

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

MAXELL, LTD.,)	
)	
Plaintiff,)	
)	
v.)	C.A. No. _____
)	
OLYMPUS CORPORATION and)	JURY TRIAL DEMANDED
OLYMPUS AMERICA INC.,)	
)	
Defendants.)	
)	

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 Olympus Corporation and Olympus America Inc. (“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 consumer and business electronics and component markets (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 consumer and business electronics and component markets, including wireless charging solutions, wireless flash drives, multimedia players, storage devices, power solutions, display equipment, lens and optical components, and headphones to name a few. Maxell also maintains intellectual property related to, among others, televisions, tablets, digital cameras, and mobile phones. As a 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 the aforementioned 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.

PARTIES

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

6. On information and belief, Defendant Olympus Corporation is a Japanese corporation with a principal place of business at Shinjuku Monolith, 2-3-1 Nishi-Shinjuku-ku, Tokyo 163-0914, Japan.

7. On information and belief, Olympus America Inc. is a New York Corporation with its principal place of business at 3500 Corporate Parkway, Center Valley, Pennsylvania, 18034.

8. On information and belief, Defendants are in the business of providing optic and digital solutions. Specifically, Defendants provide digital cameras and audio products.

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

10. 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.

11. The Court has personal jurisdiction over Defendants because (1) Maxell's claims arise in whole or in part from Defendants' conduct in Delaware; (2) Defendants have availed themselves of this Court's jurisdiction by filing a declaratory judgment action against Maxell (Case No. 1:18-cv-00216-UNA); (3) Defendants have committed a tortious act causing injury within the state of Delaware, namely, one or more acts of patent infringement as alleged herein and (4) Defendants are subject to personal jurisdiction under the provisions of the Delaware Long Arm Statute, Del. Code. Ann. Tit. 3, § 3104, 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.

12. 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.

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

14. Venue in the District of Delaware is proper pursuant to 28 U.S.C. §§ 1391 and 1400 because at least Defendant Olympus Corporation resides in this District, and Defendants purposefully chose this venue for their declaratory judgment action.

COUNT I- INFRINGEMENT OF U.S. PATENT NO. 6,765,616

15. Maxell incorporates paragraphs 1-14 above by reference.

16. U.S. Patent No. 6,765,616 (the “’616 Patent,” attached hereto as Exhibit A) duly issued on July 20, 2004, and is entitled *Electric Camera*.

17. Maxell is the owner by assignment of the ’616 Patent and possesses all rights of recovery under the ’616 Patent, including the exclusive right to recover for past and future infringement.

18. Defendants have directly infringed one or more claims of the ’616 Patent in this judicial district and elsewhere in Delaware, including at least claim 13 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their digital camera technology including by way of example a product known as the OM-D E-M10.

19. The OM-D E-M10 includes an electric camera. The OM-D E-M10 includes an image sensing device with an array of pixels arranged vertically and horizontally in a grid pattern. The OM-D E-M10 include a 17 megapixel camera sensor. On information and belief, image sensors such as those included in the OM-D E-M10 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 each field of a display screen at least in order to display the image in horizontal and vertical planes on the OM-D E-M10.

20. The OM-D E-M10 includes color filters. On information and belief, the OM-D E-M10 includes color filters arranged on grid-arrayed pixels of the image sensing device, to pass

designated colors respectively arranged to cyclically appear horizontally at a designated interval and to pass the same colors arranged vertically.

21. On information and belief, the OM-D E-M10 includes a driver arranged to drive the image sensing device, to vertically mix or cull signal charges accumulated in individual pixels of every K pixels to produce a number of lines of output signals which corresponds to the number of effective scanning lines M , K being at least one of integers equal to or less than an integral part of a quotient of N divided by M .

22. The OM-D E-M10 includes a processor programmed to perform various signal processing functions including video recording, digital zoom, face detection, and video image stabilization. In addition, the OM-D E-M10 includes a processor programmed to perform signal processing to generate video in various formats by using the pixel data received from the image sensing device.

23. The OM-D E-M10 includes a display for displaying an image corresponding to the image signals. On information and belief, the OM-D E-M10 includes a driver that vertically mixes or culls signal charges accumulated in individual pixels of every K_1 pixels, when first images are displayed on the display unit. On information and belief, the OM-D E-M10 includes a driver that vertically mixes or culls signal charges accumulated in individual pixels of every K_2 pixels, when second images are displayed on the display unit. On information and belief, the OM-D E-M10 uses different values K_1 and K_2 for default zoom and an increased zoom level, respectively.

24. The foregoing features and capabilities of the OM-D E-M10, 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 13 of the '616 Patent, under 35 U.S.C. § 271(a).

25. On information and belief, Defendants further infringe the '616 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the OM-D E-M10 (collectively, "the Olympus Products"). The Olympus Products include, by way of examples, OM-D E-M1 Mark II, OM-D E-M5 Mark II, Pen-F, Pen EPL8, Tough TG-4, Tough TG-3, Tough TG-5, Air A01. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the Olympus 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.

26. Defendants have indirectly infringed at least claim 13 of the '616 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 Olympus 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 '616 Patent in violation of 35 U.S.C. § 271. Defendants instruct their customers through at least user guides or additional instructions, such as for example that for the OM-D E-M10 located at the following website: http://www.olympusamerica.com/files/oima_cckb/E-M10_MANUAL_ENGLISH.PDF. Defendants are thereby liable for infringement of the '616 Patent pursuant to 35 U.S.C. § 271(b).

27. Defendants have indirectly infringed at least claim 13 of the '616 Patent, by, among other things, contributing to the direct infringement of others, including customers of the

Olympus 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 '616 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

28. For example, the Olympus 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 functionality 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 '616 Patent pursuant to 35 U.S.C. § 271(c).

29. Defendants have been on notice of the '616 Patent since at least April 7, 2016. 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 13 of the '616 Patent.

30. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '616 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least April 7, 2016, Defendants have been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '616 Patent, and that the '616 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '616 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 '616 Patent.

31. Maxell has been damaged by Defendants' infringement of the '616 Patent.

COUNT II- INFRINGEMENT OF U.S. PATENT NO. 7,199,821

32. Maxell incorporates paragraphs 1-31 above by reference.

33. U.S. Patent No. 7,199,821 (the "'821 Patent," attached hereto as Exhibit B) duly issued on April 3, 2007, and is entitled *Imaging Apparatus and Method for Controlling White Balance*.

34. Maxell is the owner by assignment of the '821 Patent and possesses all rights of recovery under the '821 Patent, including the exclusive right to recover for past and future infringement.

35. Defendants have directly infringed one or more claims of the '821 Patent in this judicial district and elsewhere in Delaware, including at least claim 7, literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their digital camera technology including, by way of example, the product known as OM-D E-M10.

36. The OM-D E-M10 is an image processing apparatus with a display that displays images that are picked up by an image pick up device and processed by the image processor. The image pickup device is a multi-megapixel auto-focus camera sensor. The auto-focus camera sensor is an optical system used to pick up an image of an object. The OM-D E-M10 has a white balance circuit that ensures that white objects in images picked up by the image sensor appear white. The OM-D E-M10 also includes a circuit and/or processor for detecting object distance, detecting a zoom value, and detecting object brightness. For example, the OM-D E-M10 has

autofocus, brightness measurement functions, zooming functions, and white balance functionalities. The OM-D E-M10 controls white balance in an image based on these distance, zoom, and brightness values. The OM-D E-M10 also has a circuit for setting a threshold on the basis of object brightness and distance and comparing the distance outputted from the object distance detecting circuit with the threshold value. The OM-D E-M10 also includes a circuit for obtaining control information for the white balance, including, for example, the white balance mode or amount.

37. The foregoing features and capabilities of the OM-D E-M10, 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 7 of the '821 Patent, under 35 U.S.C. § 271(a).

38. On information and belief, Defendants further infringe the '821 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the OM-D E-M10 (collectively, "the Olympus Products"). The Olympus Products include, by way of examples, OM-D E-M1 Mark II, OM-D E-M5 Mark II, Pen-F, Pen EPL8, Tough TG-4, Tough TG-3, Tough TG-5, Air A01. These additional products each include all necessary hardware and operating systems and work as described above with respect to the Olympus Products. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the Olympus 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.

39. Defendants have indirectly infringed at least claim 7 of the '821 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 Olympus 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 '821 Patent in violation of 35 U.S.C. § 271. Defendants instruct their customers through instructions available on their website, such as those for the OM-D E-M10 located at the following website: http://www.olympusamerica.com/files/oima_cckb/E-M10_MANUAL_ENGLISH.PDF. Defendants are thereby liable for infringement of the '821 Patent pursuant to 35 U.S.C. § 271(b).

40. Defendants have indirectly infringed at least claim 7 of the '821 Patent, by, among other things, contributing to the direct infringement of others, including customers of the Olympus 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 '821 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

41. For example, the Olympus Products include a white balance control component. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such functionality 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 '821 Patent pursuant to 35 U.S.C. § 271(c).

42. Defendants have been on notice of the '821 Patent since at the latest April 7, 2016. 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 7 of the '821 Patent.

43. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '821 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least April 7, 2016, Defendants have been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '821 Patent, and that the '821 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '821 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 '821 Patent.

44. Maxell has been damaged by Defendants' infringement of the '821 Patent.

COUNT III- INFRINGEMENT OF U.S. PATENT NO. 7,551,209

45. Maxell incorporates paragraphs 1-44 above by reference.

46. U.S. Patent No. 7,551,209 (the "'209 Patent," attached hereto as Exhibit C) duly issued on June 23, 2009, and is entitled *Imaging apparatus and method for controlling white balance*.

47. Maxell is the owner by assignment of the '209 Patent and possesses all rights of recovery under the '209 Patent, including the exclusive right to recover for past infringement.

48. Defendant has directly infringed one or more claims of the '209 Patent in this judicial district and elsewhere in Delaware, including at least claims 1, 3, 5, and 6 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their digital camera technology including, by way of example, the product known as OM-D E-M10.

49. The OM-D E-M10 is an image processing apparatus that displays images that are picked up by the image sensor and processed by the image processor. The image pickup device is a multi-megapixel auto-focus camera sensor. The auto-focus camera sensor is an optical system used to pick up an image of an object. The OM-D E-M10 has a white balance circuit that ensures that white objects in images picked up by the image sensor appear white. The OM-D E-M10 also includes a circuit and/or processor for detecting object distance, detecting a zoom value, and detecting object brightness. For example, the OM-D E-M10 has autofocus, brightness measurement functions, zooming functions, and white balance functionalities. The OM-D E-M10 controls white balance in an image based on these distance, zoom, and brightness values. The OM-D E-M10 also has a circuit for setting a threshold on the basis of object brightness and distance and comparing the distance outputted from the object distance detecting circuit with the threshold value. The OM-D E-M10 also includes a circuit for obtaining control information for the white balance, including, for example, the white balance mode or amount.

50. The foregoing features and capabilities of the OM-D E-M10, 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, 5, and 6 of the '209 Patent, under 35 U.S.C. § 271(a).

51. On information and belief, Defendants further infringe the '209 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the OM-D E-M10 (collectively, "the Olympus Products"). The Olympus Products include, by way of examples, OM-D E-M1 Mark II, OM-D E-M5 Mark II, Pen-F, Pen EPL8, Tough TG-4, Tough TG-3, Tough TG-5, Air A01. These additional products each include all necessary hardware and operating systems and work as described above with respect to the OM-D E-M10. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the Olympus 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.

52. Defendants have indirectly infringed at least claims 1, 3, 5, and 6 of the '209 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 Olympus 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 '209 Patent in violation of 35 U.S.C. § 271. Defendants instruct their customers through at least user guides, such as those for the OM-D E-M10 located at the following website: http://www.olympusamerica.com/files/oima_cckb/E-M10_MANUAL_ENGLISH.PDF.

Defendants are thereby liable for infringement of the '209 Patent pursuant to 35 U.S.C. § 271(b).

53. Defendants have indirectly infringed at least claims 1, 3, 5, and 6 of the '209 Patent, by, among other things, contributing to the direct infringement of others, including customers of the Olympus 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 '209 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

54. For example, the Olympus Products include a white balance control component. These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such functionalities 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 '209 Patent pursuant to 35 U.S.C. § 271(c).

55. Defendants have been on notice of the '209 Patent since at the latest April 7, 2016. By the time of trial, Defendants will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claims 1, 3, 5, and 6 of the '209 Patent.

56. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '209 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least April 7, 2016, Defendants have been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '209 Patent, and that the '209 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '209 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its

actions constitute infringement, Defendants have continued its infringing activities. As such, Defendants willfully infringe the '209 Patent.

57. Maxell has been damaged by Defendants' infringement of the '209 Patent.

COUNT IV- INFRINGEMENT OF U.S. PATENT NO. 8,130,284

58. Maxell incorporates paragraphs 1-57 above by reference.

59. U.S. Patent No. 8,130,284 (the "'284 Patent," attached hereto as Exhibit D) duly issued on March 6, 2012, and is entitled *Imaging Apparatus and Method for Controlling White Balance*.

60. Maxell is the owner by assignment of the '284 Patent and possesses all rights of recovery under the '284 Patent, including the exclusive right to recover for past infringement.

61. Defendants have directly infringed one or more claims of the '284 Patent in this judicial district and elsewhere in Delaware, including at least claims 1, 3, 5, and 7 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling their digital camera technology including by way of example a product known as the OM-D E-M10.

62. The OM-D E-M10 is an image processing apparatus with a display that displays images that are picked up by an image pick up device and processed by the image processor. The OM-D E-M10 has a white balance circuit that ensures that white objects in images picked up by the image sensor appear white. The OM-D E-M10 also includes a circuit and/or processor for detecting object distance, detecting a zoom value, and detecting object brightness. For example, the OM-D E-M10 has autofocus, brightness measurement functions, zooming functions, and white balance functionalities. The OM-D E-M10 controls white balance in an image based on

these distance, zoom, and brightness values. The OM-D E-M10 also has a circuit for setting a threshold on the basis of object brightness, zoom, and distance.

63. The foregoing features and capabilities of the OM-D E-M10, 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, 5, and 7 of the '284 Patent, under 35 U.S.C. § 271(a).

64. On information and belief, Defendants further infringe the '284 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the OM-D E-M10 (collectively, "the Olympus Products"). The Olympus Products include, by way of examples, OM-D E-M1 Mark II, OM-D E-M5 Mark II, Pen-F, Pen EPL8, Tough TG-4, Tough TG-3, Tough TG-5, Air A01. These additional products each include all necessary hardware and operating systems and work as described above with respect to the OM-D E-M10. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the Olympus Products are identified to describe 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.

65. Defendants have indirectly infringed at least claims 1, 3, 5, and 7 of the '284 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 Olympus 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 '284 Patent in violation of 35 U.S.C. § 271. Defendants instruct their customers

through at least user guides, such as those for the OM-D E-M10 located at the following website:
http://www.olympusamerica.com/files/oima_cckb/E-M10_MANUAL_ENGLISH.PDF.

Defendants are thereby liable for infringement of the '284 Patent pursuant to 35 U.S.C. § 271(b).

66. Defendants have indirectly infringed at least claims 1, 3, 5, and 7 of the '284 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '284 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 '284 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

67. For example, the Olympus Products include a white balance control component. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such functionality 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 '284 Patent pursuant to 35 U.S.C. § 271(c).

68. Defendants have been on notice of the '284 Patent since at the latest April 7, 2016. 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, 5, and 7 of the '284 Patent.

69. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '284 Patent, which has been duly issued by the

USPTO, and is presumed valid. For example, since at least April 7, 2016, Defendants have been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '284 Patent, and that the '284 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '284 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Defendants have continued infringing activities. As such, Defendants willfully infringe the '284 Patent.

70. Maxell has been damaged by Defendants' infringement of the '284 Patent.

COUNT V-INFRINGEMENT OF U.S. PATENT NO. 8,059,177

71. Maxell incorporates paragraphs 1-70 above by reference.

72. U.S. Patent No. 8,059,177 (the "'177 Patent," attached hereto as Exhibit E) duly issued on November 15, 2011, and is entitled *Electric Camera*.

73. Maxell is the owner by assignment of the '177 Patent and possesses all rights of recovery under the '177 Patent, including the exclusive right to recover for past infringement.

74. Defendants have directly infringed one or more claims of the '177 Patent in this judicial district and elsewhere in Delaware, 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 digital camera technology, including by way of example a product known as the OM-D E-M10.

75. The OM-D E-M10 includes an electric camera. The OM-D E-M10 includes an image sensing device with an array of pixels arranged vertically and horizontally in a grid pattern. The OM-D E-M10 includes a 17 megapixel camera with auto focus. On information and

belief, image sensors such as the 17 megapixel auto-focus camera have a light receiving surface having N vertically arranged pixels and an arbitrary number of pixels arranged horizontally, N being equal to or more than three times the number of effective scanning lines M of a television system, at least in order to display the image in horizontal and vertical planes on the OM-D E-M10.

76. On information and belief, the OM-D E-M10 includes a driver including a first driver mode to drive the image sensing device to vertically mix or cull signal charges accumulated in individual pixels of every K pixels to produce a number of lines of output signals which corresponds to the number of effective scanning lines M , K being at least one of integers equal to or less than an integral part of a quotient of N divided by M . On information and belief, the OM-D E-M10 includes a second driver mode to drive the image sensing device to vertically mix or cull signal charges accumulated in individual pixels of every K pixels to produce, during a vertical effective scanning period of the television system, a number of lines of output signals which corresponds to $1/K$ the number of vertically arranged pixels N of the image sensing device, K being an integer equal to or less than an integral part of a quotient of N divided by M .

77. The OM-D E-M10 includes processor programmed to perform various signal processing function including video recording, digital zoom, and face detection. In addition, the OM-D E-M10 includes a processor programmed to perform signal processing to generate video in various formats by using the pixel data received from the image sensing device.

78. On information and belief, the driving by the first driver mode and the driving by the second driver mode of the OM-D E-M10 are selectively switched according to input information from a switch provided inside or outside the electric camera. The OM-D E-M10 includes a processor programmed to provide a graphical user interface (GUI) to allow a user to

control the operation of the functionalities provided in the OM-D E-M10 including for controlling camera operation.

79. The foregoing features and capabilities of the OM-D E-M10, 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 '177 Patent, under 35 U.S.C. § 271(a).

80. On information and belief, Defendants further infringe the '177 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the OM-D E-M10 (collectively, "the Olympus Products"). The Olympus Products include, by way of examples, OM-D E-M1 Mark II, OM-D E-M5 Mark II, Pen-F, Pen EPL8, Tough TG-4, Tough TG-3, Tough TG-5, Air A01. These additional products each include all necessary hardware and operating systems and work as described above with respect to the OM-D E-M10. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the Olympus 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.

81. Defendants have indirectly infringed at least claim 1 of the '177 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 Olympus 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 '177 Patent in violation of 35 U.S.C. § 271. Defendants instruct customers through at least

user guides, such as those for the OM-D E-M10 located at the following website:
http://www.olympusamerica.com/files/oima_cckb/E-M10_MANUAL_ENGLISH.PDF.

Defendants are thereby liable for infringement of the '177 Patent pursuant to 35 U.S.C. § 271(b).

82. Defendants have indirectly infringed at least claim 1 of the '177 Patent, by, among other things, contributing to the direct infringement of others, including customers of the Olympus 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 '177 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

83. For example, the Olympus Products include components for processing image signals and displaying images. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such functionality 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 '177 Patent pursuant to 35 U.S.C. § 271(c).

84. Defendants have been on notice of the '177 Patent since at the latest April 7, 2016. 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 '177 Patent.

85. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '177 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least April 7, 2016, Defendants have been

aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '177 Patent, and that the '177 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '177 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '177 Patent.

86. Maxell has been damaged by Defendants' infringement of the '177 Patent.

COUNT VI-INFRINGEMENT OF U.S. PATENT NO. 9,100,604

87. Maxell incorporates paragraphs 1-86 above by reference.

88. U.S. Patent No. 9,100,604 (the "'604 Patent," attached hereto as Exhibit F) duly issued on August 4, 2015, and is entitled *Electric Camera*.

89. Maxell is the owner by assignment of the '604 Patent and possesses all rights of recovery under the '604 Patent, including the exclusive right to recover for past infringement.

90. Defendants have directly infringed one or more claims of the '604 Patent in this judicial district and elsewhere in Delaware, including claims 1 through 5 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling digital camera technology, including by way of example a product known as the OM-D E-M10.

91. The OM-D E-M10 includes an electric camera. The OM-D E-M10 includes an image sensing device with an array or pixels arranged vertically and horizontally in a grid pattern. The OM-D E-M10 includes a 17 megapixel camera with auto focus. On information and belief, image sensors such as the 17 megapixel auto-focus camera have a light receiving surface

having N vertically arranged pixels and an arbitrary number of pixels arranged horizontally, N being equal to or more than three times the number of effective scanning lines M of a television system, at least in order to display the image in horizontal and vertical planes on the OM-D E-M10.

92. On information and belief, the OM-D E-M10 includes a driver configured to drive the image sensing device to vertically mix or cull signal charges accumulated in individual pixels of every K pixels to produce a number of lines of output signals which corresponds to the number of effective scanning lines M , K being at least one of integers equal to or less than an integral part of a quotient of N divided by M .

93. The OM-D E-M10 includes processor programmed to perform various signal processing function including video recording, digital zoom, and face detection. In addition, the OM-D E-M10 includes a processor programmed to perform signal processing to generate video in various formats by using the pixel data received from the image sensing device.

94. The foregoing features and capabilities of the OM-D E-M10, and Defendants' description and/or demonstration thereof, including in user manuals and advertising, reflect Defendants' direct infringement by satisfying every element of claims 1 through 5 of the '604 Patent, under 35 U.S.C. § 271(a).

95. On information and belief, Defendants further infringe the '604 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the OM-D E-M10 (collectively, "the Olympus Products"). The Olympus Products include, by way of examples, OM-D E-M1 Mark II, OM-D E-M5 Mark II, Pen-F, Pen EPL8, Tough TG-4, Tough TG-3, Tough TG-5, Air A01. These additional products each include all necessary hardware and operating systems and work as described above with respect to the OM-

D E-M10. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the Olympus Products are identified to describe the Defendants' infringement and in no way limit the discovery and infringement allegations against Defendants concerning

96. Defendants have indirectly infringed claims 1 through 5 of the '604 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 Olympus 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 '604 Patent in violation of 35 U.S.C. § 271. Defendants instruct customers through at least user guides, such as those for the OM-D E-M10 located at the following website: http://www.olympusamerica.com/files/oima_cckb/E-M10_MANUAL_ENGLISH.PDF.

Defendants are thereby liable for infringement of the '604 Patent pursuant to 35 U.S.C. § 271(b).

97. Defendants have indirectly infringed claims 1 through 5 of the '604 Patent, by, among other things, contributing to the direct infringement of others, including customers of the Olympus 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 '604 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

98. For example, the Olympus Products include components for processing image signals and displaying images. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such

functionality 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 '604 Patent pursuant to 35 U.S.C. § 271(c).

99. Defendants have been on notice of the '604 Patent since at the latest April 7, 2016. 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 claims 1 through 5 of the '604 Patent.

100. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '604 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least April 7, 2016, Defendants have been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '604 Patent, and that the '604 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '604 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '604 Patent.

101. Maxell has been damaged by Defendants' infringement of the '604 Patent.

COUNT VII-INFRINGEMENT OF U.S. PATENT NO. 8,478,102

102. Maxell incorporates paragraphs 1-101 above by reference.

103. U.S. Patent No. 8,478,102 (the "'102 Patent," attached hereto as Exhibit G) duly issued on July 2, 2013, and is entitled *Information Recording/Play-Backing Apparatus*

104. Maxell is the owner by assignment of the '102 Patent and possesses all rights of recovery under the '102 Patent, including the exclusive right to recover for past infringement.

105. Defendants have directly infringed one or more claims of the '102 Patent in this judicial district and elsewhere in Delaware, 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 digital camera technology, including by way of example a product known as the TG-3.

106. The TG-3 is a portable information recording/play-back apparatus that includes an imaging module which images video information and a battery. The TG-3 also includes a first recording/play-back module which records the video information into a first recording medium, or plays-back the video information from the first recording medium. The TG-3 also has a second recording/play-back module which records the video information into a second recording medium or which plays-back the video information from the second recording medium. The TG-3 has a controller for controlling the imaging module, and the first and second recording/play-back modules. The TG-3 also can take pictures and record videos into the internal memory or SD/SDHC/SDXC cards. Therefore, the TG-3 has an imaging mode. The TG-3 can also copy images in an internal memory to a SD/SDHC/SDXC card as the backup function. Therefore, the TG-3 also has a dubbing mode.

107. The TG-3 has a controller that controls so that when the mode is the imaging mode operating on the battery, the controller controls so that if recording into one recording medium is performed, recording into the other recording medium is stopped. The TG-3 also has a back up mode that can be selected to back up the data from the internal memory to the SD card. When the battery is above a threshold amount, the backup mode can be selected. When the back-

up mode is selected, the information from the internal memory (first recording medium) is backed up into the SD card (second recording medium).

108. The foregoing features and capabilities of the TG-3, 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 '102 Patent, under 35 U.S.C. § 271(a).

109. On information and belief, Defendants further infringe the '102 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the TG-3 (collectively, "the Olympus Products"). The Olympus Products include, by way of examples, Tough TG-4 and Tough TG-5. These additional products each include all necessary hardware and operating systems and work as described above with respect to the TG-3. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the Olympus 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.

110. Defendants have indirectly infringed at least claim 1 of the '102 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 Olympus 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 '102 Patent in violation of 35 U.S.C. § 271. Defendants instruct customers through at least user guides, such as those for the TG-3 located at the following website:

http://www.olympusamerica.com/files/oima_cckb/TG-3_MANUAL_ENGLISH.pdf.

Defendants are thereby liable for infringement of the '102 Patent pursuant to 35 U.S.C. § 271(b).

111. Defendants have indirectly infringed at least claim 1 of the '102 Patent, by, among other things, contributing to the direct infringement of others, including customers of the Olympus 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 '102 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

112. For example, the Olympus Products include a component to record video on a recording medium. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such functionality 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 '102 Patent pursuant to 35 U.S.C. § 271(c).

113. Defendants have been on notice of the '102 Patent since at the latest April 7, 2016. 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 '102 Patent.

114. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '102 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least April 7, 2016, Defendants have been aware of an objectively high likelihood that its actions constituted and continue to constitute

infringement of the '102 Patent, and that the '102 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '102 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '102 Patent.

115. Maxell has been damaged by Defendants' infringement of the '102 Patent.

COUNT VIII-INFRINGEMENT OF U.S. PATENT NO. 8,599,244

116. Maxell incorporates paragraphs 1-115 above by reference.

117. U.S. Patent No. 8,599,244 (the "'244 Patent," attached hereto as Exhibit H) duly issued on December 3, 2013, and is entitled *Imaging Apparatus Capable of Switching Display Methods*.

118. Maxell is the owner by assignment of the '244 Patent and possesses all rights of recovery under the '244 Patent, including the exclusive right to recover for past infringement.

119. Defendants have directly infringed one or more claims of the '244 Patent in this judicial district and elsewhere in Delaware, 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 digital camera technology, including by way of example a product known as the OM-D E-M10.

120. The OM-D E-M10 is an imaging apparatus that has an image pickup unit. The OM-D E-M10 has a processor programmed to function as a cutout image generator which cuts out a specified area in an image picked up by the image pickup unit to generate a cutout image enlarged at a specified magnification. The OM-D E-M10 has an image display unit which displays one or both of the pickup image taken by the image pickup unit and the cutout image

generated by the cutout image generator and also has a displaying image controller which controls a method of displaying an image the image display unit displays. The OM-D EM-10 also has an image recorder which records images picked up by the image pickup unit and an image record operation unit by which a user operates start and end timings for recording images by the image recorder. The display image controller of the OM-D EM-10 determines and switches, on the basis of operation information of the record operation unit, the method of displaying the image by the image display unit. The OM-D EM-10 has a subject recognition unit which detects a particular subject from an image imaged by the image pickup unit and chases the detected particular subject by using image processing.

121. The foregoing features and capabilities of the OM-D E-M10, 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 '244 Patent, under 35 U.S.C. § 271(a).

122. On information and belief, Defendants further infringe the '244 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the OM-D E-M10 (collectively, "the Olympus Products"). The Olympus Products include, by way of examples, OM-D E-M1 Mark II, OM-D E-M5 Mark II, Pen-F, Pen EPL8, Tough TG-4, Tough TG-3, Tough TG-5, Air A01. These additional products each include all necessary hardware and operating systems and work as described above with respect to the OM-D E-M10. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the Olympus 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.

123. Defendants have indirectly infringed at least claim 1 of the '244 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 Olympus 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 '244 Patent in violation of 35 U.S.C. § 271. Defendants instruct customers through at least user guides, such as those for the OM-D E-M10 located at the following website: http://www.olympusamerica.com/files/oima_cckb/E-M10_MANUAL_ENGLISH.PDF.

Defendant is thereby liable for infringement of the '244 Patent pursuant to 35 U.S.C. § 271(b).

124. Defendants have indirectly infringed claim 1 of the '244 Patent, by, among other things, contributing to the direct infringement of others, including customers of the Olympus 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 '244 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

125. For example, the Olympus Products include a component to record a picture on a recording medium. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such functionality 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 '244 Patent pursuant to 35 U.S.C. § 271(c).

126. Defendants have been on notice of the '244 Patent since at the latest April 7, 2016. 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 '244 Patent.

127. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '244 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least April 7, 2016, Defendants have been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '244 Patent, and that the '244 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '244 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '244 Patent.

128. Maxell has been damaged by Defendants' infringement of the '244 Patent.

COUNT IX- INFRINGEMENT OF U.S. PATENT NO. 8,417,088

129. Maxell incorporates paragraphs 1-128 above by reference.

130. U.S. Patent No. 8,417,088 (the "'088 Patent," attached hereto as Exhibit I) duly issued on April 9, 2013, and is entitled *Video Recording and Reproducing Method, and Video Reproducing Apparatus and Method*.

131. Maxell is the owner by assignment of the '088 Patent and possesses all rights of recovery under the '088 Patent, including the exclusive right to recover for past infringement.

132. Defendants have directly infringed one or more claims of the '088 Patent in this judicial district and elsewhere in Delaware, 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 digital camera technology, including by way of example a product known as the OM-D E-M10.

133. The OM-D E-M10 is a recording apparatus that has a photographing unit which picks up a moving picture and a still picture. The OM-D E-M10 has a first encoder which encodes a moving picture and a still picture by a first encoding method. For example, the OM-D E-M10 can record moving pictures from a video or movie using a JPEG encoding method in accordance with Motion JPEG and can also encode a still picture or photo using JPEG as the first encoding method. The OM-D EM-10 has a second encoder which encodes the still picture by a second encoding method which is different than the first encoding method. Additionally, the OM-D EM-10 has a recorder which records a file of the moving picture encoded by the first encoding method, a file of the still picture encoded by the first encoding method and a file of the still picture encoded by the second encoding method on a recording medium, where both of the file of the still picture encoded by the first encoding method and the file of the still picture encoded by the second encoding method, are based on one still picture picked up with a single photographing.

134. The foregoing features and capabilities of the OM-D E-M10, 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 '088 Patent, under 35 U.S.C. § 271(a).

135. On information and belief, Defendants further infringe the '088 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the OM-D E-M10 (collectively, "the Olympus Products"). The Olympus Products include, by way of examples, OM-D E-M1 Mark II, OM-D E-M5 Mark II, Pen-F, Pen EPL8, Tough TG-4, Tough TG-3, Tough TG-5, Air A01. These additional products each include all necessary hardware and operating systems and work as described above with respect to the OM-D E-M10. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the Olympus 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.

136. Defendants have indirectly infringed at least claim 1 of the '088 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 Olympus 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 '088 Patent in violation of 35 U.S.C. § 271. Defendants instruct customers through at least user guides, such as those for the OM-D E-M10 located at the following website: http://www.olympusamerica.com/files/oima_cckb/E-M10_MANUAL_ENGLISH.PDF.

Defendants are thereby liable for infringement of the '088 Patent pursuant to 35 U.S.C. § 271(b).

137. Defendants have indirectly infringed claim 1 of the '088 Patent, by, among other things, contributing to the direct infringement of others, including customers of the Olympus 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 '088 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

138. For example, the Olympus Products include a photographing component to pick up a moving picture and a still picture. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such functionality 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 '088 Patent pursuant to 35 U.S.C. § 271(c).

139. Defendants have been on notice of the '088 Patent since at the latest April 7, 2016. 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 '088 Patent.

140. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '088 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least April 7, 2016, Defendants have been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '088 Patent, and that the '088 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '088 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its

actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '088 Patent.

141. Maxell has been damaged by Defendants' infringement of the '088 Patent.

COUNT X- INFRINGEMENT OF U.S. PATENT NO. 7,457,529

142. Maxell incorporates paragraphs 1-141 above by reference.

143. U.S. Patent No. 7,457,529 (the "'529 Patent," attached hereto as Exhibit J) duly issued on November 25, 2008, and is entitled *Video Recording Method and Apparatus*.

144. Maxell is the owner by assignment of the '529 Patent and possesses all rights of recovery under the '529 Patent, including the exclusive right to recover for past infringement.

145. Defendants have directly infringed one or more claims of the '529 Patent in this judicial district and elsewhere in Delaware, including at least claims 20, 22, 24, 25, 33, and 38 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling digital camera technology, including by way of example a product known as the OM-D E-M10.

146. The OM-D E-M10 is a video recording apparatus which enables recording of both moving and still pictures on a recording medium. The OM-D E-M10 records a moving picture encoded by a first encoding method. For example, the OM-D E-M10 can record moving pictures from a video or movie using a JPEG encoding method in accordance with Motion JPEG and can also encode a still picture or photo using JPEG as the first encoding method. The OM-D EM-10 records first still pictures encoded by a second encoding method different from the first encoding method. The OM-D EM-10 also records second still pictures by the first encoding method, where the first and second still pictures are encoded by different encoding methods and recorded on the recording medium.

147. The foregoing features and capabilities of the OM-D E-M10, 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 20, 22, 24, 25, 33, and 38 of the '529 Patent, under 35 U.S.C. § 271(a).

148. On information and belief, Defendants further infringe the '529 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the OM-D E-M10 (collectively, "the Olympus Products"). The Olympus Products include, by way of examples, OM-D E-M1 Mark II, OM-D E-M5 Mark II, Pen-F, Pen EPL8, Tough TG-4, Tough TG-3, Tough TG-5, Air A01. These additional products each include all necessary hardware and operating systems and work as described above with respect to the OM-D E-M10. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the Olympus 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.

149. Defendants have indirectly infringed at least claims 20, 22, 24, 25, 33, and 38 of the '529 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 Olympus 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 '529 Patent in violation of 35 U.S.C. § 271. Defendants instruct customers through at least user guides, such as those for the OM-D E-M10 located at the following website:

http://www.olympusamerica.com/files/oima_cckb/E-M10_MANUAL_ENGLISH.PDF.

Defendants are thereby liable for infringement of the '529 Patent pursuant to 35 U.S.C. § 271(b).

150. Defendants have indirectly infringed at least claims 20, 22, 24, 25, 33, and 38 of the '529 Patent, by, among other things, contributing to the direct infringement of others, including customers of the Olympus 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 '529 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

151. For example, the Olympus Products include a photographing component to pick up a moving picture and a still picture. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such functionality 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 '529 Patent pursuant to 35 U.S.C. § 271(c).

152. Defendants have been on notice of the '529 Patent since at the latest April 7, 2016. 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 20, 22, 24, 25, 33, and 38 of the '529 Patent.

153. Defendants undertook and continue their infringing actions despite an objectively high likelihood that such activities infringed the '529 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least April 7, 2016, Defendants have been

aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '529 Patent, and that the '529 Patent is valid. On information and belief, Defendants could not reasonably, subjectively believe that their actions do not constitute infringement of the '529 Patent, nor could they reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Defendants have continued their infringing activities. As such, Defendants willfully infringe the '529 Patent.

154. Maxell has been damaged by Defendants' infringement of the '529 Patent.

PRAYER FOR RELIEF

WHEREFORE, Maxell prays for relief as follows:

A judgment declaring that Defendants have infringed and are infringing one or more claims of the '616, '821, '209, '284, '177, '604, '102, '244, '088, and '529 Patents;

A judgment awarding Maxell compensatory damages as a result of Defendants' infringement of one or more claims of the '616, '821, '209, '284, '177, '604, '102, '244, '088, and '529 Patents, together with interest and costs, consistent with lost profits and in no event less than a reasonable royalty;

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 '616, '821, '209, '284, '177, '604, '102, '244, '088, and '529 Patents;

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;

A grant of preliminary and permanent injunctions enjoining Defendants from further acts of infringement of one or more claims of the '616, '821, '209, '284, '177, '604, '102, '244, '088, and '529; and

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

JURY TRIAL DEMANDED

Maxell hereby demands trial by jury.

Respectfully submitted,

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