubia Z5, Render, Supreme, Vital, Warp, Force, Speed, Prestige, Warp Sync, Grand S Pro, Max XL, Prestige 2, Blade Force, Tempo X), ZTE V-Series phones (e.g., Concord, Engage, Grand S, Optik, Nova 4), ZTE X-Series phones (e.g., Groove, Score, Score M), ZTE Z-Series phones (e.g., Majesty, Overture, Savvy, Whirl, Unico LTE, Prelude 2, Paragon, Concord II, Zephyr, Rapido LTE, Quartz, Max Duo LTE, Atrium, Grand

X3, Grand X Max, Grand X Max 2, Avid Plus, Obsidian, Sonata, Sonata 2, Maven, Zmax, Merit, Fanfare, Lever LTE, Trek 2, Compel, Midnight Pro LTE, Overture 2, Warp 7, Warp Elite, ZMAX Pro, Max Blue LTE, Blade Spark, Axon M, Maven 3, Blade ZMAX, Blade X Max, Blade Max 3, Majesty Pro LTE, ZFive 2 LTE, Jasper LTE, Avid Trio, ZMAX Grand LTE, ZMAX Champ LTE, ZFive L LTE, Blade Vantage, Overture 3, Fanfare 3, Blade X), ZTE Nubia Series phones (e.g., Z5), and ZTE Axon Series phones (e.g., Axon A1, Axon Pro, Maven 2, Imperial II, Zinger, Prelude, Avid 828, Blade V8 Pro, Sonata 3, Fanfare 2, Grand X 4, Axon 7 mini). These additional products each include all necessary hardware and operating systems and work as described above with respect to the Axon 7. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '334 Accused Products are identified to describe the Defendants' infringement and in no way limit the discovery and infringement allegations against Defendants concerning other devices that incorporate the same or reasonably similar functionalities.

119. Defendants have indirectly infringed at least claim 4 of the '334 Patent in this judicial district and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '334 Accused Products. Defendants' customers who purchase devices and components thereof and operate such devices and components in accordance with Defendants' instructions directly infringe one or more claims of the '334 Patent in violation of 35 U.S.C. § 271. Defendants instruct their customers through at least user guides, such as those for the Axon 7 located at the following website: https://d28dq596bml6z.cloudfront.net/media/wysiwyg/Axon7/ZTE_AXON_7_User_Manual_V1.0.pdf. Defendants are thereby liable for infringement of the '334 Patent pursuant to 35 U.S.C. § 271(b).

120. Defendants have indirectly infringed at least claim 4 of the '334 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '334 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '334 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

121. For example, the '334 Accused Products include a component to effectuate power control functionality. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and upon information and belief is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Defendants are liable for infringement of the '334 Patent pursuant to 35 U.S.C. § 271(c).

122. Defendants have been on notice of the '334 Patent since, at the least, the mediation held between the parties on November 15, 2017. By the time of trial, Defendants will thus have known and intended (since receiving such notice), that their continued actions would actively induce and contribute to actual infringement of at least claim 4 of the '334 Patent.

123. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '334 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at the least, the mediation held between the parties on November 15, 2017, Defendants have been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '334 Patent, and that the '334 Patent is valid. On information and belief, Defendants could not reasonably,

subjectively believe that their actions do not constitute infringement of the '334 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that their actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '334 Patent.

124. Maxell has been damaged by Defendants' infringement of the '334 Patent.

COUNT 9 – INFRINGEMENT OF U.S. PATENT NO. 9,544,517

125. Maxell incorporates paragraphs 1-124 above by reference.

126. U.S. Patent No. 9,544,517 (the "'517 Patent," attached hereto at Exhibit I) duly issued on January 10, 2017 and is entitled *Electric Camera*.

127. Maxell is the owner by assignment of the '517 Patent and possesses all rights under the '517 Patent, including the exclusive right to recover for past and future infringement.

128. Defendants have directly infringed one or more claims of the '517 Patent in this judicial district and elsewhere in the United States, including at least claim 8 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their telecommunications technology, including by way of example a product known as the Axon 7.

129. The Axon 7 includes an electric camera for sensing images and videos. The Axon 7 senses light with a light receiving surface having an array of pixels arranged vertically and horizontally in a grid pattern. The Axon 7 includes a 20MP camera. On information and belief, image sensors such as the 20 megapixel camera have a light receiving surface having an array of pixels arranged vertically and horizontally in a grid pattern with an arbitrary number of vertically arranged pixels N, where N is equal to or more than three times the number of effective scanning

lines M of a display screen of a television system, at least in order to display the image in horizontal and vertical planes on the Axon 7.

130. The Axon 7 downsamples/culls the signal charges accumulated in individual pixels of every K pixels in order to produce a number of lines of output signals which corresponds to the number of effective scanning lines M, in this case, 480 (*i.e.*, 480p video capture).

131. The Axon 7 is configured to receive a request to continuously change a magnification factor to magnify an output image. On information and belief, the Axon 7 uses a combination of hardware, and software including a processor programmed to provide zooming functionality.

132. The Axon 7 includes a processor programmed to perform various signal processing functions such as video recording, zooming, and electronic image stabilization. The Axon 7 has a display screen that displays the output image.

133. The Axon 7 drives the image sensing device in a first state in which intervals of K1 pixels in a first area on the image sensing device are vertically mixed or culled. For example, while capturing video at default zoom, the image is downsampled/culled in order to capture a 480p image from a high resolution 20MP sensor.

134. On information and belief, the Axon 7 drives the image sensing device in a second state in which intervals of K2 pixels in a second area on the image sensing device are vertically mixed or culled, where a value of K2 is smaller than a value of K1. In the Axon 7, the magnification factor of the first image (default zoom) is smaller than the magnification factor of the second image (full zoom). On information and belief, the value of K1 is larger than a value of K2 (*e.g.*, where the zoomed region has a vertical resolution less than the full vertical resolution

of the image sensor). On information and belief, the first state switches to the second state in response to receiving the request to continuously change the magnification factor.

135. The foregoing features and capabilities of the Axon 7, and Defendants' description and/or demonstration thereof, including in user manuals and advertising, reflect Defendants' direct infringement by satisfying every element of at least claim 8 of the '517 Patent, under 35 U.S.C. § 271(a).

136. On information and belief, Defendants further infringe the '517 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the Axon 7 (collectively, "the '517 Accused Products"). The '517 Accused Products include, by way of examples, ZTE N-Series phones (e.g., Reef, Anthem 4G, Engage LT, Director, Flash, Fury, Imperial, Nubia Z5, Render, Supreme, Vital, Warp, Force, Speed, Prestige, Warp Sync, Grand S Pro, Max XL, Prestige 2, Blade Force, Tempo X), ZTE V-Series phones (e.g., Concord, Engage, Grand S, Optik, Nova 4), ZTE X-Series phones (e.g., Groove, Score, Score M), ZTE Z-Series phones (e.g., Majesty, Overture, Savvy, Whirl, Unico LTE, Prelude 2, Paragon, Concord II, Zephyr, Rapido LTE, Quartz, Max Duo LTE, Atrium, Grand X3, Grand X Max, Grand X Max 2, Avid Plus, Obsidian, Sonata, Sonata 2, Maven, Zmax, Merit, Fanfare, Lever LTE, Trek 2, Compel, Midnight Pro LTE, Overture 2, Warp 7, Warp Elite, ZMAX Pro, Max Blue LTE, Blade Spark, Axon M, Maven 3, Blade ZMAX, Blade X Max, Blade Max 3, Majesty Pro LTE, ZFive 2 LTE, Jasper LTE, Avid Trio, ZMAX Grand LTE, ZMAX Champ LTE, ZFive L LTE, Blade Vantage, Overture 3, Fanfare 3, Blade X), ZTE Nubia Series phones (e.g., Z5), and ZTE Axon Series phones (e.g., Axon A1, Axon Pro, Maven 2, Imperial II, Zinger, Prelude, Avid 828, Blade V8 Pro, Sonata 3, Fanfare 2, Grand X 4, Axon 7 mini). These additional products each include all necessary hardware and operating systems and

work as described above with respect to the Axon 7. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '517 Accused Products are identified to describe the Defendants' infringement and in no way limit the discovery and infringement allegations against Defendants concerning other devices that incorporate the same or reasonably similar functionalities.

137. Defendants have indirectly infringed at least claim 8 of the '517 Patent in this judicial district and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '517 Accused Products. Defendants' customers who purchase devices and components thereof and operate such devices and components in accordance with Defendants' instructions directly infringe one or more claims of the '517 Patent in violation of 35 U.S.C. § 271. Defendants instruct their customers through at least user guides, such as those for the Axon 7 located at the following website: https://d28dq596ebml6z.cloudfront.net/media/wysiwyg/Axon7/ZTE_AXON_7_User_Manual_V1.0.pdf. Defendants are thereby liable for infringement of the '517 Patent pursuant to 35 U.S.C. § 271(b).

138. Defendants have indirectly infringed at least claim 8 of the '517 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '517 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '517 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

139. For example, the '517 Accused Products include components for processing image signals and displaying images. These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Defendants are liable for infringement of the '517 Patent pursuant to 35 U.S.C. § 271(c).

140. Defendants have been on notice of the '517 Patent since, at the least, the mediation held between the parties on November 15, 2017. By the time of trial, Defendants will thus have known and intended (since receiving such notice), that their continued actions would actively induce and contribute to actual infringement of at least claim 8 of the '517 Patent.

141. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '517 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at the least, the mediation held between the parties on November 15, 2017, Defendants have been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '517 Patent, and that the '517 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '517 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that their actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '517 Patent.

142. Maxell has been damaged by Defendants' infringement of the '517 Patent.

PRAYER FOR RELIEF

WHEREFORE, Maxell prays for relief as follows:

155. A judgment declaring that Defendants have infringed and are infringing one or more claims of '487, '503, '086, '306, '140, '897, '068, '334, '517 Patents;

156. A judgment awarding Maxell compensatory damages as a result of Defendants' infringement of one or more claims of the '487, '503, '086, '306, '140, '897, '068, '334, '517 Patents, together with interest and costs, consistent with lost profits and in no event less than a reasonable royalty;

157. A judgment awarding Maxell treble damages and pre-judgment interest under 35 U.S.C. § 284 as a result of Defendants' willful and deliberate infringement of one or more claims of the '487, '503, '086, '306, '140, '897, '068, '334, '517 Patents;

158. A judgment declaring that this case is exceptional and awarding Maxell its expenses, costs, and attorneys' fees in accordance with 35 U.S.C. §§ 284 and 285 and Rule 54(d) of the Federal Rules of Civil Procedure;

159. A grant of preliminary and permanent injunctions enjoining Defendants from further acts of infringement of one or more claims of the '487, '503, '086, '306, '140, '897, '068, '334, '517 Patents; and

160. Such other and further relief as the Court deems just and proper.

JURY TRIAL DEMANDED

Maxell hereby demands a trial by jury.

Dated: March 2, 2018

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