

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

GENERAL VIDEO, LLC,

Plaintiff,

v.

LENOVO GROUP LIMITED,

Defendant.

Civil Action X:24-cv-

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff, General Video, LLC (“General Video” or “Plaintiff”), for its Complaint against Defendant, Lenovo Group Limited (“Lenovo” or “Defendant”), alleges as follows:

THE PARTIES

1. General Video is a limited liability company organized and existing under the laws of the State of Delaware and with an address at 8 The Green, Suite B, Dover, DE 19901.

2. Defendant Lenovo is a corporation organized and existing under the laws of the People’s Republic of China, with an address at 23rd Floor, Lincoln House, Taikoo Place, 979 King’s Road, Quarry Bay, Hong Kong.

JURISDICTION AND VENUE

3. This action for patent infringement arises under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*

4. This Court has exclusive jurisdiction over the subject matter of this case pursuant to 28 U.S.C. §§ 1331, 1332, and 1338(a).

5. Lenovo is subject to this Court's specific and general personal jurisdiction consistent with the principles of due process and/or the Texas Long Arm Statute, Tex. Civ. Prac. & Rem. Code Ann. § 17.042.

6. Lenovo sells and offers to sell products throughout the State of Texas, including in this District, and introduces infringing products into the stream of commerce knowing that they will be sold in the State of Texas and this District. For example, Defendant sells and offers to sell infringing products and services through its website, Lenovo.com, which may be accessed throughout the United States, the State of Texas, and this District. Lenovo is currently, or has previously been, registered with the Secretary of State to do business in the state of Texas.

7. Lenovo has authorized sellers and sales representatives that offer for sale and sell products that are the subject of this Complaint throughout the State of Texas, including in this District, and to consumers throughout this District. For example, Best Buy at 4210 Saint Michael Drive, Texarkana, Texas 75503; Costco Wholesale, 3650 West University Drive, McKinney, Texas 75071; Office Depot, 111 Richmond Ranch Road, Texarkana, Texas 75503; Target, 102 Richmond Ranch Road, Texarkana, Texas 75503; Walmart Supercenter, 4000 New Boston Road, Texarkana, Texas 75503; and Sam's Club, 3610 Saint Michael Drive, Texarkana, Texas 75503, offer for sale and sell such subject Lenovo products.

8. Lenovo is also subject to this Court's personal jurisdiction because it, directly, through, or in concert with subsidiaries, affiliates, or intermediaries, makes, uses, sells, offers for sale, imports, advertises, makes available, and/or markets products within the State of Texas and this District that infringe one or more claims of the asserted patents owned by General Video, as alleged more fully below.

9. Venue in this District is proper under 28 U.S.C. § 1400(b). Lenovo is a foreign entity for which venue is proper in any district.

10. Lenovo makes, uses, sells, offers for sale, and/or imports infringing products into and/or within this District, maintains a permanent and/or continuing presence within this District, and/or has the requisite minimum contacts with this District such that venue in this District is fair and reasonable. On information and belief, Lenovo has transacted and, as of the time of the filing of this Complaint, is continuing to transact business within this District.

THE GENERAL VIDEO PATENTS

11. General Video is the assignee of, and has standing to sue and collect damages for Lenovo's past and ongoing infringement associated with its products' implementation of DisplayPort functionality of, each of the following patents: U.S. Patent Nos. 6,584,443 ("the 443 Patent"); 7,069,224 ("the 224 Patent"); 7,225,282 ("the 282 Patent"); 7,359,437 ("the 437 Patent"); 9,036,010 ("the 010 Patent"); and 9,843,786 ("the 786 Patent") (collectively, the "General Video Patents").

12. The 443 Patent issued on June 24, 2003. The named inventors of the 443 Patent are: Akihisa Kawamura; Naoki Ejima; and Masatoshi Shimbo. The 443 Patent expired on April 20, 2020. A true and correct copy of the 443 Patent is attached as Exhibit 1 hereto.

13. The 224 Patent issued on June 27, 2006. The named inventors of the 224 Patent are: Akihisa Kawamura; Naoki Ejima; and Masatoshi Shimbo. The 224 Patent expired on April 20, 2020. A true and correct copy of the 224 Patent is attached as Exhibit 2 hereto.

14. The 282 Patent issued on May 29, 2007. The named inventor of the 282 Patent is Jim Lyle. A true and correct copy of the 282 Patent is attached as Exhibit 3 hereto.

15. The 437 Patent issued on April 15, 2008. The named inventors of the 437 Patent are: Seung Ho Hwang; Jano Banks; Paul Daniel Wolf; Eric Lee; Baegin Sung; and Albert M. Scalise. A true and correct copy of the 437 Patent is attached as Exhibit 4 hereto.

16. The 010 Patent issued on May 19, 2015. The named inventor of the 010 Patent is Nicole Burleigh Shepherd. A true and correct copy of the 010 Patent is attached as Exhibit 5 hereto.

17. The 786 Patent issued on December 12, 2017. The named inventor of the 786 Patent is Nicoll Burleigh Shepherd. A true and correct copy of the 786 Patent is attached as Exhibit 6 hereto.

18. The General Video Patents are generally directed to the high-speed, efficient, and secure transmission of audio and video data between transmitting and receiving devices. As set forth more fully in the numbered counts below with respect to each General Video Patent, claimed inventions of the General Video Patents are essential to, and must be used to comply with, implementations of several versions of the DisplayPort standard promulgated by the Video Electronics Standards Association (VESA). The DisplayPort standards generally relate to the connection of source devices (e.g., desktop or laptop computers) and sink devices (e.g., computer monitors or laptop displays) and the transmission of packetized video, audio, and/or other forms of data between such source and sink devices. Further, and as also set forth more fully in the numbered counts below, claimed inventions of certain of the General Video Patents are essential to, and must be used to comply with, implementations of certain versions of the Embedded DisplayPort (eDP) standard, a companion standard to DisplayPort. The eDP standards are directed to display panel interfaces for portable and embedded devices and relate to the signaling interface between graphics cards and integrated displays, such as, for example, the integrated display on a laptop computer. Collectively and generally, the DisplayPort and eDP standards, implementations

of which infringe one or more claims of any General Video Patent, are referred to herein as the “Infringing DP Standards.”¹ VESA DisplayPort Standard, Version 1, Revision 2, which was introduced January 7, 2010 (“DP v1.2”) infringes at least one claim of each of the General Video Patents and is thus always an Infringing DP Standard relative to the assertions herein. Specific additional Infringing DP Standards, and versions thereof, are further identified with respect to each General Video Patent in the numbered counts below. As such, each of the General Video Patents is a standard essential patent (“SEP”) with respect to a respective identified subset of DisplayPort standards, eDP standards, or versions thereof.²

19. Each of the General Video Patents is included among the pool of patents licensed and offered for license as part of the DisplayPort Patent Portfolio License (the “DP License”) offered through Via Licensing Corporation d/b/a Via Licensing Alliance (“Via-LA”). See <https://www.via-la.com/licensing-2/displayport/>; <https://www.via-la.com/licensing-2/displayport/displayport-patent-list/> (see downloadable list of licensed patents). General Video, Maxell, Ltd., Rambus Inc., and Sony Group Corporation are currently licensors under the DP License. See <https://www.via-la.com/licensing-2/displayport/displayport-licensors/>. To date, almost 100 companies are licensed under the DP License. See <https://www.via-la.com/licensing-2/displayport/displayport-licensors/>.

¹ A standard itself cannot infringe a patent claim. Instead, implementations of a standard embodied in the operability or functionality of standard-compliant products, or methods or processes performed pursuant to implementations of a standard, can infringe apparatus and/or method claims of a patent. Subject to that understanding, for ease of reference herein, General Video refers to “Infringing DP Standards.”

² As the Federal Circuit has explained, “Creating some standards ... is a complicated process that involves the collaboration and can involve cooperation of a number of interested parties. Due to the collaborative nature of this process, the chosen standard may include technology developed by a number of different parties. Sometimes that technology is covered by patents. Because the standard *requires* that devices utilize specific technology, compliant devices *necessarily* infringe certain claims in patents that cover technology incorporated into the standard. These patents are called ‘standard essential patents’ (‘SEPs’).” *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201, 1209 (Fed. Cir. 2014) (emphasis in original).

20. Before the General Video Patents' inclusion as part of the DP License, each such patent was determined by an independent patent consultant to be an SEP with respect to one or more versions of the DisplayPort and/or eDP standards.

21. VESA, which sets industry-wide interface standards for the PC, workstation, and consumer electronics display industry, approved the first version of the DisplayPort standard in May 2006.

22. "VESA is an international nonprofit corporation led by a board of directors, which represents a voting membership of more than 300 corporate members worldwide." See <https://www.displayport.org/>. Lenovo is a corporate member and partner of VESA. *Id.*

23. VESA describes DisplayPort as

the industry replacement for outmoded display technologies such as DVI, LVDS and VGA and it's currently being built into all new PC chipsets, GPU's [sic] and display controllers from major silicon manufacturers. DisplayPort utilizes a state-of-the-art digital protocol and provides an expandable foundation to enable amazing digital display technology while providing compatibility with existing equipment.

* * *

DisplayPort has unique features and capabilities that enable exciting new types of displays and display usages. And it doesn't require PC owners to replace all of their equipment because simple adaptors allow DisplayPort enabled devices to connect to monitors and projectors that use older technologies such as DVI, HDMI and VGA.

<https://vesa.org/about-displayport/>.

24. VESA further describes DisplayPort as "the Ultimate Digital Connection" that "[d]elivers a true digital display experience" and "[c]onnects to virtually any device."

<https://vesa.org/displayport-developer/about-displayport/>.

25. VESA adopted eDP in December 2008, and describes that standard as follows:

For devices such as laptop PCs with an embedded display, eDP is the electrical interface for transporting video data from the system's graphics hardware to the internal display panel. eDP is widely adopted for larger, higher-resolution displays

as it provides the highest resolutions, refresh rates and color depths using a low wire count with low EMI radiation.

* * *

eDP applications include laptops, all-in-one PCs, premium tablets, automotive displays, and other systems that incorporate a display panel with a video or graphics video source.

<https://vesa.org/featured-articles/vesa-publishes-embedded-displayport-standard-version-1-5/>.

LENOVO'S ACCUSED PRODUCTS

26. Lenovo makes, uses, sells, and/or offers to sell in, and/or imports into, the United States products that comply with, implement, and/or embody the Infringing DP Standards (collectively, the “Accused Lenovo Products”). As set forth more fully in the numbered counts below with respect to each General Video Patent, the Accused Lenovo Products and the operation thereof infringe the General Video Patents, including without limitation by complying with, implementing, and/or embodying the Infringing DP Standards. A non-exhaustive list of the Accused Lenovo Products is included in Appendix A hereto.

27. Lenovo has in the past made, used, sold, and/or offered to sell in, and/or imported into, the United States products that complied with, implemented, and/or embodied the Infringing DP Standards (with the products described in paragraph 26 above, also “Accused Lenovo Products”). As set forth more fully in the numbered counts below with respect to each General Video Patent, at least by having complied with, implemented, and/or embodied the Infringing DP Standards, the Accused Lenovo Products that Lenovo has in the past made, used, sold, offered to sell in, and/or imported into, the United States infringed the standard essential General Video Patents. A non-exhaustive list of Accused Lenovo Products that Lenovo has in the past made, used, sold, and/or offered to sell in, and/or imported into, the United States is included in Appendix A hereto.

28. Rule 3-1 of the Rules of Practice for Patent Cases before the Eastern District of Texas requires that “[n]ot later than 10 days before the Initial Case Management Conference with the Court, [General Video] ... must serve on [Lenovo] a ‘Disclosure of Asserted Claims and Infringement Contentions[,]’” which identifies “each accused apparatus, product, device, process, method, act, or other instrumentality ... of [Lenovo] of which [General Video] *is aware*.” P.R. 3-1 (emphasis added). Rule 3-1 further requires that

[t]his identification shall be as specific as possible. Each product, device, and apparatus must be identified by name or model number, *if known*. Each method or process must be identified by name, if known, or by any product, device, or apparatus which, when used, allegedly results in the practice of the claimed method or process....

P.R. 3-1(b) (emphasis added).

29. Accordingly, in identifying Lenovo products for inclusion among the Accused Lenovo Products listed in Appendix A hereto, General Video has made such identification as specific as possible based on information of which General Video is aware and information known to General Video through a reasonable prefiling investigation conducted in the ordinary course of business.

30. Despite General Video’s diligent efforts in this regard, it is possible – if not likely – that General Video does not have reasonable access to, is not reasonably aware of, and cannot reasonably know, the identity of all products that Lenovo makes, uses, sells, and/or offers to sell in, and/or imports into, the United States that comply with, implement, and/or embody, or that Lenovo has in the past made, used, sold, and/or offered to sell in, and/or imported into, the United States that complied with, implemented, and/or embodied, the Infringing DP Standards. Accordingly, in addition to the Lenovo Products specifically identified in Appendix A hereto, General Video includes within the definition of “Accused Lenovo Products” all products that

Lenovo has made, used, sold, and/or offered for sale in, and/or imported into, the United States at any time, that (1) have complied with, implemented, and/or embodied the Infringing DP Standards and/or (2) are or were no more than colorably different from any Accused Lenovo Product(s) specifically identified in Appendix A hereto relative to such products' compliance with and/or implementation or embodiment of the Infringing DP Standards.

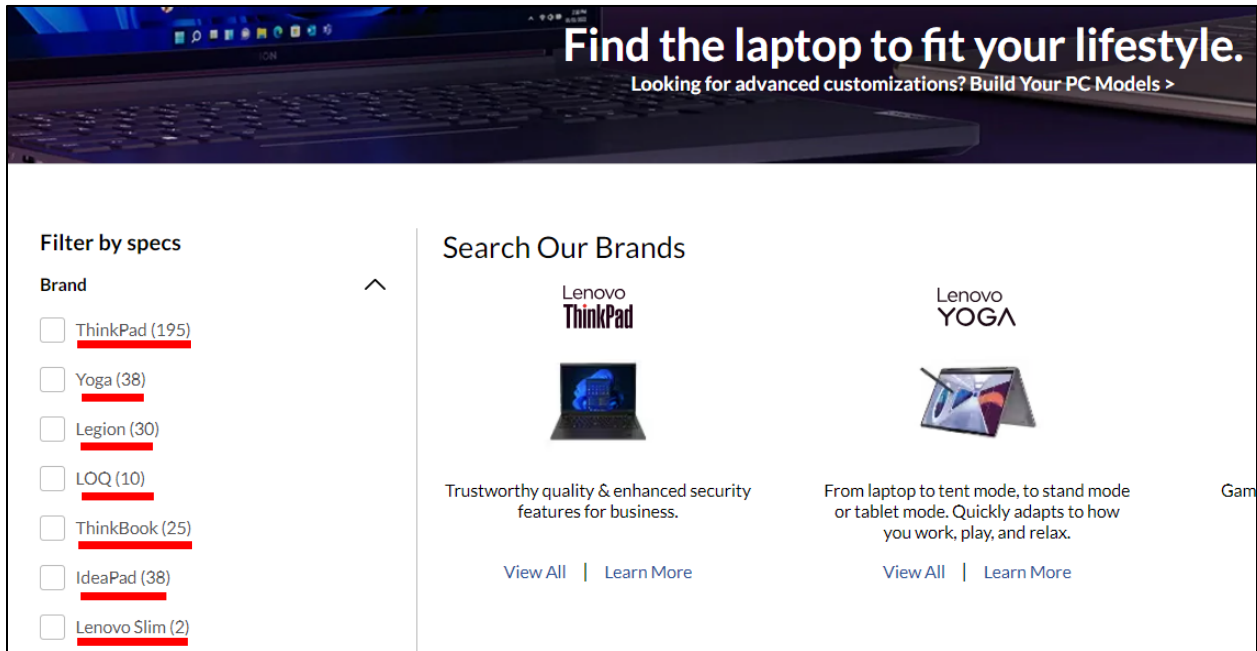
31. Upon General Video's discovery of more specific information concerning the identity of additional Accused Lenovo Products over the course of these proceedings, General Video will seasonably supplement or amend, and/or, if necessary, move for leave to supplement or amend, its identification of Accused Lenovo Products as permitted under this District's Practice Rules. *See* P.R. 3-6; *see also Team Worldwide Corp. v. Wal-Mart Stores, Inc.*, No. 2:17-cv-00235-JRG, 2018 WL 3533362 (Jul. 23, 2018 E.D. Tex.) (granting plaintiff's motion for leave to amend infringement contentions); *id.*, at *9 ("At the time [plaintiff] TWW served its original infringement contentions, TWW did not know the names or model numbers it seeks to add to its infringement contentions. To determine what it did not know, TWW visited Walmart stores, reviewed Walmart's online sales, and served upon Defendants interrogatories asking for such information. This is not, on its face, an unreasonable course of action.").

32. On information and belief, and unless otherwise made clear by the description of a specific version of the Infringing DP Standards, the Accused Lenovo Products employ, implement, embody, or utilize materially the same DisplayPort technology, such that the facts material to infringement by one Accused Lenovo Product will likely be material to all Accused Lenovo Products.

33. Four general categories of Accused Lenovo Products infringe the General Video Patents: Lenovo laptop computers (the "Accused Lenovo Laptops"); Lenovo desktop computers

(the “Accused Lenovo Desktops”); Lenovo computer monitors (the “Accused Lenovo Monitors”); and Lenovo video/graphics cards (the “Accused Lenovo Graphics Cards”).

34. As shown below, as of August 2024, Lenovo makes, uses, sells, and/or offers to sell in, and/or imports into, the United States at least 338 models of laptop computers, covering at least seven product lines.



See <https://www.lenovo.com/us/en/laptops/> (last visited August 22, 2024) (highlighting added).

35. Based on information published on Lenovo’s website, many of the laptop computers Lenovo sells and offers to sell comply with, implement, and/or embody the Infringing DP Standards, and those that do so are, therefore, Accused Lenovo Laptops. For example, but without limitation, as shown below Lenovo advertises its LOQ (16” Intel) with RTX 4050 (Part # 82XW0011US) laptop as featuring a DisplayPort 1.4 media connectivity port.



Ports/Slots	Left: <ul style="list-style-type: none"> • USB-C 3.2 Gen 2 (10Gbps, DisplayPort™ 1.4, 140W power delivery) • Headphone / mic combo
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See <https://www.lenovo.com/us/en/p/laptops/loq-laptops/lenovo-loq-16irh8/82xw0011us> (last visited August 22, 2024) (arrows and highlighting added).

36. DisplayPort Standard Version 1, Revision 4 (“DP v1.4”), with which the DisplayPort 1.4 port included with the Accused Lenovo Laptop described paragraph 35 above complies, is an Infringing DP Standard as defined in paragraph 18 above and as further defined in the numbered counts below with respect to each of the General Video Patents.

37. By way of additional example, but not limitation, as shown below, Lenovo advertises its Legion 7i Gen 9 Intel (16”) with RTX™ 4060 (Product # 83FD008FUS) laptop as featuring two DisplayPort media connectivity ports, a “Thunderbolt™ 4 DisplayPort™ 1.4” port and a “USB-C 3.2 Gen 2 (DisplayPort™ 1.4)” port.

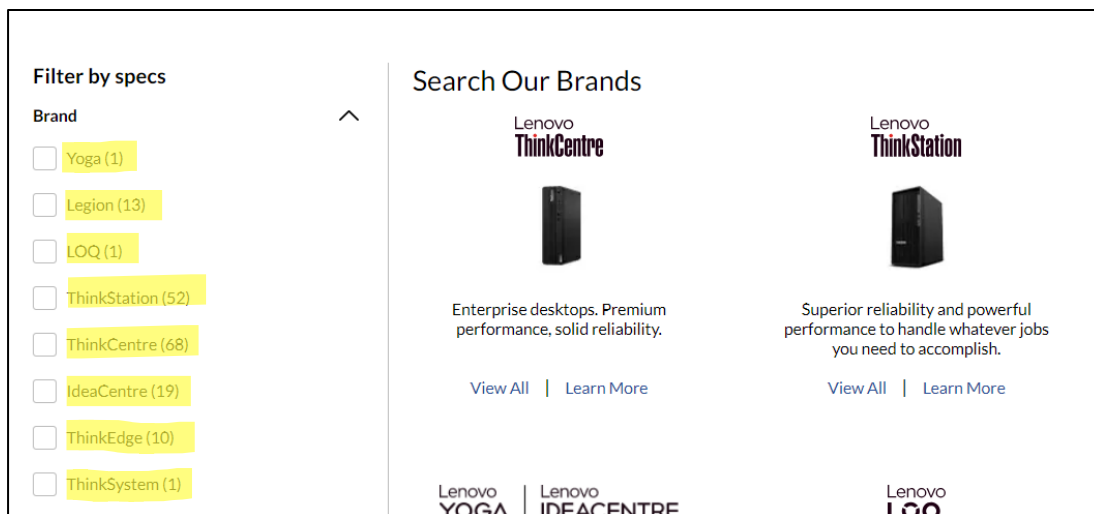


See [https://www.lenovo.com/us/en/p/laptops/legion-laptops/legion-7-series/legion-7i-gen-9-\(16-inch-intel\)/83fd008fus](https://www.lenovo.com/us/en/p/laptops/legion-laptops/legion-7-series/legion-7i-gen-9-(16-inch-intel)/83fd008fus) (last visited August 22, 2024) (arrow and highlighting added).

38. The Thunderbolt 4 DisplayPort 1.4 ports included with the Accused Lenovo Laptop described in paragraph 37 above comply with, implement, and embody DP v1.4, an Infringing DP Standard as defined in paragraph 18 above and as further defined in the numbered counts below with respect to each of the General Video Patents. See also <https://www.intel.com/content/www/us/en/gaming/resources/devices-make-the-most-out-of-thunderbolt-4.html> (“A Thunderbolt 4 port gives you a multitude of monitor options. Connect Thunderbolt™ displays, DisplayPort 1.4 displays, or use a Thunderbolt™ adapter or dock to connect HDMI, DVI, and VGA displays. Your choice.”).

39. A non-exhaustive list of Accused Lenovo Laptops is included in the list of Accused Lenovo Products identified in Appendix A hereto.

40. As shown below, as of August 2024, Lenovo makes, uses, sells, and/or offers to sell in, and/or imports into, the United States at least 165 models of desktop computer, covering at least eight product lines.

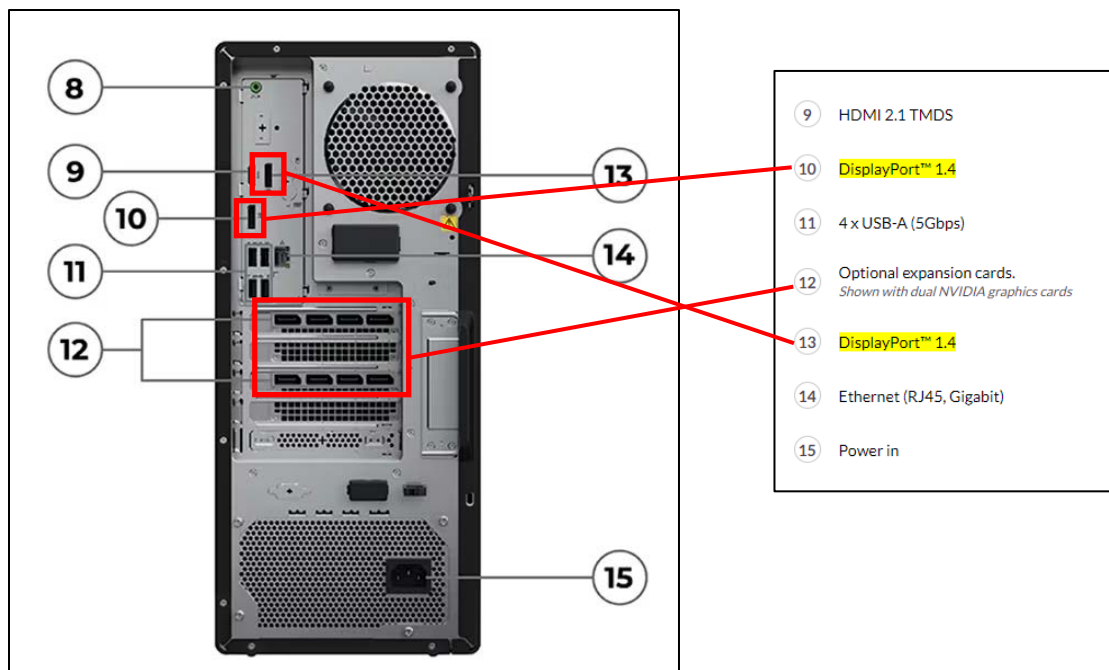


See, <https://www.lenovo.com/us/en/desktops/> (last visited August 22, 2024) (highlighting added).

41. Based on information published on Lenovo's website, many of the desktop computers Lenovo sells and offers to sell comply with, implement, and/or embody the Infringing DP Standards, and those that do so are, therefore, Accused Lenovo Desktops. For example, but without limitation, as shown below Lenovo advertises its ThinkStation P3 Tower Workstation (Product # 30GS003AUS) desktop as having at least three DisplayPort media connectivity ports and up to eight more DisplayPort media connectivity ports:

Configure it any which way

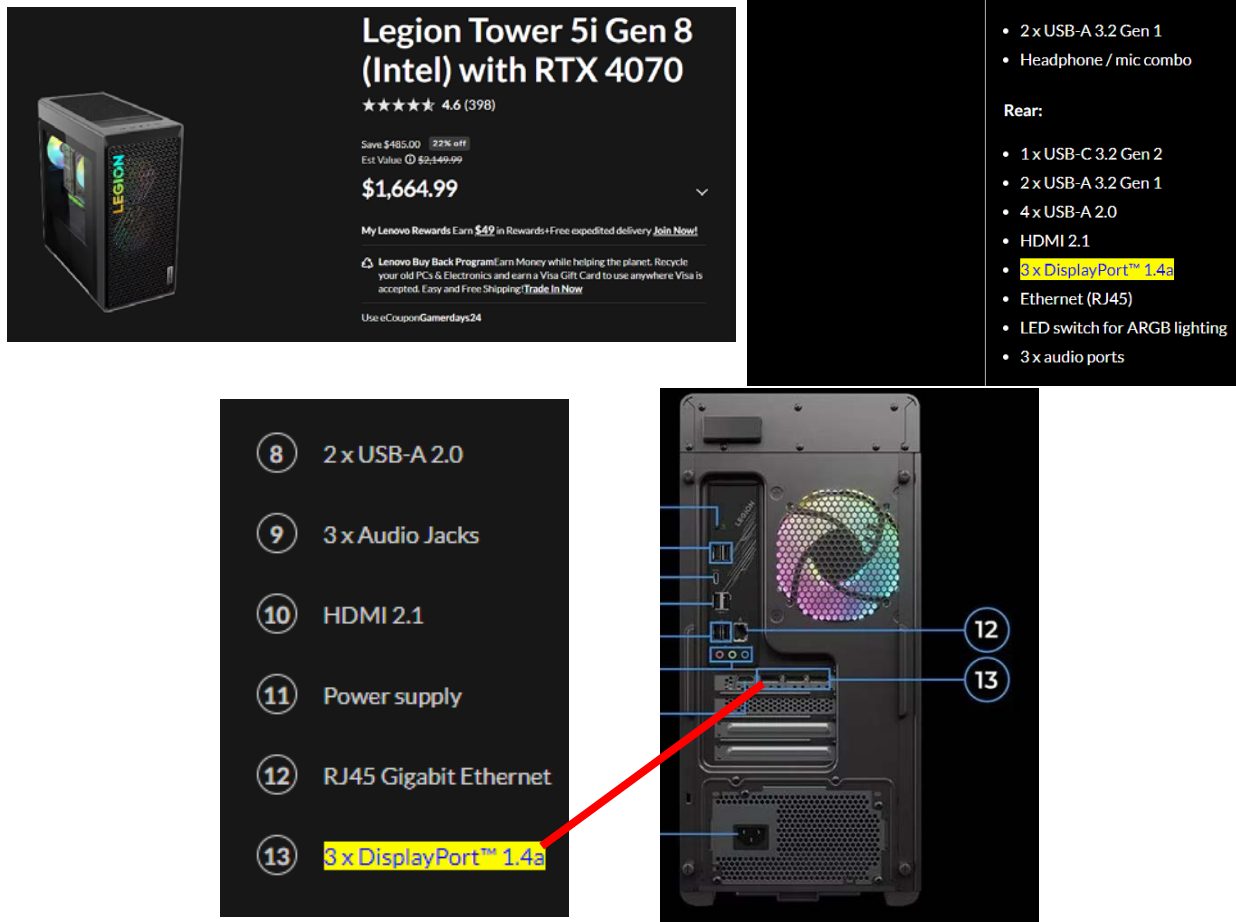
With three onboard DisplayPorts, plus the ability to configure up to eight more, the ThinkStation P3 Tower can support up to 12 independent displays. And with heaps of speedy memory and SSD storage, plus five open PCIe slots for a variety of network and special purpose add-in-cards, this workstation can be configured to tackle your most exacting workflows.



See, e.g., <https://www.lenovo.com/us/en/p/workstations/thinkstation-p-series/thinkstation-p3-tower/30gs003aus> (last visited August 22, 2024) (highlighting and annotations added).

42. The DisplayPort 1.4 ports included with the Accused Lenovo Desktop described in paragraph 41 above comply with, implement, and embody DP v1.4, an Infringing DP Standard as defined in paragraph 18 above and as further defined in the numbered counts below with respect to each of the General Video Patents.

43. By way of additional example, but not limitation, as shown below, Lenovo advertises its Legion Tower 5i Gen 8 (Intel) with RTX 4070 (Product # 90UT000VUS) desktop as featuring at least three DisplayPort media connectivity port(s):

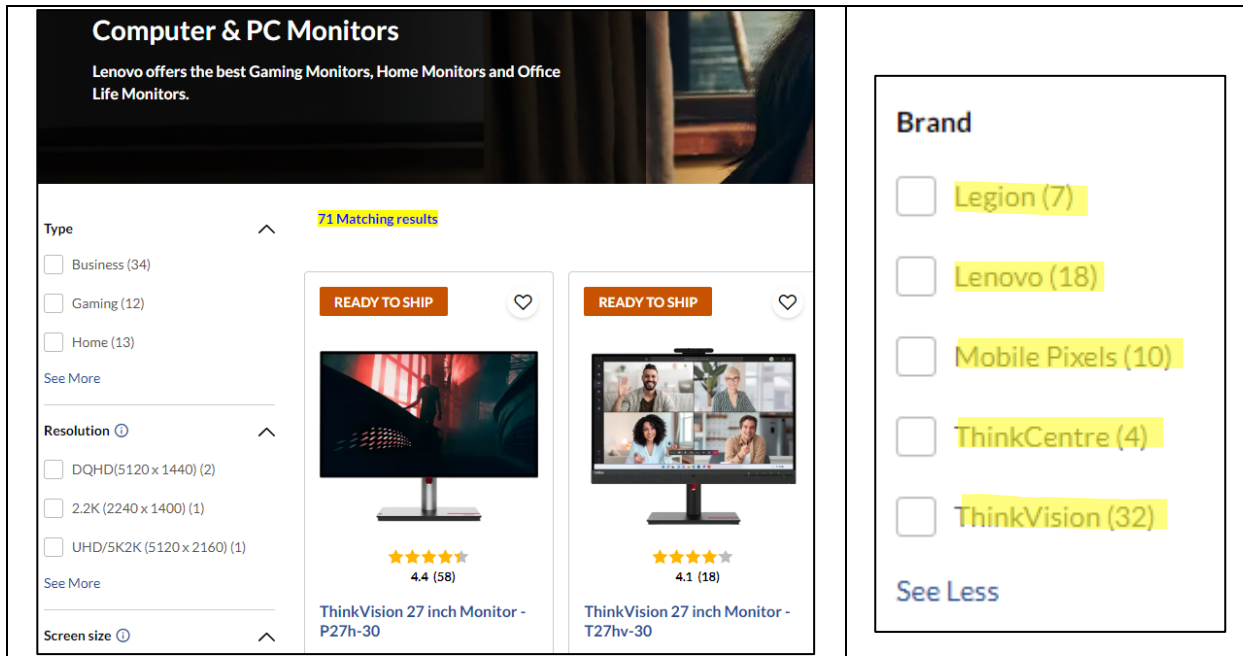


See, e.g., <https://www.lenovo.com/us/en/p/desktops/legion-desktops/legion-t-series-towers/-legion-tower-5i-gen-8-26l,-intel/90out000vus> (last visited August 22, 2024) (highlighting and annotations added).

44. The three DisplayPort multimedia connectivity ports included with the Legion Tower 5i Accused Lenovo Desktop described in paragraph 43 above comply with, implement, and embody DP v1.4a, an Infringing DP Standard as defined in paragraph 18 above and as further defined in the numbered counts below with respect to each of the General Video Patents.

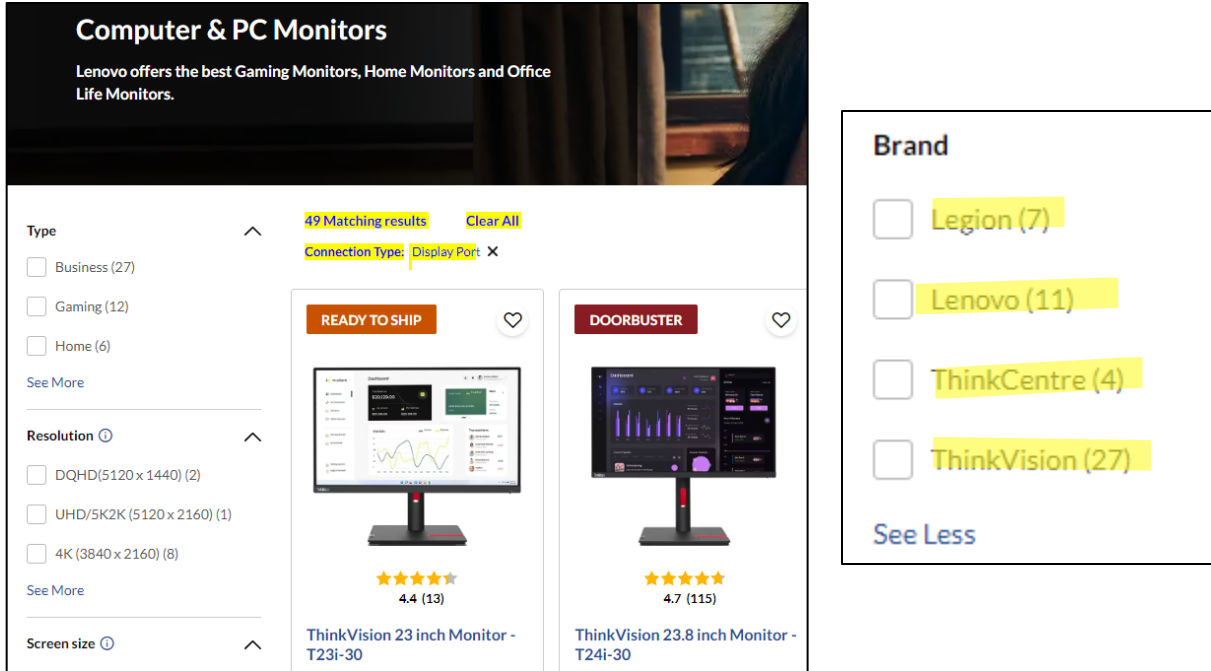
45. A non-exhaustive list of Accused Lenovo Desktops is included in the list of Accused Lenovo Products identified in Appendix A hereto.

46. As shown below, as of August 2024, Lenovo makes, uses, sells, and/or offers to sell in, and/or imports into, the United States at least 71 models of computer monitor, covering five brand categories.



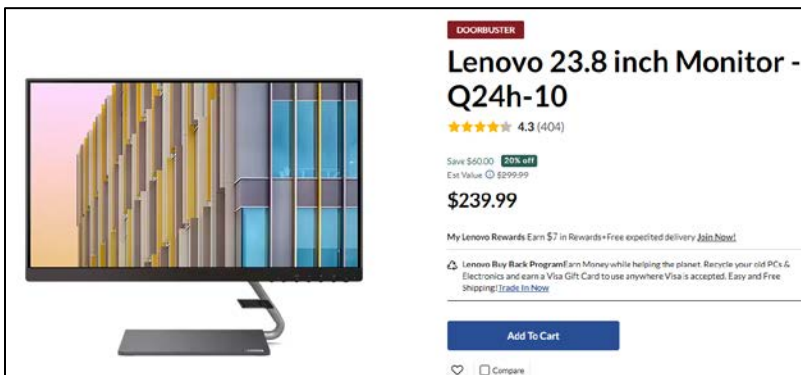
See, e.g., <https://www.lenovo.com/us/en/dc/accessories-and-software/monitors?sortBy=bestSelling> (last visited August 22, 2024) (highlighting added).

47. Based on information published on Lenovo’s website, the majority of computer monitors Lenovo sells and offers to sell comply with, implement, and/or embody the Infringing DP Standards, and those that do so are, therefore, Accused Lenovo Monitors. As shown below, as of August 2024, Lenovo makes, uses, sells, and/or offers to sell in, and/or imports into, the United States at least 49 models of computer monitor under the heading “Connection Type: Display Port.”



See, e.g., <https://www.lenovo.com/us/en/dc/accessories-and-software/monitors?sortBy=bestSellin&visibleDatas=703%3ADisplay%2520Port> (last visited August 22, 2024) (highlighting added).

48. By way of example, but without limitation, Lenovo advertises its Lenovo 23.8 inch Monitor - Q24h-10 (Product # 66A8GCC6US) as featuring a DisplayPort media connectivity port:



All About Versatile Connectivity and More

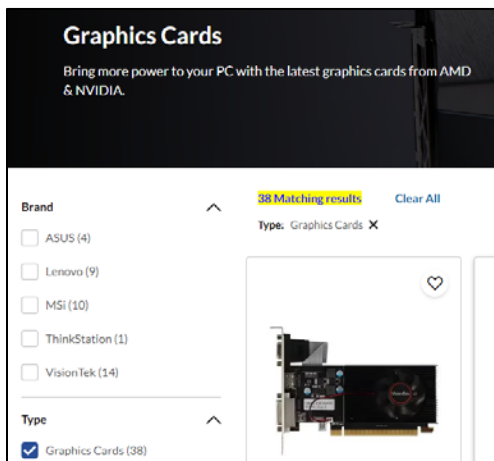
Lenovo Q24h-10 allows you to do more than just view your work. This extended USB-C Hub monitor offers a one-cable solution for power, data, video, and audio transfers. The Smart Power function detects overall power consumption and dynamically manages the power delivery to each USB device. It offers up to 80W1 of power delivery through the USB Type-C cable, reducing maximum power consumption. HDMI ports and **DisplayPort** enable seamless multitasking for you to connect the monitor to a laptop, smartphone, or any other smart device and work efficiently.

See <https://www.lenovo.com/us/en/p/accessories-and-software/monitors/home/66a8gcc6us> (lasted visited August 22, 2024) (highlighting added).

49. The DisplayPort media connectivity port included with the Accused Lenovo Monitor described in paragraph 48 above complies with, implements, and embodies an Infringing DP Standard as defined in paragraph 18 above and as further defined in the numbered counts below with respect to each of the General Video Patents.

50. A non-exhaustive list of Accused Lenovo Monitors is included in the list of Accused Lenovo Products identified in Appendix A hereto.

51. As shown below, as of August 2024, Lenovo uses, sells, and/or offers to sell in, and/or imports into, the United States at least 38 models of graphics card under five brands.




See <https://www.lenovo.com/us/en/dc/accessories-and-software/graphics-cards?visibleDatas=706%3AGraphics%2520Cards> (last visited August 22, 2024) (highlighting added).

52. Several of the graphics cards sold and offered for sale by Lenovo, and described in paragraph 52 above, comply with, implement, and/or embody the Infringing DP Standards, and those that do so are, therefore, Accused Lenovo Graphics Cards.

53. By way of example, but without limitation, Lenovo advertises the NVIDIA T400 4GB 3xDP Graphics Card (Product # 4X61J52234) as featuring three DP v1.4a-compliant DisplayPort media connectivity ports:

back to top
NVIDIA T400 4GB 3xDP Graphics Card
\$154.99
Add To Cart



Overview:

NVIDIA T400 4GB 3xDP Graphics Card is powered by NVIDIA Turing graphics processing unit (GPU) technology and 4GB of GDDR6 memory. The NVIDIA T400 graphics board is targeted for professional CAD, DCC and visualization designers, engineers, and users. Get the budget friendly high performing graphics board to drive today's demanding professional workflows in a compact footprint. Flexible form factor makes this card compatible with space and power constrained workstation chassis.

Key Details:

- 4GB of GDDR6 memory
- Peak memory bandwidth up to 80GB/s
- Support 3 simultaneous display and up to 5K resolution with VESA® DisplayPort® connectors
- DisplayPort with audio
- PCI Express Interface: PCIe 3.0 x 16

Tech Specs	
Weight	0.136 kg
Refresh Rate	DisplayPort 1.4a 7680 x 4320 x 24 bpp at 120Hz
Warranty Type	CRU
Interface	3x mini DisplayPort 1.4a

See https://www.lenovo.com/us/en/p/accessories-and-software/graphics-cards/graphics_cards/4x61j52234 (lasted visited August 22, 2024) (highlighting added).

54. The three DisplayPort media connectivity ports included with the Accused Lenovo Graphics Card described in paragraph 53 above comply with, implement, and embody DP v1.4a, an Infringing DP Standard as defined in paragraph 18 above and as further defined in the numbered counts below with respect to each of the General Video Patents.

55. Lenovo currently advertises on its website that the representative examples of Accused Lenovo Products described above, and currently advertises, or has in the past advertised, that the numerous, specific Accused Lenovo Products identified in Appendix A hereto, comply with and utilize, or have in the past complied with and utilized, one or more of the Infringing DP

Standards. In addition to Lenovo's own advertising representations in this regard, VESA identifies hundreds of Lenovo products as being "VESA CERTIFIED DISPLAYPORT PRODUCTS." *See, e.g.,* <https://www.displayport.org/product-category/computing/?ps&pman%5B0%5D=lenovo> (first of 10 search result pages identifying as Certified DisplayPort Products 75 Lenovo desktop, laptop, and all-in-one computers); <https://www.displayport.org/product-category/monitors-tvs/?ps&pman%5B0%5D=lenovo> (first of 12 search result pages identifying as Certified DisplayPort Products 96 Lenovo computer monitors, TVs, and DP displays).

LENOVO'S KNOWLEDGE OF THE ASSERTED PATENTS

56. In early 2015, MPEG LA, a patent pool administration company, administered the DP License (*see* paragraph 19 above), which provided licensing rights to a portfolio of patents found by an independent patent consultant to each be essential to various respective DisplayPort standards, including DP v1.2, an Infringing DP Standard as defined in paragraph 18 above. In April 2023, MPEG LA was acquired by Via-LA.

57. On information and belief, on or about March 16, 2015, MPEG LA, on behalf of General Video and its predecessors-in-interest, provided notice to Lenovo's subsidiary, Lenovo (United States) Inc., through its then Vice President and Deputy General Counsel, John Leshinski, (1) of the U.S. and foreign DisplayPort SEPs then administered and licensed by MPEG LA; (2) that such patents had been found by an independent patent consultant to be essential to various DisplayPort standards, including DP v1.2, an Infringing DP Standard as defined in paragraph 19 above; and (3) that Lenovo, as a "company that offer[ed] products with DisplayPort technology[,] need[ed] to be licensed under [those] essential patents and [would] benefit from the coverage that [the] DisplayPort License provides." A copy of the March 16, 2015, notice letter is attached as

Exhibit 7 hereto. A list of patents licensed under the DP License as of or about that date is attached as Exhibit 8 hereto (DisplayPort Attachment 1, revised 12/1/2015).³

58. On further information and belief, in the same March 16, 2015, communication described in paragraph 57 above, MPEG LA, on behalf of General Video and its predecessors-in-interest, provided notice to Lenovo, through its then Vice Deputy General Counsel, John Leshinski, of the remainder of the General Video Patents and Lenovo's infringement thereof. Specifically, MPEG LA provided Lenovo with: (1) an unsigned proposed version of the DP License, in which MPEG LA advised Lenovo that (a) the "DP Patent Portfolio" included "the portfolio of DP Essential Patent(s) which are initially identified in Attachment 1 hereto, [and] which portfolio may be supplemented or reduced from time to time in accordance with the provisions of this Agreement," DP License § 1.7 (revised March 5, 2015), Exhibit 9 hereto, and (b) "amendments to Attachment 1 hereto, if any, shall be effective upon the posting of the new Attachment 1 on the website of the Licensing Administrator and such posting shall constitute notice pursuant to this Section," *id.* § 7.2.1, Ex. 9 hereto; and (2) a presentation entitled, on information and belief, "DisplayPort Patent Portfolio License Briefing," which presentation, on information and belief, notified Lenovo that the list of DisplayPort essential patents, i.e., "Attachment 1 to the License[,] is updated regularly" and can be found at "<http://www.mpegla.com/main/programs/DisplayPort/Pages/PatentList.aspx>."

59. On information and belief, by posting new versions of Attachment 1 on its website as provided for in section 7.2.1 of the DP License, MPEG LA, as of the dates set forth below,

³ On information and belief, U.S. Patent Nos. 7,268,706 and 8,326,129, which appear in the list attached as Exhibit 8 hereto, were not licensed under the DP License Agreement as of MPEG LA's March 16, 2015, notice letter to Lenovo. Further, U.S. Patent No. 6,151,334, which is listed in Exhibit 8 hereto as having expired on October 4, 2015, was licensed under the DP License Agreement and still in-term as of March 16, 2015.

provided Lenovo with notice of the remainder of the General Video Patents and Lenovo's infringement thereof at least by MPEG LA's assertion that Lenovo had to obtain rights to those and the other patents in the DP Patent Portfolio by entering into the DP License:

- March 1, 2016: the 010 Patent (DisplayPort Attachment 1, revised 3/1/2016, Ex. 10 hereto);
- December 1, 2018: the 282 Patent, the 443 Patent, and the 224 Patent (DisplayPort Attachment 1, revised 12/1/2018, Ex. 11 hereto);
- June 1, 2021: the 437 Patent (DisplayPort Attachment 1, revised 6/1/2021, Ex. 12 hereto); and
- June 1, 2024: the 786 Patent (DisplayPort Attachment 1, revised 6/1/2024, Ex. 13 hereto).

COUNT I: THE 443 PATENT

60. Appendix B hereto is an exemplary patent claim chart that details how the inventions of claims 7 and 9 of the 443 Patent were essential to implementations of DP v1.2, relative to the transport of an audio stream between a source device (e.g., a desktop or laptop computer) and a sink device (e.g., a computer monitor or laptop display).⁴ The versions of the DisplayPort standard listed below (and applying the "DP v" abbreviation) include features that are either identical to, or materially the same as, the features of DP v1.2 shown to infringe claims 7 and 9 of the 443 Patent in Appendix B hereto. As such, these versions of the standard also infringed the 443 Patent during the term of that patent:

- DP v1.1, introduced April 2, 2007;
- DP v1.1a, introduced January 11, 2008;

⁴ The 443 Patent expired on April 20, 2020.

- DP v1.2a, introduced January 2013;
- DP v1.3, introduced September 15, 2014;
- DP v1.4, introduced March 1, 2016;
- DP v1.4a, introduced April 2018; and
- DP v2.0, introduced June 26, 2019

(collectively with DP v1.2, the “443 Infringing DP Standards”). Thus, whoever used one or more products to perform the methods described in Appendix B hereto with respect to DP v1.2, and described in the corresponding portions of the other 443 Infringing DP Standards, during the term of the 443 Patent, directly infringed claims 7 and 9 of that patent in violation of 35 U.S.C. § 271(a). *See, e.g., Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1328 (Fed. Cir. 2010) (although “claims should be compared to the accused product to determine infringement,” “if an accused product operates in accordance with a standard, then comparing the claims to that standard is the same as comparing the claims to the accused product”).

61. On information and belief, during the term of the 443 Patent, Lenovo directly infringed at least claims 7 and 9 of that patent by using Accused Lenovo Products in a manner that complied with the descriptions provided in Appendix B hereto with respect to DP v1.2, and the descriptions provided in the corresponding portions of the other 443 Infringing DP Standards.

62. By way of example and not limitation, and on information and belief, during the term of the 443 Patent, Lenovo employees used the Accused Lenovo Products in such an infringing manner when transmitting audio signals from Accused Lenovo Laptops, Accused Lenovo Desktops, and any desktop computers with installed Accused Lenovo Graphics Cards⁵ via a

⁵ Relative to the Accused Lenovo Graphics Cards, the alleged direct infringement of method claims 7 and 9 of the 443 Patent by Lenovo and Lenovo customers in this Count I presumes performance of the claimed

DisplayPort connection to Accused Lenovo Monitors, where such audio signals were played as audible sound through (i) one or more built-in speakers on the monitor(s), (ii) one or more external speakers connected to an audio line-out port on the monitor(s), or (iii) headphones or earphones connected to an audio line-out port on the monitor(s). On its website, Lenovo explains:

Displayport and HDMI are two popular video and audio interfaces used to connect devices like computers, monitors, televisions (TVs), and gaming consoles. They both serve the same purpose of *transmitting high-quality audio and video signals*. . . both Displayport and HDMI can *transmit audio signals alongside video*. This means you can connect your computer or other audio-video source to a monitor or television (TV) and have the sound play through the display's built-in speakers or an external audio system. Just make sure the connected devices support audio over the respective interface.

<https://www.lenovo.com/us/en/glossary/displayport-vs-hdmi/> (emphasis added).

63. During the term of the 443 Patent, Lenovo advertised Accused Lenovo Laptops, Desktops, Graphics Cards, and Monitors as supporting DisplayPort media connectivity. By way of example and not limitation, as of and before October 14, 2019, Lenovo made, used, offered for sale, and sold its ThinkPad T490 Laptop, which featured a “USB 3.1 Gen 1** Type-C (Power Delivery, DisplayPort, Data transfer)” media connectivity port along with a “USB 3.1 Gen 2** Type-C / Intel Thunderbolt 3 (Power Delivery, DisplayPort, Data transfer)” media connectivity port.⁶ By way of further example and not limitation, as of and before October 14, 2019, Lenovo made, used, offered for sale, and sold its ThinkStation P330 Tower, which featured “2 x DisplayPort” media connectivity ports and optional “4 x DisplayPort” media connectivity ports in

methods by Lenovo’s and Lenovo’s customers’ use, in part, of computers having installed Accused Lenovo Graphics Cards.

⁶ See, e.g., <https://www.lenovo.com> (archived at *Wayback Machine*, <https://web.archive.org/web/20191014002609/https://www.lenovo.com/us/en/laptops/thinkpad/thinkpad-t-series/T490/p/22TP2TT4900> (capture dated 10/14/2019)).

the “Rear Ports & Slots” for “[s]upport[ing] up to 7 independent displays,”⁷ By way of further example and not limitation, as of and before September 1, 2017, Lenovo at least offered for sale and sold the NVIDIA NVS 310 1GB Dual-DisplayPort Graphics Card (Part No.: 4X60K59923), which featured two DisplayPort media connectivity ports.⁸ By way of still further example but not limitation, as of and before March 7, 2020, Lenovo made, used, offered for sale, and sold its Legion Y44w-10 43.4-inch WLED Curved Panel HDR Gaming Monitor (Part Number: 65EARAC1US),⁹ which featured a “USB Type-C 5G (DisplayPort DP 1.2 Alternate Mode)” and “USB Type-C 10G (DisplayPort DP 1.4 Alternate Mode)” input connectors along with an “Audio Out” jack that allowed users to “[c]onnect [a] speaker’s audio cable and audio jack of monitor to transfer audio source from DP, Type-C or HDMI.” *See, e.g.*, User Manual pp. 1-6 and 1-10 available at https://download.lenovo.com/consumer/monitor/lenovo_y44w-10_ug_en.pdf.

64. By way of example and not limitation, and on information and belief, during the term of the 443 Patent, Lenovo employees used Accused Lenovo Products such as the Accused Lenovo Laptop, Desktop, Graphics Card, and Monitor described in paragraph 63 above, and other Accused Lenovo Laptops, Desktops, Graphics Cards, and Monitors, in the directly infringing manner described in paragraph 62 above, described in Appendix B hereto with respect to DP v1.2, and described in the corresponding portions of the other 443 Infringing DP Standards, when transmitting, receiving, playing, and/or recording audio signals at, between, and/or among

⁷ *See, e.g.*, <https://www.lenovo.com> (archived at *Wayback Machine*, <https://web.archive.org/web/20191014002501/https://www.lenovo.com/us/en/think-workstations/thinkstation-p-series-towers/ThinkStation-P330-Tower/p/WMD00000364> (capture dated 10/14/2019)).

⁸ *See, e.g.*, <https://www.lenovo.com> (archived at *Wayback Machine*, <https://web.archive.org/web/20170906183748/http://www3.lenovo.com/us/en/accessories-and-monitors/graphic-cards/graphic-cards/GRAPHIC-BO-NVS-310-1GB-Graphics-Card/p/4X60K59923> (capture dated 9/1/2017)).

⁹ *See, e.g.*, <https://www.lenovo.com> (archived at *Wayback Machine*, <https://web.archive.org/web/20200307072615/https://www.lenovo.com/us/en/accessories-and-monitors/monitors/c/monitors?q=%3Aprice-asc%3AfacetAc-c-Type%3AGaming&uq=&text=> (capture dated March 7, 2020)).

Lenovo's offices and facilities in the United States. *See, e.g.,* <https://www.lenovo.com/us/en/about/locations/> (identifying 8 Lenovo office locations in the United States). On information and belief, one of numerous examples of such directly infringing uses was when Lenovo employees participated in video conferences or Voice over Internet Protocol (VoIP) calls using an Accused Lenovo Laptop, Accused Lenovo Desktop, or Accused Lenovo Graphics Card connected to an Accused Lenovo Monitor as described above.

65. On information and belief, during the term of the 443 Patent, another example of such directly infringing use was when Lenovo employees streamed or played recorded or real-time audio-video content using Accused Lenovo Laptops, Accused Lenovo Desktops, or Accused Lenovo Graphics Cards, such as those described in paragraph 63 above, and other Accused Lenovo Laptops, Desktops, and Graphics Cards connected to Accused Lenovo Monitors, such as the one described in paragraph 63 above, and other Accused Lenovo Monitors, in the manner generally described in paragraph 62 above, described in Appendix B hereto with respect to DP v1.2, and described in the corresponding portions of the other 443 Infringing DP Standards. On information and belief, one of numerous examples of such directly infringing uses was when Lenovo employees played on an Accused Lenovo Laptop, Accused Lenovo Desktop, or Accused Lenovo Graphics Card connected to an Accused Lenovo Monitor as described above any of the hundreds of videos with audio content that Lenovo itself made available for streaming from its online Lenovo Technical Support. *See* <https://support.lenovo.com/us/en>.

66. On information and belief, during the term of the 443 Patent, Lenovo employees also used Accused Lenovo Products in the directly infringing manner described above, described in Appendix B hereto with respect to DP v1.2, and described in the corresponding portions of the other 443 Infringing DP Standards, when they demonstrated Accused Lenovo Products to actual

and potential customers of Accused Lenovo Products at trade shows, during product demonstrations, and – generally – as part of Lenovo’s marketing and sales operations. By way of example and not limitation, Lenovo attends and exhibits its products at the annual Consumer Electronics Show (CES) trade show. By way of further example and not limitation, the “Lenovo Legion Go” – an Accused Lenovo Laptop (see Appendix A) s honored as a “CES 2024 Innovation Award Product” at the 2023 CES, held in Las Vegas, Nevada, January 9 to January 12, 2024. <https://www.ces.tech/innovation-awards/honorees/2024/honorees/1/lenovo-legion-go.aspx>. The Lenovo Legion Go includes at least two DisplayPort 1.4 media connectivity ports (see e.g., <https://www.lenovo.com/us/en/p/handheld/legion-go/len106g0001>).

67. By way of further example and not limitation, the “ThinkPad X1 Fold,” – an Accused Lenovo Laptop (see Appendix A) –, was honored as a “CES 2023 Innovation Award Product” at the 2023 CES, held in Las Vegas, Nevada, January 5 to January 8, 2023. <https://www.ces.tech/innovation-awards/honorees/2023/honorees/t/thinkpad-x1-fold.aspx>. The ThinkPad X1 Fold 16 Gen 1 includes at least three DisplayPort 1.4a media connectivity ports. (See e.g., https://psref.lenovo.com/syspool/Sys/PDF/ThinkPad/ThinkPad_X1_Fold_16_Gen_1/ThinkPad_X1_Fold_16_Gen_1_Spec.pdf). During the term of the 443 Patent, Lenovo attended CES 2020, held in Las Vegas January 7 to 10, 2020. See, e.g., <https://news.lenovo.com/pressroom/press-releases/lenovo-breaks-barriers-with-new-consumer-technology-unveiled-at-ces-2020-2/>. Among the numerous products Lenovo showcased at CES 2020 was its Lenovo IdeaPad Flex 5 Chromebook which featured two “USB-C 3.2 Gen 1 (support data transfer, Power Delivery 2.0 and DisplayPort™ 1.2)” media connectivity ports. See, e.g., https://psref.lenovo.com/syspool/Sys/PDF/IdeaPad/IdeaPad_Flex_5_CB_13IML05/IdeaPad_Flex_5_CB_13IML05_Spec.PDF.

68. On information and belief, during the term of the 443 Patent, Lenovo employees also used Accused Lenovo Products in the directly infringing manner described above, described in Appendix B hereto with respect to DP v1.2, and described in the corresponding portions of the other 443 Infringing DP Standards, when providing customer support to Lenovo's actual and potential customers. By way of example and not limitation, and on information and belief, Lenovo employees used Accused Lenovo Products when troubleshooting and resolving technical issues for Lenovo's actual and potential customers. In this regard, Lenovo offered during the term of the 443 Patent, and currently offers, robust technical support services, which services include telephone support, online support, and online support libraries and video libraries that feature articles, tutorials, and videos to assist in troubleshooting and maintaining Accused Lenovo Products. *See, e.g.*, <https://www.lenovo.com/us/en/contact/>; *see also* <https://support.lenovo.com/us/en>.

69. By way of further example and not limitation, and on information and belief, during the term of the 443 Patent, Lenovo employees used and controlled Lenovo customers' Accused Lenovo Products in the directly infringing manner described above, described in Appendix B hereto with respect to DP v1.2, and described in the corresponding portions of the other 443 Infringing DP Standards, when providing onsite assistance for customers' Accused Lenovo Products. Lenovo's Premium Care Plus, Premium Care, and Legion Ultimate Support provide "Onsite Repair Next Business Day . . . [i]f the issue can't be solved remotely, an onsite technician will be there within one business day." <https://support.lenovo.com/us/en/warranty-upgrade-and-services/>.

70. On information and belief, during the term of the 443 Patent, Lenovo employees also used Accused Lenovo Products in the directly infringing manner described above, described

in Appendix B hereto with respect to DP v1.2, and described in the corresponding portions of the other 443 Infringing DP Standards, when they tested the Accused Lenovo Products to confirm compliance with the portions of DP v1.2 described in Appendix B hereto and/or the portions of the other 443 Infringing DP Standards. On information and belief, Lenovo employees conducted at least some of the testing described in this paragraph using one or more of the “DisplayPort Authorized Test Tools” previously and still available via links on VESA’s website. *See, e.g.*, <https://vesa.org/authorized-test-tools/>.

71. Further, and on information and belief, with knowledge of the General Video Patents as described in paragraphs 56 to 59 above, Lenovo actively induced infringement of at least claims 7 and 9 of the 443 Patent, during the term of that patent, in violation of 35 U.S.C. § 271(b). On information and belief, past users and customers of the Accused Lenovo Products directly infringed at least claims 7 and 9 of the 443 Patent when they used the Accused Lenovo Products for such products’ ordinary, customary, and intended use, and, in particular, used Accused Lenovo Products in the directly infringing manner described in Appendix B hereto with respect to DP v1.2, and described in the corresponding portions of the other 443 Infringing DP Standards. On information and belief, Lenovo’s affirmative acts of inducement included, without limitation and with specific intent to encourage the infringement, having knowingly induced consumers to use the Accused Lenovo Products within the United States in the ordinary, customary, and intended way, and, in particular, in the directly infringing manner described in Appendix B hereto with respect to DP v1.2, and described in the corresponding portions of the other 443 Infringing DP Standards, by, directly or through intermediaries, having supplied such Accused Lenovo Products to customers within the United States and having instructed and encouraged such customers how to use the Accused Lenovo Products in the ordinary, customary,

and intended way, and, in particular, in the directly infringing manner described in Appendix B hereto with respect to DP v1.2, and described in the corresponding portions of the other 443 Infringing DP Standards, which use Lenovo knew or should have known infringed at least claims 7 and 9 of the 443 Patent. Lenovo's affirmative acts of inducement further included, without limitation and with specific intent to encourage the infringement, any one or a combination of encouraging and/or facilitating third-party infringement through having advertised, marketed, and disseminated the Accused Lenovo Products and components thereof, including DisplayPort firmware and/or drivers; and having created, published and/or provided sales, promotional, and marketing materials; supporting materials; product manuals; user guides; and/or technical support and other information relating to the Accused Lenovo Products and DisplayPort functionality thereof (*see, e.g.*, links in the paragraphs above to product and support pages and videos from Lenovo's website) during the term of the 443 Patent.

72. Further and in the alternative, on information and belief, with knowledge of the General Video Patents as described in paragraphs 56 to 59 above, Lenovo contributed to the infringement of at least claims 7 and 9 of the 443 Patent, during the term of that patent, in violation of 35 U.S.C. § 271(c). Users and customers of the Accused Lenovo Products directly infringed at least claims 7 and 9 of the 443 Patent when they used the Accused Lenovo Products for such products' ordinary, customary, and intended use, and, in particular, in the directly infringing manner described in Appendix B hereto with respect to DP v1.2, and described in the corresponding portions of the other 443 Infringing DP Standards. Lenovo's contributory infringement included, without limitation, Lenovo's sale and provision of Accused Lenovo Products, including DisplayPort components thereof, to customers in the United States for use in practicing at least claims 7 and 9 of the 443 Patent, during the term of that patent, knowing that

such products and components were material to practicing the claimed inventions, were not staple articles or commodities of commerce suitable for substantial non-infringing use, and were especially made or especially adapted for use in an infringement of the 443 Patent. Specifically, Lenovo sold the Accused Lenovo Products to customers knowing that the customers' operation of such products directly infringed at least claims 7 and 9 of the 443 Patent when used for their normal and intended purpose, and, in particular, when used in the directly infringing manner described in Appendix B hereto with respect to DP v1.2, and described in the corresponding portions of the other 443 Infringing DP Standards. The Accused Lenovo Products and DisplayPort components thereof were made for the specific purpose of operating as described in Appendix B hereto with respect to DP v1.2, and as described in such corresponding portions of the other 443 Infringing DP Standards, and have no substantial non-infringing use.

73. On information and belief, as of December 1, 2018, Lenovo knew of the 443 Patent and MPEG LA's assertion that Lenovo was an infringer as a "company that offers products with DisplayPort technology[,] need[ed] to be licensed under the[] essential patents" (Ex. 7 hereto, MPEG LA's 3/16/2015 notice letter to Lenovo), including the 443 Patent (Ex. 11 hereto, DisplayPort Attachment 1, revised 12/1/2018 (providing notice of addition to the DP License of the 282 Patent, the 443 Patent, the 224 Patent, and other patents essential to DisplayPort standards)).

74. To the extent Lenovo was unaware of the 443 Patent and MPEG LA's assertion that the 443 Patent is essential to the 443 Infringing DP Standards and Lenovo, as an implementer of the 443 Infringing DP Standards and, thus, an infringer of the 443 Patent, required a license under the DP License as of, or within a reasonable time after, December 1, 2018, then Lenovo should have known of the 443 Patent and MPEG LA's assertion by then but was willfully blind to

the existence of the 443 Patent and its infringement of the same. For at least the foregoing reasons, Lenovo's infringement of the 443 Patent was willful and deliberate.

COUNT II: THE 224 PATENT

75. Appendix C hereto is an exemplary patent claim chart that details how the inventions of claims 3 and 5 of the 224 Patent were essential to implementations of DP v1.2, relative to the receipt of audio data and audio-related information associated with such audio data.¹⁰ The versions of the DisplayPort standard listed below include features that are identical to, or materially the same as, the features of DP v1.2 shown to infringe claims 3 and 5 of the 224 Patent in Appendix C hereto. As such, these versions of the standard also infringed the 224 Patent during the term of that patent:

- DP v1.1, introduced April 2, 2007;
- DP v1.1a, introduced January 11, 2008;
- DP v1.2a, introduced January 2013;
- DP v1.3, introduced September 15, 2014;
- DP v1.4, introduced March 1, 2016;
- DP v1.4a, introduced April 2018; and
- DP v2.0, introduced June 26, 2019

(collectively with DP v1.2, the "224 Infringing DP Standards"). Thus, whoever made, used, offered for sale, or sold any product that complied with, implemented, and/or embodied the portions of DP v1.2 described in Appendix C hereto, and/or complied with, implemented, and/or embodied the corresponding portions of the other 224 Infringing DP Standards, during the term of the 224 Patent, directly infringed claims 3 and 5 of that patent in violation of 35 U.S.C. § 271(a).

¹⁰ The 224 Patent expired on April 20, 2020.

See, e.g., Fujitsu, 620 F.3d at 1328 (Fed. Cir. 2010) (although “claims should be compared to the accused product to determine infringement,” “if an accused product operates in accordance with a standard, then comparing the claims to that standard is the same as comparing the claims to the accused product”).

76. During the term of the 224 Patent, Lenovo directly infringed at least claims 3 and 5 of that patent by making, using, selling, and/or offering to sell in, and/or importing into, the United States Accused Lenovo Products that complied with, implemented, and embodied the description provided in Appendix C hereto with respect to DP v1.2, and the descriptions provided in the corresponding portions of the other 224 Infringing DP Standards.

77. By way of example and not limitation, and on information and belief, during the term of the 224 Patent, Lenovo directly infringed at least claims 3 and 5 of that patent by selling and offering to sell Accused Lenovo Products such as certain Accused Lenovo Monitors, that included a receiver operable to analyze and process audio data and audio-related information associated with the audio data in the infringing manner described in Appendix C hereto. *See, e.g., Sorrell Holdings, LLC v. Infinity Headwear & Apparel, LLC*, 2024 WL 413432, at *3 (Fed. Cir. Feb. 5, 2024) (“For an ‘accused device[] to be infringing, [it] need only be capable operating’ in the infringing manner.”) (bracketed text in original) (quoting *Intel Corp. v. U.S. Int’l Trade Comm’n*, 946 F.2d 821, 832 (Fed. Cir. 1991)). Evidence of actual operation is not required to prove infringement of apparatus claims 3 and 5 of the 224 Patent. However, on information and belief, there are numerous examples of Accused Lenovo Monitors actually operating in the infringing manner described in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the other 224 Infringing DP Standards, during the term of the 224 Patent. An example is whenever audio signals were transmitted from Accused Lenovo Laptops, Accused

Lenovo Desktops, and any desktop computer with installed Accused Lenovo Graphics Cards¹¹ via a DisplayPort connection to Accused Lenovo Monitors, where such audio signals were capable of being played as audible sound through (i) one or more built-in speakers on the monitor(s), (ii) one or more external speakers connected to an audio line-out port on the monitor(s), or (iii) headphones or earphones connected to an audio line-out port on the monitor(s). On its website, Lenovo explains:

Displayport and HDMI are two popular video and audio interfaces used to connect devices like computers, monitors, televisions (TVs), and gaming consoles. They both serve the same purpose of *transmitting high-quality audio and video signals*. . . both Displayport and HDMI can *transmit audio signals alongside video*. This means you can connect your computer or other audio-video source to a monitor or television (TV) and have the sound play through the display's built-in speakers or an external audio system. Just make sure the connected devices support audio over the respective interface.

<https://www.lenovo.com/us/en/glossary/displayport-vs-hdmi/> (emphasis added).

78. During the term of the 224 Patent, Lenovo advertised Accused Lenovo Monitors as supporting DisplayPort media connectivity, including audio connectivity. By way of example and not limitation, as of and before April 16, 2020, Lenovo made, used, offered for sale, and sold its By way of still further example but not limitation, as of and before March 7, 2020, Lenovo made, used, offered for sale, and sold its Legion Y44w-10 43.4-inch WLED Curved Panel HDR Gaming Monitor (Part Number: 65EARAC1US),”¹² which featured a “USB Type-C 5G (DisplayPort DP 1.2 Alternate Mode)” and “USB Type-C 10G (DisplayPort DP 1.4 Alternate Mode)” input connectors along with an “Audio Out” jack that allowed users to “[c]onnect [a] speaker’s audio

¹¹ Relative to the Accused Lenovo Graphics Cards, the alleged direct infringement of claims 3 and 5 of the 224 Patent by Lenovo and Lenovo customers in this Count II presumes operation by Lenovo and Lenovo customers, in part, of computers having installed Accused Lenovo Graphics Cards.

¹² See, e.g., <https://www.lenovo.com> (archived at *Wayback Machine*, <https://web.archive.org/web/20200307072615/https://www.lenovo.com/us/en/accessories-and-monitors/monitors/c/monitors?q=%3Aprice-asc%3AfacetAc-c-Type%3AGaming&uq=&text=> (capture dated March 7, 2020)).

cable and audio jack of monitor to transfer audio source from DP, Type-C or HDMI.” *See, e.g.*, User Manual pp. 1-6 and 1-10 available at https://download.lenovo.com/consumer/monitor/lenovo_y44w-10_ug_en.pdf. This and any other Accused Lenovo Monitor sold and offered for sale before the April 20, 2020, expiration of the 224 Patent that supported media connectivity using an Infringing DP Standard and included either an audio line-out and/or built-in speakers infringed at least claims 3 and 5 of the 224 Patent.

79. On information and belief, and in addition to Lenovo’s direct infringement as described in paragraph 77 above, during the term of the 224 Patent, Lenovo directly infringed at least claims 3 and 5 of the 224 Patent by using Accused Lenovo Monitors in the directly infringing manner described in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the other 224 Infringing DP Standards.

80. By way of example and not limitation, and on information and belief, during the term of the 224 Patent, Lenovo employees used Accused Lenovo Monitors in such an infringing manner when transmitting audio signals from Accused Lenovo Laptops, Accused Lenovo Desktops, and Accused Lenovo Graphics Cards via a DisplayPort connection to Accused Lenovo Monitors, where, as discussed in the paragraphs above, such audio signals were played as audible sound through (i) one or more built-in speakers on the monitor(s), (ii) one or more external speakers connected to an audio line-out port on the monitor(s), or (iii) headphones or earphones connected to an audio line-out port on the monitor(s).

81. By way of example and not limitation, and on information and belief, during the term of the 224 Patent, Lenovo employees used Accused Lenovo Monitors in the directly infringing manner described in paragraph 77 above, described in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the other 224 Infringing DP Standards,

when transmitting, receiving, playing, and/or recording audio signals at, between, and/or among Lenovo's offices and facilities in the United States. *See, e.g.*, <https://www.lenovo.com/us/en/about/locations/> (identifying 8 Lenovo office locations in the United States). On information and belief, one of numerous examples of such directly infringing uses was when Lenovo employees participated in video conferences or Voice over Internet Protocol (VoIP) calls using an Accused Lenovo Laptop, Accused Lenovo Desktop, or Accused Lenovo Graphics Card connected to an Accused Lenovo Monitor as described above.

82. On information and belief, another example of such directly infringing use during the term of the 224 Patent was when Lenovo employees streamed or played recorded or real-time audio-video content using Accused Lenovo Laptops, Accused Lenovo Desktops, or Accused Lenovo Graphics Cards, such as those described in paragraph 78 above, and other Accused Lenovo Laptops, Desktops, and Graphics Cards connected to Accused Lenovo Monitors, such as the one described in paragraph 78 above, and other Accused Lenovo Monitors, in the manner generally described in paragraph 77 above, described in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the other 224 Infringing DP Standards. On information and belief, one of numerous examples of such directly infringing uses was when Lenovo employees played on an Accused Lenovo Laptop, Accused Lenovo Desktop, or Accused Penovot Graphics Card connected to an Accused Lenovo Monitor as described above any of the hundreds of videos with audio content that Lenovo itself made available for streaming from its online Lenovo Technical Support. *See* <https://support.lenovo.com/us/en>.

83. On information and belief, during the term of the 224 Patent, Lenovo employees also used Accused Lenovo Monitors in the directly infringing manner described above, described in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the

other 224 Infringing DP Standards, when they demonstrated Accused Lenovo Products to actual and potential customers of Accused Lenovo Products at trade shows, during product demonstrations, and – generally – as part of Lenovo’s marketing and sales operations. By way of example and not limitation, Lenovo attends and exhibits its products at the annual Consumer Electronics Show (CES) trade show. By way of further example and not limitation, the “Lenovo Legion Go” – an Accused Lenovo Laptop (see Appendix A) s honored as a “CES 2024 Innovation Award Product” at the 2023 CES, held in Las Vegas, Nevada, January 9 to January 12, 2024. <https://www.ces.tech/innovation-awards/honorees/2024/honorees/1/lenovo-legion-go.aspx>. The Lenovo Legion Go includes at least two DisplayPort 1.4 media connectivity ports (see e.g., <https://www.lenovo.com/us/en/p/handheld/legion-go/len106g0001>).

84. By way of further example and not limitation, the “ThinkPad X1 Fold,” – an Accused Lenovo Laptop (see Appendix A) –, was honored as a “CES 2023 Innovation Award Product” at the 2023 CES, held in Las Vegas, Nevada, January 5 to January 8, 2023. <https://www.ces.tech/innovation-awards/honorees/2023/honorees/t/thinkpad-x1-fold.aspx>. The ThinkPad X1 Fold 16 Gen 1 includes at least three DisplayPort 1.4a media connectivity ports. (See e.g., https://psref.lenovo.com/syspool/Sys/PDF/ThinkPad/ThinkPad_X1_Fold_16_Gen_1/ThinkPad_X1_Fold_16_Gen_1_Spec.pdf). During the term of the 443 Patent, Lenovo attended CES 2020, held in Las Vegas January 7 to 10, 2020. See, e.g., <https://news.lenovo.com/pressroom/press-releases/lenovo-breaks-barriers-with-new-consumer-technology-unveiled-at-ces-2020-2/>. Among the numerous products Lenovo showcased at CES 2020 was its Lenovo IdeaPad Flex 5 Chromebook which featured two “USB-C 3.2 Gen 1 (support data transfer, Power Delivery 2.0 and DisplayPort™ 1.2)” media connectivity ports. See, e.g., https://psref.lenovo.com/syspool/Sys/PDF/IdeaPad/IdeaPad_Flex_5_CB_13IML05/IdeaPad_Flex_5_CB_13IML05_Spec.PDF.

85. On information and belief, during the term of the 224 Patent, Lenovo employees also used Accused Lenovo Monitors in the directly infringing manner described above, described in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the other 224 Infringing DP Standards, when providing customer support to Lenovo's actual and potential customers. By way of example and not limitation, and on information and belief, Lenovo employees used Accused Lenovo Products when troubleshooting and resolving technical issues for Lenovo's actual and potential customers. In this regard, Lenovo offered during the term of the 224 Patent, and currently offers, robust technical support services, which services include telephone support, online support, and online support libraries and video libraries that feature articles, tutorials, and videos to assist in troubleshooting and maintaining Accused Lenovo Products. *See, e.g.*, <https://www.lenovo.com/us/en/contact/>; *see also* <https://support.lenovo.com/us/en>.

86. By way of further example and not limitation, and on information and belief, during the term of the 224 Patent, Lenovo employees used and controlled Lenovo customers' Accused Lenovo Monitors in the directly infringing manner described above, described in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the other 224 Infringing DP Standards, when providing onsite assistance for customers' Accused Lenovo Products. Lenovo's Premium Care Plus, Premium Care, and Legion Ultimate Support provide "Onsite Repair Next Business Day . . . [i]f the issue can't be solved remotely, an onsite technician will be there within one business day." <https://support.lenovo.com/us/en/warranty-upgrade-and-services/>.

87. On information and belief, during the term of the 224 Patent, Lenovo employees also used Accused Lenovo Monitors in the directly infringing manner described above, described

in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the other 224 Infringing DP Standards, when they tested the Accused Lenovo Monitors to confirm compliance with the portions of DP v1.2 described in Appendix C hereto and/or the corresponding portions of the other 224 Infringing DP Standards. On information and belief, Lenovo employees conducted at least some of the testing described in this paragraph using one or more of the “DisplayPort Authorized Test Tools” previously and still available via links on VESA’s website. *See, e.g.,* <https://vesa.org/authorized-test-tools/>.

88. Further, and on information and belief, with knowledge of the General Video Patents as described in paragraphs 56 to 59 above, Lenovo actively induced infringement of at least claims 3 and 5 of the 224 Patent, during the term of that patent, in violation of 35 U.S.C. § 271(b). On information and belief, past users and customers of the Accused Lenovo Products directly infringed at least claims 3 and 5 of the 224 Patent when they used the Accused Lenovo Products for such products’ ordinary, customary, and intended use, and, in particular, used Accused Lenovo Products in the directly infringing manner described in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the other 224 Infringing DP Standards. On information and belief, Lenovo’s affirmative acts of inducement included, without limitation and with specific intent to encourage the infringement, having knowingly induced consumers to use the Accused Lenovo Products within the United States in the ordinary, customary, and intended way, and, in particular, in the directly infringing manner described in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the other 224 Infringing DP Standards, by, directly or through intermediaries, having supplied such Accused Lenovo Products to customers within the United States and having instructed and encouraged such customers how to use the Accused Lenovo Products in the ordinary, customary,

and intended way, and, in particular, in the directly infringing manner described in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the other 224 Infringing DP Standards, which use Lenovo knew or should have known infringed at least claims 3 and 5 of the 224 Patent. Lenovo's affirmative acts of inducement further included, without limitation and with specific intent to encourage the infringement, any one or a combination of encouraging and/or facilitating third-party infringement through having advertised, marketed, and disseminated the Accused Lenovo Products and components thereof, including DisplayPort firmware and/or drivers; and having created, published and/or provided sales, promotional, and marketing materials; supporting materials; product manuals; user guides; and/or technical support and other information relating to the Accused Lenovo Products and DisplayPort functionality thereof (*see, e.g.*, links in the paragraphs above to product and support pages and videos from Lenovo's website) during the term of the 224 Patent.

89. Further and in the alternative, on information and belief, with knowledge of the General Video Patents as described in paragraphs 56 to 59 above, Lenovo contributed to the infringement of at least claims 3 and 5 of the 224 Patent, during the term of that patent, in violation of 35 U.S.C. § 271(c). Users and customers of the Accused Lenovo Products directly infringed at least claims 3 and 5 of the 224 Patent when they used the Accused Lenovo Products for such products' ordinary, customary, and intended use, and, in particular, in the directly infringing manner described in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the other 224 Infringing DP Standards. Lenovo's contributory infringement included, without limitation, Lenovo's sale and provision of Accused Lenovo Products, including DisplayPort components thereof, to customers in the United States for use in practicing at least claims 3 and 5 of the 224 Patent, during the term of that patent, knowing that

such products and components were material to practicing the claimed inventions, were not staple articles or commodities of commerce suitable for substantial non-infringing use, and were especially made or especially adapted for use in an infringement of the 224 Patent. Specifically, Lenovo sold the Accused Lenovo Products to customers knowing that the customers' operation of such products directly infringed at least claims 3 and 5 of the 224 Patent when used for their normal and intended purpose, and, in particular, when used in the directly infringing manner described in Appendix C hereto with respect to DP v1.2, and described in the corresponding portions of the other 224 Infringing DP Standards. The Accused Lenovo Products and DisplayPort components thereof were made for the specific purpose of operating according to the one or more of the Infringing DP Standards and had no substantial non-infringing use.

90. On information and belief, as of December 1, 2018, Lenovo knew of the 224 Patent and MPEG LA's assertion that Lenovo was an infringer as a "company that offers products with DisplayPort technology[,] need[ed] to be licensed under the[] essential patents" (Ex. 7 hereto, MPEG LA's 3/16/2015 notice letter to Lenovo), including the 443 Patent (Ex. 11 hereto, DisplayPort Attachment 1, revised 12/1/2018 (providing notice of addition to the DP License of the 282 Patent, the 443 Patent, the 224 Patent, and other patents essential to DisplayPort standards)).

91. To the extent Lenovo was unaware of the 224 Patent and MPEG LA's assertion that the 224 Patent is essential to the 224 Infringing DP Standards and Lenovo, as an implementer of the 224 Infringing DP Standards and, thus, an infringer of the 224 Patent, required a license under the DP License as of, or within a reasonable time after, December 1, 2018, then Lenovo should have known of the 224 Patent and MPEG LA's assertion by then but was willfully blind to

the existence of the 224 Patent and its infringement of the same. For at least the foregoing reasons, Lenovo's infringement of the 224 Patent was willful and deliberate.

COUNT III: THE 282 PATENT

92. Appendix D hereto is an exemplary patent claim chart that details how the invention of claim 1 of the 282 Patent is essential to implementations of DP v1.2, relative to the bi-directional transmission of data between a source device (e.g., a desktop or laptop computer) and a sink device (e.g., a computer monitor). The versions of the DisplayPort and eDP standards listed below include features that are either identical to, or materially the same as, the features of DP v1.2 shown to infringe claim 1 of the 282 Patent in Appendix D hereto. As such, these versions of the DisplayPort and eDP standards also infringe the 282 Patent:

- DP v1.1, introduced April 2, 2007;
- DP v1.1a, introduced January 11, 2008;
- DP v1.2a, introduced January 2013;
- DP v1.3, introduced September 15, 2014;
- DP v1.4, introduced March 1, 2016;
- DP v1.4a, introduced April 2018;
- DP v2.0, introduced June 26, 2019;
and
- DP v2.1, introduced October 17, 2022
- eDP v1.1, introduced October 2009;
- eDP v1.2, introduced May 2010;
- eDP v1.3, introduced February 2011;
- eDP v1.4, introduced February 2013;
- eDP v1.4a, introduced February 2015;
- eDP v1.4b, introduced October 2015; and
- eDP v1.5, introduced October 2021

(collectively with DP v1.2, the "282 Infringing DP Standards"). Thus, whoever uses one or more products to perform the methods described in Appendix D hereto with respect to DP v1.2, and described in the corresponding portions of the other 282 Infringing DP Standards, directly infringes claim 1 of the 282 Patent in violation of 35 U.S.C. § 271(a). *See, e.g., Fujitsu*, 620 F.3d

at 1328 (Fed. Cir. 2010) (although “claims should be compared to the accused product to determine infringement,” “if an accused product operates in accordance with a standard, then comparing the claims to that standard is the same as comparing the claims to the accused product”).

93. On information and belief, Lenovo directly infringes at least claim 1 of the 282 Patent by using Accused Lenovo Products in a manner that complies with the description provided in Appendix D hereto with respect to DP v1.2, and the descriptions provided in the corresponding portions of the other 282 Infringing DP Standards.

94. By way of example and not limitation, and on information and belief, Lenovo employees use the Accused Lenovo Products in such a directly infringing manner when transmitting data, such as video and audio data, from Accused Lenovo Laptops, Accused Lenovo Desktops, and any desktop computers with installed Accused Lenovo Graphics Cards¹³ via a DisplayPort connection to Accused Lenovo Monitors. On its website, Lenovo explains:

Displayport and HDMI are two popular video and audio interfaces used to connect devices like computers, monitors, televisions (TVs), and gaming consoles. They both serve the same purpose of *transmitting high-quality audio and video signals* . . . both Displayport and HDMI can *transmit audio signals alongside video*. This means you can connect your computer or other audio-video source to a monitor or television (TV) and have the sound play through the display's built-in speakers or an external audio system. Just make sure the connected devices support audio over the respective interface.

<https://www.lenovo.com/us/en/glossary/displayport-vs-hdmi/> (emphasis added). As explained in paragraphs 26 to 55 above, Lenovo advertises all the Accused Lenovo Laptops, Desktops, Graphics Cards, and Monitors as supporting DisplayPort media connectivity. By way of further example and not limitation, and on information and belief, Lenovo employees and Lenovo

¹³ Relative to the Accused Lenovo Graphics Cards, the alleged direct infringement of method claim 1 of the 282 Patent by Lenovo and Lenovo customers in this Count III presumes performance of the claimed methods by Lenovo’s and Lenovo’s customers’ use, in part, of computers having installed Accused Lenovo Graphics Cards.

customers also use Accused Lenovo Laptops in a directly infringing manner during any operation of an Accused Lenovo Laptop because such operation complies with the description provided in Appendix D hereto with respect to DP v1.2, and the descriptions provided in the corresponding portions of the other 282 Infringing DP Standards, including the corresponding portions of the eDP subset of such 282 Infringing DP Standards, by facilitating the bi-directional transmission of data between such Accused Lenovo Laptop's iGPU/dGPU and such Accused Lenovo Laptop's screen/display as recited in claim 1 of the 282 Patent. The independent ground for direct infringement by standalone use of an Accused Lenovo Laptop described in the preceding sentence applies in addition to, and irrespective of, the several examples of direct infringement by Lenovo employees and Lenovo customers described in paragraphs 95 to 101 below.

95. By way of example and not limitation, and on information and belief, Lenovo employees have used, and continue to use, Accused Lenovo Products in a manner that directly infringes claim 1 of the 282 Patent as described above, as described in Appendix D hereto with respect to DP v1.2, and as described in the corresponding portions of the other 282 Infringing DP Standards, when operating Accused Lenovo Laptops, Accused Lenovo Desktops, and Accused Lenovo Graphics Cards connected to Accused Lenovo Monitors via a DisplayPort connection at, between, and/or among Lenovo's offices and facilities in the United States. *See, e.g.*, <https://www.lenovo.com/us/en/about/locations/> (identifying 8 Lenovo office locations in the United States). On information and belief, one of numerous examples of such directly infringing uses is when Lenovo employees participate in video conferences or Voice over Internet Protocol (VoIP) calls using an Accused Lenovo Laptop, Accused Lenovo Desktop, or Accused Lenovo Graphics Card connected to an Accused Lenovo Monitor as described above.

96. On information and belief, another example of Lenovo employees having used, and continuing to use, Accused Lenovo Products in a manner that directly infringes claim 1 of the 282 Patent is when Lenovo employees stream or play recorded or real-time video content using an Accused Lenovo Laptop, Accused Lenovo Desktop, or Accused Lenovo Graphics Card connected to an Accused Lenovo Monitor via a DisplayPort connection as described above. On information and belief, one of numerous examples of such directly infringing uses is when Lenovo employees play on an Accused Lenovo Laptop, Accused Lenovo Desktop, or Accused Lenovo Graphics Card connected to an Accused Lenovo Monitor as described above any of the hundreds of videos with audio content that Lenovo itself makes available for streaming from its online Lenovo Technical Support. See <https://support.lenovo.com/us/en>.

97. On information and belief, Lenovo employees have also used, and continue to use, Accused Lenovo Products in a manner that directly infringes claim 1 of the 282 Patent as described above, as described in Appendix D hereto with respect to DP v1.2, and as described in the corresponding portions of the other 282 Infringing DP Standards, when they demonstrate Accused Lenovo Products to actual and potential customers of Accused Lenovo Products at trade shows, during product demonstrations, and – generally – as part of Lenovo’s marketing and sales operations. By way of example and not limitation, Lenovo attends and exhibits its products at the annual Consumer Electronics Show (CES) trade show. By way of further example and not limitation, the “Lenovo Legion Go” – an Accused Lenovo Laptop (see Appendix A) s honored as a “CES 2024 Innovation Award Product” at the 2023 CES, held in Las Vegas, Nevada, January 9 to January 12, 2024. <https://www.ces.tech/innovation-awards/honorees/2024/honorees/1/lenovo-legion-go.aspx>. The Lenovo Legion Go includes at least two DisplayPort 1.4 media connectivity ports (see e.g., <https://www.lenovo.com/us/en/p/handheld/legion-go/len106g0001>).

98. By way of further example and not limitation, the “ThinkPad X1 Fold,” – an Accused Lenovo Laptop (see Appendix A) –, was honored as a “CES 2023 Innovation Award Product” at the 2023 CES, held in Las Vegas, Nevada, January 5 to January 8, 2023. <https://www.ces.tech/innovation-awards/honorees/2023/honorees/t/thinkpad-x1-fold.aspx>. The ThinkPad X1 Fold 16 Gen 1 includes at least three DisplayPort 1.4a media connectivity ports. (See e.g., https://psref.lenovo.com/syspool/Sys/PDF/ThinkPad/ThinkPad_X1_Fold_16_Gen_1/ThinkPad_X1_Fold_16_Gen_1_Spec.pdf). During the term of the 443 Patent, Lenovo attended CES 2020, held in Las Vegas January 7 to 10, 2020. See, e.g., <https://news.lenovo.com/pressroom/press-releases/lenovo-breaks-barriers-with-new-consumer-technology-unveiled-at-ces-2020-2/>. Among the numerous products Lenovo showcased at CES 2020 was its Lenovo IdeaPad Flex 5 Chromebook which featured two “USB-C 3.2 Gen 1 (support data transfer, Power Delivery 2.0 and DisplayPort™ 1.2)” media connectivity ports. See, e.g., https://psref.lenovo.com/syspool/Sys/PDF/IdeaPad/IdeaPad_Flex_5_CB_13IML05/IdeaPad_Flex_5_CB_13IML05_Spec.PDF.

99. On information and belief, Lenovo employees have also used, and continue to use, Accused Lenovo Products in a manner that directly infringes claim 1 of the 282 Patent as described above, as described in Appendix D hereto with respect to DP v1.2, and as described in the corresponding portions of the 282 Infringing DP Standards, when providing customer support to Lenovo’s actual and potential customers. By way of example and not limitation, and on information and belief, Lenovo employees have used, and continue to use, Accused Lenovo Products in such a directly infringing manner when troubleshooting and resolving technical issues for Lenovo’s actual and potential customers. In this regard, Lenovo offers robust technical support services, which services include telephone support, online support, and online support libraries and video libraries that feature articles, tutorials, and videos to assist in troubleshooting and

maintaining Accused Lenovo Products. *See, e.g.*, <https://www.lenovo.com/us/en/contact/>; *see also* <https://support.lenovo.com/us/en>.

100. By way of further example and not limitation, and on information and belief, Lenovo employees have used and controlled, and continue to use and control, Lenovo customers' Accused Lenovo Products in the directly infringing manner described above, described in Appendix D hereto with respect to DP v1.2, and described in the corresponding portions of the other 282 Infringing DP Standards, when providing onsite assistance for customers' Accused Lenovo Products. Lenovo's Premium Care Plus, Premium Care, and Legion Ultimate Support provide "Onsite Repair Next Business Day . . . [i]f the issue can't be solved remotely, an onsite technician will be there within one business day." <https://support.lenovo.com/us/en/warranty-upgrade-and-services/>.

101. On information and belief, Lenovo employees have also used, and continued to use, Accused Lenovo Products in the directly infringing manner described in Appendix D hereto with respect to DP v1.2, and described in the corresponding portions of the other 282 Infringing DP Standards, when they have tested, and continue to test, the Accused Lenovo Products to confirm compliance with the portions of DP v1.2 described in Appendix D hereto and/or the corresponding portions of the other 282 Infringing DP Standards. On information and belief, Lenovo employees conducted at least some of the testing described in this paragraph using one or more of the "DisplayPort Authorized Test Tools" made available via links on VESA's website. *See, e.g.*, <https://vesa.org/authorized-test-tools/>.

102. Further, and on information and belief, with knowledge of the General Video Patents as described in paragraphs 56 to 59 above, Lenovo has been actively inducing, and continues to actively induce, infringement of at least claim 1 of the 282 Patent in violation of 35

U.S.C. § 271(b). Users and customers of the Accused Lenovo Products have directly infringed and continue to directly infringe at least claim 1 of the 282 Patent when they use the Accused Lenovo Products for such products' ordinary, customary, and intended use, including by operation as described in Appendix D hereto with respect to DP v1.2, as described in the corresponding portions of the other 282 Infringing DP Standards, and, with respect to the standalone use of Accused Lenovo Laptops, as described in paragraph 94 above. Lenovo's affirmative acts of inducement have included, and continue to include, without limitation and with specific intent to encourage the infringement, knowingly inducing consumers to use the Accused Lenovo Products within the United States in the ordinary, customary, and intended way by, directly or through intermediaries, supplying such Accused Lenovo Products to customers within the United States and instructing and encouraging such customers how to use the Accused Lenovo Products in the ordinary, customary, and intended way, which Lenovo knows or should know infringes at least claim 1 of the 282 Patent. Lenovo's affirmative acts of inducement have further included and continue to include, without limitation and with specific intent to encourage the infringement, any one or a combination of encouraging and/or facilitating third-party infringement through the advertisement, marketing, and dissemination of the Accused Lenovo Products and components thereof; including DisplayPort firmware and/or drivers; and creating, publishing, and/or providing sales, promotional, and marketing materials; supporting materials; product manuals; user guides; and/or technical support and information relating to the Accused Lenovo Products and DisplayPort functionality thereof (*see, e.g.*, links in the paragraphs above to product and support pages and videos from Lenovo's website).

103. Further and in the alternative, on information and belief, with knowledge of the General Video Patents as described in paragraphs 56 to 59 above, Lenovo has been contributing

to, and continues to contribute to, the infringement of at least claim 1 of the 282 Patent in violation of 35 U.S.C. § 271(c). Users and customers of the Accused Lenovo Products have directly infringed and continue to directly infringe at least claim 1 of the 282 Patent when they use the Accused Lenovo Products for such products' ordinary, customary, and intended use, and, in particular, in the directly infringing manner described in Appendix D hereto with respect to DP v1.2, as described in the corresponding portions of the other 282 Infringing DP Standards, and, with respect to the standalone use of Accused Lenovo Laptops, as described in paragraph 94 above. Lenovo's contributory infringement has included and continues to include, without limitation, Lenovo's sale and provision of Accused Lenovo Products, including DisplayPort components thereof, to customers in the United States for use in practicing at least claim 1 of the 282 Patent, knowing that such products and components are material to practicing the claimed inventions, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are especially made or especially adapted for use in an infringement of the 282 Patent. Specifically, Lenovo has sold, and continues to sell, the Accused Lenovo Products and components thereof to customers knowing that the customers' operation of such products directly infringes at least claim 1 of the 282 Patent when used for their normal and intended purpose, and, in particular, when used in the directly infringing manner described in Appendix D hereto with respect to DP v1.2, as described in the corresponding portions of the other 282 Infringing DP Standards, and, with respect to the standalone use of Accused Lenovo Laptops, as described in paragraph 94 above. The Accused Lenovo Products and DisplayPort components thereof have been made, and are made, for the specific purpose of operating as described in Appendix D hereto with respect to DP v1.2, as described in such corresponding portions of the other 282 Infringing DP Standards, and, with

respect to the standalone use of Accused Lenovo Laptops, as described in paragraph 94 above, and have no substantial non-infringing use.

104. On information and belief, as of December 1, 2018, Lenovo knew of the 282 Patent and MPEG LA's assertion that Lenovo was an infringer as a "company that offers products with DisplayPort technology[,] need[ed] to be licensed under the[] essential patents" (Ex. 7 hereto, MPEG LA's 3/16/2015 notice letter to Lenovo), including the 443 Patent (Ex. 11 hereto, DisplayPort Attachment 1, revised 12/1/2018 (providing notice of addition to the DP License of the 282 Patent, the 443 Patent, the 224 Patent, and other patents essential to DisplayPort standards)).

105. To the extent Lenovo was unaware of the 282 Patent and MPEG LA's assertion that the 282 Patent is essential to the 282 Infringing DP Standards and Lenovo, as an implementer of the 282 Infringing DP Standards and, thus, an infringer of the 282 Patent, required a license under the DP License as of, or within a reasonable time after, December 1, 2018, then Lenovo should have known of the 282 Patent and MPEG LA's assertion by then but was willfully blind to the existence of the 282 Patent and its infringement of the same. For at least the foregoing reasons, Lenovo's infringement of the 282 Patent has been, and continues to be, willful and deliberate.

106. By the time of the trial of this case, Lenovo will have known and intended that its continued actions since receiving the notice described above and, additionally, since receiving the notice provided by this Complaint, would infringe and actively induce and contribute to the infringement of at least claim 1 of the 282 Patent. For this reason as well, Lenovo's infringement of the 282 Patent has been, and continues to be, willful and deliberate.

COUNT IV: THE 437 PATENT

107. Appendix E hereto is an exemplary patent claim chart that details how the invention of claim 41 of the 437 Patent is essential to implementations of DP v1.2, relative to encoding data for transmission over a serial link. The versions of the DisplayPort and eDP standards listed below include features that are either identical to, or materially the same as, the features of DP v1.2 shown to infringe claim 41 of the 437 Patent in Appendix E hereto. As such, these versions of the DisplayPort and eDP standards also infringe the 437 Patent:

- DP v1.0, introduced May 3, 2006;
- DP v1.1, introduced April 2, 2007;
- DP v1.1a, introduced January 11, 2008;
- DP v1.2a, introduced January 2013;
- DP v1.3, introduced September 15, 2014;
- DP v1.4, introduced March 1, 2016;
- DP v1.4a, introduced April 2018;
- DP v2.0, introduced June 26, 2019;
and
- DP v2.1, introduced October 17, 2022
- eDP v1.1, introduced October 2009;
- eDP v1.2, introduced May 2010;
- eDP v1.3, introduced February 2011;
- eDP v1.4, introduced February 2013;
- eDP v1.4a, introduced February 2015;
- eDP v1.4b, introduced October 2015; and
- eDP v1.5, introduced October 2021

(collectively with DP v1.2, the “437 Infringing DP Standards”). Thus, whoever uses one or more products to perform the methods described in Appendix E hereto with respect to DP v1.2, and described in the corresponding portions of the other 437 Infringing DP Standards, directly infringes claim 41 of the 437 Patent in violation of 35 U.S.C. § 271(a). *See, e.g., Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1328 (Fed. Cir. 2010) (although “claims should be compared to the accused product to determine infringement,” “if an accused product operates in accordance with a

standard, then comparing the claims to that standard is the same as comparing the claims to the accused product”).

108. On information and belief, Lenovo directly infringes claim 41 of the 437 Patent by using Accused Lenovo Products in a manner that complies with the description provided in Appendix E hereto with respect to DP v1.2, and the descriptions provided in the corresponding portions of the other 437 Infringing DP Standards.

109. By way of example and not limitation, and on information and belief, Lenovo employees have used, and continue to use, the Accused Lenovo Products in such a directly infringing manner when transmitting data from Accused Lenovo Laptops, Accused Lenovo Desktops, and any desktop computers with installed Accused Lenovo Graphics Cards¹⁴ via a DisplayPort connection to Accused Lenovo Monitors or other non-Lenovo monitors. On its website, Lenovo explains:

Displayport and HDMI are two popular video and audio interfaces used to connect devices like computers, monitors, televisions (TVs), and gaming consoles. They both serve the same purpose of *transmitting high-quality audio and video signals*. . . both Displayport and HDMI can *transmit audio signals alongside video*. This means you can connect your computer or other audio-video source to a monitor or television (TV) and have the sound play through the display's built-in speakers or an external audio system. Just make sure the connected devices support audio over the respective interface.

<https://www.lenovo.com/us/en/glossary/displayport-vs-hdmi/> (emphasis added). As explained in paragraphs 26 to 55 above, Lenovo advertises all the Accused Lenovo Laptops, Desktops, Graphics Cards, and Monitors as supporting DisplayPort media connectivity. By way of further example and not limitation, and on information and belief, Lenovo employees and Lenovo

¹⁴ Relative to the Accused Lenovo Graphics Cards, the alleged direct infringement of method claim 41 of the 437 Patent by Lenovo and Lenovo customers in this Count IV presumes performance of the claimed methods by Lenovo's and Lenovo's customers' use, in part, of computers having installed Accused Lenovo Graphics Cards.

customers also use Accused Lenovo Laptops in a directly infringing manner during any operation of an Accused Lenovo Laptop because such operation complies with the description provided in Appendix E hereto with respect to DP v1.2, and the descriptions provided in the corresponding portions of the other 437 Infringing DP Standards, including the corresponding portions of the eDP subset of such 437 Infringing DP Standards, by facilitating the encoding of data for transmission over a serial link between such Accused Lenovo Laptop's iGPU/dGPU and such Accused Lenovo Laptop's screen/display as recited in claim 41 of the 437 Patent. The independent ground for direct infringement by standalone use of an Accused Lenovo Laptop described in the preceding sentence applies in addition to, and irrespective of, the several examples of direct infringement by Lenovo employees and Lenovo customers described in paragraphs 110 to 118 below.

110. By way of example and not limitation, and on information and belief, Lenovo employees have used, and continue to use, Accused Lenovo Products in a manner that directly infringes claim 41 of the 437 Patent as described above, as described in Appendix E hereto with respect to DP v1.2, and as described in the corresponding portions of the other 437 Infringing DP Standards, when operating Accused Lenovo Laptops, Accused Lenovo Desktops, and Accused Lenovo Graphics Cards connected to Accused Lenovo Monitors via a DisplayPort connection at, between, and/or among Lenovo's offices and facilities in the United States. *See, e.g.*, <https://www.lenovo.com/us/en/about/locations/> (identifying 8 Lenovo office locations in the United States). On information and belief, one of numerous examples of such directly infringing uses is when Lenovo employees participate in video conferences or Voice over Internet Protocol (VoIP) calls using an Accused Lenovo Laptop, Accused Lenovo Desktop, or Accused Lenovo Graphics Card connected to an Accused Lenovo Monitor as described above.

111. On information and belief, another example of Lenovo employees having used, and continuing to use, Accused Lenovo Products in a manner that directly infringes claim 41 of the 437 Patent is when Lenovo employees stream or play recorded or real-time video content using an Accused Lenovo Laptop, Accused Lenovo Desktop, or Accused Lenovo Graphics Card connected to an Accused Lenovo Monitor via a DisplayPort connection as described above. On information and belief, one of numerous examples of such directly infringing uses is when Lenovo employees play on an Accused Lenovo Laptop, Accused Lenovo Desktop, or Accused Lenovo Graphics Card connected to an Accused Lenovo Monitor as described above any of the hundreds of videos with audio content that Lenovo itself makes available for streaming from its online Lenovo Technical Support. See <https://support.lenovo.com/us/en>.

112. On information and belief, Lenovo employees have also used, and continue to use, Accused Lenovo Products in a manner that directly infringes claim 41 of the 437 Patent as described above, as described in Appendix E hereto with respect to DP v1.2, and as described in the corresponding portions of the other 437 Infringing DP Standards with respect to the same claims, when they demonstrate Accused Lenovo Products to actual and potential customers of Accused Lenovo Products at trade shows, during product demonstrations, and – generally – as part of Lenovo’s marketing and sales operations. By way of example and not limitation, Lenovo attends and exhibits its products at the annual Consumer Electronics Show (CES) trade show. By way of further example and not limitation, the “Lenovo Legion Go” – an Accused Lenovo Laptop (see Appendix A) s honored as a “CES 2024 Innovation Award Product” at the 2023 CES, held in Las Vegas, Nevada, January 9 to January 12, 2024. <https://www.ces.tech/innovation-awards/honorees/2024/honorees/1/lenovo-legion-go.aspx>. The Lenovo Legion Go includes at least two DisplayPort

1.4 media connectivity ports (see e.g., <https://www.lenovo.com/us/en/p/handheld/legion-go/len106g0001>).

113. By way of further example and not limitation, the “ThinkPad X1 Fold,” – an Accused Lenovo Laptop (see Appendix A) –, was honored as a “CES 2023 Innovation Award Product” at the 2023 CES, held in Las Vegas, Nevada, January 5 to January 8, 2023. <https://www.ces.tech/innovation-awards/honorees/2023/honorees/t/thinkpad-x1-fold.aspx>. The ThinkPad X1 Fold 16 Gen 1 includes at least three DisplayPort 1.4a media connectivity ports. (See e.g., https://psref.lenovo.com/syspool/Sys/PDF/ThinkPad/ThinkPad_X1_Fold_16_Gen_1/ThinkPad_X1_Fold_16_Gen_1_Spec.pdf). During the term of the 443 Patent, Lenovo attended CES 2020, held in Las Vegas January 7 to 10, 2020. See, e.g., <https://news.lenovo.com/pressroom/press-releases/lenovo-breaks-barriers-with-new-consumer-technology-unveiled-at-ces-2020-2/>. Among the numerous products Lenovo showcased at CES 2020 was its Lenovo IdeaPad Flex 5 Chromebook which featured two “USB-C 3.2 Gen 1 (support data transfer, Power Delivery 2.0 and DisplayPort™ 1.2)” media connectivity ports. See, e.g., https://psref.lenovo.com/syspool/Sys/PDF/IdeaPad/IdeaPad_Flex_5_CB_13IML05/IdeaPad_Flex_5_CB_13IML05_Spec.PDF.

114. On information and belief, Lenovo employees have also used, and continue to use, Accused Lenovo Products in a manner that directly infringes claim 41 of the 437 Patent as described above, as described in Appendix E hereto with respect to DP v1.2, and as described in the corresponding portions of the 437 Infringing DP Standards, when providing customer support to Lenovo’s actual and potential customers. By way of example and not limitation, and on information and belief, Lenovo employees have used, and continue to use, Accused Lenovo Products in such a directly infringing manner when troubleshooting and resolving technical issues for Lenovo’s actual and potential customers. In this regard, Lenovo offers robust technical support

services, which services include telephone support, online support, and online support libraries and video libraries that feature articles, tutorials, and videos to assist in troubleshooting and maintaining Accused Lenovo Products. *See, e.g.,* <https://www.lenovo.com/us/en/contact/>; *see also* <https://support.lenovo.com/us/en>.

115. By way of further example and not limitation, and on information and belief, Lenovo employees have used and controlled, and continue to use and control, Lenovo customers' Accused Lenovo Products in the directly infringing manner described above, described in Appendix E hereto with respect to DP v1.2, and described in the corresponding portions of the other 282 Infringing DP Standards, when providing onsite assistance for customers' Accused Lenovo Products. Lenovo's Premium Care Plus, Premium Care, and Legion Ultimate Support provide "Onsite Repair Next Business Day . . . [i]f the issue can't be solved remotely, an onsite technician will be there within one business day." <https://support.lenovo.com/us/en/warranty-upgrade-and-services/>.

116. On information and belief, Lenovo employees have also used, and continued to use, Accused Lenovo Products in the directly infringing manner described above, described in Appendix E hereto with respect to DP v1.2, and described in the corresponding portions of the other 437 Infringing DP Standards, when they have tested, and continue to test, the Accused Lenovo Products to confirm compliance with the portions of DP v1.2 described in Appendix E hereto and/or the corresponding portions of the other 437 Infringing DP Standards. On information and belief, Lenovo employees conducted at least some of the testing described in this paragraph using one or more of the "DisplayPort Authorized Test Tools" made available via links on VESA's website. *See, e.g.,* <https://vesa.org/authorized-test-tools/>.

117. Further, and on information and belief, with knowledge of the General Video Patents as described in paragraphs 56 to 59 above, Lenovo has been actively inducing, and continues to actively induce, infringement of at least claim 41 of the 437 Patent in violation of 35 U.S.C. § 271(b). Users and customers of the Accused Lenovo Products have directly infringed and continue to directly infringe at least claim 41 of the 437 Patent when they use the Accused Lenovo Products for such products' ordinary, customary, and intended use, including by operation as described in Appendix D hereto with respect to DP v1.2, as described in the corresponding portions of the other 437 Infringing DP Standards, and, with respect to the standalone use of Accused Lenovo Laptops, as described in paragraph 94 above. Lenovo's affirmative acts of inducement have included, and continue to include, without limitation and with specific intent to encourage the infringement, knowingly inducing consumers to use the Accused Lenovo Products within the United States in the ordinary, customary, and intended way by, directly or through intermediaries, supplying such Accused Lenovo Products to customers within the United States and instructing and encouraging such customers how to use the Accused Lenovo Products in the ordinary, customary, and intended way, which Lenovo knows or should know infringes at least claim 41 of the 437 Patent. Lenovo's affirmative acts of inducement have further included and continue to include, without limitation and with specific intent to encourage the infringement, any one or a combination of encouraging and/or facilitating third-party infringement through the advertisement, marketing, and dissemination of the Accused Lenovo Products and components thereof; including DisplayPort firmware and/or drivers; and creating, publishing, and/or providing sales, promotional, and marketing materials; supporting materials; product manuals; user guides; and/or technical support and information relating to the Accused Lenovo Products and DisplayPort

functionality thereof (*see, e.g.*, links in the paragraphs above to product and support pages and videos from Lenovo's website).

118. Further and in the alternative, on information and belief, with knowledge of the General Video Patents as described in paragraphs 56 to 59 above, Lenovo has been contributing to, and continues to contribute to, the infringement of at least claim 41 of the 437 Patent in violation of 35 U.S.C. § 271(c). Users and customers of the Accused Lenovo Products have directly infringed and continue to directly infringe at least claim 41 of the 437 Patent when they use the Accused Lenovo Products for such products' ordinary, customary, and intended use, and, in particular, in the directly infringing manner described in Appendix D hereto with respect to DP v1.2, as described in the corresponding portions of the other 437 Infringing DP Standards, and, with respect to the standalone use of Accused Lenovo Laptops, as described in paragraph 94 above. Lenovo's contributory infringement has included and continues to include, without limitation, Lenovo's sale and provision of Accused Lenovo Products, including DisplayPort components thereof, to customers in the United States for use in practicing at least claim 41 of the 437 Patent, knowing that such products and components are material to practicing the claimed inventions, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are especially made or especially adapted for use in an infringement of the 437 Patent. Specifically, Lenovo has sold, and continues to sell, the Accused Lenovo Products and components thereof to customers knowing that the customers' operation of such products directly infringes at least claim 41 of the 437 Patent when used for their normal and intended purpose, and, in particular, when used in the directly infringing manner described in Appendix D hereto with respect to DP v1.2, as described in the corresponding portions of the other 437 Infringing DP Standards, and, with respect to the standalone use of Accused Lenovo Laptops, as described in paragraph 94 above. The

Accused Lenovo Products and DisplayPort components thereof have been made, and are made, for the specific purpose of operating as described in Appendix D hereto with respect to DP v1.2, as described in such corresponding portions of the other 437 Infringing DP Standards, and, with respect to the standalone use of Accused Lenovo Laptops, as described in paragraph 94 above, and have no substantial non-infringing use.

119. On information and belief, as of June 1, 2021, Lenovo knew of the 437 Patent and MPEG LA's assertion that Lenovo was an infringer as a "company that offers products with DisplayPort technology[,] need[ed] to be licensed under the[] essential patents" (Ex. 7 hereto, MPEG LA's 3/16/2015 notice letter to Lenovo), including the 437 Patent (Ex. 12 hereto, DisplayPort Attachment 1, revised 6/1/2021 (providing notice of addition to the DP License of the 437 Patent and other patents essential to DisplayPort standards)).

120. To the extent Lenovo was unaware of the 437 Patent and MPEG LA's assertion that the 437 Patent is essential to the 437 Infringing DP Standards and Lenovo, as an implementer of the 437 Infringing DP Standards and, thus, an infringer of the 437 Patent, required a license under the DP License as of, or within a reasonable time after, June 1, 2021, then Lenovo should have known of the 437 Patent and MPEG LA's assertion by then but was willfully blind to the existence of the 437 Patent and its infringement of the same. For at least the foregoing reasons, Lenovo's infringement of the 437 Patent has been, and continues to be, willful and deliberate.

121. By the time of the trial of this case, Lenovo will have known and intended that its continued actions since receiving the notice described above and, additionally, since receiving the notice provided by this Complaint, would infringe and actively induce and contribute to the infringement of at least claim 41 of the 437 Patent. For this reason as well, Lenovo's infringement of the 437 Patent has been, and continues to be, willful and deliberate.

COUNT V: THE 010 PATENT

122. Appendix F hereto is an exemplary patent claim chart that details how the inventions of claims 1 and 12 of the 010 Patent are essential to implementations of DP v1.2, relative to the transport of stereoscopic image data over a display interface. The versions of the DisplayPort and eDP standards listed below include features that are either identical to, or materially the same as, the features of DP v1.2 shown to infringe claims 1 and 12 of the 010 Patent in Appendix F hereto. As such, these versions of the DisplayPort and eDP standards also infringe the 010 Patent:

- DP v1.2a, introduced January 2013;
- DP v1.3, introduced September 15, 2014;
- DP v1.4, introduced March 1, 2016;
- DP v1.4a, introduced April 2018;
- DP v2.0, introduced June 26, 2019; and
- DP v2.1, introduced October 17, 2022
- eDP v1.2, introduced May 2010;
- eDP v1.3, introduced February 2011;
- eDP v1.4, introduced February 2013;
- eDP v1.4a, introduced February 2015;
- eDP v1.4b, introduced October 2015; and
- eDP v1.5, introduced October 2021

(collectively with DP v1.2, the “010 Infringing DP Standards”). Thus, whoever makes, uses, offers to sell, or sells any product that complies with, implements, and/or embodies the portions of DP v1.2 described in Appendix F hereto, and/or complies with, implements, and/or embodies the corresponding portions of the other 010 Infringing DP Standards, during the term of the 010 Patent, directly infringes claims 1 and 12 of that patent in violation of 35 U.S.C. § 271(a). *See, e.g., Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1328 (Fed. Cir. 2010) (although “claims should be compared to the accused product to determine infringement,” “if an accused product operates in accordance

with a standard, then comparing the claims to that standard is the same as comparing the claims to the accused product”).

123. Lenovo directly infringes at least claims 1 and 12 of the 010 Patent by making, using, selling, and/or offering to sell in, and/or importing into, the United States Accused Lenovo Products that comply with, implement, and/or embody the portions of DP v1.2 as described in Appendix F hereto, and that comply with, implement, and/or embody the corresponding portions of the other 010 Infringing DP Standards.

124. By way of example and not limitation, and on information and belief, Lenovo directly infringes at least claims 1 and 12 of the 010 Patent by selling and offering to sell Accused Lenovo Products such as Accused Lenovo Laptops, Accused Lenovo Desktops, and Accused Lenovo Graphics Cards that include a digital display interface part that supports a digital display interface between source devices, such as Accused Lenovo Laptops, Accused Lenovo Desktops, and Accused Lenovo Graphics Cards, on the one hand, and sink devices, such as computer monitors or displays, on the other hand, where such interface part is operable in the infringing manner described in Appendix F hereto with respect to DP v1.2, and described in the corresponding portions of the other 010 Infringing DP Standards. *See, e.g., Sorrell Holdings, LLC v. Infinity Headwear & Apparel, LLC*, 2024 WL 413432, at *3 (Fed. Cir. Feb. 5, 2024) (“For an ‘accused device[] to be infringing, [it] need only be capable operating’ in the infringing manner.”) (bracketed text in original) (quoting *Intel Corp. v. U.S. Int’l Trade Comm’n*, 946 F.2d 821, 832 (Fed. Cir. 1991)).

125. Further, and on information and belief, with knowledge of the General Video Patents as described in paragraphs 56 to 59 above, Lenovo has been actively inducing, and continues to actively induce, infringement of at least claims 1 and 12 of the 010 Patent in violation

of 35 U.S.C. § 271(b). Users and customers of the Accused Lenovo Products have directly infringed and continue to directly infringe at least claims 1 and 12 of the 010 Patent when they use the Accused Lenovo Products for such products' ordinary, customary, and intended use, including by operation as described in Appendix F hereto with respect to DP v1.2 as to those claims, and as described in the corresponding portions of the other 010 Infringing DP Standards with respect to the same claims. Lenovo's affirmative acts of inducement have included, and continue to include, without limitation and with specific intent to encourage the infringement, knowingly inducing consumers to use the Accused Lenovo Products within the United States in the ordinary, customary, and intended way by, directly or through intermediaries, supplying such Accused Lenovo Products to customers within the United States and instructing and encouraging such customers how to use the Accused Lenovo Products in the ordinary, customary, and intended way, which Lenovo knows or should know infringes at least claims 1 and 12 of the 010 Patent. Lenovo's affirmative acts of inducement have further included and continue to include, without limitation and with specific intent to encourage the infringement, any one or a combination of encouraging and/or facilitating third-party infringement through the advertisement, marketing, and dissemination of the Accused Lenovo Products and components thereof, including DisplayPort firmware and/or drivers; and creating, publishing, and/or providing sales, promotional, and marketing materials; supporting materials; product manuals; user guides; and/or technical support and information relating to the Accused Lenovo Products and DisplayPort functionality thereof (*see, e.g.*, links in the paragraphs above to product and support pages and videos from Lenovo's website).

126. Further and in the alternative, on information and belief, with knowledge of the General Video Patents as described in paragraphs 56 to 59 above, Lenovo has been contributing

to, and continues to contribute to, the infringement of at least claims 1 and 12 of the 010 Patent in violation of 35 U.S.C. § 271(c). Users and customers of the Accused Lenovo Products have directly infringed and continue to directly infringe at least claims 1 and 12 of the 010 Patent when they use the Accused Lenovo Products for such products' ordinary, customary, and intended use, including by operation as described in Appendix F hereto with respect to DP v1.2 as to those claims, and as described in the corresponding portions of the other 010 Infringing DP Standards with respect to the same claims. Lenovo's contributory infringement has included and continues to include, without limitation, Lenovo's sale and provision of Accused Lenovo Products, including DisplayPort components thereof, to customers in the United States for use in practicing at least claims 1 and 12 of the 010 Patent, knowing that such products and components are material to practicing the claimed inventions, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are especially made or especially adapted for use in an infringement of the 010 Patent. Specifically, Lenovo sold the Accused Lenovo Products to customers knowing that the customers' operation of such products directly infringes at least claims 1 and 12 of the 010 Patent when used for their normal and intended purpose, including by operation as described in Appendix F hereto with respect to DP v1.2 as to those claims, and as described in the corresponding portions of the other 010 Infringing DP Standards with respect to the same claims. The Accused Lenovo Products and DisplayPort components thereof are made for the specific purpose of operating as described in Appendix F hereto with respect to DP v1.2, and as described in such corresponding portions of the other 010 Infringing DP Standards, and have no substantial non-infringing use.

127. On information and belief, at least as of March 1, 2016, Lenovo knew of the 010 Patent and MPEG LA's assertion that Lenovo was an infringer as a "company that offers products

with DisplayPort technology[,] need[ed] to be licensed under the[] essential patents” (Ex. 7 hereto, MPEG LA’s 3/16/2015 notice letter to Lenovo), including the 010 Patent (Ex. 10 hereto, DisplayPort Attachment 1, revised 3/1/2016 (including 010 Patent on list of patents essential to DisplayPort standards)).

128. To the extent Lenovo was unaware of the 010 Patent and MPEG LA’s assertion that the 010 Patent is essential to the 010 Infringing DP Standards and Lenovo, as an implementer of the 010 Infringing DP Standards and, thus, an infringer of the 010 Patent, required a license under the DP License as of, or within a reasonable time after March 1, 2016, then Lenovo should have known of the 010 Patent and MPEG LA’s assertion by then but was willfully blind to the existence of the 010 Patent and its infringement of the same. For at least the foregoing reasons, Lenovo’s infringement of the 010 Patent has been, and continues to be, willful and deliberate.

129. By the time of the trial of this case, Lenovo will have known and intended that its continued actions since receiving the notice described in above and, additionally, since receiving the notice provided by this Complaint, would infringe at least claims 1 and 12 of the 010 Patent. For this reason as well, Lenovo’s infringement of the 010 Patent has been, and continues to be, willful and deliberate.

COUNT VI: THE 786 PATENT

130. Appendix G hereto is an exemplary patent claim chart that details how the invention of claim 1 of the 786 Patent is essential to implementations of DP v1.2, with respect to the transport of stereoscopic image data over a display interface. The versions of the DisplayPort and eDP standards listed below include features that are either identical to, or materially the same as, the features of DP v1.2 shown to infringe claim 1 of the 786 Patent in Appendix G hereto. As such, these versions of the DisplayPort and eDP standards also infringe the 786 Patent:

- DP v1.2a, introduced January 2013;
- DP v1.3, introduced September 15, 2014;
- DP v1.4, introduced March 1, 2016;
- DP v1.4a, introduced April 2018;
- DP v2.0, introduced June 26, 2019; and
- DP v2.1, introduced October 17, 2022
- eDP v1.2, introduced May 2010;
- eDP v1.3, introduced February 2011;
- eDP v1.4, introduced February 2013;
- eDP v1.4a, introduced February 2015;
- eDP v1.4b, introduced October 2015; and
- eDP v1.5, introduced October 2021

(collectively with DP v1.2, the “786 Infringing DP Standards”). Thus, whoever makes, uses, offers to sell, or sells any product that complies with, implements, and/or embodies the portions of DP v1.2 described in Appendix G hereto, and/or complies with, implements, and/or embodies the corresponding portions of the other 786 Infringing DP Standards, during the term of the 786 Patent, directly infringes claim 1 of that patent in violation of 35 U.S.C. § 271(a). *See, e.g., Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1328 (Fed. Cir. 2010) (although “claims should be compared to the accused product to determine infringement,” “if an accused product operates in accordance with a standard, then comparing the claims to that standard is the same as comparing the claims to the accused product”).

131. Lenovo directly infringes at least claim 1 of the 786 Patent by making, using, selling, and/or offering to sell in, and/or importing into, the United States Accused Lenovo Products that comply with, implement, and embody the portions of DP v1.2 as described in Appendix G hereto, and that comply with, implement, and embody the corresponding portions of the other 786 Infringing DP Standards.

132. By way of example and not limitation, and on information and belief, Lenovo directly infringes at least claim 1 of the 786 Patent by selling and offering to sell Accused Lenovo

Products such as Accused Lenovo Laptops, Accused Lenovo Desktops, and Accused Lenovo Graphics Cards that include a digital display interface part that supports a digital display interface between source devices, such as Accused Lenovo Laptops, Accused Lenovo Desktops, and Accused Lenovo Graphics Cards, on the one hand, and sink devices, such as computer monitors or displays, on the other hand, where such interface part is operable in the infringing manner described in Appendix G hereto with respect to DP v1.2, and described in the corresponding portions of the other 786 Infringing DP Standards. *See, e.g., Sorrell Holdings, LLC v. Infinity Headwear & Apparel, LLC*, 2024 WL 413432, at *3 (Fed. Cir. Feb. 5, 2024) (“For an ‘accused device[] to be infringing, [it] need only be capable operating’ in the infringing manner.”) (bracketed text in original) (quoting *Intel Corp. v. U.S. Int’l Trade Comm’n*, 946 F.2d 821, 832 (Fed. Cir. 1991)).

133. Further, and on information and belief, with knowledge of the General Video Patents as described in paragraphs 56 to 59 above, Lenovo has been actively inducing, and continues to actively induce, infringement of at least claim 1 of the 786 Patent in violation of 35 U.S.C. § 271(b). Users and customers of the Accused Lenovo Products have directly infringed and continue to directly infringe at least claim 1 of the 786 Patent when they use the Accused Lenovo Products for such products’ ordinary, customary, and intended use, including by operation as described in Appendix G hereto with respect to DP v1.2 as to that claim, and as described in the corresponding portions of the other 786 Infringing DP Standards with respect to the same claim. Lenovo’s affirmative acts of inducement have included, and continue to include, without limitation and with specific intent to encourage the infringement, knowingly inducing consumers to use the Accused Lenovo Products within the United States in the ordinary, customary, and intended way by, directly or through intermediaries, supplying such Accused Lenovo Products to customers

within the United States and instructing and encouraging such customers how to use the Accused Lenovo Products in the ordinary, customary, and intended way, which Lenovo knows or should know infringes at least claim 1 of the 786 Patent. Lenovo's affirmative acts of inducement have further included and continue to include, without limitation and with specific intent to encourage the infringement, any one or a combination of encouraging and/or facilitating third-party infringement through the advertisement, marketing, and dissemination of the Accused Lenovo Products and components thereof, including DisplayPort firmware and/or drivers; and creating, publishing, and/or providing sales, promotional, and marketing materials; supporting materials; product manuals; user guides; and/or technical support and information relating to the Accused Lenovo Products and DisplayPort functionality thereof (*see, e.g.*, links in the paragraphs above to product and support pages and videos from Lenovo's website).

134. Further and in the alternative, on information and belief, with knowledge of the General Video Patents as described in paragraphs 56 to 59 above, Lenovo has been contributing to, and continues to contribute to, the infringement of at least claim 1 of the 786 Patent in violation of 35 U.S.C. § 271(c). Users and customers of the Accused Lenovo Products have directly infringed and continue to directly infringe at least claim 1 of the 786 Patent when they use the Accused Lenovo Products for such products' ordinary, customary, and intended use, including by operation as described in Appendix G hereto with respect to DP v1.2 as to that claim, and as described in the corresponding portions of the other 786 Infringing DP Standards with respect to the same claim. Lenovo's contributory infringement has included and continues to include, without limitation, Lenovo's sale and provision of Accused Lenovo Products, including DisplayPort components thereof, to customers in the United States for use in practicing at least claim 1 of the 786 Patent, knowing that such products and components are material to practicing the claimed

inventions, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are especially made or especially adapted for use in an infringement of the 786 Patent. Specifically, Lenovo sold the Accused Lenovo Products to customers knowing that the customers' operation of such products directly infringes at least claim 1 of the 786 Patent when used for their normal and intended purpose, including by operation as described in Appendix G hereto with respect to DP v1.2 as to that claim, and as described in the corresponding portions of the other 786 Infringing DP Standards with respect to the same claim. The Accused Lenovo Products and DisplayPort components thereof are made for the specific purpose of operating as described in Appendix G hereto with respect to DP v1.2, and as described in such corresponding portions of the other 786 Infringing DP Standards, and have no substantial non-infringing use.

135. On information and belief, as of June 1, 2024, Lenovo knew of the 786 Patent and MPEG LA's assertion that Lenovo was an infringer as a "company that offers products with DisplayPort technology[,] need[ed] to be licensed under the[] essential patents" (Ex. 7 hereto, MPEG LA's 3/16/2015 notice letter to Lenovo), including the 786 Patent (Ex. 13 hereto, DisplayPort Attachment 1, revised 6/1/2024 (providing notice of addition of the 786 Patent to DP License)).

136. To the extent Lenovo was unaware of the 786 Patent and MPEG LA's assertion that the 786 Patent is essential to the 786 Infringing DP Standards and Lenovo, as an implementer of the 786 Infringing DP Standards and, thus, an infringer of the 786 Patent, required a license under the DP License as of, or within a reasonable time after June 1, 2024, then Lenovo should have known of the 786 Patent and MPEG LA's assertion by then but was willfully blind to the existence of the 786 Patent and its infringement of the same. For at least the foregoing reasons, Lenovo's infringement of the 786 Patent has been, and continues to be, willful and deliberate.

137. By the time of the trial of this case, Lenovo will have known and intended that its continued actions since receiving the notice described above and, additionally, since receiving the notice provided by this Complaint, would infringe at least claim 1 of the 786 Patent. For this reason as well, Lenovo's infringement of the 786 Patent has been, and continues to be, willful and deliberate.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff General Video respectfully requests that this Court:

A. Enter judgment in favor of General Video that each of the General Video Patents is valid and enforceable;

B. Enter judgment in favor of General Video that Lenovo has infringed each of the General Video Patents, continues to infringe the 282, 437, 010, and 786 Patents, and that such infringement is willful;

C. Award General Video all monetary relief available under the laws of the United States, including but not limited to 35 U.S.C. § 284;

D. Order Lenovo to pay ongoing royalties in an amount to be determined for any continuing infringement after the date of judgment;

E. Declare this case exceptional and award General Video its reasonable attorney fees under 35 U.S.C. § 285;

F. Enter judgment awarding General Video its reasonable costs and expenses along with prejudgment and post-judgment interest as allowed by law;

G. Enjoin Lenovo and its subsidiaries, and their officers, agents, servants, employees, and all persons in active concert with any of the foregoing from further infringement; and

H. Grant General Video all such other relief as the Court deems just and reasonable.

JURY DEMAND

General Video demands a jury trial on all issues so triable pursuant to Federal Rule of Civil Procedure 38.

Dated: August 30, 2024

Respectfully submitted,

/s/ Geoffrey Culbertson

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