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

SVV TECHNOLOGY INNOVATIONS INC.	§	
	§	
Plaintiff,	§	
	§	**Civil Action No. 6:22-cv-00313**
v.	§	
	§	**JURY DEMANDED**
ASUSTEK COMPUTER INC.	§	
	§	
Defendant.	§	

PLAINTIFF'S FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff SVV Technology Innovations Inc. ("SVVTI" or "Plaintiff") files this First Amended Complaint for patent infringement against ASUSTek Computer Inc. ("ASUSTek" or "Defendant"). Plaintiff alleges infringement of United States Patent Numbers 10,269,999 ("'999 Patent"); 10,439,088 ("'088 Patent"), 10,613,306 ("'306 Patent"), 10,868,205 ("'205 Patent"); and 11,276,795 ("'795 Patent"), collectively, the "Asserted Patents."

PARTIES

1. Plaintiff SVVTI is a California corporation with a place of business 1832 Tribute Road, Suite C, Sacramento, California 95815.

2. On information and belief, Defendant ASUSTek is a company organized and existing under the laws of the country of the Republic of China (Taiwan), with its principal place of business at No. 15 Li-Te Road, Beitou District, Taipei 112, Taiwan, R.O.C.

3. ASUSTek may be served with process pursuant to Fed. R. Civ. P. 4(f)(2)(C)(ii) by Plaintiff sending the Court's Clerk under a cover letter: (1) copies of the Complaints and Summons in the above-captioned matter; (2) a FedEx envelope into which the Court can pack

said Complaints and Summons; (3) and a prepaid FedEx label that provides for shipment via a method that requires a signed receipt. *See Atlas Global Technologies v. ASUSTek Computer, Inc*., No. 6:21-cv-00820-ADA, ECF No. 31 (W.D. Tex. Mar. 4, 2022). That label should be addressed to: ASUSTEK COMPUTER INC. No. 15, Li-Te Road Beitou District, Taipei 112 Taiwan, R.O.C. *Id.* That label should have a return address of: Chambers of the Honorable Alan D Albright 800 Franklin Ave. Waco, TX 76701. *Id.*

JURISDICTION AND VENUE

4. This is an action for patent infringement arising under the patent laws of the United States, Title 35, United States Code. Jurisdiction as to these claims is conferred on this Court by 35 U.S.C. §§1331 and 1338(a).

5. This Court has personal jurisdiction over ASUSTek because, directly or through intermediaries, each has committed acts within the Western District of Texas giving rise to this action and/or has established minimum contacts with the Western District of Texas such that the exercise of jurisdiction would not offend traditional notions of fair play and substantial justice.

6. ASUSTek has placed or contributed to placing infringing products into the stream of commerce via an established distribution channel knowing or understanding that such products would be sold and used in the United States, including in the Western District of Texas.

7. This Court has specific personal jurisdiction over ASUSTek at least in part because ASUSTek conducts business in this Judicial District. SVVTI's causes of action arise, at least in part, from Defendant's contacts with and activities in the State of Texas and this Judicial District. The exercise of jurisdiction over ASUS would not offend traditional notions of fair play and substantial justice. Defendant ASUS, directly and/or through subsidiaries or intermediaries (including distributors, retailers, and others), has committed and continues to commit acts of

infringement in this District by, among other things, offering to sell and selling products and/or services that infringe the patents-in-suit, including the accused devices as alleged herein.

8. On information and belief, ASUSTek also has derived substantial revenues from infringing acts in this Judicial District, including from the sale and use of infringing products including, but not limited to, the products accused of infringement below.

9. On information and belief, ASUSTek maintains authorized sellers and sales representatives that offer and sell products pertinent to this Complaint throughout the State of Texas, including this District and to consumers throughout this District, such as: Best Buy at 4627 S Jack Kultgen Expy, Waco, TX 76706; Sam's Club at 2301 E Waco Dr, Waco, TX 76705; Walmart Supercenter at 4320 Franklin Ave, Waco, TX 76710; and Amazon.com.

10. Defendant has established minimum contacts with this forum such that the exercise of jurisdiction over Defendant would not offend traditional notions of fair play and substantial justice.

11. Venue in this Judicial District is proper as to ASUSTek under 28 U.S.C. § 1391(c)(3) because it is a foreign corporation. Defendant has committed acts within this judicial district giving rise to this action, and Defendant continues to conduct business in this judicial district, including one or more acts of selling, using, importing and/or offering for sale infringing products or providing service and support to Defendant's customers in this District. This district is familiar with the technology of the Patents-in-Suit having presided over another lawsuit involving the Patents-in-Suit.

12. In addition, Defendant has knowingly induced and continues to knowingly induce infringement within this District by advertising, marketing, offering for sale and/or selling devices pre-loaded with infringing functionality within this District, to consumers, customers,

manufacturers, distributors, resellers, partners, and/or end users, and providing instructions, user manuals, advertising, and/or marketing materials which facilitate, direct or encourage the use of infringing functionality with knowledge thereof.

13. Personal jurisdiction also exists specifically over Defendant because Defendant, directly or through affiliates, subsidiaries, agents, or intermediaries, transacts business in this State or purposefully directed at this State (including, without limitation, retail stores including Best Buy and Walmart) by making, importing, offering to sell, selling, and/or having sold infringing products within this State and District or purposefully directed at this State or District.

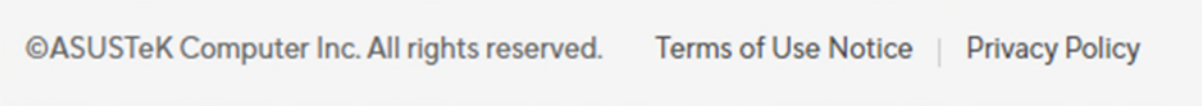
14. In addition, Defendant, directly or through affiliates, subsidiaries, agents, or intermediaries, places infringing products into the stream of commerce knowing they will be sold and used in Texas, and economically benefits from the retail sale of infringing products in this State. For example, Defendant's products have been sold and are available for sale in this District at Best Buy and Walmart retail stores and are also available for sale and offered for sale in this District through online retailers such as Best Buy, Walmart, and Amazon.

15. Via Defendant's agents, intermediaries, distributors, importers, customers, and/or consumers maintaining a business presence, operating in, and/or residing in the U.S., Defendant's products, including products and processes accused of infringing the patents-in-suit, are or have been widely distributed and sold in retail stores, both brick and mortar and online, in Texas including within this judicial district. *See Litecubes, LLC v. Northern Light Products, Inc.*, 523 F.3d 1353, 1369-70 (Fed. Cir. 2008) ("[T]he sale [for purposes of § 271] occurred at the location of the buyer."); *see also Semcon IP Inc. v. Kyocera Corp.*, No. 2:18-cv-00197-JRG, 2019 WL 1979930, at *3 (E.D. Tex. May 3, 2019) (denying accused infringer's motion to dismiss because plaintiff sufficiently plead that purchases of infringing products outside of the

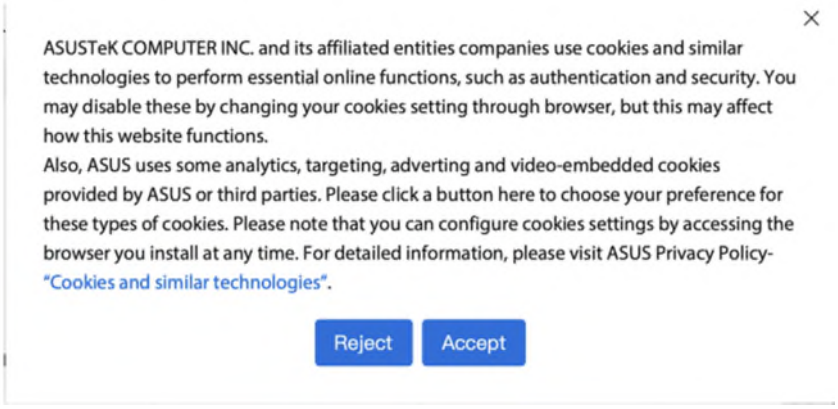
United States for importation into and sales to end users in the U.S. may constitute an offer to sell under § 271(a)). For example, Defendant's products are sold to end users by online stores and at retail stores located throughout the Western District of Texas.

16. In the alternative, the Court has personal jurisdiction over Defendant under Fed. R. Civ. P. 4(k)(2), because the claims for patent infringement in this action arise under federal law, Defendant is not subject to the jurisdiction of the courts of general jurisdiction of any state, and exercising jurisdiction over Defendant is consistent with the U.S. Constitution.

17. ASUSTek sells their products in the United States through their website, https://www.asus.com/us/, which states the following:



18. When a U.S. consumer enters the ASUSTek website, the following repeatedly pops up:



19. ASUSTek's Terms of Use Notice Privacy Policy for the United States, available on its website at https://www.asus.com/us/terms_of_use_notice_privacy_policy/official-site, states:

Terms Of Use Notice

ALL PRODUCTS AND SERVICES ("SERVICE") PROVIDED BY ASUSTEK COMPUTER INC. ("ASUS") ARE SUBJECT TO THIS TERMS OF USE NOTICE ("NOTICE"). SERVICE MEANS, INCLUDING BUT NOT LIMITED TO, ANY PRODUCT, SERVICE, SERVICE EVENT (DEFINED AS BELOW), SOFTWARE, APPLICATION AND INFORMATION PROVIDED UNDER ASUS BRAND OR ANY OTHER BRAND OWNED BY ASUS. YOU EXPRESSLY ACKNOWLEDGE THAT YOU HAVE READ THIS NOTICE AND UNDERSTAND THE RIGHTS, OBLIGATIONS, TERMS AND CONDITIONS SET FORTH HEREIN. IF YOU ARE A MINOR, YOU SHALL REGISTER AS THE MEMBER OR ACCESS THE SERVICES ONLY AFTER YOUR PARENTS (OR YOUR GUARDIAN) READ AND UNDERSTAND THE RIGHTS, OBLIGATIONS, TERMS AND CONDITIONS CONTAINED IN THIS NOTICE. BY CONTINUING TO INSTALL, COPY, SURF, DOWNLOAD, ACCESS, PURCHASE, ENTER AND/OR OTHERWISE USE THE SERVICE, YOU OR YOUR PARENTS (OR GUARDIAN) EXPRESSLY CONSENT TO BE BOUND BY THIS NOTICE, INCLUDING UPDATED VERSION, AND ALL APLICABLE LAWS AND REGULATIONS.

20. ASUSTek's Terms of Use Notice Privacy Policy provides that for "further information regarding this NOTICE and referred guidelines, contact ASUS Legal Compliance Department by registered mail, facsimile, e-mail, or phone at:"

ASUSTeK Computer Inc.
Company Representative: Mr. Jonney Shih
Legal Affairs Center
Legal Compliance Department
Address: 15, Li-Te Rd., Taipei 112, Taiwan
Email: LegalCompliance@asus.com
Telephone: (886) 2 2894 3447
Fax: (886) 2 2890 7674
Updated March 04, 2015 by ASUS Legal Affairs Center

21. ASUSTek's website also provides its U.S. consumers with a "Privacy Policy." At checkout, ASUSTek requires its U.S. consumers to agree to the Privacy Policy and the Sales Terms and Conditions discussed above:

22. ASUSTek's Privacy Policy, available online at https://www.asus.com/us/terms_of_use_notice_privacy_policy/privacy_policy/, states:

> ASUSTeK COMPUTER INC. and its affiliated entities (hereinafter referred to as "**ASUS**", "**we/our/us**") are committed to protecting and respecting your privacy. We endeavor to comply with all applicable laws on privacy protection and personal data security. ASUS Privacy Policy, together with any privacy-related notices or statements that contain supplementary information in connection with particular ASUS products and services you are using (hereinafter referred to as "Privacy Policy"), outline our privacy practices regarding the collection, use and safeguard of your personal data through ASUS products and services, both online and offline we provide. In Privacy Policy, we also outline whom we may share or disclose to the collected personal data.

23. User manuals for infringing products can also be found on ASUSTek's website at https://www.asus.com/us/support/download-center/.

24. The download page for any user manual accessed from the United States provides the following notice:

> • Products certified by the Federal Communications Commission and Industry Canada will be distributed in the United States and Canada. Please visit the ASUS USA and ASUS Canada websites for information about locally available products.

25. As an example of an accused product, the user manual for the ProArt PA27UCX-K LCD monitor contains the following statement:

Federal Communications Commission Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received including interference that may cause undesired operation.

26. The user manual for the ProArt PA27UCX-K LCD monitor also represents ASUSTek as the manufacturer of the device:

27. Like every other accused product sold and offered for sale in the U.S., the ProArt PA27UCX-K LCD monitor bears the ASUS trademarks, including as follows:

28. The USPTO shows the current owner of the ASUS trademarks as "AsusTek Computer Incorporation, TAIWAN," including at least the following:

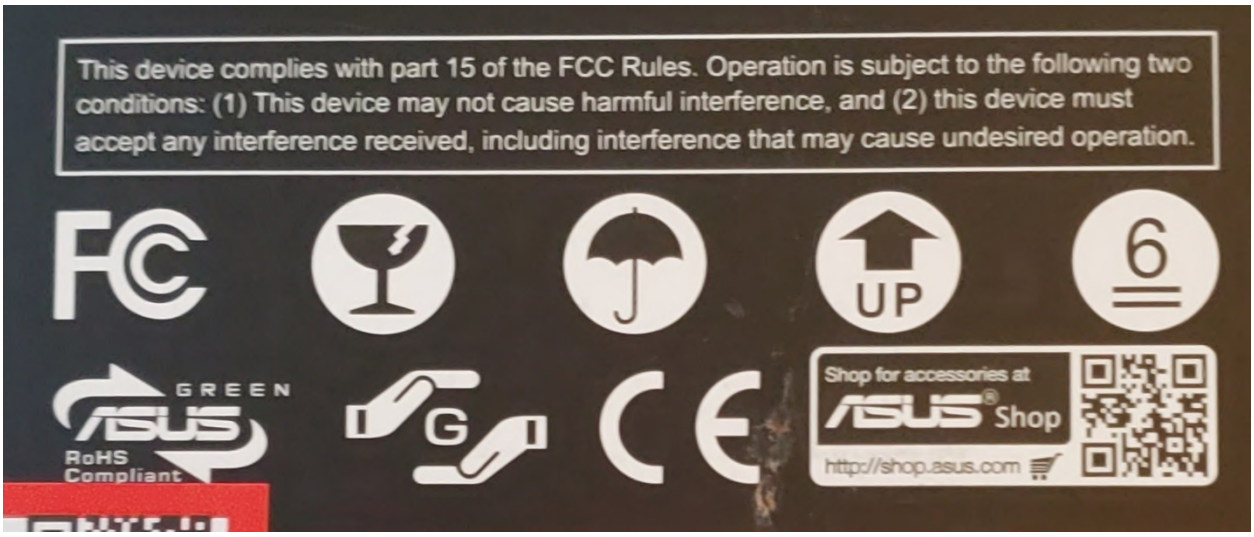
Serial Number	Reg. Number	Word Mark	Live/Dead
97180242		Asus	LIVE
97310442		Asus	LIVE
90046134	6565260	Asus	LIVE
85892190	4651253	Asus	LIVE
78979284	3370930	Asus	LIVE
78342942	3379287	Asus	LIVE

29. To register a U.S. trademark, the mark must either be currently in use or intended to be used in commerce.

30. The USPTO shows "AsusTek Computer Incorporation, TAIWAN" as the owner of at least eighty-two trademarks in total.

31. The ROG Flow X13 laptop, another accused product, is delivered in the following box:

32. This box bears an FCC certification as follows:



33. The boxes bearing the FCC certifications are manufactured for Defendant ASUSTek in China:

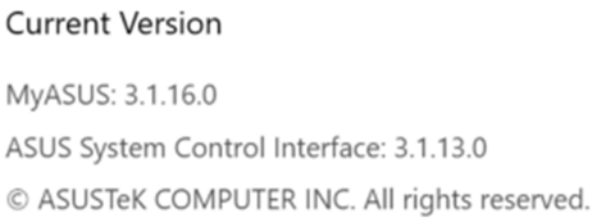
34. Product warranty information is also available on ASUSTek's website. The warranty for the ROG Flow X13 laptop, among others, is available at https://www.asus.com/support/images/upload/warranty/us_Gaming%20NB.pdf. This warranty provides:

ASUS contact details

This warranty is provided by:

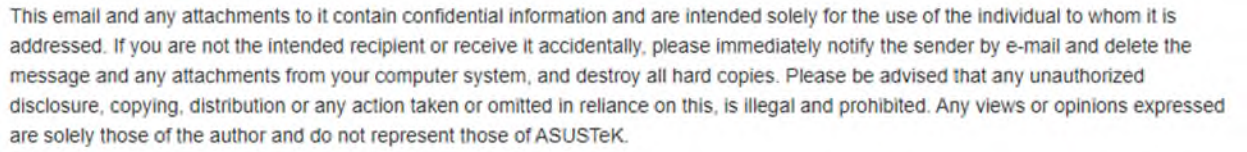
ASUSTeK Computer Inc.
1F., No. 15, Lide Rd., Beitou Dist.
Taipei City 112
Phone: +886-2-2894-3447

35. Additionally, in the United States, ASUSTek offers "Asus Support" through its MyAsus app, including for example, "Blue screen error." The MyAsus app identifies its "Developer" as "AsusTek" multiple times, including as follows:



36. After the user selects "USA/English," the app asks the customer to become an "Asus member" by agreeing to the "Asus 'Privacy Policy'" and the "Asus Terms of Use." The Privacy Policy ends with a copyright by "ASUSTeK COMPUTER INC." as follows:

37. ASUS then sends the U.S. customer an email "Thank you for being a valued ASUS Member!" that ends by stating the following:



38. Upon opening, the MyAsus app requires the U.S. customer to accept or reject a statement that begins: "AsusTek COMPUTER INC. and its affiliated companies use cookies and similar technologies to perform essential online functions, such as authentication and security. . . ."

39. ASUS's 2022 Q4 report, available online at https://www.asus.com/EVENT/Investor/ir_quarterly, states:

Unit: NT$ thousands

(5) Geographical information

Geographical information for the years ended December 31, 2022 and 2021 is as follows:

	Years Ended			
	December 31, 2022		December 31, 2021	
	Revenue	Non-current assets	Revenue	Non-current assets
Taiwan	$ 55,913,086	$ 23,900,131	$ 58,115,720	$ 24,216,555
China	107,280,367	7,215,633	93,558,202	6,994,363
Singapore	196,214,948	41,099	213,335,297	64,897
USA	108,498,432	1,479,767	101,713,640	1,248,163
Europe	22,709,036	423,353	25,368,477	359,969
Others	46,576,063	531,113	43,147,399	530,177
	$537,191,932	$ 33,591,096	$535,238,735	$ 33,414,124

The above non-current assets exclude financing instruments, deferred income tax assets and certain other non-current assets.

40. The 2022 Q4 Report also discloses that ASUSTek owns 100% of its U.S.-based subsidiary "ASUS Computer International" ("ACI"), which ASUSTek's Q4 Report calls an "affiliated enterprise." The Defendant includes ACI's U.S. net income/profit in its annual results.

41. The 2022 Q4 Report includes Table 7, titled "Names, Locations, and Related Information of Investees Over Which the Company Exercises Significant Influence." This table shows the following:

ASUSTEK COMPUTER INC. AND SUBSIDIARIES

NAMES, LOCATIONS, AND RELATED INFORMATION OF INVESTEES OVER WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE
(EXCLUDING INFORMATION ON INVESTMENTS IN MAINLAND CHINA)

YEAR ENDED DECEMBER 31, 2022

Table 7

(Amounts in thousands of New Taiwan dollars)

Investor Company	Investee Company	Location	Main Businesses	Original Investment Amount		December 31, 2022			Net Income (Loss) of the Investee	Share of Profit/Loss of Investee	Note
				December 31, 2022	December 31, 2021	Shares	Percentage of Ownership (%)	Carrying Value			
ASUS	ACI	U.S.A	Selling of 3C products in North America	13,320	13,320	50,000	100.00	1,182,489	248,145	248,145	Note 2
ASUS	ASUTC	Taiwan	Selling of 3C products in Taiwan	204,244	204,244	19,000,000	100.00	-	82,069	82,069	Note 1, 2 and 3

42. ASUS's 2021 Annual Report, available online at https://www.asus.com/EVENT/Investor/ir_report, also states:

Unit: NT$ thousands

Item \ Year	2020		2021	
	Subtotal	Total	Subtotal	Total
Sales to TW		21,419,537		28,999,151
Sales to region outside of Taiwan		395,773,510		506,239,584
America	107,573,633		132,380,886	
Asia Pacific / Oceania	162,267,972		222,885,520	
Europe	123,254,852		145,888,224	
Africa	2,677,053		5,084,954	
Net sales		417,193,047		535,238,735
(-) Revenue from contracts with customers from discontinued operations		(4,412,608)		-
Total		412,780,439		535,238,735

43. ASUSTek's 2021 Annual Report states that 23% of members of the ASUSTek Board of Directors serve as employees of ASUS subsidiaries, shown below. One of these Directors is Jonathan Tsang, President of ASUS Group.

(2) Independence of the board

a. The Company's board of directors has 13 members, of which 3 are independent directors, or 23.08%.

b. 38.46% of directors concurrently serve as employees of the Company, 23.07% of them serve as employees of subsidiaries and 38.46% of them do not have employee status.

c. Therefore, there is no violation of the provisions of Paragraph 3 and 4 of Article 26-3 of the Securities and Exchange Act.

44. The 2021 Annual Report also discloses that Jonathan Tsang attended 100% of ASUSTek Board meetings in 2021:

III. Corporate governance Implementation

(I) Board of Directors

The 2021 Board of Directors convened 8 meetings (A). The following is the attendance of the directors:

Title	Name	Attendance in Person (B)	By Proxy	Attendance Rate (%) (B/A)	Notes
Chairman	Jonney Shih	8	0	100%	
Vice Chairman	Ted Hsu	8	0	100%	
Director	Jonathan Tsang	8	0	100%	

45. The 2021 Annual Report includes a timeline of ASUSTek activities. This timeline highlights a number of achievements and events in the company's history, including recent U.S. activities including at least as follows:

March 2009	Eee PC series had been selected the top-three models on the shopping list of the benchmark online mall "AMAZON" for multiple times. The newly launched 1000HE model of Eee PC™ had taken up the top-two spots with successful pre-order as an evidence of the popularity of Eee PC. ASUS owned the heart of American consumers with Eee PC™.
October 2011	ASUS released of the latest ZENBOOK™ super-slim notebook in step with the world. Chairman Jonney Shih first released the product in New York, followed by London, Milan and Taipei. The synchronized global disclosure.
July 2021	ASUS teams up with Olive, an American healthcare startup unicorn, to relieve the burden on 775 hospitals across the United States.

46. As another example of the Defendant's activities in the U.S., the timeline states that in January 2022 "ASUS breaks its own record to win 20 innovation awards at CES® 2022 in the United States."

47. This timeline also includes the date of announcement of "a whole new series of innovative gaming products including 14-inch ultra slim gaming laptop computer ROG Zephyrus G14 . . .".

January 2020	In CES 2020, ROG announced whole new series of innovative gaming products including 14-inch ultra slim gaming laptop computer ROG Zephyrus G14 boasting with most powerful computing capacity in the world, as well as gaming peripherals over ROG Swift 360Hz and ROG Swift PG32UQX monitors, ROG Pugio II and ROG Strix Impact II Wireless mouses, as well as ROG Z11 ITX case.

48. The 2021 Annual Report again highlights the Zephyrus G14 laptop as a product innovation in a letter to the Defendant's shareholders. The letter also highlights the ROG Flow X13 as follows:

User-Centric Design Thinking and Innovation in Products and Smart Applications

Through the company's user-centric design thinking approach, ASUS has implemented a number of product innovations, such as the ProArt Studiobook 16 and Pro 16 creator laptops, which won Golden Pin Design Award's highest honor — the Best Design of the Year award; ROG Flow X13, the world's first 13-inch convertible touchscreen gaming laptop; the leading-edge Zenbook 17 Fold OLED foldable laptop; the trend-setting ROG Zephyrus G14 AW SE gaming laptop; ROG Maximus Z690 Extreme Glacial motherboards with top-notch water-cooling technology; ROG Strix LC RTX 3080 Ti O12G gaming graphics cards with both air- and water-cooling solutions; the ExpertBook B5 commercial laptop series; the ROG Phone 5 gaming smartphone series; the ROG Swift 360Hz PG27AQN, the world's first 1440p/360 Hz gaming monitor; and the HPC server ESC8000A-E11.

49. The 2021 Annual Report also states:

> The Company's main area s of business are the design, research, development and sales of electronics and information products. In many of its electronics-integrated products, the Company has offered excellent quality and industry-leading technology, which have won many awards. In 2021, ASUS again was recognized as one of the "World's Most Admired Companies" by "Fortune Magazine" of the United States. The product categories span motherboards, graphics cards, laptops, smart phones, displays, routers, and a full range of technology product solutions; the Company is also actively expanding its esports products and creates a variety of applications in new areas of AIoT. ASUS is committed to pursuing unparalleled technological innovations, creating a thoughtful intelligent life and ubiquitous happiness for global users; the vision of the brand is to become "a leading technology innovative enterprise highly respected by the new digital generation." ASUS has about 15,000 employees around the world, and has a world-class R&D team of more than 5,000 people. **Its products are sold in more than 70 countries around the world** and have won more than 11 awards every day on

> average. The product innovation, design and quality have been recognized by the global market.
>
> The core of ASUS business is PC-related products.

50. ASUS's 2021 Annual Report also states:

> ASUS has committed to R&D excellence since the day of its incorporation to rely on inhouse innovation for the R&D, production, and marketing of advanced motherboards, graphics cards, laptops, tablets, servers and smart phones; and to develop 4C (computers, communications, consumer electronics, and automobile electronics) integrated products.

51. ASUS's 2021 Annual Report also states that product development projects include "High Performance thin-and-light laptops," "ScreenPad Plus dual-screen laptops," "ProArt creator laptops," and "Professional gaming LED displays & PCs."

52. ASUS's 2021 Annual Report also states:

> The market for thin & light laptop computers continues to expand. The emerging digital content and multimedia entertainment industries as well as the needs of the PC gamers drive the demand for 3D multimedia and high-performance video and audio. It is foreseeable that multimedia entertainment will create more demands for laptop computers with advanced equipment. The development of our laptops incorporates not only the qualities of 'lightweight, thin, small, and visually attractive' but also of 'personalization, video and audio entertainment, wireless communication, and our commitment to a green environment.'

53. ASUS's 2021 Annual Report also states:

> To upgrade the product development technique and ensure stable supply of components, ASUS cooperates with many agents and distributors in the global channel architecture. **ASUS is the leading brand in many markets including** Europe, Asia and **America**, and the value of the brand and its identification are widely recognized by the users.

54. ASUS's 2021 Annual Report also states:

> Technology is transformed to generate income, and then part of that income is contributed back to support the creativity or technology supplier. This cycle allows R&D to sustain continuous development. These commitments to R&D, and the incentives provided by the Company's management, allow ASUS to continuously recruit talented

R&D. In the constantly-changing computer world, ASUS has key technologies and leading products enabling it to compete in the market and create product value. The 2021 R&D expenses were NT$20.1 billion, accounting for about 4% of the total revenue.

55. ASUS's 2021 Annual Report also states:

In terms of enhancing the core capabilities of esports computers, ASUS leads the industry, to introduce LCD displays with a refresh rate of 144 Hz and a 3-millisecond response time, as well as the innovative Active Aerodynamic System (AAS) cooling technology, to launch the most powerful compact esports notebooks on the market.

56. ASUS's 2021 Annual Report also states:

According to research conducted by an international market survey institute, ASUS stands in the world's top three Windows OS consumer laptop suppliers and constantly leads the industry in terms of product innovation, attaining high brand value and consumer recognition. The 2021 research institute estimated the shipment of ASUS consumer laptop computers to take about 13% of the global market share.

57. ASUS's 2021 Annual Report also states:

Sales and Marketability:

(1) Advantages

a. Under the operation of a strong sales management program, **ASUS has achieved competitive computer sales in most regions**, limiting the impact that adverse economic situations in one area has on the corporate operations. By deploying product lines across the market, the Company can properly reduce the impact of economic risks.

b. The pandemic has driven inelastic demand for computers and computer peripherals, and **demand is strong in markets around the world, including Europe, America**, and the Asia-Pacific region. ASUS has planned and acquired good brand and channel positioning.

c. The Company mostly has the leading positions in each product line, and is the No. 1 in terms of the global market share of motherboards. **In terms of laptops, it ranks No. 1 in** Taiwan and Hong Kong, Southeast Asia (Indonesia, Malaysia, Thailand), Europe (France, Romania) and **America**.

58. ASUS's 2021 Annual Report also states:

> ASUS provided recycling services in Taiwan, Europe, **North America**, China and India. Through recycling and resource circulation, replaced electronic products were given new value and life, which created the next wave of opportunity for economic development and became the key of the circular economy.

59. ASUS's 2021 Annual Report also states:

> In 2020, ASUS acquired a total of 7 Green Marks in Europe, **North America** and Asia for maximizing resource benefits, promoting new energy conservation and reducing emissions of greenhouse gases.

60. In the alternative, ASUSTek Computer Inc. is also responsible for the actions of its U.S. distributors and subsidiaries, which ASUSTek owns, controls, and directs, based at least on all the facts set forth above.

FACTUAL BACKGROUND

61. SVVTI was founded in 2000 by Dr. Sergiy Vasylyev, a scientist and prolific inventor.

62. Dr. Sergiy Vasylyev has an academic background and more than 20 years of research experience in physical sciences. He received an M.S. equivalent in Physics and Astronomy from the Kharkiv State University, Ukraine in 1992 and a Ph.D. in Physics and Mathematics from the Main Astronomical Observatory of National Academy of Sciences of Ukraine in 1996. From 1996 to 1999, he worked with several major academic research institutions and was involved in diverse research projects in the areas of space physics and solar energy. After immigrating to the U.S., in 2000, Dr. Vasylyev founded SVV Technology Innovations, Inc. to develop and commercialize his ideas in several technical fields ranging from optics and information technology to solar energy and lighting. Dr. Vasylyev is the author of approximately eighty patents and dozens of patent applications, has had numerous talks and presentations at the national and international conferences related to space physics, solar energy and lighting and has

authored/co-authored over 30 scientific and technical publications. Dr. Vasylyev's broad technical expertise areas include IT/IOT, optics, photonics, lightguide-based illumination systems, solar energy, daylighting, and solid-state lighting.

63. Since its inception, SVVTI has been a vehicle for developing and commercializing Dr. Vasylyev's inventions, particularly being dedicated to creating impactful technology solutions that find utility in energy efficiency, renewable energy and certain types consumer products. One technology focus is optical advances that enhance solar energy harvesting and save energy in illumination systems.

64. SVVTI has invented and validated several ground-breaking technology solutions and has accumulated an extensive knowledge and built a diverse IP portfolio in optics, photonics, solar energy, daylighting and solid-state lighting fields. SVVTI has received innovation awards from TechConnect, Cleantech Open, and Illuminating Engineering Society.

65. SVVTI has developed and demonstrated several novel types of optical collectors for solar energy applications, significantly improving over the traditional technologies in terms of material intensity, concentration ratio, beam uniformity and solar-to-electric conversion efficiency.

66. Another notable technology developed by SVVTI is a unique daylight redirecting film material (Daylighting Fabric®) which is applied to windows of a building façade to redirect natural daylight deep into the interior space for improving natural illumination and saving energy used for lighting.

67. SVVTI has also developed and demonstrated various types of innovative wide-area illumination panels and backlights employing light guides and light emitting diodes (LEDs). These panels can be tailored for specific applications and improving various characteristics of

illumination systems, including, for example, light beam diffusion, emission directionality, material efficiency, luminous efficacy, glare control, design options and aesthetics.

68. On February 25, 2021, ASUSTek received a letter from SVVTI, introducing SVVTI, notifying ASUSTek of several of the patents identified below, and identifying several of ASUSTek's products that utilize SVVTI's intellectual property.

69. Defendant has been aware of the Asserted Patents since, at least, February 25, 2021 when ASUSTek received SVVTI's letter disclosing and attaching each of these patents, and identifying several of ASUSTek's products utilizing claims of such patents which were also identified in SVVTI's letter.

TECHNOLOGY BACKGROUND

70. Several of the products accused of infringement below are products that contain displays using LED-illuminated LCD technology. A LED-illuminated LCD (liquid-crystal display) is a flat-panel display that uses LED (light-emitting diode) illumination. The illumination may come from LEDs along one or more sides of the display (edge-lit) or from full-array backlighting (direct-lit). As explained below, some displays use a quantum dot enhancement film ("QDEF").

71. Several of the products accused of infringement below are QLED monitors. QLED stands for quantum dot LED.

72. ASUS sells monitors that use QLED technology and heavily markets them to the gaming community. Notable products include the ROG SWIFT PG35VQ and ROG SWIFT PG27UQ monitors.

73. Generally, quantum dots are small, semiconductor particles that have unique optical and electronic properties, including the ability to produce pure monochromatic red, green, and/or blue light.

74. A widespread commercial application is using a quantum dot enhancement film ("QDEF") layer to improve the LED backlighting in LCD TVs. In this application, light from a blue LED backlight is converted by quantum dots to relatively pure red and green. This combination of blue, green and red light incurs less blue-green crosstalk and light absorption in the color filters after the LCD screen, thereby increasing useful light throughput and providing a better color gamut.

75. The QDEF layer is able to replace a diffuser used in traditional LCD backlight units.

76. The use of quantum dots to produce monochromatic red, green and blue light is an improvement over traditional LCD backlight units which fed a blue LED through a yellow filter to create white light which was then passed through red, green and blue color filters.

THE ACCUSED PRODUCTS

77. The Accused Products are products which utilize LED-backlit LCD display panels.

78. The Accused Products are distinguishable into two categories. Products which utilize display panels containing one or more QDEF layers ("QDEF Accused Products") and products which utilize display panels that do not contain QDEF layers ("Non-QDEF Accused Products"). The QDEF Accused Products are further distinguishable into two subcategories. QDEF Accused Products which are direct-lit, in that they use an LED array on the back side of the panel ("Direct-lit QDEF Accused Products") and QDEF Accused Products which are edge-

lit, in that they use LEDs around one or more edges of the panel ("Edge-lit QDEF Accused Products").

79. The QDEF Accused Products include, but are not limited to, PA32UCX-PK, PA27UCX-K, PA32UCG-K, PG65UQ, PG35VQ, PG32UQX, PG27UQ, PA329Q, PA32UCG, PA32UCX, PG27UQ, PG32UQ, and PG35VQ.

80. The Direct-lit QDEF Accused Products include, but are not limited to, PA32UCX-PK, PA27UCX-K, PA32UCG-K, PG65UQ, PG35VQ, PG32UQX, PG27UQ, PA329Q, PA32UCG, PA32UCX, PG27UQ, and PG35VQ.

81. The Edge-lit QDEF Accused Products include, but are not limited to, PG32UQ.

82. The Non-QDEF Accused Products include, but are not limited to, the following monitors: XG438Q, MG28UQ, PB287Q, VA24DQ, VG249Q, VG27VQ, VG279Q1A, VG328H1B, USB Monitor MB169, VA27EHE, VG259Q, VG278QR, VG279Q1R, VG27VH1B, VG27WQ1B, VL279HE, VP279HE, VY279HE, VA24EHE, VG279QMY, VG30VQL1A, VG24VQ1BY, VG24VQ1B, VG247Q1AY, VP349CGL, VG32AQL1A, VG277Q1A, PA328CGV, VG28UQL1A, VG247Q1A, VG32VQR, VG27AQGL1A, VG248QEZ, VG258QM, VG34VQL1B, VG249Q1A, VG24VQE, VG259QR, VG279QR, VG27AQ1A, VG259QM, VG24VQR, VG279QL1A, VG259QMY, VG27AQL1A, VG32VQ, VG32VQ1B, VZ249HEG1R, VZ279HEG1R, VG249Q1R, VZ249QG1R, VG248QG, VG27WQ, VG259Q, VG279QM, VG24VQ, VG279Q, VG289Q, VP249QGR, VG35VQ, VP28UQGL, VG258QR, VG27BQ, VG27AQ, VP348QGL, VG278Q, VP278QGL, VP278QG, VP248QGL, VP228QG, VG275Q, VP248QG, VP28UQG, MG248QR, VA325H, MG279Q, VG245H, XG276Q, XG27AQ-W, XG249CM, XG43UQ, XG27UQR, XG27AQM, XG349C, XG16AHPE, XG279Q-G, PG279QM, XG16AHP-W, XG27AQ, PG259QNR, XG32VC,

PG259QN, PG329Q, XG43UQ, PG43UQ, XG43VQ, XG27UQ, XG279Q, XG248Q, PG278QR, XG49VQ, VG289Q1A, PA329CV, PA148CTV, PA278CV, PA247CV, PA279CV, PA278QV, PA248QV, PA34VC, PA329C, MB166C, MB165B, MB16ACV, MB16AHP, MB16AH, MB14AC, MB169B+, MB168B, MB16ACE, MB16AMT, MB16AC, VA279HAE, VY279HE-W, VT168HR, BE27ACSBK, VZ24EHE, VA247HE, VP299CL, VZ27EHE, VA24DQSB, VA24DQSBY, VA27DCP, BE279QSK, VA24DCP, VA27DQ, VP32AQ, VP32UQ, BE24EQSK, VY249HE, VG246H, VL249HE, VP229HE, VP229Q, VA27DQSB, VP279HE, VN279QL, VA24DQLB, VA24DQ, BE24EQK, VA32UQ, MX279HS, VA229HR, VP249HE, VT229H, VZ279HE, VP228HE, VA249HE, VZ239H-W, VT168H, MG248Q, BE24WQLB, and VB178N.

83. The Non-QDEF Accused Products also include, but are not limited to, the following laptop computers: M241, V241, V161, S300MA, S340MF, M509, M415, M3700 (AMD Ryzen 5000 Series), BR1100C, BR1100F, R543, E510, L210, L410, L510, X543, E410, X509, M415 (AMD Ryzen 5000 Series), M515 (AMD Ryzen 5000 Series), M570, W202, ExpertBook B1 B1400, ExpertBook B1 B1500, ExpertBook B9 B9450 (11th Gen Intel), ExpertBook B9 B9450, ExpertBook P2, ASUSPRO P3540, ASUSPRO P5440, ASUSPRO D641SC, ASUSPRO D340MC, ProArt StudioBook Pro 15 W500, ProArt StudioBook Pro 17 W700, ProArt StudioBook Pro X W730, ProArt StudioBook 15 H500, ProArt StudioBook 17 H700, ProArt StudioBook One W590, ROG Flow X13 GV301QH-DS96, ROG Flow X13 GV301QH-XS98-B, ROG Mothership GZ700GX-XB98K, ROG G703VI-XH74K, G10DK-WS764 G10DK-WB764, ROG Strix G15 Advantage Edition G513QY-212.SG15, ROG Strix G17 G713QM-ES74, ROG Strix G15 G513QM-ES74, ROG Strix SCAR 15 G533QRDS76Q, ROG Strix SCAR 15 G533QS-DS76, ROG Strix SCAR 17 G732LWS-DS76, ROG Strix SCAR

17 G733QSA-XS99, ROG Strix G17 G713QR-ES96, ROG Strix G15 G513QM-ES94, ROG Strix G15 G513QR-ES96, ROG Strix G17 G713QM-ES94, ROG Strix SCAR 15 G533QRXS98Q, ROG Strix SCAR 15 G533QS-XS98Q, ROG Strix SCAR 17 G732LWS-XS98, ROG Strix SCAR 17 G732LXS-XS94, ROG Strix SCAR 17 G733QR-DS98, ROG Strix SCAR 17 G733QSXS98Q, ROG Strix G15 G512LWS-PH74, ROG Strix G15 G512LW-ES76, ROG Strix G15 G512LW-XS78, ROG Strix G15 G512LU-RS74, ROG Strix G15 G512LU-XS74, ROG Strix G15 G512LWWS74, ROG Strix G15 G512LI-RS73, ROG Strix G17 G712LW-XS78, ROG Strix G17 G712LURS73, ROG Strix G17 G712LW-ES74, ROG Strix SCAR 15 G532LWS-DS76, ROG Strix GT35 G35CZ-XS991, ROG Strix SCAR 15 G532LWS-XS96, ROG Strix SCAR 15 G532LWS-XS99, ROG Strix SCAR 17 G732LXS-XS99, ROG Strix GA15 GA15DH-ES557, ROG Strix GA15 GA15DH-DS757, ROG Strix GL10DH-PH552, ROG Strix G GL531GU-WB53, ROG Strix G GL531GU-WB53-B, ROG Strix G G531GT-AL123T, ROG Strix G GL531GU-WB74, ROG Strix Hero III G531GW-XB74, ROG Strix SCAR III G531GV-DB76, ROG Strix SCAR III G531GW-DB76, ROG Strix SCAR III G531GW-KB71, ROG Strix SCAR III G531GW-XB96, G15 GA502IV-WS74, G15 GA502IV-XS76, ROG Zephyrus G14-ACRNM GA401IVC-RMT01, ROG Zephyrus G14 GA401IV-BR9N6, ROG Zephyrus G14 GA401IV-BS96-WH, ROG Zephyrus G14 GA401IV-XS96, GX701GVR GA401IU-PB96, G15 GA502IV-PH96, ROG Zephyrus S17 GX703HM-DB76, ROG Zephyrus S17 GX703HM-KF001R, ROG Zephyrus Duo 15 SE GX551QR-XS78, ROG Zephyrus Duo 15 SE GX551QM-ES76, ROG Zephyrus G15 GA503QM-BS94Q, ROG Zephyrus G15 GA503QS-BS96Q, ROG Zephyrus G15 GA503QSXS98Q-WH, ROG Zephyrus G14 GA401QM-XS98Q-WH, ROG Zephyrus Duo 15 SE GX551QS-XS99, ROG Zephyrus Duo 15 SE GX551QR-XS98, ROG Zephyrus M16 GU603HRK8004R, ROG Zephyrus M16 GU603HE-K8035R, ROG

Zephyrus M16 GU603HM-K8030R, ROG Zephyrus S17 GX703HR-KF051R, ROG Zephyrus S17 GX703HR-XB96, ROG Zephyrus S17 GX703HS-KF004R, ROG Zephyrus S17 GX703HS-XB98, ROG Zephyrus S17 GX703HSXB99, ROG Zephyrus S17 GX701LWS-XS76, ROG Zephyrus M15 GU502LU-BI7N4, ROG Zephyrus M15 GU502LV-BI7N8, ROG Zephyrus S17 GX701LV-DS76, S17 GX701LXS-XS78, S15 GX502LWS-XS76, S15 GX502LXS-XS79, ROG Zephyrus Duo 15 GX550LWS-XS79, ROG Zephyrus G14 GA401IH-BR7N2BL, GX701GVR GA401IU-BS76, ROG Zephyrus S GX531GX-XB76, S-GX531GX-XB77, ROG Zephyrus G15 GA502DU-WB73, SGX531GXXS74, M GM501GS-XS74, S GX531GW-AS76, GX501GI-XS74, ROG Zephyrus S GX531GWAB76, 2021 TUF Dash F15, 2021 TUF Gaming F15, 2021 TUF Gaming F17, TUF Gaming F15, TUF Gaming F17, TUF Gaming A17, TUF Gaming A15, 2021 TUF Gaming A17, 2021 TUF Gaming A15, TUF Gaming FX505DY, TUF Gaming FX705DY, TUF Gaming FX705DD/DT/DU, TUF Gaming FX505DD/DT/DU, VivoBook 14 X412, VivoBook 17 M712, VivoBook 15 M513 (AMD Ryzen 5000 Series), VivoBook 15 K513 (11th gen Intel), VivoBook 14 K413 (11th gen Intel), VivoBook 15 F513IA, VivoBook 17 X712, VivoBook Flip 14 TM420 (AMD Ryzen 5000 Series), VivoBook Flip 14 TP412, VivoBook Flip 14 TP470, VivoBook Flip 14 TM420, VivoBook Flip 14 TP401, VivoBook Flip 12 TP202, K571GT, VivoBook 14 M413, VivoBook S14 (S435), VivoBook S13 S333 (11th Gen Intel), VivoBook S14 S433 (11th Gen Intel), VivoBook S15 S532 (11th Gen Intel), VivoBook S15 S533 (11th Gen Intel), VivoBook 15 M513, VivoBook S13 S333, VivoBook S15 S532, VivoBook S15 S533, VivoBook 14 (M413, AMD Ryzen 5000 Series), VivoMini VC66-C2, Q528EH, ZenBook 14 UM425, ZenBook 13 UX325 (11th Gen Intel), ZenBook 14 UX425, ZenBook 14 UX435, ZenBook Duo 14 (UX482), ZenBook 14 UM425 (UA), Q507IQ, ZenBook 14 UX425 (11th GenIntel), ZenBook Duo UX481, ZenBook 15 UX534, ZenBook 14 UX434,

ZenBook 13 UX325, ZenBook 13 UX334, Q506, ZenBook Flip S UX371 (11th Gen Intel), ZenBook Flip S13 OLED (UX371, 11th Gen Intel), ZenBook Flip 15 Q538EI, ZenBook Flip 13 UX363, Zenbook Flip 13 UX363 (11th gen Intel), ZenBook Pro 15 UX535, ZenBook Pro Duo UX581, ZenBook S UX393 (11th Gen Intel), Chromebook C223, Chromebook C403, Chromebook C423, Chromebook C523, Chromebook CX1 (CX1100), Chromebook CX1 (CX1400), Chromebook Flip CM5 (CM5500), Chromebook Flip C536, Chromebook Flip CX5 (CX5500), Chromebook Flip C436, Chromebook Flip C214, Chromebook Flip C433, Chromebox 4, Fanless Chromebox, and other devices.

84. The Non-QDEF Accused Products also include, but are not limited to, the Chromebook CT100PA tablet computer.

COUNT I

DEFENDANT'S INFRINGEMENT OF U.S. PATENT NO. 10,269,999

85. On April 23, 2019, United States Patent No. 10,269,999 entitled "Light Trapping Optical Structures Employing Light Converting and Light Guiding Layers" was duly and legally issued after full and fair examination. SVVTI is the owner of all right, title, and interest in and to the patent by assignment, with full right to bring suit to enforce the patent, including the right to recover for past infringement damages and the right to recover future royalties, damages, and income. A true copy of the '999 patent is incorporated by reference herein and may be accessed at http://patft1.uspto.gov/netacgi/nph-Parser?patentnumber=10269999 or https://patents.google.com/patent/US10269999B2.

86. Defendant has directly infringed, and is continuing to directly infringe, literally or under the doctrine of equivalents, at least claims 1-11, and 13 of the '999 patent by importing into the United States, making, using, selling, and/or offering for sale, at least, the Edge-lit

QDEF Accused Products and other products containing LED-illuminated LCD displays, including computer monitors and laptops in the United States, in violation of 35 U.S.C. § 271(a).

87. Alternatively, and in addition, Defendant directly infringes as described in the preceding paragraph, by making and selling the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing. *See, e.g., Lake Cherokee Hard Drive Techs., L.L.C. v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013). Furthermore, Defendant directly infringes through its direct involvement in the activities of its distributors or subsidiaries, including by selling and offering for sale the Accused Products directly to is distributors or subsidiaries and importing the Accused Products into the United States. Upon information and belief, Defendant conducts activities that constitutes direct infringement. Defendant is vicariously liable for this infringing conduct of its distributors and subsidiaries under both the alter ego and agency theories because, as an example and on information and belief, Defendant has the right and ability to control its distributors' and subsidiaries' infringing acts and receives a direct financial benefit from their infringement.

88. In addition, upon information and belief, since at the least the date when Defendant was on notice of its infringement, Defendant has actively induced, under U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the asserted patents, at least as described in the preceding paragraph, to directly infringe one or more claims of the patents by using, offering for sale, selling, and/or importing

the Accused Products. Since at least the notice provided on the above-mentioned date, Defendant does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement. Upon information and belief, Defendant intends to cause, and has taken affirmative steps to induce infringement by distributors, importers (including inducement to import in violation of § 271(g)), customers, subsidiaries, and/or consumers by, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States.

89. The Edge-lit QDEF Accused Products use a light converting optical system, specifically, a display screen. The display screen incorporates a liquid crystal display (LCD) which is backlit using a backlighting assembly (backlight). The backlight uses multiple light-emitting diodes (LEDs) which are placed along an edge of the visible area of the display and provide a light source. The LEDs emit blue light, a portion of which is absorbed and converted to other wavelengths within the backlight. The LEDs are a monochromatic light source (e.g., emitting light only in one color) which is configured to emit light in a preselected spectral range (the LEDs emit light in blue color when powered on). The LCD/backlighting assembly incorporates a plurality of linear cylindrical microlenses arranged into a planar lenticular lens array. For example, the front surface1 of LGP has a planar lenticular array of linear cylindrical microlenses (microscopic rounded ridges having a cylindrical cross-section) which are oriented parallel to each other and longitudinally extend between opposing terminal edges of the array.

The LGP includes a planar light guiding layer which is formed from an optically transmissive material. For example, the body of the LGP is used to transmit and distribute light emitted by the LEDs. The lens array and the light guiding layer are positioned in energy receiving relationship with respect to the monochromatic light source (LEDs). For example, the LEDs are adjacent to an edge of the LGP and illuminate directly into the edge such that both the lens array and the light guiding layer receive light from the LEDs. The back surface of LGP contains a large number of light deflecting elements that can be seen with magnifying optics (e.g., a macro lens or microscope). These light-deflecting elements are three-dimensional microstructures formed directly in the back surface of LGP. The backlight contains a broad-area reflective surface that is spaced by a distance from the lens array and longitudinally and laterally extends parallel to the lens array. The backlight contains a generally planar photoresponsive layer. The photoresponsive layer is located between the lens array and the broad-area reflective surface and is disposed in energy receiving relationship with respect to the lens array. A light input surface of the photoresponsive layer facing the planar lens array is configured for a generally unimpeded light passage from the planar lens array to the body of the photoresponsive layer. For example, the surface of the photoresponsive (active) layer of QDEF facing the lens array is smooth and highly transparent. Accordingly, substantially all light received on the surface enters the body of the layer. The photoresponsive layer comprises a plurality of quantum dots embedded into an optically transmissive material and is configured to absorb and convert light in the preselected spectral range (e.g., the spectral range of blue light emitted by the LEDs). The photoresponsive layer is configured at a sufficiently low thickness to transmit at least a portion of incident light without absorption in a single pass. For example, QDEF transmits at least some light without absorption in a single pass. The broad-area reflective surface is configured to receive

unabsorbed light exiting from the photoresponsive layer and direct the unabsorbed light back towards the photoresponsive layer. For example, the composite prism sheet disposed in front of the QDEF receives unabsorbed light exiting from the QDEF and directs (reflects) that light back towards the QDEF.

COUNT II

DEFENDANT'S INFRINGEMENT OF U.S. PATENT NO. 10,439,088

90. On October 8, 2019, United States Patent No. 10,439,088 entitled "Light Converting System Employing Planar Light Trapping and Light Absorbing Structures" was duly and legally issued after full and fair examination. SVVTI is the owner of all right, title, and interest in and to the patent by assignment, with full right to bring suit to enforce the patent, including the right to recover for past infringement damages and the right to recover future royalties, damages, and income. A true copy of the '088 patent is incorporated by reference herein and may be accessed at http://patft1.uspto.gov/netacgi/nph-Parser?patentnumber=10439088 or https://patents.google.com/patent/US10439088B2.

91. Defendant has directly infringed, and continues to directly infringe, literally or under the doctrine of equivalents, at least claims 1-5, 7-13, 16, and 18-26 of the '088 patent by importing into the United States, making, using, selling, and/or offering for sale, at least, the Edge-lit QDEF Accused Products and other products containing LED-illuminated LCD displays, including computer monitors and laptops in the United States, in violation of 35 U.S.C. § 271(a).

92. Alternatively, and in addition, Defendant directly infringes as described in the preceding paragraph, by making and selling the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending

and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing. *See, e.g., Lake Cherokee Hard Drive Techs., L.L.C. v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013). Furthermore, Defendant directly infringes through its direct involvement in the activities of its distributors or subsidiaries, including by selling and offering for sale the Accused Products directly to is distributors or subsidiaries and importing the Accused Products into the United States. Upon information and belief, Defendant conducts activities that constitutes direct infringement. Defendant is vicariously liable for this infringing conduct of its distributors and subsidiaries under both the alter ego and agency theories because, as an example and on information and belief, Defendant has the right and ability to control its distributors' and subsidiaries' infringing acts and receives a direct financial benefit from their infringement.

93. In addition, upon information and belief, since at the least the date when Defendant was on notice of its infringement, Defendant has actively induced, under U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the asserted patents, at least as described in the preceding paragraph, to directly infringe one or more claims of the patents by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Defendant does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement. Upon information and belief, Defendant intends to cause, and has taken affirmative steps to induce infringement by distributors, importers (including inducement to import in violation of § 271(g)), customers, subsidiaries, and/or consumers by, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating

established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States.

94. The Edge-lit QDEF Accused Products use a light converting optical system, specifically, a display screen. The display screen incorporates a liquid crystal display (LCD) which is backlit using a backlighting assembly (backlight). The backlight uses multiple light-emitting diodes (LEDs) which are placed along an edge of the visible area of the display and provide a light source. The LEDs emit blue light, a portion of which is absorbed and converted to other wavelengths within the backlight. The LCD/backlighting assembly of the display screen contains LEDs that are used as a light source. The LEDs are a monochromatic (e.g., emitting light only in one color) light source which is configured to emit light in a preselected spectral range (the LEDs emit light in blue color when powered on). The LCD/backlighting assembly contains a planar lenticular lens array (an array of linear cylindrical lenses on a planar plastic substrate). The lens array is disposed in energy receiving relationship with respect to the light source (e.g., LEDs are shining light into an edge of the lens array) and is used to distribute light emitted by the LEDs. The LCD/backlighting assembly contains a microstructured surface (e.g., a surface having structures on a microscopic scale) including a plurality of linear grooves. For example, the LCD/backlighting assembly contains a composite prism sheet, also called brightness enhancement film (BEF). The front surface of the prism sheet has a regular prismatic pattern formed by microscopic linear grooves disposed side by side. The LCD/backlighting assembly contains a reflective surface (back reflector) on a back side of the lens array. The

backlight contains a generally planar photoresponsive layer. For example, the backlight contains a Quantum Dot Enhancement Film (QDEF) which is retained in a planar form within the backlight and contains an active layer which is responsive to blue light emitted by the LEDs (e.g., by absorbing that light and converting it to red and green colors). The photoresponsive layer comprises a semiconductor material in the form of quantum dots. For example, QDEF incorporates quantum dots2 which are nano-sized crystals made of semiconductor materials. The quantum dots are embedded into an optically transmissive material. For example, the quantum dots are embedded into the active layer of QDEF which is formed from a material that transmits light. The thickness of the photoresponsive layer is less than a minimum thickness sufficient for absorbing substantially all received light in a single pass at normal incidence. For example, QDEF transmits at least some light without absorption in a single pass.

COUNT III

DEFENDANT'S INFRINGEMENT OF U.S. PATENT NO. 10,613,306

95. On April 7, 2020, United States Patent No. 10,613,306 entitled "Light Distribution System Employing Planar Microstructured Waveguide" was duly and legally issued after full and fair examination. SVVTI is the owner of all right, title, and interest in and to the patent by assignment, with full right to bring suit to enforce the patent, including the right to recover for past infringement damages and the right to recover future royalties, damages, and income. A true copy of the '306 patent is incorporated by reference herein and may be accessed at http://patft1.uspto.gov/netacgi/nph-Parser?patentnumber=10613306 or https://patents.google.com/patent/US10613306B2.

96. Defendant has directly infringed, and continues to directly infringe, literally or under the doctrine of equivalents, at least claims 1, 2, 4, 5, 7, 12-15, 17-21, 23, 24, 26-30, 33, 34,

and 38-42 of the '306 patent by importing into the United States, making, using, selling, and/or offering for sale, at least, the QDEF Accused Products and other products containing LED-illuminated LCD displays, including computer monitors, tablets, and handheld devices, in the United States, in violation of 35 U.S.C. § 271(a).

97. Alternatively, and in addition, Defendant directly infringes as described in the preceding paragraph, by making and selling the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing. *See, e.g., Lake Cherokee Hard Drive Techs., L.L.C. v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013). Furthermore, Defendant directly infringes through its direct involvement in the activities of its distributors or subsidiaries, including by selling and offering for sale the Accused Products directly to is distributors or subsidiaries and importing the Accused Products into the United States. Upon information and belief, Defendant conducts activities that constitutes direct infringement. Defendant is vicariously liable for this infringing conduct of its distributors and subsidiaries under both the alter ego and agency theories because, as an example and on information and belief, Defendant has the right and ability to control its distributors' and subsidiaries' infringing acts and receives a direct financial benefit from their infringement.

98. In addition, upon information and belief, since at the least the date when Defendant was on notice of its infringement, Defendant has actively induced, under U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more

claims of the asserted patents, at least as described in the preceding paragraph, to directly infringe one or more claims of the patents by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Defendant does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement. Upon information and belief, Defendant intends to cause, and has taken affirmative steps to induce infringement by distributors, importers (including inducement to import in violation of § 271(g)), customers, subsidiaries, and/or consumers by, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States.

99. The QDEF Accused Products use a light distribution optical system, specifically, a display screen. The display screen incorporates a liquid crystal display (LCD) which is backlit using a backlighting panel assembly (backlight). The backlight uses multiple light-emitting diodes (LEDs) which are placed along an edge of the visible area of the display and provide a light source. The light distribution optical system (display screen) incorporates a flexible optically transmissive sheet having a first broad-area surface and an opposing second broad-area surface. For example, the backlighting/LCD panel assembly contains a light guiding plate (LGP) formed by a thin, optically transmissive plastic sheet. The display screen also incorporates an artificial light source illuminating the optically transmissive sheet (LGP). For example, as explained above, the backlighting/LCD panel assembly of the display screen contains LEDs that

are used as a light source. The LEDs illuminate the optically transmissive sheet (LGP) from an edge. The display screen also contains a plurality of rounded ridges formed in the first broad-area surface (front surface of LGP) and aligned parallel to an edge of the optically transmissive sheet (LGP). For example, the rounded ridges are incorporated into a linear array and aligned parallel to the bottom and top edges of LGP. The display screen incorporates a plurality of discrete cavities formed in the second broad-area surface (back surface of LGP) and distributed over an area of the second broad-area surface (back surface of LGP) according to a predetermined two-dimensional pattern. For example, the back surface of LGP has a two-dimensional pattern of microscopic cavities which are discrete (e.g., individually separate and distinct) and which are formed directly in the back surface. The two-dimensional pattern is predetermined (e.g., specifically designed to uniformly extract light from the LGP). Each of the plurality of discrete cavities is disposed in optical communication with respect to at least one of the plurality of rounded ridges. For example, each cavity receives light from one or more rounded ridges as the light is reflected from the rounded ridges while being guided within LGP. In addition, each cavity redirects at least a portion of light that enters the cavity towards one or more rounded ridges while extracting light from LGP. The display screen incorporates a planar reflective surface extending parallel to the optically transmissive sheet (LGP) and disposed in an energy receiving relationship with respect to the optically transmissive sheet (LGP). For example, the backlight includes a planar reflector on the back of LGP. The back reflector extends parallel to LGP and is used to receive and reflect light emerging from the LGP. A light receiving aperture of each of the plurality of discrete cavities is less than a spacing distance between adjacent ones of the plurality of discrete cavities. Furthermore, a cumulative area of the cavities is less than areas of each of the first and second broad-area surfaces (front and back surfaces of

LGP). For example, each cavity within the respective two-dimensional pattern has a size which is less than the spacing distances between adjacent cavities. A thickness of the optically transmissive sheet (LGP) is between a fraction of a millimeter and several millimeters. For example, measurements made using a digital caliper indicate that the LGP has a thickness of about 3 mm. A width and/or length of the optically transmissive sheet (LGP) is 100 millimeters or more. For example, the LGP has a length and width in excess of 100 mm. The plurality of rounded ridges defines a lenticular lens array. For example, each rounded ridge forms a lenticular lens. A large number of such lenticular lenses are disposed side by side, forming a lenticular lens array. The plurality of discrete cavities is disposed in a proximity to the focal plane. For example, the cavities, which are formed in the back surface of LGP, are very close to the focal plane of the lenticular lens, within a distance of the order of only several hundred micrometers.

COUNT IV

DEFENDANT'S INFRINGEMENT OF U.S. PATENT NO. 10,868,205

100. On October 6, 2020, United States Patent No. 10,868,205 entitled "Light Converting System Employing Planar Light Trapping and Light Absorbing Structures" was duly and legally issued after full and fair examination. SVVTI is the owner of all right, title, and interest in and to the patent by assignment, with full right to bring suit to enforce the patent, including the right to recover for past infringement damages and the right to recover future royalties, damages, and income. A true copy of the '205 patent is incorporated by reference herein and may be accessed at http://patft1.uspto.gov/netacgi/nph-Parser?patentnumber=10868205 or https://patents.google.com/patent/US10868205B2.

101. Defendant has directly infringed, and continues to directly infringe, literally or under the doctrine of equivalents, at least claims 1-6, 11-17, and 19 of the '205 patent by

importing into the United States, making, using, selling, and/or offering for sale, at least, the Edge-lit QDEF Accused Products and other products containing LED-illuminated LCD displays, including computer monitors, tablets, and handheld devices, in the United States, in violation of 35 U.S.C. § 271(a).

102. Alternatively, and in addition, Defendant directly infringes as described in the preceding paragraph, by making and selling the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing. *See, e.g., Lake Cherokee Hard Drive Techs., L.L.C. v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013). Furthermore, Defendant directly infringes through its direct involvement in the activities of its distributors or subsidiaries, including by selling and offering for sale the Accused Products directly to is distributors or subsidiaries and importing the Accused Products into the United States. Upon information and belief, Defendant conducts activities that constitutes direct infringement. Defendant is vicariously liable for this infringing conduct of its distributors and subsidiaries under both the alter ego and agency theories because, as an example and on information and belief, Defendant has the right and ability to control its distributors' and subsidiaries' infringing acts and receives a direct financial benefit from their infringement.

103. In addition, upon information and belief, since at the least the date when Defendant was on notice of its infringement, Defendant has actively induced, under U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more

claims of the asserted patents, at least as described in the preceding paragraph, to directly infringe one or more claims of the patents by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Defendant does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement. Upon information and belief, Defendant intends to cause, and has taken affirmative steps to induce infringement by distributors, importers (including inducement to import in violation of § 271(g)), customers, subsidiaries, and/or consumers by, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States.

104. The Edge-lit QDEF Accused Products use a light converting optical system, specifically, a display screen. The display screen incorporates a liquid crystal display (LCD) which is backlit using a backlighting assembly (backlight). The backlight uses multiple light-emitting diodes (LEDs) which are placed along an edge of the visible area of the display and provide a light source. The LEDs emit blue light, a portion of which is absorbed and converted to other wavelengths within the backlight. The LCD/backlighting panel assembly of the display screen includes a first broad-area reflective surface comprising a plurality of linear light deflecting surface relief structures and configured for reflecting light using a total internal reflection. For example, the display screen includes a composite prism sheet which has a plurality of linear light deflecting surface relief features that are configured to deflect light using

total internal reflection depending on the propagation angles of light rays passing through the composite prism sheet. Specifically, each surface relief feature of the prism sheet has a pair of facets inclined at a 45°. Each facet reflects light that arrives from a perpendicular direction using total internal reflection. The LCD/backlighting panel assembly of the display screen includes a second broad-area reflective surface extending parallel to and being substantially coextensive with the first broad-area reflective surface. For example, the LCD/backlighting panel includes a back reflector which extends parallel to the composite prism sheet and is substantially coextensive with the composite prism sheet. The LCD/backlighting panel assembly includes a generally planar photoresponsive layer disposed between the first and second broad-area reflective surfaces. For example, a Quantum Dot Enhancement Film (QDEF) is disposed between the composite prism sheet and the reflector. The QDEF contains an active layer which is responsive to blue light emitted by the LEDs of the LCD/backlighting panel assembly. The photoresponsive layer includes quantum dots distributed within an optically transmissive material. For example, QDEF includes an active layer which is distributed with quantum dots. The quantum dots are used to absorb blue light emitted by the LEDs and to re-emit the absorbed light energy as light of other color. At least some of the quantum dots are configured to absorb and convert light selectively such that at least a substantial portion of light in a first spectral range is absorbed and converted and light in a second spectral range is transmitted. For example, the active layer of QDEF includes “green” quantum dots that absorb and convert blue light (first spectral range) into green (second spectral range), and “red” quantum dots that absorb and convert blue light into red (second spectral range). Additionally, QDEF transmits at least some light without absorption in a single pass. The LCD/backlighting assembly of the display screen contains LEDs that are used as a light source. The LEDs are a monochromatic light source (e.g.,

emitting light only in one color) which is configured to emit light in the first spectral range (the LEDs emit light in blue color when powered on). The LCD/backlighting assembly of the display screen includes a planar array of lenses distributed over an area of the photoresponsive layer and disposed on a light path between the light source and the photoresponsive layer. For example, the LCD/backlighting assembly includes a light guiding plate (LGP), the front surface of which has a planar array of lenses. The LGP is positioned over an area of the QDEF and receives light from the LEDs. The surface relief structures of the composite prism sheet have facets inclined at a 45°. Each facet reflects light that arrives on it at a sufficiently high angle away from the original propagation direction. The thickness of the photoresponsive layer (QDEF) is less than a minimum thickness sufficient for absorbing substantially all received light in a single pass at normal incidence. For example, QDEF transmits at least some light without absorption in a single pass. The first and second broad-area reflective surfaces form a light trapping structure configured to provide for multiple transverse light passage through the photoresponsive layer. For example, at least a portion of the light emitted from the LEDs passes through the QDEF, and gets reflected from the composite prism sheet back to the QDEF. Similarly, at least a portion of the light entering QDEF from the composite prism sheet escapes the QDEF (since QDEF absorbs only a portion of light in a single pass) and then gets reflected back to it from the reflector. Thus, the composite prism sheet and the reflector form a light trapping structure configured to provide multiple transverse light passage through the QDEF.

105. Defendant has directly infringed, and continues to directly infringe, literally or under the doctrine of equivalents, at least independent claim 20 of the ’205 patent by importing into the United States, at least, the Edge-lit QDEF Accused Products and other products

containing LED-illuminated LCD displays, including computer monitors, tablets, and handheld devices, in violation of 35 U.S.C. § 271(g).

COUNT V

DEFENDANT'S INFRINGEMENT OF U.S. PATENT NO. 11,276,795

106. On March 15, 2022, United States Patent No. 11,276,795 entitled "Light Converting Systems Employing Thin Light Absorbing and Light Trapping Structures with Lens Arrays" was duly and legally issued after full and fair examination. SVVTI is the owner of all right, title, and interest in and to the patent by assignment, with full right to bring suit to enforce the patent, including the right to recover for past infringement damages and the right to recover future royalties, damages, and income. A true copy of the '795 patent is incorporated by reference herein and may be accessed at http://patft1.uspto.gov/netacgi/nph-Parser?patentnumber=11276795 or https://patents.google.com/patent/US11276795B2.

107. Defendant has directly infringed, and continues to directly infringe, literally or under the doctrine of equivalents, at least claims 1, 9-12, 15-17, and 20 of the '795 patent by importing into the United States, making, using, selling, and/or offering for sale, at least, the Edge-lit QDEF Accused Products and other products containing LED-illuminated LCD displays, including computer monitors, tablets, and handheld devices, in the United States, in violation of 35 U.S.C. § 271(a).

108. Alternatively, and in addition, Defendant directly infringes as described in the preceding paragraph, by making and selling the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those

products for sale in the United States, thereby directly infringing. *See, e.g., Lake Cherokee Hard Drive Techs., L.L.C. v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013). Furthermore, Defendant directly infringes through its direct involvement in the activities of its distributors or subsidiaries, including by selling and offering for sale the Accused Products directly to is distributors or subsidiaries and importing the Accused Products into the United States. Upon information and belief, Defendant conducts activities that constitutes direct infringement. Defendant is vicariously liable for this infringing conduct of its distributors and subsidiaries under both the alter ego and agency theories because, as an example and on information and belief, Defendant has the right and ability to control its distributors' and subsidiaries' infringing acts and receives a direct financial benefit from their infringement.

109. In addition, upon information and belief, since at the least the date when Defendant was on notice of its infringement, Defendant has actively induced, under U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the asserted patents, at least as described in the preceding paragraph, to directly infringe one or more claims of the patents by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Defendant does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement. Upon information and belief, Defendant intends to cause, and has taken affirmative steps to induce infringement by distributors, importers (including inducement to import in violation of § 271(g)), customers, subsidiaries, and/or consumers by, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating established distribution channels for the Accused Products into and within the United States,

manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States.

110. The Edge-lit QDEF Accused Products use a light converting optical system, specifically, a display screen. The display screen incorporates a liquid crystal display (LCD) which is backlit using a backlighting assembly (backlight). The backlight uses multiple light-emitting diodes (LEDs) which are placed along an edge of the visible area of the display and provide a light source. The LEDs emit blue light, a portion of which is absorbed and converted to other wavelengths within the backlight. The LCD/backlighting assembly contains a microstructured broad-area front surface (e.g., a surface having structures on a microscopic scale) configured for transmitting light rays having first incidence angles with respect to a surface normal and totally internally reflecting light rays having second incidence angles. For example, the LCD/backlighting assembly contains a composite prism sheet, also called brightness enhancement film (BEF). The front surface of the prism sheet has a regular prismatic pattern formed by microscopic linear grooves disposed side by side. As mentioned above and illustrated below, the front surface of the microstructured surface includes an array of linear grooves disposed side by side and extending along a straight line and parallel to one another between two edges of the front surface. As mentioned above and as illustrated below, each of the linear grooves have triangular cross section and is configured to reflect light using a total internal reflection and deflect light using refraction, depending on the propagation angles of light rays passing through the prism sheet. For example, each linear groove of the prism sheet has a pair of facets inclined at a 45°. Each facet reflects light that arrives from a perpendicular

direction using total internal reflection[4] and refracts light that strikes the prism sheet at slanted angle. The LCD/backlighting assembly contains a reflective broad-area back surface which is formed by a thin sheet of material configured for reflectively scattering light and which is approximately coextensive with and oriented parallel to the front surface. For example, the LCD/backlighting assembly contains a reflective surface (back reflector) which is made of a thin sheet of reflective material and which is coextensive with and oriented parallel to the composite prism sheet, containing the microstructured broad-area front surface. The LCD/backlighting assembly of the display screen contains LEDs that are used as a light source. The LEDs are a monochromatic (e.g., emitting light only in one color) light source which is configured to emit light in a visible spectrum (the LEDs emit light in blue color when powered on). The LCD/backlighting assembly contains an area-distributed lens array (an array of linear cylindrical lenses on a planar plastic substrate). The lens array is aligned parallel to the front (composite prism sheet) and back (back reflector) surfaces. Further, the lens array is disposed in energy receiving relationship with respect to the light source (e.g., LEDs are shining light into an edge of the lens array) and is used to distribute light emitted by the LEDs. The LCD/backlighting assembly contains a continuous broad-area photoabsorptive film layer. For example, the backlight contains a Quantum Dot Enhancement Film (QDEF) which is retained in a planar form within the backlight and contains an active layer which is responsive to blue light emitted by the LEDs (e.g., by absorbing that light and converting it to light of other colors, such as red and green colors). The photoabsorptive film layer (active layer of QDEF) includes a first light converting semiconductor material having a first bandgap (e.g., “red” quantum dots that convert blue light into light in red spectral band) and a second light converting semiconductor material having a second bandgap (e.g., “green” quantum dots that convert blue light into light in green

spectral band) which is different than the first bandgap. The backlight incorporates a first optically transmissive protective layer disposed in contact with and bonded to a front surface of the photoabsorptive film layer. For example, the active (photoabsorptive) layer of QDEF is laminated between two (e.g., first and second) optically transmissive protective layers. Each of the protective layers is disposed in contact with the respective surface of the active layer. The backlight incorporates a second optically transmissive protective layer disposed in contact with and bonded to an opposing back surface of the photoabsorptive film layer. For example, the active (photoabsorptive) layer of QDEF is laminated between two (e.g., first and second) transmissive protective layers which are disposed in contact with respective opposite surfaces of the active layer. The photoabsorptive film layer (active layer of QDEF) is formed from an optically transmissive material. As mentioned earlier, the active layer of QDEF includes quantum dots distributed in uniform concentration, specifically "green" and "red" quantum dots which emit light in green and red colors, respectively, based on the size of quantum dots. The first and second optically transmissive protective layers (as illustrated above) are configured for protecting the photoabsorptive film layer (active layer of QDEF) from ambient air and/or moisture. Each of the first (e.g. "red" quantum dots) and second (e.g. "green" quantum dots) light converting semiconductor materials is configured to absorb light selectively such that photons with a higher energy (e.g., blue light[1] emitted from the LEDs) are at least partially absorbed and photons with a lower energy are transmitted without appreciable absorption. The thickness of the photoabsorptive film layer is less than a minimum thickness sufficient for absorbing substantially all light in the visible spectrum traversing through the photoabsorptive film layer. For example, QDEF transmits at least some light without absorption in a single pass. The front (microstructured front surface) and back (reflector) surfaces form a light trapping

structure configured to provide for multiple transverse light passage through the photoabsorptive film layer (active layer of QDEF).

FURTHER ASSERTIONS INVOLVING ALL CLAIMS

111. The Asserted Patents are valid and enforceable.

112. Defendant has had knowledge of the Asserted Patents since, at least, February 25, 2021, when ASUSTek received SVVTI's letter disclosing each of these patents, with the exception of the '795 patent, and identifying several of ASUSTek's products utilizing claims of such patents which were also identified in SVVTI's letter. On information and belief, Defendant has had knowledge of the '795 patent since at least the date that it issued, at least because the '795 patent shares common priority with the other Asserted Patents. Further, Defendant has had knowledge of the '795 patent since, at least, March 23, 2022, when ASUSTek received SVVTI's letter disclosing the '795 patent, and identifying at least one of ASUSTek's products utilizing claims of the '795 patent, which were also identified in SVVTI's letter.

113. Alternatively, Defendant has had knowledge of the Asserted Patents since, at least, the filing date of the original complaint in this action.

114. Defendant's affirmative acts of selling the Accused Products, causing the Accused Products to be sold, advertised, offered for sale, and/or distributed, and providing instruction manuals for the Accused Products have induced and continue to induce Defendant's customers, and/or end-users to use the Accused Products in their normal and customary way to infringe the Asserted Patents. For example, it can be reasonably inferred that end-users will use the infringing products, which will cause the end-users to use the elements that are the subject of the claimed invention. Defendant specifically intended and was aware that these normal and customary activities would infringe the Asserted Patents. In addition, Defendant provides

marketing and/or instructional materials, such as user guides, that specifically teach end-users to use the Accused Products in an infringing manner. By providing such instructions, Defendant knows (and has known), or was willfully blind to the probability that its actions have, and continue to, actively induce infringement. By way of example only, Defendant has induced infringement and continue to induce infringement of, in addition to other claims, at least the specific claims identified above of the Asserted Patents by selling in the United States, without SVVTI's authority, infringing products and providing instructional materials. These actions have induced and continue to induce the direct infringement of the Asserted Patents by end-users. Defendant performed acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the Asserted Patents and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. Upon information and belief, Defendant specifically intended (and intends) that its actions would result in infringement of at least the specific claims identified above of the Asserted Patents, or subjectively believed that its actions would result in infringement of the Asserted Patents but took deliberate actions to avoid learning of those facts, as set forth above. Upon information and belief, Defendant knew of the Asserted Patents and knew of its infringement, including by way of this lawsuit as described above.

115. Defendant's infringement has been and continues to be willful and deliberate. Upon information and belief, Defendant deliberately infringed the Asserted Patents and acted recklessly and in disregard to the Asserted Patents by making, having made, using, importing, and offering for sale products that infringe the Asserted Patents. Upon information and belief, the risks of infringement were known to Defendant and/or were so obvious under the circumstances that the infringement risks should have been known. Upon information and

belief, Defendant has no reasonable non-infringement theories. Upon information and belief, Defendant has not attempted any design/sourcing change to avoid infringement. Defendant has acted despite an objectively high likelihood that its actions constituted infringement of the Asserted Patents. In addition, this objectively-defined risk was known or should have been known to Defendant. Upon information and belief, Defendant has willfully infringed and/or continues to willfully infringe the Asserted Patents. Defendant exhibited egregious behavior beyond typical infringement in that, despite being aware of its infringement, defendant did not develop any non-infringement theories, did not attempt any design or sourcing change, and did not otherwise cease its infringement.

116. To the extent any marking or notice was required by 35 U.S.C. § 287, Plaintiff has complied with the applicable marking and/or notice requirements of 35 U.S.C. § 287.

DEMAND FOR JURY TRIAL

Plaintiff hereby demands a jury for all issues so triable.

PRAYER

WHEREFORE, Plaintiff prays for judgment that:

1. Defendant has infringed and continues to infringe, one or more claims of the Asserted Patents;

2. Defendant be ordered to pay damages caused to Plaintiff by Defendant's unlawful acts of infringement;

3. Defendant's acts of infringement have been, and are, willful;

4. Plaintiff recover actual damages under 35 U.S.C. § 284;

5. Plaintiff be awarded supplemental damages for any continuing post-verdict infringement up until final judgment;

6. Plaintiff be awarded a compulsory ongoing royalty;

7. Plaintiff be awarded an accounting of damages;

8. Plaintiff be awarded enhanced damages for willful infringement as permitted under the law;

9. A judgment and order requiring Defendant to pay to Plaintiff pre-judgment and post-judgment interest on the damages awarded, including an award of pre-judgment interest, pursuant to 35 U.S.C. § 284, from the date of each act of infringement by Defendant to the day a damages judgment is entered, and a further award of post-judgment interest, pursuant to 28 U.S.C. § 1961, continuing until such judgment is paid, at the maximum rate allowed by law;

10. An award to Plaintiff of the costs of this action and its reasonable attorneys' fees pursuant to 35 U.S.C. §285; and

11. Such other and further relied as the Court deems just and equitable.

DATED: May 5, 2023

Respectfully submitted,

/s/*Robert D. Katz*
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