

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

MAXELL, LTD.,

*Plaintiff,*

v.

ASUSTEK COMPUTER INC.,

*Defendant.*

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 Defendant ASUSTeK Computer Inc. (“ASUS” or “Defendant”) 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 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 up 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 more fully described below, in 2009 Hitachi, Ltd. assigned much of its intellectual property 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, computer products, tablets, digital cameras, and mobile phones. 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. Maxell is forced to bring this action against Defendants as a result of Defendants' knowing and ongoing infringement of Maxell's patents.

5. Since 2014, Maxell has had regular and continuous business in the Eastern District of Texas. As a result of such business dealings and hopes to expand those and other business dealings, a Maxell affiliate, Maxell Research and Development America, LLC ("MRDA"), was founded in Marshall, Texas. Maxell has and continues to regularly meet and

work with MRDA to expand its business and substantial investments are being made by Maxell and MRDA to further the goals of these companies.

6. On October 13, 2017, Maxell filed a case against ASUS and its subsidiary ASUS Computer International, Inc. in the Central District of California. (Case No. 2:17-cv-7528-R-MRW). On March 21, 2018, that case was transferred to the Northern District of California. (Case No. 3:18-cv-01788-VC). That case is still pending. During the course of litigation, Maxell identified additional patents in its portfolio and additional products of ASUS that infringe such patents, including the patents and products at issue in this complaint. In particular, Maxell provided on October 30, 2017 a list of its patents that relate to certain software and hardware incorporated in certain of ASUS's products. Thereafter, on August 30, 2018, 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, ASUS was aware of the patents at issue in this complaint and had notice of their infringement by at least August 30, 2018 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 ASUSTeK Computer Inc. is a corporation organized under the laws of the Republic of China (also known as Taiwan) and has a principal place of business at No. 15, Li-De Rd., Beitou, Taipei 112, Taiwan, R.O.C.

9. On information and belief, Defendant is in the business of providing information and communications technology solutions. Specifically, Defendant provides wireless telecommunications equipment, including smart phones, tablets, and mobile phones, as well as

computer hardware, including notebooks. On information and belief, ASUS's products, including the accused products, are generally developed in ASUS's facilities located in Taiwan and China. *See Maxell, Ltd. v. ASUSTeK Computer Inc., et al.*, Case No. 2:17-cv-7528-R-MRW, Declaration of Godwin Yan, Docket No. 35-2, at ¶ 8.

**NATURE OF THE ACTION, JURISDICTION, AND VENUE**

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

11. 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.

12. The Court has personal jurisdiction over the Defendant because (1) Maxell's claims arise in whole or in part from Defendant's conduct in Texas; and (2) Defendant is 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, Defendant has availed itself 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 Defendant's infringing activities in this State, as well as by others acting as Defendant's 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.

13. Upon further information and belief, Defendant has also established minimum contacts with this District and regularly transacts and does 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, Defendant has purposefully directed activities at citizens of this State and located within this District.

14. On information and belief, Defendant has purposefully and voluntarily placed its 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, Defendant's customers in the Eastern District of Texas have purchased and used and continue to purchase and use Defendant's products.

15. Venue in the Eastern District of Texas is proper pursuant to 28 U.S.C. §§ 1391 because, among other things, Defendant is a defendant not resident in the United States, and thus may be sued in any Judicial District pursuant to 28 U.S.C. § 1391(c)(3). Defendant has admitted this fact before other Courts. *See Maxell, Ltd. v. ASUSTeK Computer Inc., et al.*, Case No. 2:17-cv-7528-R-MRW, Memorandum in Support of Defendant's Motion to Transfer Venue, Docket No. 35-1, at 5 ("Pursuant to 28 U.S.C. § 1391, ASUSTeK may be sued in any judicial district." (citations omitted)).

**COUNT 1 - INFRINGEMENT OF U.S. PATENT NO. 8,982,086**

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

17. U.S. Patent No. 8,982,086 (the "'086 Patent," attached hereto at Exhibit 1) duly issued on March 17, 2015 and is entitled *Information Processing Apparatus*.

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

19. Defendant has directly infringed one or more claims of the '086 Patent in this judicial district and elsewhere in Texas, including at least claims 1, 2, and 4 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including by way of example products known as the ROG Phone and Zenbook S (UX391UA).

20. The ROG Phone and Zenbook S are both information processing apparatuses. The ROG Phone and Zenbook S both include a touch panel, for example, a fingerprint sensor, configured to detect a contact of a finger of a user. The ROG Phone and Zenbook S both include 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 ROG Phone and Zenbook S both include a memory that is configured to store information relating to the identification of the user. The ROG Phone and Zenbook S both include 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.

21. The foregoing features and capabilities of the ROG Phone and Zenbook S, and Defendant's description and/or demonstration thereof, including in user manuals and advertising, reflect Defendant's direct infringement by satisfying every element of at least claims 1, 2, and 4 of the '086 Patent, under 35 U.S.C. § 271(a).

22. On information and belief, Defendant further infringes the '086 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the ROG Phone and Zenbook S (collectively, "the '086 Accused Products"). The '086 Accused Products include, by way of examples, ZenFone 4 Pro (ZS551KL), ZenFone 4

(ZS551KL), ZenFone V (V520KL), ZenFone 5Z (ZS620KL), ZenFone 5Q (ZC600KL), Zenfone 3 Zoom (ZE553KL), Zenfone 4 Max (ZC554KL), Zenfone Max Plus (M1), Zenfone AR (V570KL), Zenfone Max Plus (M1), Zenfone AR (V570KL), ZenPad S3 10 (Z500 M), Zenbook Flip 14 (UX461UN), Zenbook Flip 14 (UX461UA), Zenbook UX430UA, F542UA, Vivobook Pro 15 N580VD, Vivobook Pro 17 N705UN, Vivobook Pro 15 N580GD, VivoBook S15 S510UA, Vivobook S15 S510UN, Vivobook S15 S510UQ, Vivobook S14 S430UN, ASUSPRO B9440UA, ASUSPRO P2540UA, ASUSPRO P2430UA, ASUSPRO P2440UA, and ASUSPRO P2540UB. These additional products each include all necessary hardware and operating systems and work as described above with respect to the ROG Phone and Zenbook S. For example, each of these products also include a fingerprint sensor, memory, and a control unit as advertised on ASUS's website. 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 Defendant's infringement and in no way limit the discovery and infringement allegations against Defendant concerning other devices that incorporate the same or reasonably similar functionalities.

23. Defendant has indirectly infringed at least claims 1, 2, 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. Defendant's customers who purchase devices and components thereof and operate such devices and components in accordance with Defendant's instructions directly infringe one or more claims of the '086 Patent in violation of 35 U.S.C. § 271. Defendant instructs its customers through at least user guides or websites, such as those located at:

<https://www.asus.com/support/FAQ/1032407/>; <https://www.asus.com/us/support/FAQ/1011744/>.

Defendant is thereby liable for infringement of the '086 Patent pursuant to 35 U.S.C. § 271 (b).

24. Defendant has indirectly infringed at least claims 1, 2, 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.

25. 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, Defendant is liable for infringement of the '086 Patent pursuant to 35 U.S.C. § 271(c).

26. Defendant has been on notice of the '086 Patent since, at least, the mediation held between the parties on August 30, 2018. By the time of trial, Defendant 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, 2, and 4 of the '086 Patent.

27. Defendant undertook and continued its 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 least, the mediation held between the parties on August 30, 2018, Defendant has been aware of an objectively high likelihood that its



actions constituted and continue to constitute infringement of the '086 Patent, and that the '086 Patent is valid. On information and belief, Defendant could not reasonably, subjectively believe that its actions do not constitute infringement of the '086 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Defendant has continued its infringing activities. As such, Defendant willfully infringes the '086 Patent.

28. Maxell has been damaged by Defendant's infringement of the '086 Patent.

**COUNT 2 – INFRINGEMENT OF U.S. PATENT NO. 7,995,897**

29. Maxell incorporates paragraphs 1-28 above by reference.

30. U.S. Patent No. 7,995,897 (the "'897 Patent," attached hereto at Exhibit 2) duly issued on August 9, 2011 and is entitled *Video Recording and Reproducing Method, and Video Reproducing Apparatus and Method*.

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

32. Defendant has directly infringed one or more claims of the '897 Patent in this judicial district and elsewhere in Texas, including at least claims 4-6 and 10-12 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including by way of example products known as the ROG Phone and the ASUS Q505UA Laptop.

33. The ROG Phone and the ASUS Q505UA Laptop are both a video reproducing apparatus that are capable of reproducing video by one encoding method, such as MPEG-4, and pictures by a second encoding method, such as JPEG. For example, the ROG Phone includes a main rear camera, a second rear camera, and a front camera, one or more of which are capable of

capturing videos and still pictures that are stored in the memory of the ROG phone and reproduced from memory and displayed. Similarly, the ASUS Q505UA Laptop includes a webcam that is capable of capturing videos and still pictures that are stored in the memory of the ASUS Q505UA Laptop and reproduced from memory and displayed.

34. The ROG Phone and the ASUS Q505UA Laptop both also record, reproduce, and/or output thumbnails that are encoded via, for example JPEG, and have a smaller number of pixels than the pictures as evidenced by, for example, the file size. The ROG Phone and the ASUS Q505UA Laptop both also have a recording medium for storing the videos, pictures, and thumbnails and a display for reproducing the same.

35. The foregoing features and capabilities of the ROG Phone and the ASUS Q505UA Laptop, and Defendant's description and/or demonstration thereof, including in user manuals and advertising, reflect Defendant's direct infringement by satisfying every element of at least claims 4-6 and 10-12 of the '897 Patent, under 35 U.S.C. § 271(a).

36. On information and belief, Defendant further infringes the '897 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the ROG Phone and the ASUS Q505UA Laptop (collectively, "the '897 Accused Products"). The '897 Accused Products include, by way of examples, phones in the Asus ZenFone Series (*e.g.*, ZenFone AR (ZS571KL), Max Pro (M1), 3 Max (ZC520TL), 3 Laser (ZC551KL), 2 Laser (ZE551KL), Live L1, 5Z (ZS620KL), Max M1, 5 Lite (ZC600KL), 5 (ZE620KL), Max Plus (M1), Live (ZB553KL), Live (ZB553KL), 4 Selfie Pro (ZD552KL), Live (ZB501KL), Go (ZB500KG), Go (ZB500KL), Go (ZB500KL), 3 Max (ZC553KL), Go (ZB450KL), Go (ZB552KL), 3 (ZE520KL), 3 (ZE552KL), 3 Ultra (ZU680KL), Go TV (ZB551KL), MAX (ZC550KL), 2 Laser (ZE600KL), 2 Laser (ZE601KL), 2 Laser (ZE500KL), 2

Laser (ZE550KL), GO (ZC500TG), Selfie (ZD551KL), 2 (ZE500CL), 2 (ZE550ML), C (ZC451CG), 2 (ZE551ML), 3 Deluxe (ZS550KL), 3 Zoom (Ze553KL), 4 (ZE554KL), 4 Pro (ZS551KL), 4 Max (ZC554KL), V (V520KL), 3 Deluxe (ZS570KL), Zoom (ZX551ML), PadFone X (US), ZenFone 2E, 2 Deluxe Special Edition, 4 Max (ZC520KL)), the Asus ZenPad Series (e.g., ZenPad 3S10 (Z500M), 10 (Z300M), S8.0 (Z580C), C 7.0 (Z170C), 3 8.0 (Z581KL), 10 (Z300C), 10 (Z301MFL), 10 (Z300CL), C 7.0 (Z170MG), 10 (Z301MF), 7.0 (Z370KL), Z10 (ZT500KL), Z8s (ZT582KL), 8.0 (Z380M), Z8 (ZT581KL)), the Asus MeMO Pad Series (Asus MeMO Pad 8 (ME181C), Pad 7 (ME572C), Pad 7 (ME176CX)), the Asus VivoTab 8 (M81C), Zenbook Pro 15 UX550GE, Zenbook Pro 15 UX580GD, Zenbook Pro 15 UX580GE, Zenbook S UX391UA, Zenbook 3 Deluxe UX490UA, Zenbook Flip 14 UX461UN, Zenbook Flip 14 UX461UA, Zenbook 3 Deluxe UX490UA (Classic series), Zenbook 13 UX331UN, Zenbook UX430UA, Zenbook 13 UX331UA, Zenbook UX430UQ, Zenbook UX510UW, Zenbook Flip S UX370UA, Asus Laptop E406SA, Asus Laptop E203MA, Asus Laptop X507LA, Asus Laptop X507MA, Asus Laptop X507UA, Asus Laptop X507UB, Asus Laptop X507UF, ROG G752VS, ROG Zephyrus M (GM501), ROG Strix GL503, ROG Strix SCAR II, ROG Zephyrus (GX501), ROG Strix GL703, ROG GL533VD, ROG G703, ROG GL502VM, ROG Strix SCAR Edition, ROG Strix GL7027C, ROG GL702VS, ROG Strix GL702VI, ROG GL553VE, ROG GX800VH (7th Gen Intel Core), ROG GU501, ROG Strix Hero Edition, ROG GL702VM (7th Gen Intel Core), ROG Strix SKT T1 Hero Edition, ROG G701VO, ROG Zephyrus S (GX531), X555LA (Vivobook), E402SA, E403SA, VivoBook 15 X540NA, Vivobook 15 X510UQ, VivoBook E403NA, K570UD, Vivobook 15 X505BA, Vivobook 15 X505ZA, ASUS 203NA, Vivobook W202, ASUS E203NAH, F542UA, R540NA, Vivobook Pro 17 N705UD, Vivobook Pro 15 N580VD, Vivobook Pro 17 N705UN, Vivobook

Pro 15 N580GD, Vivobook Pro 17 N705UQ, Vivobook S15 S530UN, VivoBook S15 S510UA, Vivobook S14 S410UN, Vivobook S15 S510UN, Vivobook S14 S410UA, Vivobook S15 S510UQ, Vivobook S14 S410UQ, Vivobook S14 S430UN, Vivobook S15 S530UA, ASUSPRO P2530UA, ASUSPRO P2430UA, ASUSPRO P2440UQ, ASUSPRO P2440UA, ASUSPRO P2540UB, ASUSPRO P2540NV, Q324UA, Q325UA, Q405UA, Q505UA, Q525UA, FX503, FX502VM, FX502VD, ASUS TUF Gaming Fx504, ASUS TUF Gaming FX505, and ASUS TUF FX705. These additional products each include all necessary hardware and operating systems and work as described above with respect to the ROG Phone and the ASUS Q505UA Laptop. For example, all of these products include one or more cameras, webcams, memory, and/or encoders, for capturing and reproducing still pictures and moving pictures. 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 Defendant's infringement and in no way limit the discovery and infringement allegations against Defendant concerning other devices that incorporate the same or reasonably similar functionalities.

37. Defendant has indirectly infringed at least claims 4-6 and 10-12 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. Defendant's customers who purchase devices and components thereof and operate such devices and components in accordance with Defendant's instructions directly infringe one or more claims of the '897 Patent in violation of 35 U.S.C. § 271. Defendant instructs its customers through at least user guides, such as those for the ROG Phone located at the following website:

<https://www.asus.com/us/Phone/ROG-Phone/> (“Dual Cameras”). Defendant is thereby liable for infringement of the ’897 Patent pursuant to 35 U.S.C. § 271(b).

38. Defendant has indirectly infringed at least claims 4-6 and 10-12 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.

39. 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, Defendant is liable for infringement of the ’897 Patent pursuant to 35 U.S.C. § 271(c).

40. Defendant has been on notice of the ’897 Patent since, at least, the mediation held between the parties on August 30, 2018. By the time of trial, Defendant 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 4-6 and 10-12 of the ’897 Patent.

41. Defendant undertook and continued its 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 least, the mediation held between the

parties on August 30, 2018, Defendant has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '897 Patent, and that the '897 Patent is valid. On information and belief, Defendant could not reasonably, subjectively believe that its 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 its actions constitute infringement, Defendant has continued its infringing activities. As such, Defendant willfully infringes the '897 Patent.

42. Maxell has been damaged by Defendant's infringement of the '897 Patent.

**COUNT 3 – INFRINGEMENT OF U.S. PATENT NO. 6,765,616**

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

44. U.S. Patent No. 6,765,616 (the "'616 Patent," attached hereto at Exhibit 3) duly issued on July 20, 2004 and is entitled *Electric Camera*.

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

46. Defendant has directly infringed one or more claims of the '616 Patent in this judicial district and elsewhere in Texas, 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 telecommunications technology, including by way of example products known as the ROG Phone and Zenbook S (UX391UA).

47. The ROG Phone and Zenbook S both include an electric camera. The ROG Phone and Zenbook S both include an image sensing device with an array of pixels arranged vertically and horizontally in a grid pattern (e.g., CMOS sensor). For example, the ROG Phone includes a main rear camera, a second rear camera, and a front camera and the Zenbook S

includes a HD Webcam. On information and belief, these cameras include image sensors that 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 devices.

48. The ROG Phone and Zenbook S both include color filters that on information and belief are 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.

49. The ROG Phone and Zenbook S both include a driver to drive the image sensing device. On information and belief, these drivers are 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  $M$ .

50. The ROG Phone and Zenbook S both include a processor programmed to perform various signal processing functions including video recording, picture recording, and image stabilization. In addition, the ROG Phone and Zenbook S include a processor programmed to perform signal processing to generate video in various formats by using the pixel data received from the image sensing device.

51. The ROG Phone and Zenbook S both include a display for displaying an image corresponding to the image signals. On information and belief, the ROG Phone and Zenbook S both include a driver that vertically mixes or culls signal charges accumulated in individual

pixels of every K1 pixels, when first images are displayed on the display unit. On information and belief, the ROG Phone and Zenbook S both include a driver that vertically mixes or culls signal charges accumulated in individual pixels of every K2 pixels, when second images are displayed on the display unit. On information and belief, the ROG Phone and Zenbook S both use different values K1 and K2 for different formats and/or for different zoom levels.

52. The foregoing features and capabilities of the ROG Phone and Zenbook S, and Defendant's description and/or demonstration thereof, including in user manuals and advertising, reflect Defendant's direct infringement by satisfying every element of at least claim 13 of the '616 Patent, under 35 U.S.C. § 271(a).

53. On information and belief, Defendant further infringes the '616 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the ROG Phone and Zenbook S (collectively, "the '616 Accused Products"). The '616 Accused Products include, by way of examples, Asus ZenFone Series (*e.g.*, ZenFone AR (ZS571KL), Max Pro (M1), 3 Max (ZC520TL), 3 Laser (ZC551KL), 2 Laser (ZE551KL), Live L1, 5Z (ZS620KL), Max M1, 5 Lite (ZC600KL), 5 (ZE620KL), Max Plus (M1), Live (ZB553KL), Live (ZB553KL), 4 Selfie Pro (ZD552KL), Live (ZB501KL), Go (ZB500KG), Go (ZB500KL), Go (ZB500KL), 3 Max (ZC553KL), Go (ZB450KL), Go (ZB552KL), 3 (ZE520KL), 3 (ZE552KL), 3 Ultra (ZU680KL), Go TV (ZB551KL), MAX (ZC550KL), 2 Laser (ZE600KL), 2 Laser (ZE601KL), 2 Laser (ZE500KL), 2 Laser (ZE550KL), GO (ZC500TG), Selfie (ZD551KL), 2 (ZE500CL), 2 (ZE550ML), C (ZC451CG), 2 (ZE551ML), 3 Deluxe (ZS550KL), 3 Zoom (Ze553KL), 4 (ZE554KL), 4 Pro (ZS551KL), 4 Max (ZC554KL), V (V520KL), 3 Deluxe (ZS570KL), Zoom (ZX551ML), PadFone X (US), ZenFone 2E, 2 Deluxe Special Edition, 4 Max (ZC520KL)), the Asus ZenPad Series (*e.g.*, ZenPad 3S10 (Z500M), 10



(Z300M), S8.0 (Z580C), C 7.0 (Z170C), 3 8.0 (Z581KL), 10 (Z300C), 10 (Z301MFL), 10 (Z300CL), C 7.0 (Z170MG), 10 (Z301MF), 7.0 (Z370KL), Z10 (ZT500KL), Z8s (ZT582KL), 8.0 (Z380M), Z8 (ZT581KL)), the Asus MeMO Pad Series (Asus MeMO Pad 8 (ME181C), Pad 7 (ME572C), Pad 7 (ME176CX)), the Asus VivoTab 8 (M81C), Zenbook Pro 15 UX550GE, Zenbook Pro 15 UX580GD, Zenbook Pro 15 UX580GE, Zenbook S UX391UA, Zenbook 3 Deluxe UX490UA, Zenbook Flip 14 UX461UN, Zenbook Flip 14 UX461UA, Zenbook 3 Deluxe UX490UA (Classic series), Zenbook 13 UX331UN, Zenbook UX430UA, Zenbook 13 UX331UA, Zenbook UX430UQ, Zenbook UX510UW, Zenbook Flip S UX370UA, Asus Laptop E406SA, Asus Laptop E203MA, Asus Laptop X507LA, Asus Laptop X507MA, Asus Laptop X507UA, Asus Laptop X507UB, Asus Laptop X507UF, ROG G752VS, ROG Zephyrus M (GM501), ROG Strix GL503, ROG Strix SCAR II, ROG Zephyrus (GX501), ROG Strix GL703, ROG GL533VD, ROG G703, ROG GL502VM, ROG Strix SCAR Edition, ROG Strix GL7027C, ROG GL702VS, ROG Strix GL702VI, ROG GL553VE, ROG GX800VH (7th Gen Intel Core), ROG GU501, ROG Strix Hero Edition, ROG GL702VM (7th Gen Intel Core), ROG Strix SKT T1 Hero Edition, ROG G701VO, ROG Zephyrus S (GX531), X555LA (Vivobook), E402SA, E403SA, VivoBook 15 X540NA, Vivobook 15 X510UQ, VivoBook E403NA, K570UD, Vivobook 15 X505BA, Vivobook 15 X505ZA, ASUS 203NA, Vivobook W202, ASUS E203NAH, F542UA, R540NA, Vivobook Pro 17 N705UD, Vivobook Pro 15 N580VD, Vivobook Pro 17 N705UN, Vivobook Pro 15 N580GD, Vivobook Pro 17 N705UQ, Vivobook S15 S530UN, VivoBook S15 S510UA, Vivobook S14 S410UN, Vivobook S15 S510UN, Vivobook S14 S410UA, Vivobook S15 S510UQ, Vivobook S14 S410UQ, Vivobook S14 S430UN, Vivobook S15 S530UA, ASUSPRO P2530UA, ASUSPRO P2430UA, ASUSPRO P2440UQ, ASUSPRO P2440UA, ASUSPRO P2540UB, ASUSPRO P2540NV, Q324UA,

Q325UA, Q405UA, Q505UA, Q525UA, FX503, FX502VM, FX502VD, ASUS TUF Gaming Fx504, ASUS TUF Gaming FX505, and ASUS TUF FX705. These additional products each include all necessary hardware and operating systems and work as described above with respect to the ROG Phone and Zenbook S. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '616 Accused Products are identified to describe the Defendant's infringement and in no way limit the discovery and infringement allegations against Defendant concerning other devices that incorporate the same or reasonably similar functionalities.

54. Defendant has 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 '616 Accused Products. Defendant's customers who purchase devices and components thereof and operate such devices and components in accordance with Defendant's instructions directly infringe one or more claims of the '616 Patent in violation of 35 U.S.C. § 271. Defendant instructs its customers through at least user guides or websites, such as those located at: <https://www.asus.com/us/Phone/ROG-Phone/Tech-Specs/>. Defendant is thereby liable for infringement of the '616 Patent pursuant to 35 U.S.C. § 271(b).

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

56. For example, the '616 Accused Products include a component 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, Defendant is liable for infringement of the '616 Patent pursuant to 35 U.S.C. § 271(c).

57. Defendant has been on notice of the '616 Patent since, at least, the mediation held between the parties on August 30, 2018. By the time of trial, Defendant 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 claim 13 of the '616 Patent.

58. Defendant undertook and continued its 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, the mediation held between the parties on August 30, 2018, Defendant has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '616 Patent, and that the '616 Patent is valid. On information and belief, Defendant could not reasonably, subjectively believe that its actions do not constitute infringement of the '616 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Defendant has continued its infringing activities. As such, Defendant willfully infringes the '616 Patent.

59. Maxell has been damaged by Defendant's infringement of the '616 Patent.

**COUNT 4 – INFRINGEMENT OF U.S. PATENT NO. 6,329,794**

60. Maxell incorporates paragraphs 1-59 above by reference.

61. U.S. Patent No. 6,329,794 (the “’794 Patent,” attached hereto at Exhibit 4) duly issued on December 11, 2001 and is entitled *Information Processing Device and Method for Controlling Power Consumption Thereof*.

62. Maxell is the owner by assignment of the ’794 Patent and possesses all rights under the ’794 Patent, including the exclusive right to recover for past and future infringement.

63. Defendant has directly infringed one or more claims of the ’794 Patent in this judicial district and elsewhere in Texas, including at least claims 1-3, 5, 6, and 9-12 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including by way of example products known as the ROG Phone and ASUS Q505UA Laptop.

64. The ROG Phone and ASUS Q505UA Laptop are both information processing devices that incorporate multiple component devices performing different functions, with each component having a corresponding power supplied by a battery. For example, both the ROG Phone and ASUS Q505UA Laptop include a display with a display power supply.

65. The ROG Phone and ASUS Q505UA Laptop both incorporate a processor or co-processor programmed with software, in combination with the electronic components of the devices, to monitor the battery capacity of the battery as components of the device consume the power supplied from the battery. Under an operating condition when the battery is at a first reference level, a processor or co-processor of both the ROG Phone and ASUS Q505UA Laptop is programmed to optimize power consumption, including shutting off or reducing the power consumption of components or applications that have a lower usage priority as predefined by the software or selected by the user, where different components are shut down (or restarted when

needed) based on defined battery capacity and usage priority. For example, the ROG Phone includes a low power mode and battery optimization functions, such as Mobile Manager and/or power saver options (*see* <https://www.asus.com/support/FAQ/1013784/>). Similarly, the ASUS Q505UA Laptop includes low power modes (e.g., Hibernate/Sleep) and battery optimization functions, such as ASUS Battery Health Charging and/or power saver options (*see* <https://www.asus.com/us/support/FAQ/1032726/>).

66. The foregoing features and capabilities of the ROG Phone and ASUS Q505UA Laptop, and Defendant's description and/or demonstration thereof, including in user manuals and advertising, reflect Defendant's direct infringement by satisfying every element of at least claims 1-3, 5, 6, and 9-12 of the '794 Patent, under 35 U.S.C. § 271(a).

67. On information and belief, Defendant further infringes the '794 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the ROG Phone and ASUS Q505UA Laptop (collectively, "the '794 Accused Products"). The '794 Accused Products include, by way of examples, Asus ZenFone Series (*e.g.*, ZenFone AR (ZS571KL), Max Pro (M1), 3 Max (ZC520TL), 3 Laser (ZC551KL), 2 Laser (ZE551KL), Live L1, 5Z (ZS620KL), Max M1, 5 Lite (ZC600KL), 5 (ZE620KL), Max Plus (M1), Live (ZB553KL), Live (ZB553KL), 4 Selfie Pro (ZD552KL), Live (ZB501KL), Go (ZB500KG), Go (ZB500KL), Go (ZB500KL), 3 Max (ZC553KL), Go (ZB450KL), Go (ZB552KL), 3 (ZE520KL), 3 (ZE552KL), 3 Ultra (ZU680KL), Go TV (ZB551KL), MAX (ZC550KL), 2 Laser (ZE600KL), 2 Laser (ZE601KL), 2 Laser (ZE500KL), 2 Laser (ZE550KL), GO (ZC500TG), Selfie (ZD551KL), 2 (ZE500CL), 2 (ZE550ML), C (ZC451CG), 2 (ZE551ML), 3 Deluxe (ZS550KL), 3 Zoom (Ze553KL), 4 (ZE554KL), 4 Pro (ZS551KL), 4 Max (ZC554KL), V (V520KL), 3 Deluxe (ZS570KL), Zoom (ZX551ML), PadFone X (US), ZenFone

2E, 2 Deluxe Special Edition, 4 Max (ZC520KL)), the Asus ZenPad Series (e.g., ZenPad 3S10 (Z500M), 10 (Z300M), S8.0 (Z580C), C 7.0 (Z170C), 3 8.0 (Z581KL), 10 (Z300C), 10 (Z301MFL), 10 (Z300CL), C 7.0 (Z170MG), 10 (Z301MF), 7.0 (Z370KL), Z10 (ZT500KL), Z8s (ZT582KL), 8.0 (Z380M), Z8 (ZT581KL)), the Asus MeMO Pad Series (Asus MeMO Pad 8 (ME181C), Pad 7 (ME572C), Pad 7 (ME176CX)), the Asus VivoTab 8 (M81C), Zenbook Pro 15 UX550GE, Zenbook Pro 15 UX580GD, Zenbook Pro 15 UX580GE, Zenbook S UX391UA, Zenbook 3 Deluxe UX490UA, Zenbook Flip 14 UX461UN, Zenbook Flip 14 UX461UA, Zenbook 3 Deluxe UX490UA (Classic series), Zenbook 13 UX331UN, Zenbook UX430UA, Zenbook 13 UX331UA, Zenbook UX430UQ, Zenbook UX510UW, Zenbook Flip S UX370UA, Asus Laptop E406SA, Asus Laptop E203MA, Asus Laptop X507LA, Asus Laptop X507MA, Asus Laptop X507UA, Asus Laptop X507UB, Asus Laptop X507UF, ROG G752VS, ROG Zephyrus M (GM501), ROG Strix GL503, ROG Strix SCAR II, ROG Zephyrus (GX501), ROG Strix GL703, ROG GL533VD, ROG G703, ROG GL502VM, ROG Strix SCAR Edition, ROG Strix GL7027C, ROG GL702VS, ROG Strix GL702VI, ROG GL553VE, ROG GX800VH (7th Gen Intel Core), ROG GU501, ROG Strix Hero Edition, ROG GL702VM (7th Gen Intel Core), ROG Strix SKT T1 Hero Edition, ROG G701VO, ROG Zephyrus S (GX531), X555LA (Vivobook), E402SA, E403SA, VivoBook 15 X540NA, Vivobook 15 X510UQ, VivoBook E403NA, K570UD, Vivobook 15 X505BA, Vivobook 15 X505ZA, ASUS 203NA, Vivobook W202, ASUS E203NAH, F542UA, R540NA, Vivobook Pro 17 N705UD, Vivobook Pro 15 N580VD, Vivobook Pro 17 N705UN, Vivobook Pro 15 N580GD, Vivobook Pro 17 N705UQ, Vivobook S15 S530UN, VivoBook S15 S510UA, Vivobook S14 S410UN, Vivobook S15 S510UN, Vivobook S14 S410UA, Vivobook S15 S510UQ, Vivobook S14 S410UQ, Vivobook S14 S430UN, Vivobook S15 S530UA, ASUSPRO P2530UA, ASUSPRO P2430UA, ASUSPRO

P2440UQ, ASUSPRO P2440UA, ASUSPRO P2540UB, ASUSPRO P2540NV, Q324UA, Q325UA, Q405UA, Q505UA, Q525UA, FX503, FX502VM, FX502VD, ASUS TUF Gaming Fx504, ASUS TUF Gaming FX505, and ASUS TUF FX705. These additional products each include all necessary hardware and operating systems and work as described above with respect to the ROG Phone and ASUS Q505UA Laptop. For example, each of these devices include one or more low power modes and battery optimization functions. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '794 Accused Products are identified to describe the Defendant's infringement and in no way limit the discovery and infringement allegations against Defendant concerning other devices that incorporate the same or reasonably similar functionalities.

68. Defendant has indirectly infringed at least claims 1-3, 5, 6, and 9-12 of the '794 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 '794 Accused Products. Defendant's customers who purchase devices and components thereof and operate such devices and components in accordance with Defendant's instructions directly infringe one or more claims of the '794 Patent in violation of 35 U.S.C. § 271. Defendant instructs its customers through at least user guides and product descriptions, such as those located at the following websites: <https://www.asus.com/us/support/FAQ/1032726/>; <https://www.asus.com/support/FAQ/1013934/>; <https://www.asus.com/support/FAQ/1016068/>. Defendant is thereby liable for infringement of the '794 Patent pursuant to 35 U.S.C. § 271(b).

69. Defendant has indirectly infringed at least claims 1-3, 5, 6, and 9-12 of the '794 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '794 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 '794 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

70. For example, the '794 Accused Products include one or more power saving modes and battery. 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, Defendant is liable for infringement of the '794 Patent pursuant to 35 U.S.C. § 271(c).

71. Defendant has been on notice of the '794 Patent since, at least, the mediation held between the parties on August 30, 2018. By the time of trial, Defendant 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, 6, and 9-12 of the '794 Patent.

72. Defendant undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '794 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at least, the mediation held between the parties on August 30, 2018, Defendant has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '794 Patent, and that the '794 Patent is valid. On information and belief, Defendant could not reasonably, subjectively believe that its actions do not constitute infringement of the '794 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and



the objectively high likelihood that its actions constitute infringement, Defendant has continued its infringing activities. As such, Defendant willfully infringes the '794 Patent.

73. Maxell has been damaged by Defendant's infringement of the '794 Patent.

**COUNT 5 – INFRINGEMENT OF U.S. PATENT NO. 6,816,491**

74. Maxell incorporates paragraphs 1-73 above by reference.

75. U.S. Patent No. 6,816,491 (the "'491 Patent," attached hereto at Exhibit 5) duly issued on November 9, 2004 and is entitled *Multiplexed Audio Data Decoding Apparatus and Receiver Apparatus*.

76. Maxell is the owner by assignment of the '491 Patent and possesses all rights under the '491 Patent, including the exclusive right to recover for past and future infringement.

77. Defendant has directly infringed one or more claims of the '491 Patent in this judicial district and elsewhere in Texas, including at least claims 1-2 and 7-9 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including by way of example products known as the ROG Phone and ASUS Q505UA Laptop.

78. The ROG Phone and ASUS Q505UA Laptop are both observed receiving encoded data, e.g. multimedia and/or audiovideo files, which are compressed, encoded, in multiple formats, and containing multiplexed audio data sequences.

79. The ROG Phone and ASUS Q505UA Laptop both include a processor programmed to demultiplex the audio data sequence from the multimedia or audio-video files selected by the user, and decode the encoded data using information included in the audio data sequence. The information in the audio data sequence provides instructions on the type of encoding and compression associated with the corresponding multiplexed audio data sequence, such that processor and/or CPU will retrieve and read the appropriate decoding algorithm from

memory and decode the corresponding audio data sequence. When a different decoding algorithm is required, the processor and/or CPU will then retrieve a different decoding algorithm for decoding. For example, the ROG Phone and ASUS Q505UA Laptop receive and process audio from different sources and provide one or more audio processing functions that use different decoding algorithms. *See e.g.*, AudioWizard, ICE Audio Wizard, ROG Gaming Audio (identifying various audio modes) (<https://www.asus.com/support/FAQ/1007552/>; <https://www.asus.com/us/support/FAQ/1009973/>; <https://rog.asus.com/forum/showthread.php?78786-What-is-the-best-setting-for-ROG-Audio-Wizard>; <https://www.asus.com/microsite/mb/ROG-supremefx-gaming-audio/>).

80. The foregoing features and capabilities of the ROG Phone and ASUS Q505UA Laptop, and Defendant's description and/or demonstration thereof, including in user manuals and advertising, reflect Defendant's direct infringement by satisfying every element of at least claims 1-2 and 7-9 of the '491 Patent, under 35 U.S.C. §271(a).

81. On information and belief, Defendant further infringes the '491 Patent through additional products utilizing the same or reasonably similar functionalities as described above with respect to the ROG Phone and ASUS Q505UA Laptop (collectively, "the '491 Accused Products"). The '491 Accused Products include, by way of examples, Asus ZenFone Series (*e.g.*, ZenFone AR (ZS571KL), Max Pro (M1), 3 Max (ZC520TL), 3 Laser (ZC551KL), 2 Laser (ZE551KL), Live L1, 5Z (ZS620KL), Max M1, 5 Lite (ZC600KL), 5 (ZE620KL), Max Plus (M1), Live (ZB553KL), Live (ZB553KL), 4 Selfie Pro (ZD552KL), Live (ZB501KL), Go (ZB500KG), Go (ZB500KL), Go (ZB500KL), 3 Max (ZC553KL), Go (ZB450KL), Go (ZB552KL), 3 (ZE520KL), 3 (ZE552KL), 3 Ultra (ZU680KL), Go TV (ZB551KL), MAX (ZC550KL), 2 Laser (ZE600KL), 2 Laser (ZE601KL), 2 Laser (ZE500KL), 2 Laser (ZE550KL),

GO (ZC500TG), Selfie (ZD551KL), 2 (ZE500CL), 2 (ZE550ML), C (ZC451CG), 2 (ZE551ML), 3 Deluxe (ZS550KL), 3 Zoom (Ze553KL), 4 (ZE554KL), 4 Pro (ZS551KL), 4 Max (ZC554KL), V (V520KL), 3 Deluxe (ZS570KL), Zoom (ZX551ML), PadFone X (US), ZenFone 2E, 2 Deluxe Special Edition, 4 Max (ZC520KL)), the Asus ZenPad Series (e.g., ZenPad 3S10 (Z500M), 10 (Z300M), S8.0 (Z580C), C 7.0 (Z170C), 3 8.0 (Z581KL), 10 (Z300C), 10 (Z301MFL), 10 (Z300CL), C 7.0 (Z170MG), 10 (Z301MF), 7.0 (Z370KL), Z10 (ZT500KL), Z8s (ZT582KL), 8.0 (Z380M), Z8 (ZT581KL)), the Asus MeMO Pad Series (Asus MeMO Pad 8 (ME181C), Pad 7 (ME572C), Pad 7 (ME176CX)), the Asus VivoTab 8 (M81C), Zenbook Pro 15 UX550GE, Zenbook Pro 15 UX580GD, Zenbook Pro 15 UX580GE, Zenbook S UX391UA, Zenbook 3 Deluxe UX490UA, Zenbook Flip 14 UX461UN, Zenbook Flip 14 UX461UA, Zenbook 3 Deluxe UX490UA (Classic series), Zenbook 13 UX331UN, Zenbook UX430UA, Zenbook 13 UX331UA, Zenbook UX430UQ, Zenbook UX510UW, Zenbook Flip S UX370UA, Asus Laptop E406SA, Asus Laptop E203MA, Asus Laptop X507LA, Asus Laptop X507MA, Asus Laptop X507UA, Asus Laptop X507UB, Asus Laptop X507UF, ROG G752VS, ROG Zephyrus M (GM501), ROG Strix GL503, ROG Strix SCAR II, ROG Zephyrus (GX501), ROG Strix GL703, ROG GL533VD, ROG G703, ROG GL502VM, ROG Strix SCAR Edition, ROG Strix GL7027C, ROG GL702VS, ROG Strix GL702VI, ROG GL553VE, ROG GX800VH (7th Gen Intel Core), ROG GU501, ROG Strix Hero Edition, ROG GL702VM (7th Gen Intel Core), ROG Strix SKT T1 Hero Edition, ROG G701VO, ROG Zephyrus S (GX531), X555LA (Vivobook), E402SA, E403SA, VivoBook 15 X540NA, Vivobook 15 X510UQ, VivoBook E403NA, K570UD, Vivobook 15 X505BA, Vivobook 15 X505ZA, ASUS 203NA, Vivobook W202, ASUS E203NAH, F542UA, R540NA, Vivobook Pro 17 N705UD, Vivobook Pro 15 N580VD, Vivobook Pro 17 N705UN, Vivobook Pro 15 N580GD, Vivobook Pro 17 N705UQ,

Vivobook S15 S530UN, VivoBook S15 S510UA, Vivobook S14 S410UN, Vivobook S15 S510UN, Vivobook S14 S410UA, Vivobook S15 S510UQ, Vivobook S14 S410UQ, Vivobook S14 S430UN, Vivobook S15 S530UA, ASUSPRO P2530UA, ASUSPRO P2430UA, ASUSPRO P2440UQ, ASUSPRO P2440UA, ASUSPRO P2540UB, ASUSPRO P2540NV, Q324UA, Q325UA, Q405UA, Q505UA, Q525UA, FX503, FX502VM, FX502VD, ASUS TUF Gaming Fx504, ASUS TUF Gaming FX505, and ASUS TUF FX705. These additional products each include all necessary hardware and operating systems and work as described above with respect to the ROG Phone and ASUS Q505UA Laptop. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '491 Accused Products are identified to describe the Defendant's infringement and in no way limit the discovery and infringement allegations against Defendant concerning other devices that incorporate the same or reasonably similar functionalities.

82. Defendant has indirectly infringed at least claims 1-2 and 7-9 of the '491 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 '491 Accused Products. Defendant's customers who purchase devices and components thereof and operate such devices and components in accordance with Defendant's instructions directly infringe one or more claims of the '491 Patent in violation of 35 U.S.C. § 271. Defendant instructs its customers through at least user guides and websites about products located at the following websites: <https://www.asus.com/support/FAQ/1007552/>; <https://www.asus.com/us/support/FAQ/1009973/>; <https://rog.asus.com/forum/showthread.php?78786-What-is-the-best-setting-for-ROG-Audio-Wizard>; <https://www.asus.com/microsite/mb/ROG-supremefx-gaming-audio/>. Defendant is thereby liable for infringement of the '491 Patent pursuant to 35 U.S.C. § 271(b).

83. Defendant has indirectly infringed at least claims 1-2 and 7-9 of the '491 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '491 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 '491 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

84. For example, the '491 Accused Products include a decoder that supports multiplexed audio/video packets. 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, Defendant is liable for infringement of the '491 Patent pursuant to 35 U.S.C. § 271(c).

85. Defendant has been on notice of the '491 Patent since, at least, the mediation held between the parties on August 30, 2018. By the time of trial, Defendant 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 1-2 and 7-9 of the '491 Patent.

86. Defendants undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '491 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at least, the mediation held between the parties on August 30, 2018, Defendant has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '491 Patent, and that the '491 Patent is valid. On information and belief, Defendant could not reasonably, subjectively believe

that its actions do not constitute infringement of the '491 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Defendant has continued its infringing activities. As such, Defendant willfully infringes the '491 Patent.

87. Maxell has been damaged by Defendant's infringement of the '491 Patent.

**PRAYER FOR RELIEF**

WHEREFORE, Maxell prays for relief as follows:

155. A judgment declaring that Defendant has infringed and is infringing one or more claims of '086, '897, '616, '794, and '491 Patents;

156. A judgment awarding Maxell compensatory damages as a result of Defendant's infringement of one or more claims of the '086, '897, '616, '794, and '491 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 Defendant's willful and deliberate infringement of one or more claims of the '086, '897, '616, '794, and '491 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 Defendant from further acts of infringement of one or more claims of the '086, '897, '616, '794, and '491 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: November 2, 2018

By: /s/ Geoff Culbertson

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