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

MAXELL HOLDINGS, LTD., *Plaintiff,* v. ZHUHAI COSMX BATTERY CO., LTD., *Defendant.*	CIVIL ACTION NO. 6:21-cv-845 **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Maxell Holdings, Ltd. ("Maxell" or "Plaintiff") files this Complaint for patent infringement ("Complaint") against defendant Zhuhai CosMX Battery Co., Ltd. ("CosMX" or "Defendant") and alleges as follows:

1. Maxell brings this patent infringement action against CosMX reluctantly, after having attempted in good faith over an extensive period of time to address CosMX's infringement of many of Maxell's foundational lithium-ion battery ("LIB") patents and to license those same patents to CosMX. Despite Maxell's best efforts, Maxell and CosMX have been unable to reach an agreement on licensing, leaving Maxell no choice but to proceed with this litigation.

Maxell's Long History of Innovation

2. Founded in 1961 as Maxell Electric Industrial Co., Ltd., Maxell is a leading pioneer of various technologies and inventions, and a global manufacturer of products across multiple industries, including in energy storage and battery technologies. In fact, Maxell was named after its very first product, the "**Max**imum Capacity Dry C**ell**," a high performance dry-cell battery. Since its founding and development of alkaline dry batteries, Maxell has been on the forefront of

every major battery development, and was an early leader in the commercialization and improvement of LIBs—the technology relevant in this litigation.

3. Maxell has been a trusted household name for decades. In the 1980s, Maxell became a pop culture icon due to its colloquially known "Blown Away Guy" advertisements for audio cassettes. Originally conceived by Art Director Lars Anderson for a two-page spread in Rolling Stone Magazine, "Blown Away Guy" ran in television spots throughout the 1980s and became a staple in the living rooms of millions of Americans.

Blown Away Guy (https://en.wikipedia.org/w/index.php?curid=53173757)

4. Maxell has built up an international reputation for excellence and reliability, and for pioneering and leading the lithium-ion battery industry. Ever since 1963, when Maxell produced the first alkaline dry battery in Japan, Maxell has continued to achieve technological breakthroughs to meet the increasingly diversified needs of its customers for batteries. Utilizing battery technologies and manufacturing processes developed over this long period, Maxell provides a wide range of unique technologies. Maxell's pioneering innovations in LIB technology broadly impact commercially important aspects of such technology in applications, including

enhancements enabling smaller sizes and larger capacities—critical to the mobile phone, smartphone, and other mobile application markets.

5. Maxell achieves high performance for its LIBs through technological breakthrough and developments in the active materials forming the positive and negative electrodes. Other pioneering innovations include the heat-resistant separator, and dispersion, coating, winding, sealing, and miniaturization technologies, which innovations have resulted in increased heat resistance and safety, smoother flows of ions and electrons, enablement of high-density packing, increased capacity and reliability, and increased leakage resistance.

6. Maxell has developed a significant portfolio of patents, trade secrets, and other know-how directed to LIB technology. As a LIB developer and industry leader, and due to its historical and continuous investment in research and development, Maxell has developed a significant portfolio of patents, trade secrets, and other know-how related to such technologies and actively enforces its patents through licensing and/or litigation.

7. On May 19, 2020, CosMX received a letter from Maxell describing Maxell's LIB patent portfolio, explaining the value of the patented technologies to CosMX's current and future products, and offering to begin mutually beneficial licensing discussions. Since that time, Maxell has diligently sought to engage in productive licensing negotiations with CosMX, but to no avail.

8. Maxell is thus forced to bring this action against CosMX as a result of CosMX's knowing and ongoing infringement of Maxell's patents as further described herein.

PARTIES

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

10. Upon information and belief, Defendant CosMX is a Chinese corporation with its principal place of business at No. 209, Zhufeng Road, Doumen District, Zhuhai 519180, P.R. China.

JURISDICTION AND VENUE

11. This is an action for infringement arising under the patent laws of the United States, 35 U.S.C. § 271. Accordingly, this Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

12. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391 because, among other things, CosMX is not a resident in the United States, and thus may be sued in any judicial district, including this one, pursuant to 28 U.S.C. § 1391(c)(3).

13. Upon information and belief, CosMX is subject to this Court's specific and/or general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this State and judicial district, including: (A) at least part of its infringing activities alleged herein; and (B) regularly doing or soliciting business, engaging in other persistent conduct, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to Texas residents vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, CosMX's customers "include the world's top electronics companies, and it has established direct cooperation with famous power industry brands in Europe, America, Asia, Africa and Latin America, as well as in China." *See About Us*, COSMX.COM, http://www.cosmx.com/html/en/html/about/about/#page_pos.

14. CosMX designs, manufactures, sells, and markets rechargeable LIB cells, packs, and systems for companies worldwide. Its LIB products are used in a variety of products such as laptop computers, smart phones, wearable devices, and various other consumer electronics. On

information and belief, CosMX, either directly or through entities under its control or influence, manufactures, makes, uses, sells, offers for sale, and/or imports products that fall within the scope of one or more claims of the asserted patents directly in the United States, and cells made by CosMX can be found in various products all throughout the United States.

15. CosMX was established in 2007 and is headquartered in Zhuhai, P.R. China. Formerly known as Zhuhai Coslight Battery Co., Ltd. ("Coslight"), it was officially renamed Zhuhai CosMX Battery Co., Ltd. in 2019. According to CosMX, it is "one of the world's top suppliers of polymer lithium ion batteries. Its customers include the world's top electronic companies, and it has established direct cooperation with famous power industry brands in Europe, America, Asia, Africa and Latin America, as well as in China. The company has a group of talented individuals in professional and technical fields of electrochemistry, materials science, physical chemistry, machinery and automation, computing and information systems. The company is now leading the world in the lithium battery industry." *See About Us*, COSMX.COM, http://www.cosmx.com/html/en/html/about/about/#page_pos.

16. Via alter egos, representatives, authorized distributors, agents, intermediaries, importers, customers, subsidiaries, and/or consumers maintaining a business presence, operating in, and/or residing in the United States, CosMX has widely distributed and sold in retail stores, both brick and mortar and online, its infringing lithium-ion batteries in Texas including within this judicial district.

17. Upon information and belief, CosMX has placed and continues to place infringing lithium-ion batteries into the stream of commerce via established distribution channels with the knowledge and/or intent that those infringing lithium-ion batteries are imported, used, offered for sale, sold, and continue to be sold in the United States and Texas, including in this judicial district.

18. For example, CosMX's LIB products identified as CosMX Cell Nos. CA575576G-1, CA486566G, and CA395876G are utilized in at least the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery, HP KC04XL laptop battery, and Asus ZenFone Live L1 smartphone, respectively.

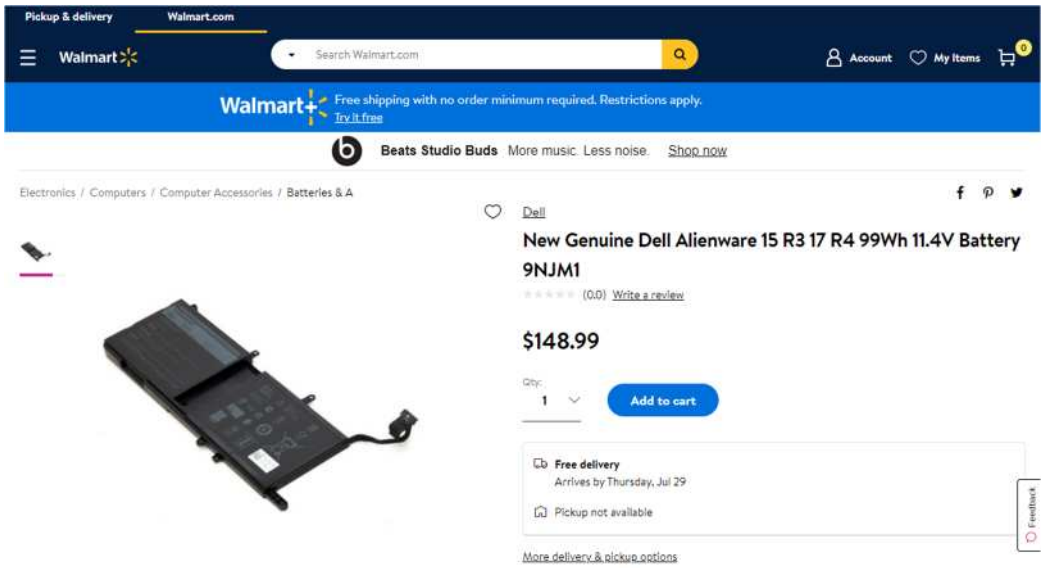
19. For example, the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery utilizes an infringing CosMX LIB cell. Upon information and belief, CosMX designed and manufactured a LIB cell with model number CA575576G-1 for use in the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery. Dell is based in this District in Round Rock, Texas.

CosMX'S LIB Cell No. CA575576G-1 in
Dell d/b/a Alienware 99Wh Type 9NJM1 Notebook Battery

20. Upon information and belief, the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery, designed and sold by Dell d/b/a Alienware, is widely sold and distributed in Texas and in this District. Dell and retailers such as Walmart have and continue to sell the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery.

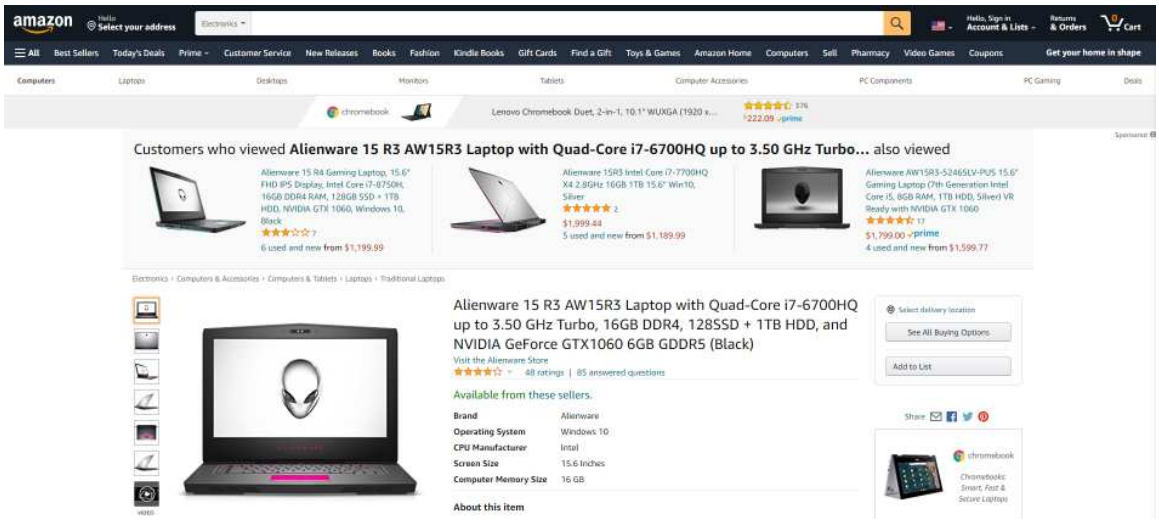
21. Upon information and belief, the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery has been and can be purchased directly from Dell's subsidiary, Dell Marketing L.P., located in Round Rock, Texas, for delivery in Texas or nationwide.

22. The Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery can also be purchased through Walmart's website. *See Dell Alienware Battery 9NJM1*, WALMART.COM, https://www.walmart.com/ip/New-Genuine-Dell-Alienware-15-R3-17-R4-99Wh-11-4V-Battery-9NJM1/176999979.



Walmart's Landing Page for a Dell d/b/a Alienware 99Wh Type 9NJM1 Notebook Battery

23. Upon information and belief, the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery was incorporated into certain models of the Dell d/b/a Alienware 15 R3 notebook, which is widely sold and distributed in Texas and in this District. Retailers such as Amazon.com have and continue to sell the Alienware 15 R3 notebook.



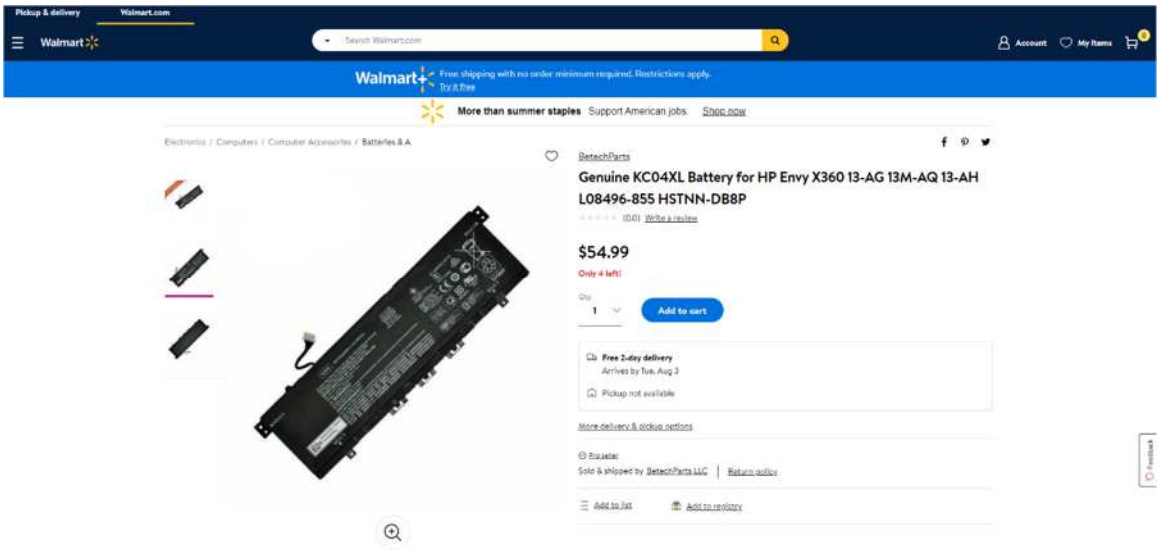
Amazon's Landing Page for an Alienware 15 R3 Notebook

24. The Alienware 15 R3 notebook can be purchased through Amazon's website. *See Alienware 15 R3*, AMAZON.COM, https://www.amazon.com/Alienware-Quad-Core-i7-6700HQ-GeForce-GTX1060/dp/B01LY2I7B6.

25. As another example, the HP KC04XL laptop battery utilizes an infringing CosMX LIB cell. Upon information and belief, CosMX designed and manufactured a LIB cell with model number CA486566G for use in the HP KC04XL laptop battery.

CosMX'S LIB Cell No. CA486566G in HP KC04XL Laptop Battery

26. Upon information and belief, the HP KC04XL laptop battery, designed and sold by HP, is widely sold and distributed in Texas and in this District. Retailers such as Walmart have and continue to sell the HP KC04XL laptop battery.

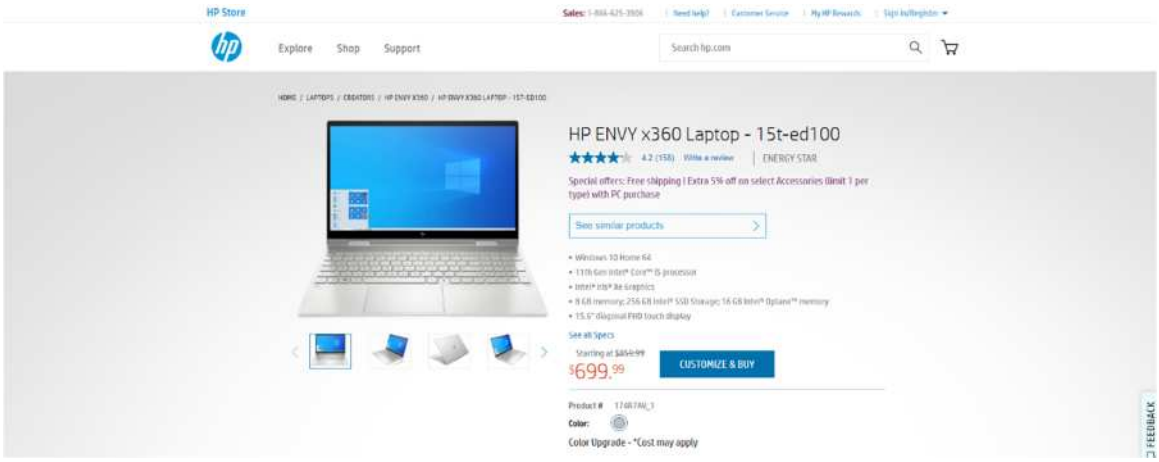


Walmart's Landing Page for a HP KC04XL Laptop Battery

27. The HP KC04XL laptop battery can be purchased through Walmart's website. *See HP KC04XL*, WALMART.COM, https://www.walmart.com/ip/Genuine-KC04XL-Battery-for-HP-Envy-X360-13-AG-13M-AQ-13-AH-L08496-855-HSTNN-DB8P/333114966.

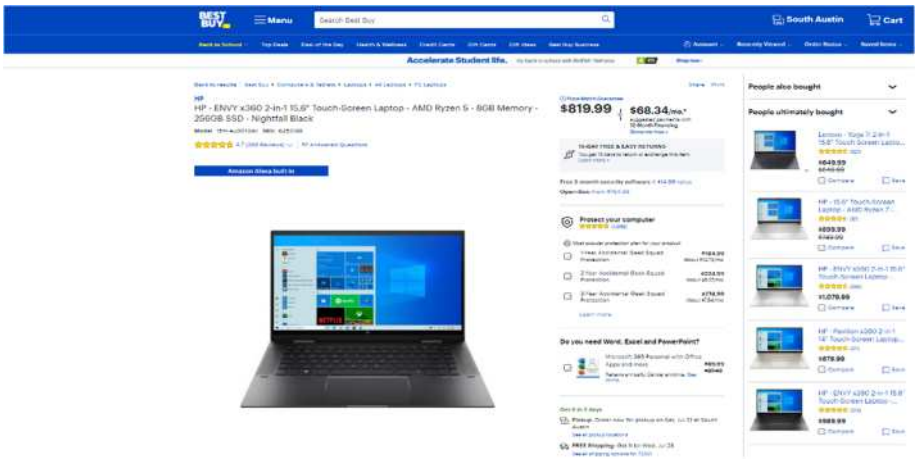
28. Upon information and belief, the HP KC04XL laptop battery was incorporated into certain models of HP's Envy X360 laptop, which is widely sold and distributed in Texas and in this District. HP and retailers such as Best Buy, Walmart, and Amazon.com have and continue to sell the HP Envy X360 laptop.

29. The HP Envy X360 laptop can be purchased through HP's website. *See HP Envy X360*, HP.COM, https://www.hp.com/us-en/shop/pdp/hp-envy-x360-laptop-15t-ed100-174r7av-1.



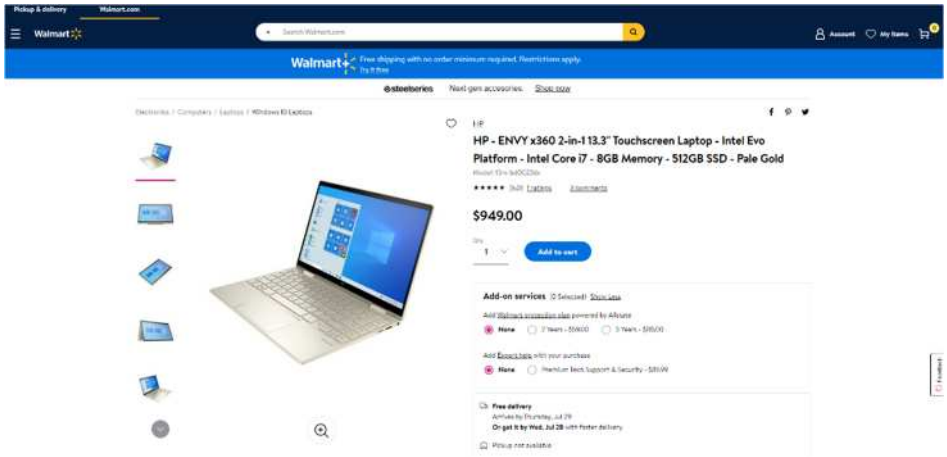
HP's Landing Page for an HP Envy X360 Laptop

30. The HP Envy X360 laptop can be purchased through Best Buy's website. *See HP Envy X360*, BESTBUY.COM, https://www.bestbuy.com/site/hp-envy-x360-2-in-1-15-6-touch-screen-laptop-amd-ryzen-5-8gb-memory-256gb-ssd-nightfall-black/6453188.p?skuId=6453188.



Best Buy's Landing Page for an HP Envy X360 Laptop

31. The HP Envy X360 laptop can be purchased through Walmart's website. *See HP Envy X360*, WALMART.COM, https://www.walmart.com/ip/HP-ENVY-x360-2-in-1-13-3-Touchscreen-Laptop-Intel-Evo-Platform-Intel-Core-i7-8GB-Memory-512GB-SSD-Pale-Gold/386630199.



Walmart's Landing Page for an HP Envy X360 Laptop

32. The HP Envy X360 laptop can be purchased through Amazon's website. *See HP Envy X360*, AMAZON.COM, https://www.amazon.com/HP-2-1-Touch-Screen-Natural/dp/B07DZMR75Z.

Amazon's Landing Page for an HP Envy X360 Laptop

33. In addition, HP's website provides safety data sheets for LIBs for its products that identify CosMX (including by its former name "Coslight") as the manufacturer of LIB cells for many HP LIB products. *See, e.g., Material Safety Data Sheet*, HP.COM, https://h22235.www2.hp.com/hpinfo/globalcitizenship/environment/productdata/Countries/us/ba_l75253-1d1%C2%A0_us_eng_v1.pdf; *Safety Data Sheet*, HP.COM,

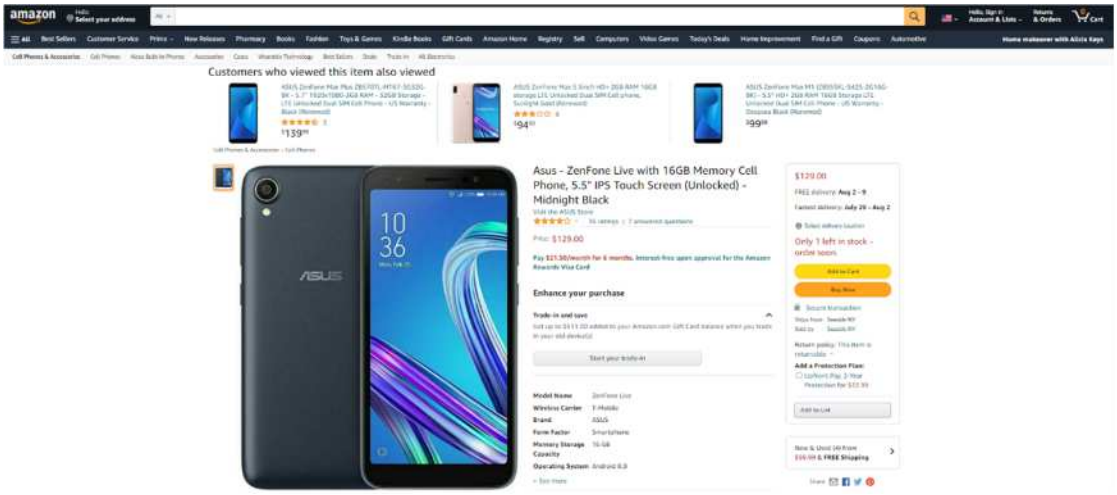
https://h22235.www2.hp.com/hpinfo/globalcitizenship/environment/productdata/Countries/us/ba_l75253-1d1%C2%A0_us_eng_v1.pdf.

34. As a further example, the Asus ZenFone Live L1 smartphone utilizes an infringing CosMX LIB cell. Upon information and belief, CosMX designed and manufactured a LIB cell with model number CA395876G for use in the Asus ZenFone Live L1 smartphone.

CosMX'S LIB Cell No. CA395876G in Asus ZenFone Live L1 Smartphone

35. Upon information and belief, the Asus ZenFone Live L1 smartphone, designed and sold by Asus, is widely sold and distributed in Texas and in this District. For example, Asus operates an Internet storefront directed to US customers selling its smartphones. *See Phones - ASUS Official Store*, ASUS.COM, https://store.asus.com/us/category/phones. Upon information and belief, the Asus ZenFone Live L1 smartphone was available through this Asus website for sale and shipment to locations in Texas and in this District.

36. Furthermore, retailers such as Amazon.com have and continue to sell the Asus ZenFone Live L1 smartphone. The Asus ZenFone Live L1 smartphone can be purchased through Amazon's website. *See Asus ZenFone Live L1*, AMAZON.COM, https://www.amazon.com/Asus-ZenFone-Memory-Unlocked-Midnight/dp/B07GVLKNB4.



Amazon's Landing Page for a Asus ZenFone Live L1 Smartphone

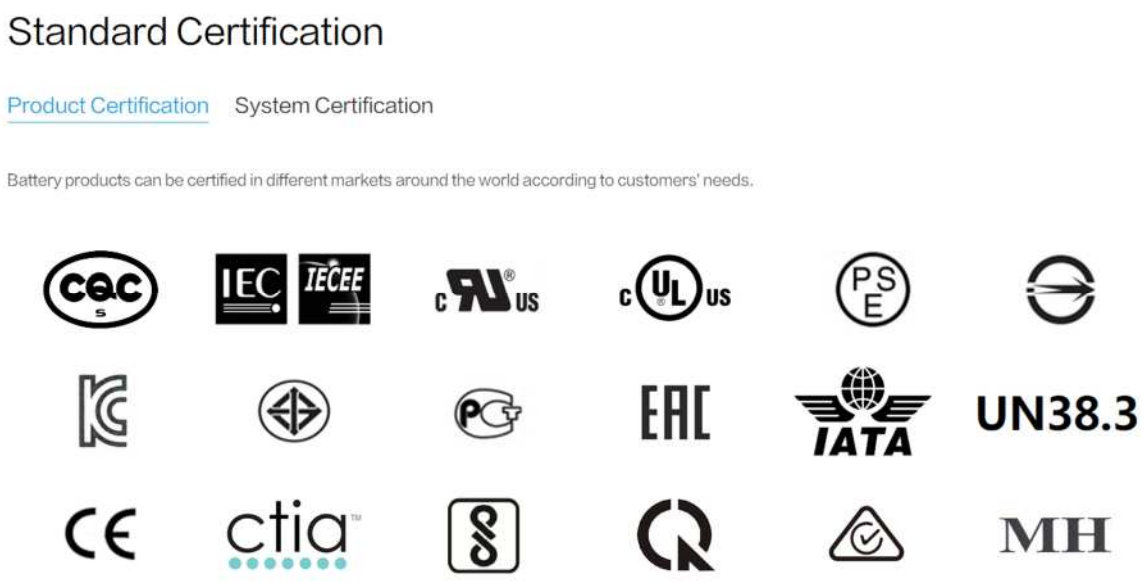
37. The identification of these exemplary models is intended for illustration and is not intended to limit the scope of Maxell's allegations. Upon information and belief, further discovery will reveal additional infringing products. Any remedy should extend to all present and future infringing products of CosMX regardless of model number.

38. CosMX also maintains an English-version website at https://www.cosmx.com. On this website, CosMX provides information regarding its activities and products, including its battery products. On information and belief, CosMX's website is directed to marketing, offering for sale, and selling its products and services in the United States, including marketing, offering for sale, and selling its products and services in this judicial district.

39. For example, CosMX's website includes "Sunnyvale" in its list of contact locations, which on information and belief refers to Sunnyvale, California. *See, e.g.*, *Mobile Phone Battery*, COSMX.COM, http://www.cosmx.com/html/en/html/consumerapp/phone/.

40. Likewise, CosMX's website provides information on the "COSMX Service Footprints" under its Customer Support page, and specifically identifies San Francisco, California, as a customer support location. *See Service Footprints*, COSMX.COM, http://www.cosmx.com/html/en/html/servicessupport/customersupport/network/.

41. Upon information and belief, CosMX specifically designs its LIB products to be suitable for the U.S. market, including certifying compliance with U.S. standards and regulations. For example, CosMX's website notes that its "[b]attery products can be certified in different markets around the world according to customers' needs," including the Underwriters Laboratories. *See About Us*, COSMX.COM, http://www.cosmx.com/html/en/html/about/about/#page_pos.



Screenshot of CosMX's Website Describing Worldwide Certification Compliance Capabilities

42. Upon information and belief, CosMX has shipped LIB products directly into the United States and Texas.

43. For example, upon information and belief, CosMX has sold, shipped, and/or provided LIB products to BTI Solutions, Inc., a company based in Richardson, Texas, and with service and sales offices across the United States. *See Product Distribution*, BTISOLUTIONS.COM, http://www.btisolutions.com/v2/services/product-distribution/ (listing company locations and identifying CosMX as a "manufacturing partner").

44. BTI Solutions' website markets a CosMX LIB product. *See BTI-B-0002*, BTISOLUTIONS.COM, http://www.btisolutions.com/v2/services/bti-b-0002/. The datasheet for the CosMX LIB product linked from the website identifies the product as CosMX model number GYFP48100MX. *See GYFP48100MX Specification*, https://drive.google.com/file/d/1-i_wZFwbknHviwpyHZCZ0U_YUOlN3oRP/view (linked from http://www.btisolutions.com/v2/services/bti-b-0002/). CosMX identifies this LIB product as one of its Telecomm products. *See Telecom*, COSMX.COM, http://www.cosmx.com/html/en/html/pestorageapp/ec/communications/.

45. This Court has personal jurisdiction over CosMX, directly or through intermediaries, distributors, importers, customers, subsidiaries, and/or consumers, because CosMX has committed acts of direct and/or indirect patent infringement within Texas, and elsewhere within the United States, giving rise to this action and/or has established minimum contacts with Texas such that personal jurisdiction over CosMX would not offend traditional notions of fair play and substantial justice.

46. In the alternative, if CosMX maintains that it is not subject to personal jurisdiction of the courts of general jurisdiction of any state, the Court has personal jurisdiction over CosMX

under Federal Rule of Civil Procedure 4(k)(2), because the claims for patent infringement in this action arise under federal law, and exercising jurisdiction over CosMX is consistent with the U.S. Constitution.

THE ASSERTED PATENTS AND TECHNOLOGY

47. The patents-in-suit include Maxell's United States Patent Nos. 8,691,446 ("the '446 Patent"), 9,350,019 ("the '019 Patent"), 9,077,035 ("the '035 Patent"), and 9,166,251 ("the '251 Patent"), (collectively, the "Asserted Patents").

48. On April 8, 2014, the USPTO duly and legally issued the '446 Patent, titled "Nonaqueous Secondary Battery And Method Of Using The Same" to inventors Hideo Sakata, Fusaji Kita, and Kumiko Ishizuka. A true and correct copy of the '446 Patent is attached as Exhibit 1 to this Complaint.

49. The '446 Patent is generally directed to the structure of a nonaqueous secondary battery with a positive electrode having a positive electrode mixture layer, a negative electrode, and a nonaqueous electrolyte containing a compound having two or more nitrile groups in the molecule. The '446 Patent discloses and specifically claims novel and non-obvious subject matter that represents improvements over conventional nonaqueous secondary batteries that were available as of the priority date of the application that became the '446 Patent.

50. On May 24, 2016, the USPTO duly and legally issued the '019 Patent, titled "Nonaqueous Secondary Battery And Method Of Using The Same" to inventors Hideo Sakata, Fusaji Kita, and Kumiko Ishizuka. A true and correct copy of the '019 Patent is attached as Exhibit 2 to this Complaint.

51. The '019 Patent stems from a divisional of application Ser. No. 11/976,566, which is now the '446 Patent, and is generally directed to the structure of a nonaqueous secondary battery with a positive electrode having a positive electrode mixture layer, a negative electrode, and a

nonaqueous electrolyte containing a compound having two or more nitrile groups in the molecule. The ’019 Patent discloses and specifically claims novel and non-obvious subject matter that represents improvements over conventional nonaqueous secondary batteries that were available as of the priority date of the application that became the ’019 Patent.

52. On July 7, 2015, the USPTO duly and legally issued the ’035 Patent, titled “Nonaqueous Secondary Battery And Method Of Using The Same” to inventors Fusaji Kita, Hideki Tsubata, and Hiroyasu Inoue. A true and correct copy of the ’035 Patent is attached as Exhibit 3 to this Complaint.

53. The ’035 Patent is generally directed to the structure of a nonaqueous secondary battery with a positive electrode having a positive electrode mixture layer with active materials having different average particle sizes, a negative electrode, and a nonaqueous electrolyte. The ’035 Patent discloses and specifically claims novel and non-obvious subject matter that represents improvements over conventional nonaqueous secondary batteries that were available as of the priority date of the application that became the ’035 Patent.

54. On October 20, 2015, the USPTO duly and legally issued the ’251 Patent, titled “Battery Separator And Nonaqueous Electrolyte Battery” to inventors Hideaki Katayama, Mitsuhiro Kishimi, Yoshinori Sato, Yasutaka Kuroki, and Toshiyuki Edamoto. A true and correct copy of the ’251 Patent is attached as Exhibit 4 to this Complaint.

55. The ’251 Patent is generally directed to the structure of a nonaqueous electrolyte battery with a positive electrode having a positive active material capable of intercalating and deintercalating a lithium ion, a negative electrode having a negative active material capable of intercalating and deintercalating a lithium ion, a separator interposed between the positive electrode and the negative electrode, and a nonaqueous electrolyte. The ’251 Patent discloses and

specifically claims novel and non-obvious subject matter that represents improvements over conventional battery separators and nonaqueous secondary batteries that were available as of the priority date of the application that became the '251 Patent.

COSMX'S INFRINGING PRODUCTS AND ACTIVITIES

56. The claims of the Asserted Patents cover CosMX's LIBs, their components, and processes related to the same (referred to herein as the "Accused Products" or "Infringing LIBs"). The Infringing LIBs are incorporated and utilized in various consumer and industrial products, including laptop computers, smart phones, wearable devices, and various other products. *See, e.g.*, *Consumer Application*, COSMX.COM, http://www.cosmx.com/html/en/html/consumerapp. For example, CosMX's Cell Nos. CA575576G-1, CA486566G, and CA395876G are among the Infringing LIBs and are utilized in at least the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery, HP KC04XL laptop battery, and Asus ZenFone Live L1 smartphone, respectively.

57. For example, CosMX's customer Dell d/b/a Alienware designs, manufactures, and sells the 99Wh Type 9NJM1 notebook battery. Upon information and belief, Dell distributes its products, including the 99Wh Type 9NJM1 notebook battery, across the U.S., including in Texas and this judicial district by direct sales as well as through its retail partners.

58. As an additional example, CosMX's customer HP designs, manufactures, and sells the KC04XL laptop battery. Upon information and belief, HP distributes its products, including the KC04XL laptop battery, across the U.S., including in Texas and this judicial district by direct sales as well as through its retail partners.

59. As a further example, CosMX's customer Asus designs, manufactures, and sells the ZenFone Live L1 smartphone. Upon information and belief, Asus distributes its products, including the ZenFone Live L1 smartphone, across the U.S., including in Texas and this judicial district by direct sales as well as through its retail partners.

60. The Infringing LIBs include these exemplary models identified and all materially similar CosMX LIBs. The identification of these exemplary models is intended for illustration and is not intended to limit the scope of Maxell's allegations. Upon information and belief, further discovery will reveal additional infringing products.

COUNT I

INFRINGEMENT OF U.S. PATENT NO. 8,691,446

61. Maxell re-alleges and incorporates by reference the allegations in paragraphs 1 to 60 above.

62. Maxell is the assignee of the '446 Patent. Maxell has all substantial rights to enforce the '446 Patent, including the right to exclude others and to sue and recover damages for past and future infringement.

63. The '446 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

64. CosMX, by the acts complained of herein, and by making, using, selling, offering for sale, and/or importing in the United States, including in Texas and the Western District of Texas, Infringing LIBs, has in the past, does now, and continues to infringe one or more claims of the '446 Patent directly, contributorily, and/or by inducement, literally and/or under the doctrine of equivalents.

65. At a minimum, CosMX has known of the '446 Patent at least as early as its receipt of a May 19, 2020 letter from Maxell.

66. CosMX directly infringes at least claim 1 of the '446 Patent under 35 U.S.C. § 271(a) by making, using, selling, offering for sale in the United States, and/or importing into the United States, without permission, consent, authority or license, Infringing LIBs, including without limitation CosMX Cell Nos. CA575576G-1, CA486566G, and CA395876G incorporated

into the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery, HP KC04XL laptop battery, and Asus ZenFone Live L1 smartphone, respectively. Furthermore, upon information and belief, CosMX sells and makes the Infringing LIBs outside of the United States, delivers the Infringing LIBs to its customers, distributors, and/or subsidiaries in the United States, or in the case that CosMX delivers the Infringing LIBs outside of the United States, CosMX does so intending and/or knowing that the Infringing LIBs are destined for the United States and/or are designing those products for sale in the United States, thereby directly infringing the '446 Patent.

67. Independent claim 1 of the '446 Patent recites:

> 1. A nonaqueous secondary battery comprising: a positive electrode having a positive electrode mixture layer, a negative electrode, and a nonaqueous electrolyte,
>
> wherein the positive electrode contains, as an active material, at least two lithium-containing transition metal oxides having different average particle sizes,
>
> wherein said at least two lithium-containing transition metal oxides having different average particle sizes have different compositions of elements between them,
>
> said lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide represented by the formula (1):
>
> $$Li_xM^1_yM^2_zM^3_vO_2 \quad (1)$$
>
> wherein M^1 represents at least one transition metal element selected from Co, Ni and Mn, M^2 represents Mg and at least one metal element selected from the group consisting of Ti, Zr, Ge, Nb, Al and Sn, M^3 represents an element other than Li, M^1 and M^2, and x, y, z and v are numbers satisfying the equations respectively: $0.97 \leq x < 1.02$, $0.8 \leq y < 1.02$, $0.002 \leq z \leq 0.05$, and $0 \leq v \leq 0.05$,
>
> the positive electrode mixture layer has a density of at least 3.5 g/cm^3, and
>
> the nonaqueous electrolyte contains a compound having at least two nitrile groups in the molecule.

68. CosMX Cell No. CA575576G-1 designed, manufactured, and sold by CosMX and incorporated into the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery infringes at least claim 1 of the '446 Patent.

69. Upon information and belief, CosMX manufactures Cell No. CA575576G-1, which is a nonaqueous secondary battery comprising a positive electrode having a positive electrode mixture layer, a negative electrode, and a nonaqueous electrolyte. Upon information and belief, the positive electrode active material contains at least two lithium-containing transition metal oxides having (1) different average particle sizes and (2) different compositions of elements between them. Upon information and belief, the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide represented by the formula $Li_xM^1_yM^2_zM^3_vO_2$ (the "'446 Patent's Formula 1"), wherein M^1 represents at least one transition metal element selected from Co, Ni and Mn, M^2 represents Mg and at least one metal element selected from the group consisting of Ti, Zr, Ge, Nb, Al and Sn, M^3 represents an element other than Li, M^1 and M^2, and x, y, z and v are numbers satisfying the equations respectively: $0.97 \leq x < 1.02$, $0.8 \leq y < 1.02$, $0.002 \leq z \leq 0.05$, and $0 \leq v \leq 0.05$. Preliminary analysis suggests that the positive electrode active material of Cell No. CA575576G-1 contains more than one lithium-containing transition metal oxide, where the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide satisfies the requirements of the '446 Patent's Formula 1. Upon information and belief, the positive electrode mixture layer has a density of at least 3.5 g/cm^3, and the nonaqueous electrolyte contains a compound having at least two nitrile groups in the molecule.

70. CosMX Cell No. CA486566G designed, manufactured, and sold by CosMX and incorporated into the HP KC04XL laptop battery infringes at least claim 1 of the '446 Patent.

71. Upon information and belief, CosMX manufactures Cell No. CA486566G, which is a nonaqueous secondary battery comprising a positive electrode having a positive electrode mixture layer, a negative electrode, and a nonaqueous electrolyte. Upon information and belief, the positive electrode active material contains at least two lithium-containing transition metal oxides having (1) different average particle sizes and (2) different compositions of elements between them. Upon information and belief, the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide represented by the formula $Li_xM^1_yM^2_zM^3_vO_2$, wherein M^1 represents at least one transition metal element selected from Co, Ni and Mn, M^2 represents Mg and at least one metal element selected from the group consisting of Ti, Zr, Ge, Nb, Al and Sn, M^3 represents an element other than Li, M^1 and M^2, and x, y, z and v are numbers satisfying the equations respectively: $0.97 \leq x < 1.02$, $0.8 \leq y < 1.02$, $0.002 \leq z \leq 0.05$, and $0 \leq v \leq 0.05$. Preliminary analysis suggests that the positive electrode active material of Cell No. CA486566G contains more than one lithium-containing transition metal oxide, where the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide satisfies the requirements of the ’446 Patent’s Formula 1. Upon information and belief, the positive electrode mixture layer has a density of at least 3.5 g/cm^3, and the nonaqueous electrolyte contains a compound having at least two nitrile groups in the molecule.

72. CosMX Cell No. CA395876G designed, manufactured, and sold by CosMX and incorporated into the Asus ZenFone Live L1 smartphone infringes at least claim 1 of the ’446 Patent.

73. Upon information and belief, CosMX manufactures Cell No. CA395876G, which is a nonaqueous secondary battery comprising a positive electrode having a positive electrode

mixture layer, a negative electrode, and a nonaqueous electrolyte. Upon information and belief, the positive electrode active material contains at least two lithium-containing transition metal oxides having (1) different average particle sizes and (2) different compositions of elements between them. Upon information and belief, the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide represented by the formula $Li_xM^1_yM^2_zM^3_vO_2$, wherein M^1 represents at least one transition metal element selected from Co, Ni and Mn, M^2 represents Mg and at least one metal element selected from the group consisting of Ti, Zr, Ge, Nb, Al and Sn, M^3 represents an element other than Li, M^1 and M^2, and x, y, z and v are numbers satisfying the equations respectively: $0.97 \leq x < 1.02$, $0.8 \leq y < 1.02$, $0.002 \leq z \leq 0.05$, and $0 \leq v \leq 0.05$. Preliminary analysis suggests that the positive electrode active material of Cell No. CA395876G contains more than one lithium-containing transition metal oxide, where the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide satisfies the requirements of the '446 Patent's Formula 1. Upon information and belief, the positive electrode mixture layer has a density of at least 3.5 g/cm^3 , and the nonaqueous electrolyte contains a compound having at least two nitrile groups in the molecule.

74. The identification of these exemplary models is intended for illustration and is not intended to limit the scope of Maxell's allegations regarding the '446 Patent. Upon information and belief, further discovery will reveal additional of CosMX's Infringing LIBs. Any remedy should extend to all present and future products of CosMX that infringe the '446 Patent, regardless of model number.

75. Upon information and belief, CosMX has actively induced, under 35 U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase,

or sell the Infringing LIBs that include or are made using all of the limitations of one or more claims of the ’446 Patent to directly infringe one or more claims of the ’446 Patent by using, offering for sale, selling, and/or importing CosMX’s Infringing LIBs. Since at least when notice was provided to CosMX on or around May 19, 2020, CosMX has done so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the ’446 Patent. Upon information and belief, CosMX intends to cause, and has taken affirmative steps to induce infringement by distributors, customers, subsidiaries, and/or consumers by, inter alia, creating advertisements that promote the infringing use of CosMX’s Infringing LIBs, creating established distribution channels for CosMX’s Infringing LIBs into and within the United States, manufacturing the Infringing LIBs which are combined with other products that must conform with U.S. laws and regulations (*e.g.*, Underwriter Laboratories’ standards), distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to those purchasers in the United States.

76. Upon information and belief, CosMX also contributorily infringes, under 35 U.S.C. § 271(c), one or more claims of the ’446 Patent by offering for sale, selling, and/or importing into or within the United States components of infringing products, constituting a material part of the ’446 Patent claims, knowing the same to be especially made or especially adapted for use in an infringement of the ’446 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use. For example, on information and belief, CosMX’s Infringing LIBs and/or components thereof are specifically designed for use in infringement of the ’446 Patent. Due to their specific designs, CosMX’s Infringing LIBs and/or components thereof do not have any substantial non-infringing uses.

77. Upon information and belief, despite having knowledge of the ’446 Patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’446 Patent, CosMX has nevertheless continued its infringing conduct. CosMX’s infringing activities relative to the ’446 Patent have been, and continue to be willful and deliberate misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the compensatory amount awarded.

78. Maxell has been damaged as a result of CosMX’s infringing conduct. CosMX is liable to Maxell in an amount that adequately compensates Maxell for CosMX’s infringement, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT II

INFRINGEMENT OF U.S. PATENT NO. 9,350,019

79. Maxell re-alleges and incorporates by reference the allegations in paragraphs 1 to 78 above.

80. Maxell is the assignee of the ’019 Patent. Maxell has all substantial rights to enforce the ’019 Patent, including the right to exclude others and to sue and recover damages for past and future infringement.

81. The ’019 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

82. CosMX, by the acts complained of herein, and by making, using, selling, offering for sale, and/or importing in the United States, including in Texas and the Western District of Texas, instrumentalities embodying the invention, has in the past, does now, and continues to infringe one or more claims of the ’019 Patent directly, contributorily, and/or by inducement, literally and/or under the doctrine of equivalents.

83. At a minimum, CosMX has known of the ’019 Patent at least as early as its receipt of a May 19, 2020 letter from Maxell.

84. CosMX directly infringes at least claim 1 of the ’019 Patent under 35 U.S.C. § 271(a) by making, using, selling, offering for sale in the United States, and/or importing into the United States, without permission, consent, authority or license, Infringing LIBs, including without limitation CosMX Cell Nos. CA575576G-1, CA486566G, and CA395876G incorporated into the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery, HP KC04XL laptop battery, and Asus ZenFone Live L1 smartphone, respectively. Furthermore, upon information and belief, CosMX sells and makes the Infringing LIBs outside of the United States, delivers the Infringing LIBs to its customers, distributors, and/or subsidiaries in the United States, or in the case that CosMX delivers the Infringing LIBs outside of the United States, CosMX does so intending and/or knowing that the Infringing LIBs are destined for the United States and/or are designing those products for sale in the United States, thereby directly infringing the ’019 Patent.

85. Independent claim 1 of the ’019 Patent recites:

> 1. A nonaqueous secondary battery comprising: a positive electrode having a positive electrode mixture layer, a negative electrode, and a nonaqueous electrolyte, wherein
>
> the positive electrode contains, as an active material, at least two lithium-containing transition metal oxides having different average particle sizes,
>
> said lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide represented by the formula (1):
>
> $$Li_xM^1_yM^2_zM^3_vO_2 \quad (1)$$
>
> wherein M^1 represents at least one transition metal element selected from Co, Ni and Mn, M^2 represents Mg, or Mg and at least one metal element selected from the group consisting of Ti, Zr, Ge, Nb, Al and Sn, M^3 represents an element other than Li, M^1 and M^2, and x, y, z and v are numbers satisfying

the equations respectively: $0.97 \leq x < 1.02$, $0.8 \leq y < 1.02$, $0.002 \leq z \leq 0.05$, and $0 \leq v \leq 0.05$,

a content of Mg in the formula (1) is from 0.15% by mole to less than 2% by mole based on an amount of the metal element M^1;

the positive electrode mixture layer has a density of at least 3.5 g/cm^3; and the nonaqueous electrolyte contains a compound having at least two nitrile groups in the molecule.

86. CosMX Cell No. CA575576G-1 designed, manufactured, and sold by CosMX and incorporated into the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery infringes at least claim 1 of the '019 Patent.

87. Upon information and belief, CosMX manufactures Cell No. CA575576G-1, which is a nonaqueous secondary battery comprising a positive electrode having a positive electrode mixture layer, a negative electrode, and a nonaqueous electrolyte. Upon information and belief, the positive electrode active material contains at least two lithium-containing transition metal oxides having (1) different average particle sizes and (2) different compositions of elements between them. Upon information and belief, the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide represented by the formula $Li_xM^1_yM^2_zM^3_vO_2$, wherein M^1 represents at least one transition metal element selected from Co, Ni and Mn, M^2 represents Mg and at least one metal element selected from the group consisting of Ti, Zr, Ge, Nb, Al and Sn, M^3 represents an element other than Li, M^1 and M^2, and x, y, z and v are numbers satisfying the equations respectively: $0.97 \leq x < 1.02$, $0.8 \leq y < 1.02$, $0.002 \leq z \leq 0.05$, and $0 \leq v \leq 0.05$. Upon information and belief, the content of Mg in the aforementioned formula is from 0.15% by mole to less than 2% by mole based on an amount of the metal element M^1. Upon information and belief, the positive electrode mixture layer has a density of at least 3.5 g/cm^3, and the nonaqueous electrolyte contains a compound having at least two nitrile groups in the molecule.

88. CosMX Cell No. CA486566G designed, manufactured, and sold by CosMX and incorporated into the HP KC04XL laptop battery infringes at least claim 1 of the ’019 Patent.

89. Upon information and belief, CosMX manufactures Cell No. CA486566G, which is a nonaqueous secondary battery comprising a positive electrode having a positive electrode mixture layer, a negative electrode, and a nonaqueous electrolyte. Upon information and belief, the positive electrode active material contains at least two lithium-containing transition metal oxides having (1) different average particle sizes and (2) different compositions of elements between them. Upon information and belief, the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide represented by the formula $Li_xM^1_yM^2_zM^3_vO_2$, wherein M^1 represents at least one transition metal element selected from Co, Ni and Mn, M^2 represents Mg and at least one metal element selected from the group consisting of Ti, Zr, Ge, Nb, Al and Sn, M^3 represents an element other than Li, M^1 and M^2, and x, y, z and v are numbers satisfying the equations respectively: $0.97\leq x<1.02$, $0.8\leq y<1.02$, $0.002\leq z\leq 0.05$, and $0\leq v\leq 0.05$. Upon information and belief, the content of Mg in the aforementioned formula is from 0.15% by mole to less than 2% by mole based on an amount of the metal element M^1. Upon information and belief, the positive electrode mixture layer has a density of at least 3.5 g/cm^3, and the nonaqueous electrolyte contains a compound having at least two nitrile groups in the molecule.

90. CosMX Cell No. CA395876G designed, manufactured, and sold by CosMX and incorporated into the Asus ZenFone Live L1 smartphone infringes at least claim 1 of the ’019 Patent.

91. Upon information and belief, CosMX manufactures Cell No. CA395876G, which is a nonaqueous secondary battery comprising a positive electrode having a positive electrode

mixture layer, a negative electrode, and a nonaqueous electrolyte. Upon information and belief, the positive electrode active material contains at least two lithium-containing transition metal oxides having (1) different average particle sizes and (2) different compositions of elements between them. Upon information and belief, the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide represented by the formula $Li_xM^1_yM^2_zM^3_vO_2$, wherein M^1 represents at least one transition metal element selected from Co, Ni and Mn, M^2 represents Mg and at least one metal element selected from the group consisting of Ti, Zr, Ge, Nb, Al and Sn, M^3 represents an element other than Li, M^1 and M^2, and x, y, z and v are numbers satisfying the equations respectively: $0.97 \leq x < 1.02$, $0.8 \leq y < 1.02$, $0.002 \leq z \leq 0.05$, and $0 \leq v \leq 0.05$. Upon information and belief, the content of Mg in the aforementioned formula is from 0.15% by mole to less than 2% by mole based on an amount of the metal element M^1. Upon information and belief, the positive electrode mixture layer has a density of at least 3.5 g/cm^3, and the nonaqueous electrolyte contains a compound having at least two nitrile groups in the molecule, including at least adiponitrile.

92. The identification of these exemplary models is intended for illustration and is not intended to limit the scope of Maxell's allegations regarding the '019 Patent. Upon information and belief, further discovery will reveal additional of CosMX's Infringing LIBs. Any remedy should extend to all present and future products of CosMX that infringe the '019 Patent, regardless of model number.

93. Upon information and belief, CosMX has actively induced, under 35 U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Infringing LIBs that include or are made using all of the limitations of one or more claims of the '019 Patent to directly infringe one or more claims of the '019 Patent by using,

offering for sale, selling, and/or importing CosMX's Infringing LIBs. Since at least when notice was provided to CosMX on or around May 19, 2020, CosMX has done so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '019 Patent. Upon information and belief, CosMX intends to cause, and has taken affirmative steps to induce infringement by distributors, customers, subsidiaries, and/or consumers by, inter alia, creating advertisements that promote the infringing use of CosMX's Infringing LIBs, creating established distribution channels for CosMX's Infringing LIBs into and within the United States, manufacturing the Infringing LIBs which are combined with other products that must conform with U.S. laws and regulations (*e.g.*, Underwriter Laboratories' standards), distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to those purchasers in the United States.

94. Upon information and belief, CosMX also contributorily infringes, under 35 U.S.C. § 271(c), one or more claims of the '019 Patent by offering for sale, selling, and/or importing into or within the United States components of infringing products, constituting a material part of the '019 Patent claims, knowing the same to be especially made or especially adapted for use in an infringement of the '019 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use. For example, on information and belief, CosMX's Infringing LIBs and/or components thereof are specifically designed for use in infringement of the '019 Patent. Due to their specific designs, CosMX's Infringing LIBs and/or components thereof do not have any substantial non-infringing uses.

95. Upon information and belief, despite having knowledge of the '019 Patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '019 Patent,

CosMX has nevertheless continued its infringing conduct. CosMX's infringing activities relative to the '019 Patent have been, and continue to be willful and deliberate misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the compensatory amount awarded.

96. Maxell has been damaged as a result of CosMX's infringing conduct. CosMX is liable to Maxell in an amount that adequately compensates Maxell for CosMX's infringement, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT III

INFRINGEMENT OF U.S. PATENT NO. 9,077,035

97. Maxell re-alleges and incorporates by reference the allegations in paragraphs 1 to 96 above.

98. Maxell is the assignee of the '035 Patent. Maxell has all substantial rights to enforce the '035 Patent, including the right to exclude others and to sue and recover damages for past and future infringement.

99. The '035 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

100. CosMX, by the acts complained of herein, and by making, using, selling, offering for sale, and/or importing in the United States, including in Texas and the Western District of Texas, instrumentalities embodying the invention, has in the past, does now, and continues to infringe one or more claims of the '035 Patent directly, contributorily, and/or by inducement, literally and/or under the doctrine of equivalents.

101. At a minimum, CosMX has known of the '035 Patent at least as early as the date it was served with a copy of this Complaint.

102. CosMX directly infringes at least claim 1 of the ’035 Patent under 35 U.S.C. § 271(a) by making, using, selling, offering for sale in the United States, and/or importing into the United States, without permission, consent, authority or license, Infringing LIBs, including without limitation CosMX Cell Nos. CA575576G-1, CA486566G, and CA395876G incorporated into the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery, HP KC04XL laptop battery, and Asus ZenFone Live L1 smartphone, respectively. Furthermore, upon information and belief, CosMX sells and makes the Infringing LIBs outside of the United States, delivers the Infringing LIBs to its customers, distributors, and/or subsidiaries in the United States, or in the case that CosMX delivers the Infringing LIBs outside of the United States, CosMX does so intending and/or knowing that the Infringing LIBs are destined for the United States and/or are designing those products for sale in the United States, thereby directly infringing the ’035 Patent.

103. Independent claim 1 of the ’035 Patent recites:

> 1. A nonaqueous secondary battery comprising:
> a positive electrode having a positive electrode mixture layer, a negative electrode, and a nonaqueous electrolyte,
> wherein the positive electrode comprises, as active materials, at least two lithium-containing transition metal oxides having different average particle sizes, and the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide represented by the formula (1):
>
> $$Li_xM^1_yM^2_zM^3_vO_2 \quad (1)$$
>
> wherein M^1 represents at least one transition metal element selected from Co, Ni and Mn, M^2 represents Mg and at least one metal element selected from the group consisting of Ti, Zr, Ge, Nb, Al and Sn, M^3 represents at least one element selected from the group consisting of Na, K, Rb, Be, Ca, Sr, Ba, Sc, Y, La, Hf, V, Ta, Cr, Mo, W, Tc, Re, Fe, Ru, Rh, Cu, Ag, Au, B, Ca, In, Si, P and Bi, and x, y, z and v are numbers satisfying the equations respectively: $0.97 \leq x < 1.02$, $0.8 \leq y < 1.02$, $0.002 \leq z \leq 0.05$, and $0 \leq v \leq 0.05$, and has an average particle size from 2 μm to 10 μm, and the lithium-containing transition metal oxide having the

largest average particle size is a lithium containing transition metal oxide represented by the formula (2):

$$Li_aM^1_bM^2_zM^3_vO_2 \quad (2)$$

wherein M^1, M^2 and M^3 are the same as defined in the formula (1), and a, b, c and d are numbers satisfying the equations respectively: $0.97 \leq a < 1.02$, $0.8 \leq b < 1.02$, $0.0002 \leq c \leq 0.02$, and $0 \leq d \leq 0.02$, and has an average particle size from 5μm to 25μm,

wherein said electrolyte contains a fluorine-containing organic solvent,

wherein the content of Co in the transition metal M^1 of the formulae (1) and (2) is from 30% by mole to 100% by mole,

wherein the content of said lithium-containing transition metal oxide having the smallest average particle size in the lithium-containing transition metal oxides is from 5% by weight to 60% by weight,

wherein the content of said lithium-containing transition metal oxide having the largest average particle size in the lithium-containing transition metal oxides is from 40% by weight to 95% by weight, and

wherein an amount of said fluorine-containing organic solvent is 0.1% by weight to 30% by weight based on the whole weight of the electrolyte.

104. CosMX Cell No. CA575576G-1 designed, manufactured, and sold by CosMX and incorporated into the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery infringes at least claim 1 of the ’035 Patent.

105. Upon information and belief, CosMX manufactures Cell No. CA575576G-1, which is a nonaqueous secondary battery comprising a positive electrode having a positive electrode mixture layer, a negative electrode, and a nonaqueous electrolyte. Upon information and belief, the positive electrode active material contains at least two lithium-containing transition metal oxides having different average particle sizes, and the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide represented by the formula (1): $Li_xM^1_yM^2_zM^3_vO_2$ wherein M^1 represents at least one transition metal element selected from Co, Ni and Mn, M^2 represents Mg and at least one metal element selected from the

group consisting of Ti, Zr, Ge, Nb, Al and Sn, M^3 represents at least one element selected from the group consisting of Na, K, Rb, Be, Ca, Sr, Ba, Sc, Y, La, Hf, V, Ta, Cr, Mo, W, Tc, Re, Fe, Ru, Rh, Cu, Ag, Au, B, Ca, In, Si, P and Bi, and x, y, z and v are numbers satisfying the equations respectively: $0.97 \leq x < 1.02$, $0.8 \leq y < 1.02$, $0.002 \leq z \leq 0.05$, and $0 \leq v \leq 0.05$, and has an average particle size from 2 μm to 10 μm. Upon information and belief, the lithium-containing transition metal oxide having the largest average particle size is a lithium-containing transition metal oxide represented by the formula (2): $Li_aM^1_bM^2_cM^3_dO_2$ wherein M^1, M^2 and M^3 are the same as defined in the formula (1), and a, b, c and d are numbers satisfying the equations respectively: $0.97 \leq a < 1.02$, $0.8 \leq b < 1.02$, $0.0002 \leq c \leq 0.02$, and $0 \leq d \leq 0.02$, and has an average particle size from 5 μm to 25 μm. Upon information and belief, the said electrolyte contains a fluorine-containing organic solvent. Upon information and belief, the content of Co in the transition metal M^1 of the formulae (1) and (2) is from 30% by mole to 100% by mole. Upon information and belief, the content of said lithium-containing transition metal oxide having the smallest average particle size in the lithium-containing transition metal oxides is from 5% by weight to 60% by weight. Upon information and belief, the content of said lithium-containing transition metal oxide having the largest average particle size in the lithium-containing transition metal oxides is from 40% by weight to 95% by weight. Upon information and belief, an amount of said fluorine-containing organic solvent is 0.1% by weight to 30% by weight based on the whole weight of the electrolyte.

106. CosMX Cell No. CA486566G designed, manufactured, and sold by CosMX and incorporated into the HP KC04XL laptop battery infringes at least claim 1 of the ’035 Patent.

107. Upon information and belief, CosMX manufactures Cell No. CA486566G, which is a nonaqueous secondary battery comprising a positive electrode having a positive electrode mixture layer, a negative electrode, and a nonaqueous electrolyte. Upon information and belief,

the positive electrode active material contains at least two lithium-containing transition metal oxides having different average particle sizes, and the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide represented by the formula (1): $Li_xM^1_yM^2_zM^3_vO_2$ wherein M^1 represents at least one transition metal element selected from Co, Ni and Mn, M^2 represents Mg and at least one metal element selected from the group consisting of Ti, Zr, Ge, Nb, Al and Sn, M^3 represents at least one element selected from the group consisting of Na, K, Rb, Be, Ca, Sr, Ba, Sc, Y, La, Hf, V, Ta, Cr, Mo, W, Tc, Re, Fe, Ru, Rh, Cu, Ag, Au, B, Ca, In, Si, P and Bi, and x, y, z and v are numbers satisfying the equations respectively: $0.97\leq x<1.02$, $0.8\leq y<1.02$, $0.002\leq z\leq 0.05$, and $0\leq v\leq 0.05$, and has an average particle size from 2 μm to 10 μm. Upon information and belief, the lithium-containing transition metal oxide having the largest average particle size is a lithium-containing transition metal oxide represented by the formula (2): $Li_aM^1_bM^2_cM^3_dO_2$ wherein M^1, M^2 and M^3 are the same as defined in the formula (1), and a, b, c and d are numbers satisfying the equations respectively: $0.97\leq a<1.02$, $0.8\leq b<1.02$, $0.0002\leq c\leq 0.02$, and $0\leq d\leq 0.02$, and has an average particle size from 5 μm to 25 μm. Upon information and belief, the said electrolyte contains a fluorine-containing organic solvent. Upon information and belief, the content of Co in the transition metal M^1 of the formulae (1) and (2) is from 30% by mole to 100% by mole. Upon information and belief, the content of said lithium-containing transition metal oxide having the smallest average particle size in the lithium-containing transition metal oxides is from 5% by weight to 60% by weight. Upon information and belief, the content of said lithium-containing transition metal oxide having the largest average particle size in the lithium-containing transition metal oxides is from 40% by weight to 95% by weight. Upon information and belief, an amount of said fluorine-containing organic solvent is 0.1% by weight to 30% by weight based on the whole weight of the electrolyte.

108. CosMX Cell No. CA395876G designed, manufactured, and sold by CosMX and incorporated into the Asus ZenFone Live L1 smartphone infringes at least claim 1 of the '035 Patent.

109. Upon information and belief, CosMX manufactures Cell No. CA395876G, which is a nonaqueous secondary battery comprising a positive electrode having a positive electrode mixture layer, a negative electrode, and a nonaqueous electrolyte. Upon information and belief, the positive electrode active material contains at least two lithium-containing transition metal oxides having different average particle sizes, and the lithium-containing transition metal oxide having the smallest average particle size is a lithium-containing transition metal oxide represented by the formula (1): $Li_xM^1_yM^2_zM^3_vO_2$ wherein M^1 represents at least one transition metal element selected from Co, Ni and Mn, M^2 represents Mg and at least one metal element selected from the group consisting of Ti, Zr, Ge, Nb, Al and Sn, M^3 represents at least one element selected from the group consisting of Na, K, Rb, Be, Ca, Sr, Ba, Sc, Y, La, Hf, V, Ta, Cr, Mo, W, Tc, Re, Fe, Ru, Rh, Cu, Ag, Au, B, Ca, In, Si, P and Bi, and x, y, z and v are numbers satisfying the equations respectively: $0.97\leq x<1.02$, $0.8\leq y<1.02$, $0.002\leq z\leq 0.05$, and $0\leq v\leq 0.05$, and has an average particle size from 2 μm to 10 μm. Upon information and belief, the lithium-containing transition metal oxide having the largest average particle size is a lithium-containing transition metal oxide represented by the formula (2): $Li_aM^1_bM^2_cM^3_dO_2$ wherein M^1, M^2 and M^3 are the same as defined in the formula (1), and a, b, c and d are numbers satisfying the equations respectively: $0.97\leq a<1.02$, $0.8\leq b<1.02$, $0.0002\leq c\leq 0.02$, and $0\leq d\leq 0.02$, and has an average particle size from 5 μm to 25 μm. Upon information and belief, the said electrolyte contains a fluorine-containing organic solvent. Upon information and belief, the content of Co in the transition metal M^1 of the formulae (1) and (2) is from 30% by mole to 100% by mole. Upon information and belief, the content of said

lithium-containing transition metal oxide having the smallest average particle size in the lithium-containing transition metal oxides is from 5% by weight to 60% by weight. Upon information and belief, the content of said lithium-containing transition metal oxide having the largest average particle size in the lithium-containing transition metal oxides is from 40% by weight to 95% by weight. Upon information and belief, an amount of said fluorine-containing organic solvent is 0.1% by weight to 30% by weight based on the whole weight of the electrolyte.

110. The identification of these exemplary models is intended for illustration and is not intended to limit the scope of Maxell's allegations regarding the '035 Patent. Upon information and belief, further discovery will reveal additional of CosMX's Infringing LIBs. Any remedy should extend to all present and future products of CosMX that infringe the '035 Patent, regardless of model number.

111. Upon information and belief, CosMX directly infringes at least claim 1 of the '035 Patent under 35 U.S.C. § 271(g) by importing, offering to sell, selling, and/or using within the United States, without permission, consent, authority or license, Infringing LIBs. Upon information and belief, CosMX makes and sells the Infringing LIBs outside of the United States, delivers the Infringing LIBs to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Infringing LIBs outside of the United States, CosMX does so intending and/or knowing that the Infringing LIBs are destined for the United States and/or are designing those products for sale in the United States, thereby directly infringing the '035 Patent.

112. Upon information and belief, CosMX has actively induced, under 35 U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Infringing LIBs that include or are made using all of the limitations of one or more claims of the '035 Patent to directly infringe one or more claims of the '035 Patent by using,

offering for sale, selling, and/or importing CosMX's Infringing LIBs. Since at least when notice was provided to CosMX with the service of this Complaint, CosMX has done so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '035 Patent. Upon information and belief, CosMX intends to cause, and has taken affirmative steps to induce infringement by distributors, customers, subsidiaries, and/or consumers by, inter alia, creating advertisements that promote the infringing use of CosMX's Infringing LIBs, creating established distribution channels for CosMX's Infringing LIBs into and within the United States, manufacturing the Infringing LIBs which are combined with other products that must conform with U.S. laws and regulations (*e.g.*, Underwriter Laboratories' standards), distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to those purchasers in the United States.

113. Upon information and belief, CosMX also contributorily infringes, under 35 U.S.C. § 271(c), one or more claims of the '035 Patent by offering for sale, selling, and/or importing into or within the United States components of infringing products, constituting a material part of the '035 Patent claims, knowing the same to be especially made or especially adapted for use in an infringement of the '035 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use. For example, on information and belief, CosMX's Infringing LIBs and/or components thereof are specifically designed for use in infringement of the '035 Patent. Due to their specific designs, CosMX's Infringing LIBs and/or components thereof do not have any substantial non-infringing uses.

114. Upon information and belief, despite having knowledge of the '035 Patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '035 Patent,

CosMX has nevertheless continued its infringing conduct. CosMX's infringing activities relative to the '035 Patent have been, and continue to be willful and deliberate misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the compensatory amount awarded.

115. Maxell has been damaged as a result of CosMX's infringing conduct. CosMX is liable to Maxell in an amount that adequately compensates Maxell for CosMX's infringement, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT IV

INFRINGEMENT OF U.S. PATENT NO. 9,166,251

116. Maxell re-alleges and incorporates by reference the allegations in paragraphs 1 to 115 above.

117. Maxell is the assignee of the '251 Patent. Maxell has all substantial rights to enforce the '251 Patent, including the right to exclude others and to sue and recover damages for past and future infringement.

118. The '251 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

119. CosMX, by the acts complained of herein, and by making, using, selling, offering for sale, and/or importing in the United States, including in Texas and the Western District of Texas, instrumentalities embodying the invention, has in the past, does now, and continues to infringe one or more claims of the '251 Patent directly, contributorily, and/or by inducement, literally and/or under the doctrine of equivalents.

120. At a minimum, CosMX has known of the '251 Patent at least as early as the date it was served with a copy of this Complaint.

121. For example, CosMX directly infringes at least claims 1 and 10 of the ’251 Patent under 35 U.S.C. § 271(a) by making, using, selling, offering for sale in the United States, and/or importing into the United States, without permission, consent, authority or license, Infringing LIBs, including without limitation CosMX Cell Nos. CA575576G-1, CA486566G, and CA395876G incorporated into the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery, HP KC04XL laptop battery, and Asus ZenFone Live L1 smartphone, respectively. Furthermore, upon information and belief, CosMX sells and makes the Infringing LIBs outside of the United States, delivers the Infringing LIBs to its customers, distributors, and/or subsidiaries in the United States, or in the case that CosMX delivers the Infringing LIBs outside of the United States, CosMX does so intending and/or knowing that the Infringing LIBs are destined for the United States and/or are designing those products for sale in the United States, thereby directly infringing the ’251 Patent.

122. Independent claim 1 of the ’251 Patent recites:

> 1. A battery separator comprising:
> heat-resistant fine particles; and
> a thermoplastic resin,
> wherein the heat-resistant fine particles along with a binder constitute a heat-resistant layer,
> the thermoplastic resin constitutes a shutdown layer formed of a heat-shrinkable microporous film,
> the heat-resistant layer and the shutdown layer are integrated into a multilayer structure,
> the shutdown layer has a thickness A (μm) of 5 to 30, the heat-resistant layer has a thickness B (μm) of 1 to 10, a sum of A and B is 6 to 23, and a ratio A/B is 1/2 to 4,
> a content of the heat-resistant fine particles in the heat resistant layer is 50 vol % or more of a total volume of components in the heat-resistant layer,
> a proportion of particles with a particle size of 0.2 μm or less in the heat-resistant fine particles is 10 vol % or less and a proportion of particles with a particle size of 2 μm or more in the heat-resistant fine particles is 10 vol % or less, and
> a shutdown is effected in a range of 135° C. to 150° C.

123. Independent claim 10 of the ’251 Patent recites:

> 10. A nonaqueous electrolyte battery comprising:
> a positive electrode having a positive active material capable of intercalating and deintercalating a lithium ion;
> a negative electrode having a negative active material capable of intercalating and deintercalating a lithium ion;
> a separator interposed between the positive electrode and the negative electrode; and
> a nonaqueous electrolyte,
> wherein a heat generation starting temperature of the positive electrode is 180° C. or higher, and
> wherein the separator is the battery separator according to claim 1.

124. CosMX Cell No. CA575576G-1 designed, manufactured, and sold by CosMX and incorporated in the Dell d/b/a Alienware 99Wh Type 9NJM1 notebook battery infringes at least claims 1 and 10 of the ’251 Patent.

125. Upon information and belief, CosMX manufactures Cell No. CA575576G-1, which contains a battery separator comprising heat-resistant fine particles; and a thermoplastic resin, wherein the heat-resistant fine particles along with a binder constitute a heat-resistant layer. Upon information and belief, the thermoplastic resin constitutes a shutdown layer formed of a heat-shrinkable microporous film, and the heat-resistant layer and the shutdown layer are integrated into a multilayer structure. Upon information and belief, the shutdown layer has a thickness A (μm) of 5 to 30, the heat-resistant layer has a thickness B (μm) of 1 to 10, a sum of A and B is 6 to 23, and a ratio A/B is 1/2 to 4. Upon information and belief, the content of the heat-resistant fine particles in the heat-resistant layer is 50 vol % or more of a total volume of components in the heat-resistant layer. Upon information and belief, a proportion of particles with a particle size of 0.2 μm or less in the heat-resistant fine particles is 10 vol % or less and a proportion of particles with a particle size of 2 μm or more in the heat-resistant fine particles is 10 vol % or less. Upon information and belief, a shutdown is effected in a range of 135° C. to 150° C.

126. Upon information and belief, CosMX Cell No. CA575576G-1 is a nonaqueous electrolyte battery comprising a positive electrode having a positive active material capable of

intercalating and deintercalating a lithium ion; a negative electrode having a negative active material capable of intercalating and deintercalating a lithium ion; a separator interposed between the positive electrode and the negative electrode; and a nonaqueous electrolyte. Upon information and belief, the heat generation starting temperature of the positive electrode is 180° C. or higher, and the separator is the battery separator according to claim 1 of the ’251 patent, as described above.

127. CosMX Cell No. CA486566G designed, manufactured, and sold by CosMX and incorporated in the HP KC04XL laptop battery infringes at least claims 1 and 10 of the ’251 Patent.

128. Upon information and belief, CosMX manufactures Cell No. CA486566G, which contains a battery separator comprising heat-resistant fine particles; and a thermoplastic resin, wherein the heat-resistant fine particles along with a binder constitute a heat-resistant layer. Upon information and belief, the thermoplastic resin constitutes a shutdown layer formed of a heat-shrinkable microporous film, and the heat-resistant layer and the shutdown layer are integrated into a multilayer structure. Upon information and belief, the shutdown layer has a thickness A (μm) of 5 to 30, the heat-resistant layer has a thickness B (μm) of 1 to 10, a sum of A and B is 6 to 23, and a ratio A/B is 1/2 to 4. Upon information and belief, the content of the heat-resistant fine particles in the heat-resistant layer is 50 vol % or more of a total volume of components in the heat-resistant layer. Upon information and belief, a proportion of particles with a particle size of 0.2 μm or less in the heat-resistant fine particles is 10 vol % or less and a proportion of particles with a particle size of 2 μm or more in the heat-resistant fine particles is 10 vol % or less. Upon information and belief, a shutdown is effected in a range of 135° C. to 150° C.

129. Upon information and belief, CosMX Cell No. CA486566G is a nonaqueous electrolyte battery comprising a positive electrode having a positive active material capable of

intercalating and deintercalating a lithium ion; a negative electrode having a negative active material capable of intercalating and deintercalating a lithium ion; a separator interposed between the positive electrode and the negative electrode; and a nonaqueous electrolyte. Upon information and belief, the heat generation starting temperature of the positive electrode is 180° C. or higher, and the separator is the battery separator according to claim 1 of the '251 patent, as described above.

130. CosMX Cell No. CA395876G designed, manufactured, and sold by CosMX and incorporated in the Asus ZenFone Live L1 smartphone infringes at least claims 1 and 10 of the '251 Patent.

131. Upon information and belief, CosMX manufactures Cell No. CA395876G, which contains a battery separator comprising heat-resistant fine particles; and a thermoplastic resin, wherein the heat-resistant fine particles along with a binder constitute a heat-resistant layer. Upon information and belief, the thermoplastic resin constitutes a shutdown layer formed of a heat-shrinkable microporous film, and the heat-resistant layer and the shutdown layer are integrated into a multilayer structure. Upon information and belief, the shutdown layer has a thickness A (μm) of 5 to 30, the heat-resistant layer has a thickness B (μm) of 1 to 10, a sum of A and B is 6 to 23, and a ratio A/B is 1/2 to 4. Upon information and belief, the content of the heat-resistant fine particles in the heat-resistant layer is 50 vol % or more of a total volume of components in the heat-resistant layer. Upon information and belief, a proportion of particles with a particle size of 0.2 μm or less in the heat-resistant fine particles is 10 vol % or less and a proportion of particles with a particle size of 2 μm or more in the heat-resistant fine particles is 10 vol % or less. Upon information and belief, a shutdown is effected in a range of 135° C. to 150° C.

132. Upon information and belief, CosMX Cell No. CA395876G is a nonaqueous electrolyte battery comprising a positive electrode having a positive active material capable of intercalating and deintercalating a lithium ion; a negative electrode having a negative active material capable of intercalating and deintercalating a lithium ion; a separator interposed between the positive electrode and the negative electrode; and a nonaqueous electrolyte. Upon information and belief, the heat generation starting temperature of the positive electrode is 180° C. or higher, and the separator is the battery separator according to claim 1 of the ’251 patent, as described above.

133. The identification of these exemplary models is intended for illustration and is not intended to limit the scope of Maxell’s allegations regarding the ’251 Patent. Upon information and belief, further discovery will reveal additional CosMX’s Infringing LIBs. Any remedy should extend to all present and future products of CosMX that infringe the ’251 Patent, regardless of model number.

134. Upon information and belief, CosMX has actively induced, under 35 U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Infringing LIBs that include or are made using all of the limitations of one or more claims of the ’251 Patent to directly infringe one or more claims of the ’251 Patent by using, offering for sale, selling, and/or importing CosMX’s Infringing LIBs. Since at least when notice was provided to CosMX with the service of this Complaint, CosMX has done so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the ’251 Patent. Upon information and belief, CosMX intends to cause, and has taken affirmative steps to induce infringement by distributors, customers, subsidiaries, and/or consumers by, inter alia, creating advertisements that promote the infringing use of CosMX’s Infringing LIBs, creating established

distribution channels for CosMX's Infringing LIBs into and within the United States, manufacturing the Infringing LIBs which are combined with other products that must conform with U.S. laws and regulations (*e.g.*, Underwriter Laboratories' standards), distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to those purchasers in the United States.

135. Upon information and belief, CosMX also contributorily infringes, under 35 U.S.C. § 271(c), one or more claims of the '251 Patent by offering for sale, selling, and/or importing into or within the United States components of infringing products, constituting a material part of the '251 Patent claims, knowing the same to be especially made or especially adapted for use in an infringement of the '251 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use. For example, on information and belief, CosMX's Infringing LIBs and/or components thereof are specifically designed for use in infringement of the '251 Patent. Due to their specific designs, CosMX's Infringing LIBs and/or components thereof do not have any substantial non-infringing uses.

136. Upon information and belief, despite having knowledge of the '251 Patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '251 Patent, CosMX has nevertheless continued its infringing conduct. CosMX's infringing activities relative to the '251 Patent have been, and continue to be willful and deliberate misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the compensatory amount awarded.

137. Maxell has been damaged as a result of CosMX's infringing conduct. CosMX is liable to Maxell in an amount that adequately compensates Maxell for CosMX's infringement,

which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

DEMAND FOR JURY TRIAL

138. Maxell respectfully requests a jury trial on all issues triable to a jury in this action.

PRAYER FOR RELIEF

WHEREFORE, Maxell requests the Court grant the following relief:

A. A judgment that each of the Asserted Patents is valid and enforceable;

B. A judgment that CosMX has infringed directly and/or indirectly one or more claims of each of the Asserted Patents;

C. A judgment that CosMX has willfully infringed the Asserted Patents;

D. A permanent injunction enjoining CosMX, its employees, agents, officers, directors, attorneys, successors, affiliates, subsidiaries, and assigns, and all of those in active concert and participation with any of the foregoing persons or entities from infringing, directly and/or indirectly, the Asserted Patents;

E. A judgment for an accounting of all damages and to pay damages adequate to compensate Maxell for CosMX's infringement of the Asserted Patents;

F. A judgment that the damages award be increased up to three times the actual amount assessed, pursuant to 35 U.S.C. § 284;

G. A judgment requiring CosMX to pay Maxell costs, expenses, and pre-judgment and post-judgment interest for CosMX's infringement of each of the Asserted Patents pursuant to 35 U.S.C. § 284;

H. A judgment finding that this is an exceptional case and awarding Maxell its reasonable attorneys' fees pursuant to 35 U.S.C. § 285; and

I. Such other relief that this Court deems just and proper.

Dated: August 13, 2021

Respectfully submitted,

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