

(March 31, 2018), at p. 11, <https://www.j-display.com/english/ir/library/pdf/financialreport2018.pdf>. JDI was listed on the first section of the Tokyo Stock Exchange in March of 2014. *See id.* JDI is engaged in the business of “manufacturing and distributing operation of small- and medium-size display.” *See id.* Among its most prominent applications for its displays, “JDI’s products are used in smartphones and other mobile devices, automotive electronics, ... digital cameras and other consumer electronics, medical equipment and industrial equipment.” *See 2018 Annual Report*, JAPAN DISPLAY INC., at p. 2, <https://www.j-display.com/english/ir/library/pdf/ar2018.pdf>.

4. JDI maintains a corporate presence in the U.S. via its wholly-owned, U.S.-based sales subsidiary JDI Display America, Inc. (referred to as “JDI-A”), which is organized under the laws of California with its principal place of business located at 1740 Technology Drive, Suite 460, San Jose, CA 95110, USA.

5. Upon information and belief, JDI with its subsidiary JDI-A, as part of global network of overseas sales and manufacturing subsidiaries, have operated as agents of one another and vicariously as two arms of the same business group to work in concert together and enter into agreements that are nearer than arm’s length. JDI, via at least JDI-A’s activities, conducts business in the United States, including in Texas and this judicial district. *See Trois v. Apple Tree Auction Center, Incorporated*, 882 F.3d 485, 490 (5th Cir. 2018) (“A defendant may be subject to personal jurisdiction because of the activities of its agent within the forum state....”); *see also Cephalon, Inc. v. Watson Pharmaceuticals, Inc.*, 629 F.Supp.2d 338, 348 (D. Del. 2009) (“The agency theory may be applied not only to parents and subsidiaries, but also to companies that are ‘two arms of the same business group,’ operate in concert with each other, and enter into agreements with each other that are nearer than arm's length.”).

6. Upon information and belief, JDI's thin-film transistor – liquid crystal display (“TFT-LCD”) panels are incorporated into consumer electronic devices, including digital camera devices manufactured by Fujifilm Corporation and its related companies (collectively referred to as “Fujifilm”), game consoles manufactured by Nintendo Co., Ltd. (referred to as “Nintendo”), and smartphones manufactured by OnePlus Technology (Shenzhen) Co., Ltd. (referred to as “OnePlus”).

7. Upon information and belief, JDI's customer Fujifilm maintains a corporate presence in the United States that “play[s] a major role in Fujifilm's global manufacturing system.”

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| <i>See</i> | <i>Product</i> | <i>Lineup,</i> | FUJIFILM, |
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https://www.fujifilmusa.com/about/corporate_profile/fujifilm_companies/manufacturing/products_services/page_01.html (last visited Sept. 29, 2019). Fujifilm ships product to “30 Fujifilm locations in the United States, as well as other ‘direct to US customer’ shipments.” *See id.* (follow “Products and Services” tab). Fujifilm also “imports products from other worldwide Fujifilm locations for distribution into the US market place” and “provides storage for some of the raw materials required for manufacturing Fujifilm products” in the U.S. *See id.*

8. Upon information and belief, JDI's customer Nintendo maintains a corporate presence in the United States via its subsidiary Nintendo of America Inc. with its principal place of business located at 4600 150th Ave NE, Redmond, WA 98052. *See Corporate*, NINTENDO, <https://www.nintendo.com/corp/index.jsp> (last visited Sept. 29, 2019). Nintendo distributes its products, including the Nintendo Switch, to various retailers including amazon.com, Best Buy, Game Stop, Target, and Walmart, among many others, which have both brick and mortar locations in and target online customers in the United States, including the Eastern District of Texas. *See Choose your Nintendo Switch*, NINTENDO, [https://www. https://www.nintendo.com/switch/buy-](https://www.nintendo.com/switch/buy-)

now/ (last visited Sept. 29, 2019). Nintendo also operates its own regional website specifically geared toward selling the Nintendo Switch online to U.S. retail customers, including those in the Eastern District of Texas. *See Nintendo Switch*, NINTENDO, <https://www.nintendo.com/switch/> (click “Change Region” hyperlink, select “USA” hyperlink) (last visited Sept. 29, 2019). Nintendo reports that since 2017 it has sold about 14 million Nintendo Switch gaming consoles in “The Americas,” which accounts for nearly half of worldwide sales of the Nintendo Switch.” *See Dedicated Video Game Sales Units*, NINTENDO, https://www.nintendo.co.jp/ir/en/finance/hard_soft/number.html (select “Total Unit Sales” tab and select “Unit Sales”) (last visited Sept. 29, 2019).

9. Upon information and belief, JDI’s customer OnePlus maintains a corporate presence in the United States via its employees who work in the U.S. and perform at least sales and marketing positions, related to OnePlus’ mobile phone products. *See Current Openings*, ONEPLUS, <https://www.oneplus.com/careers#departments=marketing%20and%20sales> (select “Marketing and Sales” under the “All Departments” drop-down menu) (last visited Sept. 29, 2019). OnePlus further affiliates with wireless carrier T-Mobile US, Inc. to market, offer to sale, and sale its mobile phone products in the United States, including in the Eastern District of Texas. *See Experience OnePlus at T-Mobile*, ONEPLUS, <https://www.oneplus.com/retail?from=head> (last visited Sept. 29, 2019).

10. Through offers to sell, sales, imports, and agreements to transfer ownership of its TFT-LCD panels with customers operating in the U.S. such as Fujifilm, Nintendo, OnePlus and/or its U.S. subsidiary, JDI-A, JDI does business in the U.S., the state of Texas and in the Eastern District of Texas.

JURISDICTION AND VENUE

11. This action arises under the patent laws of the United States, namely 35 U.S.C. §§ 271, 281, and 284-285, among others.

12. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

13. Upon information and belief, JDI is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this State and judicial district, including: (A) at least part of its infringing activities alleged herein; and (B) regularly doing or soliciting business, engaging in other persistent conduct, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to Texas residents vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, JDI has a "global network" of overseas sales and manufacturing subsidiaries, located in the U.S., Europe, China, Taiwan, South Korea, and the Philippines. *See Global Network*, JAPAN DISPLAY INC., <https://www.j-display.com/english/company/overseas.html> (last visited Sept. 29, 2019).

14. This Court has personal jurisdiction over JDI, directly or through intermediaries, distributors, importers, customers, subsidiaries, and/or consumers including its U.S. based, wholly-owned subsidiary, JDI-A. Through direction and control of this subsidiary, JDI has committed acts of direct and/or indirect patent infringement within Texas, and elsewhere within the United States, giving rise to this action and/or has established minimum contacts with Texas such that personal jurisdiction over JDI would not offend traditional notions of fair play and substantial justice.

15. JDI-A is a wholly owned subsidiary of JDI. *See Global Network*, JAPAN DISPLAY INC., <https://www.j-display.com/english/company/overseas.html> (last visited Sept. 29, 2019). JDI describes JDI-A as its “sales subsidiary” in the United States. *Id.* Upon information and belief, JDI represents to its shareholders that it maintains a 100% ownership interest in JDI-A, which JDI equates to maintaining a controlling financial interest in the subsidiary. *See Consolidated Financial Statements*, JAPAN DISPLAY INC. (March 31, 2018), at pp. 11-12, <https://www.j-display.com/english/ir/library/pdf/financialreport2018.pdf> (describing JDI-A as one of its consolidated subsidiaries which are collectively referred to as “the Company”). Indeed, JDI-A’s primary purpose is to conduct sales and sales support on behalf of JDI. *See 2018 Annual Report*, JAPAN DISPLAY INC., at p. 42, <https://www.j-display.com/english/ir/library/pdf/ar2018.pdf>. Upon information and belief, JDI compensates JDI-A for its sales support services in the United States. As such, JDI has a direct financial interest in JDI-A, and vice versa.

16. Upon information and belief, JDI controls or otherwise directs and authorizes all activities of JDI-A, including JDI-A’s using, offering for sale, selling, and/or importing accused products, their components, and/or products containing same that incorporate the fundamental technologies covered by the Asserted Patents. JDI-A is authorized to import, sell, or offer for sale the accused products on behalf of its controlling parent JDI. For example, JDI researches, designs, develops, and manufactures the accused TFT-LCD products and then directs JDI-A to import, offer for sale, and sell the accused products in the United States. *See, e.g., United States v. Hui Hsiung*, 778 F.3d 738, 743 (9th Cir. 2015) (finding that the sale of infringing TFT-LCD panels to third parties rather than for direct import into the U.S. did not “place [defendants’] conduct beyond the reach of United States law [or] escape culpability under the rubric of extraterritoriality”). Thus, JDI-A conducts infringing activities on behalf of JDI.

17. Upon information and belief, JDI-A's corporate presence in the United States gives JDI substantially the business advantages that it would have enjoyed if it conducted its business through its own offices or paid agents in the state. On information and belief, JDI-A is authorized to sell and offer for sale the accused products on behalf of JDI. For example, JDI-A operates within JDI-A's global network of sales subsidiaries in America, Germany, China, Taiwan, and South Korea. In the U.S., including within the Eastern District of Texas, JDI's TFT-LCD panels are imported, offered for sale, and sold, including model nos. LPM030M369H, LAM062M109A 2N6I519997, and LPM055A291A utilized in at least Fujifilm camera model no. X-T100, the Nintendo Switch (a handheld game console), and the OnePlus 2 (a mobile phone), respectively.

18. Moreover, JDI acknowledges on its website that from its "bases in major cities in...America[], we build strong customer relationships." *See About Us*, JAPAN DISPLAY INC., <https://www.j-display.com/english/> (click "America" tab) (last visited Sept. 29, 2019). Referring to JDI-A, JDI further states "we catch the latest ideas and technological trends and work with our customers to realize products that open up new possibilities for life." *See id.* And JDI partners with U.S.-based Arrow Electronics, Inc. (referred to as "Arrow" located at 9201 E Dry Creek Road, Centennial, CO 80112, USA) to supply JDI's U.S. customers with "Displays/ Monitors/Touchscreens." *See Line Card*, ARROW, https://www.arrow.com/arrow-services/wp-content/uploads/2019/05/Global_Services_Line-Card_NA_final_043019.pdf (last visited Sept. 29, 2019) (listing JDI as a supplier partnered with Arrow in providing "Services and Products" to "North America"). JDI further lists Apple Inc. Group, who sells its products in the U.S. market, as a "major customer" with 3.7 billion U.S. Dollars in sales of "small and medium size display panels." *See Consolidated Financial Statements*, JAPAN DISPLAY INC. (March 31, 2018), at p. 41, <https://www.j-display.com/english/ir/library/pdf/financialreport2018.pdf>. Via its alter egos,

agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers maintaining a business presence, operating in, and/or residing in the U.S., JDI's TFT-LCD panels, including the accused products 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 Corporation*, 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)).

19. Upon information and belief, JDI has placed and continues to place infringing TFT-LCD panels into the stream of commerce via established distribution channels comprising at least distributors, such as Arrow, customers such as Fujifilm, Nintendo, OnePlus, and Apple and/or its wholly-owned, U.S.-based subsidiary JDI-A, for the sale of infringing products, with the knowledge and/or intent that those products are imported, used, offered for sale, sold, and continue to be sold in the United States and Texas, including in this judicial district. In its consolidated financial results for fiscal year 2017, for example, JDI reported 717,522 million yen in world-wide net sales (about \$6,753,784 USD). *See Consolidated Financial Statements*, JAPAN DISPLAY INC. (March 31, 2018), at p. 4, <https://www.j-display.com/english/ir/library/pdf/financialreport2018.pdf>. Of that amount, 78.6% were in its mobile device category. *See 2018 Annual Report*, JAPAN DISPLAY INC., at p. 21, <https://www.j-display.com/english/ir/library/pdf/ar2018.pdf>. As a result, JDI has, vicariously through and/or in concert with its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries,

and/or consumers, placed infringing TFT-LCD panels into the stream of commerce via established distribution channels with the knowledge and/or intent that those products were sold and continue to be sold in the United States and Texas, including in this judicial district.

20. In the alternative, the Court has personal jurisdiction over JDI under Federal Rule of Civil Procedure 4(k)(2), because the claims for patent infringement in this action arise under federal law, JDI is not subject to the jurisdiction of the courts of general jurisdiction of any state, and exercising jurisdiction over JDI is consistent with the U.S. Constitution.

21. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391 because, among other things, JDI is not a resident in the United States, and thus may be sued in any judicial district, including this one, pursuant to 28 U.S.C. § 1391(c)(3). *See also In re HTC Corporation*, 889 F.3d 1349, 1357 (Fed. Cir. 2018) (“The Court's recent decision in *TC Heartland* does not alter” the alien-venue rule.).

THE ASSERTED PATENTS AND TECHNOLOGY

22. Upon information and belief, a significant portion of sales of JDI is derived from the manufacture and sale of TFT-LCD panels and JDI's main commodities include small and medium-sized display devices and related products. JDI asserts that its smartphone and tablet products provide a “[w]ide variety of LCD modules for mobile applications including smartphone and tablet devices” and that “JDI leads mobile display technologies with thin structure, large screen, high resolution, enhanced optical performance, etc.” *See Smartphone, Tablet*, JAPAN DISPLAY INC., <https://www.j-display.com/english/product/mobile.html> (last visited Sept. 29, 2019).

23. The Asserted Patents cover JDI's TFT-LCD panels, their components, and processes related to the same (referred to herein as the “Accused Panel(s)”). The Accused Panels

are incorporated and utilized in various consumer devices. For example, at least Fujifilm camera model No. X-T100 utilizes JDI model no. LPM030M369H, as shown below.



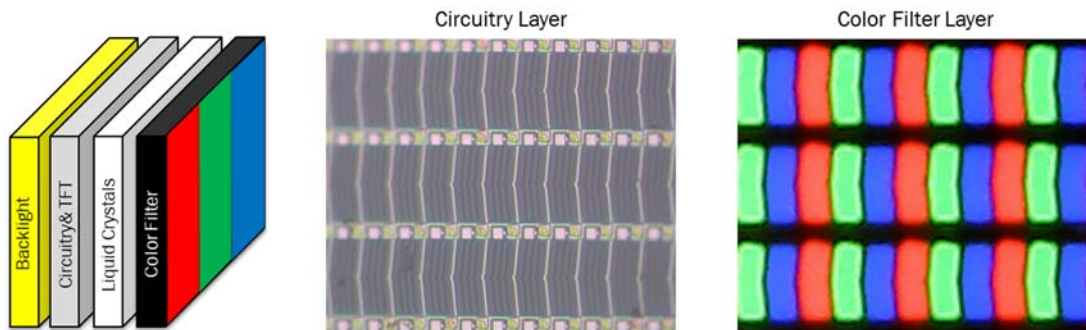
24. Also, the Nintendo Switch, model no. HAC-001, utilizes a JDI TFT-LCD panel as indicated by the liquid crystal monitor (“LCM”) label “LAM062M109A 2N6I519997” shown below.



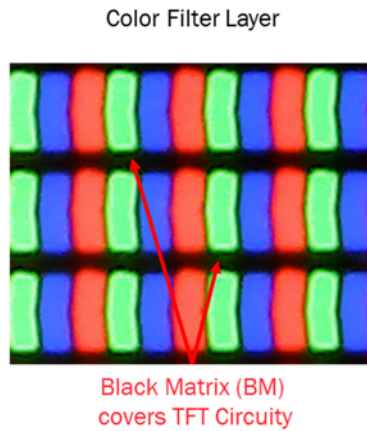
25. Also, the OnePlus2 mobile phone, utilizes JDI TFT-LCD panel model no. LPM055A291A, as shown below:



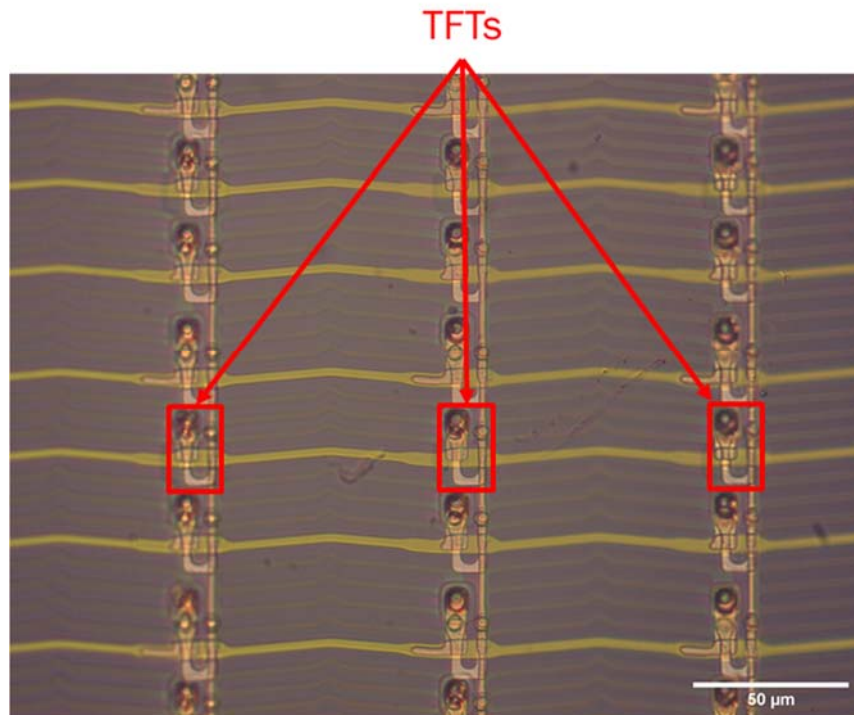
26. JDI TFT-LCD panels have the following structure shown below, comprising of a backlight, a TFT/circuitry layer (bottom and top illumination of an Accused Panel), a liquid crystal layer, and a color filter:



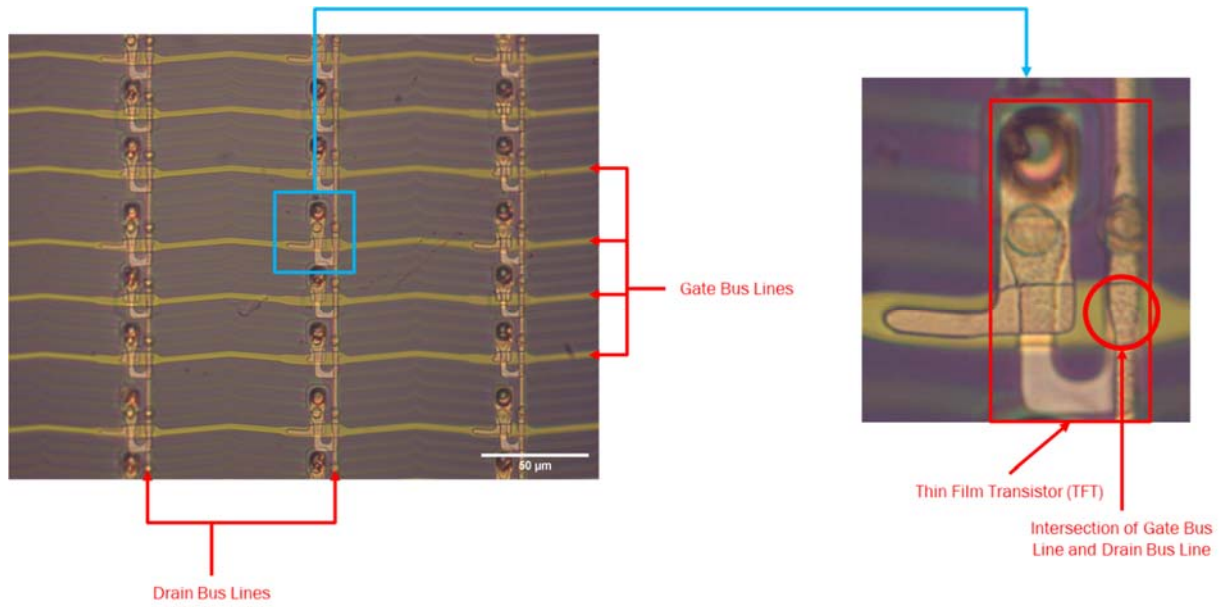
27. A thin-film transistor ("TFT") acts as a switch that operates its respective individual pixel using circuitry lines. Using the TFT, each pixel can be turned on and off to create an image on a liquid panel display ("LCD") by allowing or preventing light to pass through. The individual pixels are more apparent when a color filter layer overlays the circuits as illustrated in the image below.



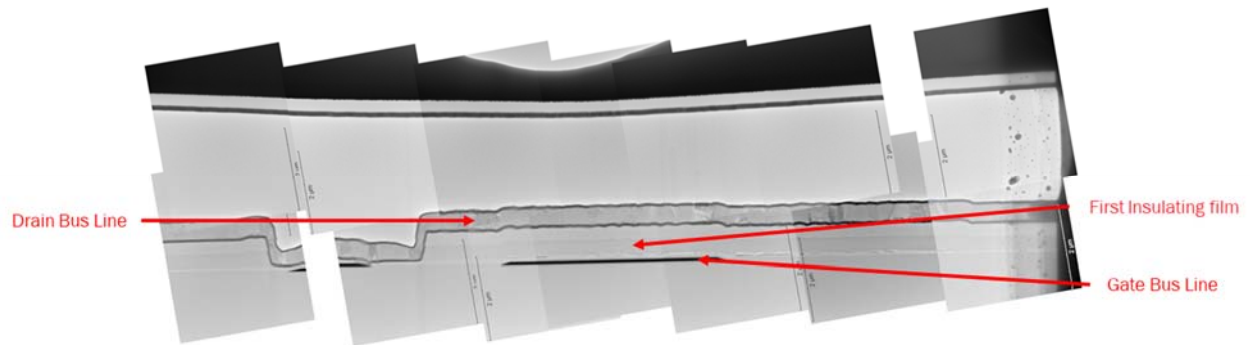
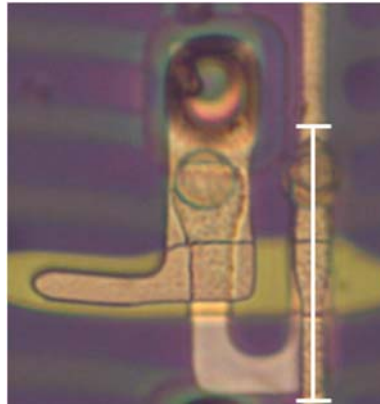
28. The Asserted Patents cover JDI's TFT-LCD panels and related fabrication processes. As shown below, the Accused Panel (model no. LPM030M369H) has a substrate containing an active matrix of TFTs.



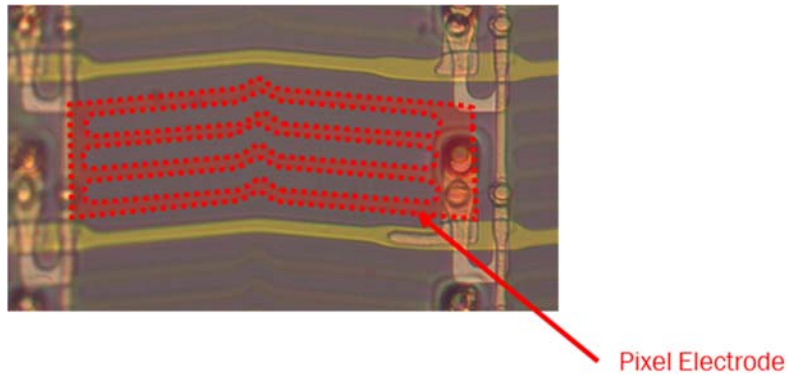
29. Each TFT is arranged near an intersection of gate and drain bus lines.



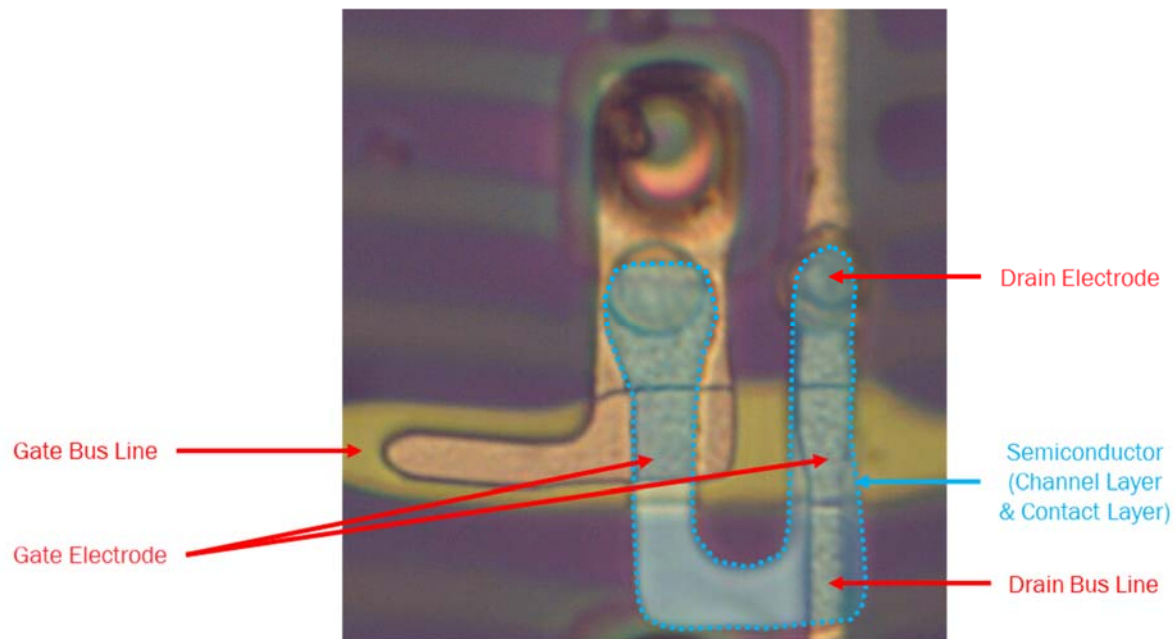
30. The plurality of drain lines is arranged perpendicularly to the plurality of gate bus lines and, as shown below, are electrically isolated from each other via a first insulating film.



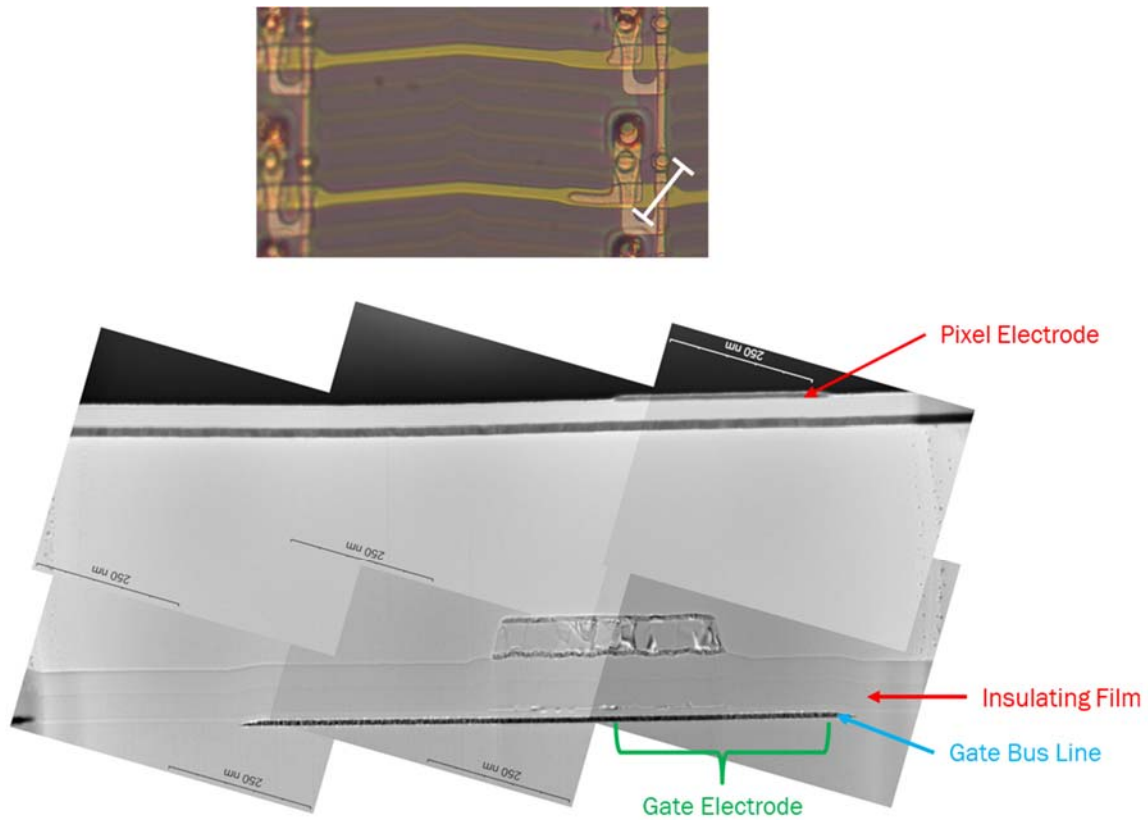
31. A pixel electrode is arranged in a region surrounded by the gate and drain bus lines and made of transparent conductive film.



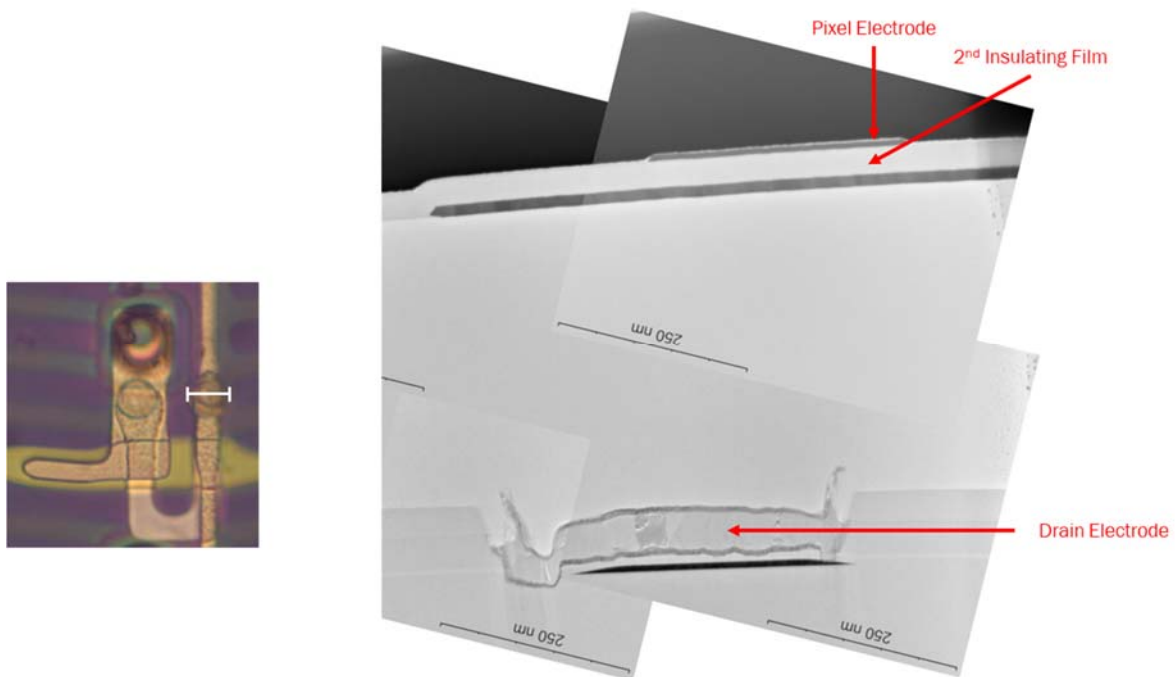
32. As shown below, each TFT in the array comprises a 1) gate electrode formed on a transparent insulating substrate and electrically connected to the gate bus line, 2) a drain electrode, 3) a channel layer, and 4) a contact layer, and is electrically connected to the drain bus line.



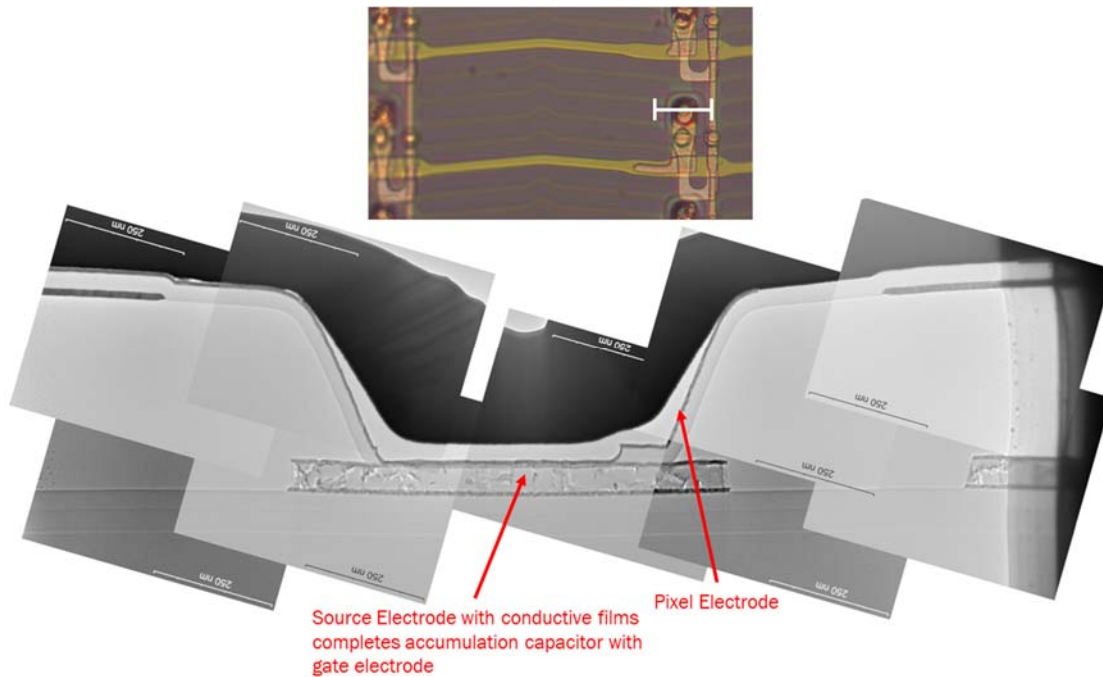
33. The first insulating film covers the gate electrode.



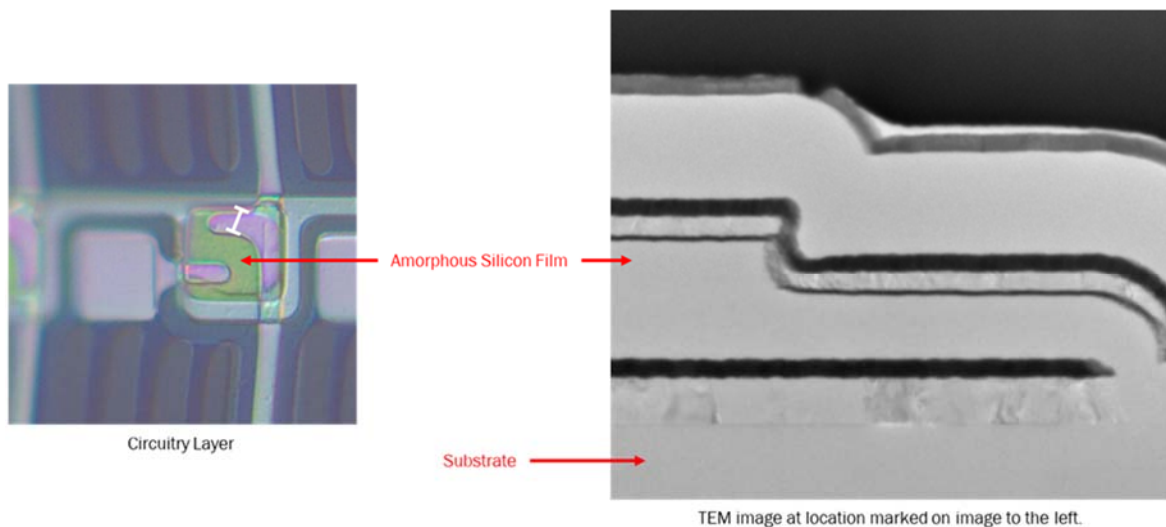
34. As shown below, a source electrode is connected to the pixel electrode and is electrically isolated from the drain electrode and bus lines via a second insulating film.



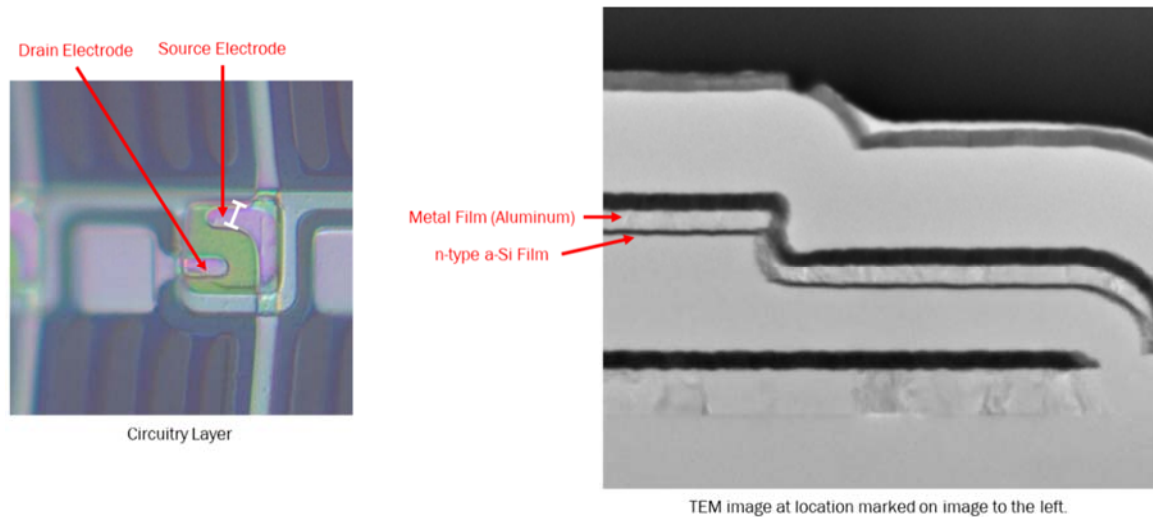
35. As shown below, each TFT has an associated source electrode comprised of conductive films that completes an accumulation capacitor with the associated gate electrode.



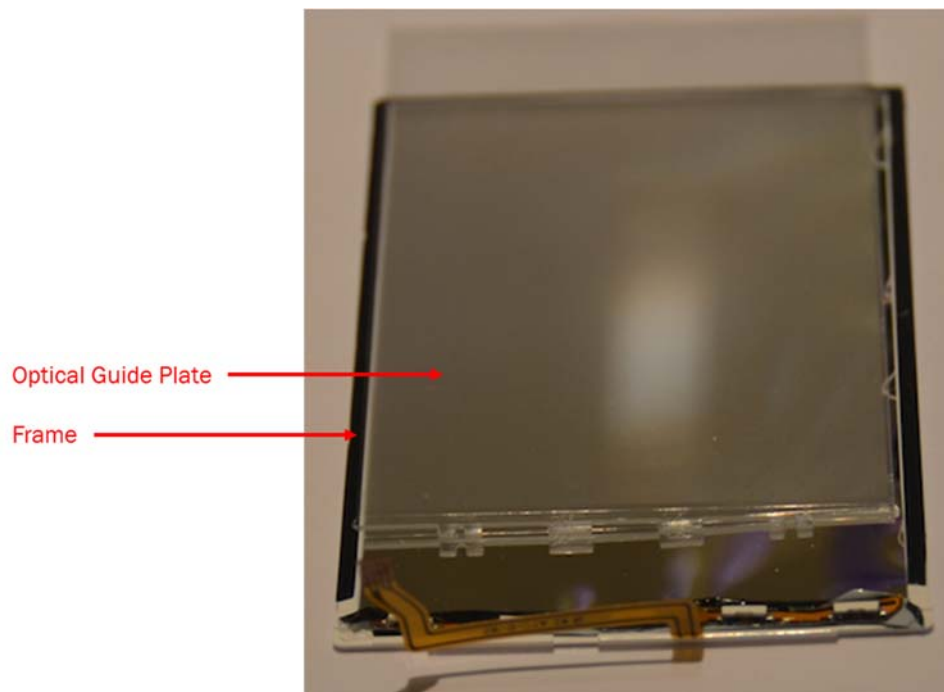
36. The Asserted Patents cover JDI's processes for making TFT-LCD panels. Below is a schematic cross-sectional view of a JDI's TFT from Accused Panel model no. LAM062M109A 2N6I519997. The images show an amorphous silicon film formed on a substrate with an n-type region in the top surface of the amorphous silicon film.



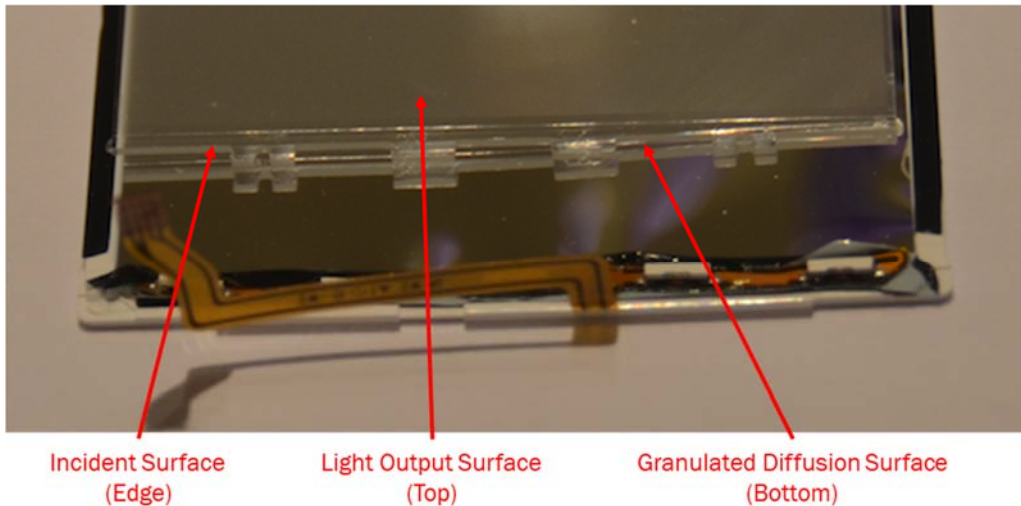
37. Furthermore, a metal film is formed on the amorphous silicon film (e.g., to create source and drain electrodes).



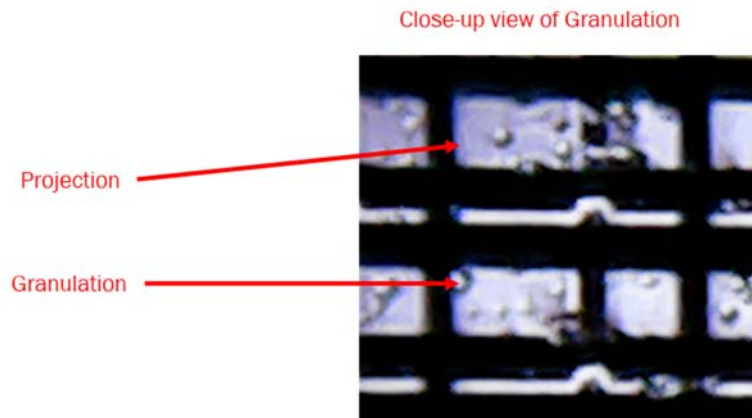
38. The Asserted Patents also cover an optical guide plate used in the Accused Panels. As shown below, the optical unit, i.e., the LED back light, of panel model no. LPM030M369H (utilized in FujiFilm X-T100) has an optical guide plate enclosed in a frame.



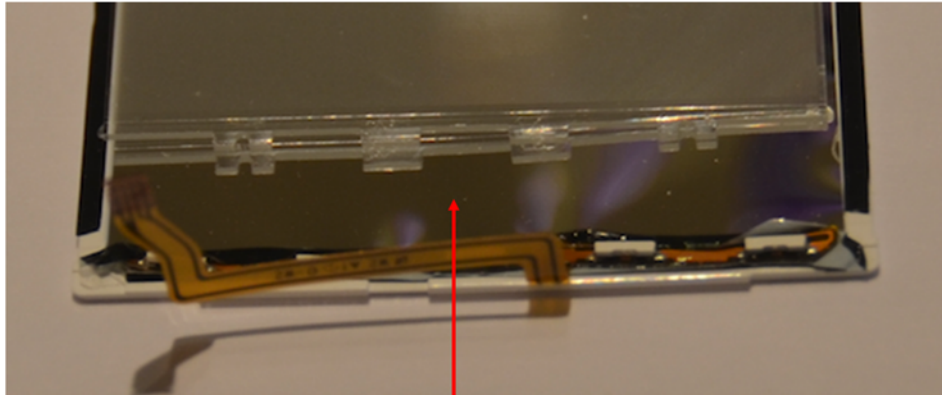
39. The optical guide plate has a body made of a transparent material, and includes an incident surface, a granulated diffusion surface, and a light output surface.



40. The light guide panel in the backlight module has granulated diffusion surfaces as well as projections on its surface as shown in the teardown image below.

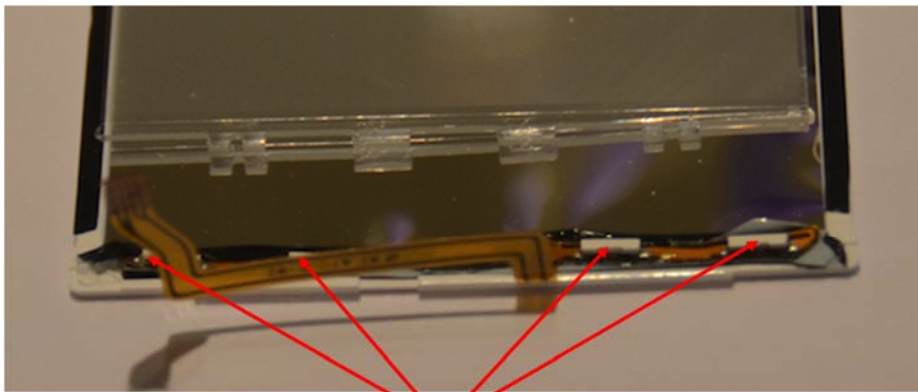


41. The optical guide plate has a reflecting sheet supported by the projections, which forms an air layer between the reflecting sheet and the granulated surface.



Reflecting Sheet

42. The optical guide plate has a light source (e.g., LED strip) opposed to the incident surface.



LEDs

COUNT I

(INFRINGEMENT OF U.S. PATENT NO. 5,929,947)

43. Plaintiff incorporates paragraphs 1 through 42 herein by reference.

44. VPV is the assignee of the '947 patent, entitled "Liquid crystal display thin film transistor array with redundant film formed over a contact hole and method of fabricating the same," with ownership of all substantial rights in the '947 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

45. The '947 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '947 patent issued from U.S. Patent Application No. 09/168,085.

46. JDI has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '947 patent in this judicial district and elsewhere in Texas and the United States.

47. Upon information and belief, JDI designs, develops, manufactures, assembles and markets flat panel displays and most of its products are TFT-LCD panels. *See JDI's LCD Technology*, JAPAN DISPLAY INC., <https://www.j-display.com/english/technology/jdilcdtech.html> (last visited Sept. 29, 2019).

48. JDI directly infringes the '947 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Panels, their components, and/or products containing same that incorporate the fundamental technologies covered by the '947 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, JDI sells and makes Accused Panels 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 Panels outside of the United States it does so intending and/or knowing that those panels are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '947 patent. *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, JDI directly infringes the '947 patent through its direct involvement in the activities of its subsidiaries, including JDI-A, including by selling and offering for sale the Accused Panels directly to JDI-A and importing the Accused

Panels into the United States for JDI-A. Upon information and belief, JDI-A conducts activities that constitutes direct infringement of the '947 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Panels. JDI is vicariously liable for this infringing conduct of JDI-A (under both the alter ego and agency theories) because, as an example and on information and belief, JDI and JDI-A are essentially the same company, and JDI has the right and ability to control JDI-A's infringing acts and receives a direct financial benefit from JDI-A's infringement.

49. For example, JDI infringes claim 1 of the '947 patent via JDI's Accused Panels such as model no. LPM030M369H utilized in Fujifilm X-T100 and model no. LPM055A291A utilized in the OnePlus 2. Those Accused Panels include "[a] liquid crystal display thin film transistor array comprising" each of the limitations of claim 1. The technology discussion above and the example Accused Panels provide context for Plaintiff's allegations that each of those limitations are met. For example, the Accused Panels include a plurality of parallel gate bus lines arranged on a transparent insulating substrate; a plurality of drain bus lines arranged perpendicularly to said gate bus lines and electrically isolated from said gate bus lines by a first insulating film; a thin film transistor arranged near an intersection of said gate bus line and said drain bus line; and a pixel electrode arranged in a region surrounded by said gate bus lines and said drain bus lines and made of a transparent conductive film, said thin film transistor comprising a gate electrode formed on said transparent insulating substrate and electrically connected to said gate bus line, a drain electrode formed via said first insulating film, a channel layer, and a contact layer and electrically connected to said drain bus line, and a source electrode formed via said first insulating film, said channel layer, and said contact layer and electrically connected to said pixel electrode, and said pixel electrode being electrically isolated from said drain electrode and said

drain bus line by a second insulating film, wherein a contact hole which is to be electrically connected to said drain bus line is formed in said second insulating film stacked on said drain bus line in a region including the intersection of said gate bus line and said drain bus line, and an interconnection redundant film made of the same transparent conductive film as said pixel electrode is formed on said second insulating film so as to cover said contact hole.

50. JDI further infringes the '947 patent via 35 U.S.C. § 271(g) by using, selling, offering to sell, and/or importing Accused Panels, their components, and/or products containing same, that are made by a process covered by the '947 patent. Upon information and belief, the infringing Accused Panels, their components, and/or products containing same are not materially changed by subsequent processes, and they are neither trivial nor nonessential components of another product.

51. At a minimum, JDI has known of the '947 patent at least as early as the filing date of the complaint. In addition, JDI has known of the '947 patent since at least May 1, 2018, when JDI was provided access to a data room containing claim charts, including for the '947 patent.

52. Upon information and belief, since at least the above-mentioned date when JDI was on notice of its infringement, JDI has actively induced, under U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Panels that include or are made using all of the limitations of one or more claims of the '947 patent to directly infringe one or more claims of the '947 patent by using, offering for sale, selling, and/or importing the Accused Panels. Since at least the notice provided on the above-mentioned date, JDI does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '947 patent. Upon information and belief, JDI 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 Panels, creating established distribution channels for the Accused Panels into and within the United States, manufacturing the Accused Panels 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. *See, e.g., Global Network, JAPAN DISPLAY INC.*, <https://www.j-display.com/english/company/overseas.html> (last visited Sept. 29, 2019) (listing its U.S. sales subsidiary Japan Display America, Inc. as part of a global sales network).

53. On information and belief, despite having knowledge of the '947 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '947 patent, JDI has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. JDI's infringing activities relative to the '947 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

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

COUNT II

(INFRINGEMENT OF U.S. PATENT NO. 7,088,401)

55. Plaintiff incorporates paragraphs 1 through 54 herein by reference.

56. VPV is the assignee of the '401 patent, entitled "Liquid crystal display device with less pixel error and method of manufacturing the same," with ownership of all substantial rights in the '401 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

57. The '401 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '401 patent issued from U.S. Patent Application No. 09/609,169.

58. JDI has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '401 patent in this judicial district and elsewhere in Texas and the United States.

59. Upon information and belief, JDI designs, develops, manufactures, assembles and markets flat panel displays and most of its products are TFT-LCD panels. *See JDI's LCD Technology*, JAPAN DISPLAY INC., <https://www.j-display.com/english/technology/jdilcdtech.html> (last visited Sept. 29, 2019).

60. JDI directly infringes the '401 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Panels, their components, and/or products containing same that incorporate the fundamental technologies covered by the '401 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, JDI sells and makes the Accused Panels 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 Panels outside of the United States it does so intending and/or knowing that those panels are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '401 patent. *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, JDI directly infringes the '401 patent through its direct involvement in the activities of its subsidiaries, including JDI-A, including by selling and offering for sale the Accused Panels directly to JDI-A and importing the Accused Panels into the United States for JDI-A. Upon information and belief, JDI-A conducts activities that constitutes direct infringement of the '401 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Panels. JDI is vicariously liable for this infringing conduct of JDI-A (under both the alter ego and agency theories) because, as an example and on information and belief, JDI and JDI-A are essentially the same company, and JDI has the right and ability to control JDI-A's infringing acts and receives a direct financial benefit from JDI-A's infringement.

61. For example, JDI infringes claim 1 of the '401 patent via JDI's Accused Panels such as model no. LPM030M369H utilized in Fujifilm X-T100 and panel model no. LPM055A291A utilized in the OnePlus 2. Those Accused Panels include a "liquid crystal display device, comprising" each of the limitations of claim 1. The technology discussion above and the example Accused Panels provide context for Plaintiff's allegations that each of those limitations are met. For example, the Accused Panels each include a first electrode formed on a substrate as one of two electrodes of an accumulation capacitor, said first electrode comprising a portion of a gate bus line pattern of said liquid crystal display device; an insulating film formed on said first electrode to cover said first electrode; a second electrode formed on said first electrode via said

insulating film as the other electrode of said accumulation capacitor and including a first conductive film and a second conductive film formed on said first conductive film; a protective insulating layer formed on said second electrode and having a contact hole which is formed over said first and second electrodes, a bottom of said contact hole being defined by said second conductive film; and a thin film transistor comprising source and drain electrodes which are formed on said insulating film and comprise said second conductive film, wherein one of said first conductive film and said second conductive film comprises a layer formed of a material selected from the group consisting of Al (Aluminum), W (Tungsten), Cu (Copper), Ta (Tantalum) and TaN (Tantalum Nitride).

62. JDI further infringes the '401 patent via 35 U.S.C. § 271(g) by using, selling, offering to sell, and/or importing Accused Panels, their components, and/or products containing same, that are made by a process covered by the '401 patent. Upon information and belief, the infringing Accused Panels, their components, and/or products containing same are not materially changed by subsequent processes, and they are neither trivial nor nonessential components of another product.

63. At a minimum, JDI has known of the '401 patent at least as early as the filing date of the complaint. In addition, JDI has known of the '401 patent since at least February 16, 2018 when a letter providing notice of the infringement of the '401 patent was sent to Mr. Ulysses Hui, General Counsel of Japan Display Group America. Subsequently, on May 1, 2018, JDI was provided access to a data room containing claim charts, including for the '401 patent.

64. Upon information and belief, since at least the above-mentioned date when JDI was on notice of its infringement, JDI has actively induced, under U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell Accused Panels

that include or are made using all of the limitations of one or more claims of the '401 patent to directly infringe one or more claims of the '401 patent by using, offering for sale, selling, and/or importing the Accused Panels. Since at least the notice provided on the above-mentioned date, JDI does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '401 patent. Upon information and belief, JDI 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 Panels, creating established distribution channels for the Accused Panels into and within the United States, manufacturing the Accused Panels 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. *See, e.g., Global Network, JAPAN DISPLAY INC., <https://www.j-display.com/english/company/overseas.html> (last visited Sept. 29, 2019) (listing its U.S. sales subsidiary Japan Display America, Inc. as part of a global sales network).*

65. On information and belief, despite having knowledge of the '401 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '401 patent, JDI has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. JDI's infringing activities relative to the '401 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

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

COUNT III

(INFRINGEMENT OF U.S. PATENT NO. 6,579,749)

67. Plaintiff incorporates paragraphs 1 through 66 herein by reference.

68. VPV is the assignee of the '749 patent, entitled "Fabrication method and fabrication apparatus for thin film transistor," with ownership of all substantial rights in the '749 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

69. The '749 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '749 patent issued from U.S. Patent Application No. 09/440,615.

70. JDI has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '749 patent in this judicial district and elsewhere in Texas and the United States.

71. Upon information and belief, JDI designs, develops, manufactures, assembles and markets flat panel displays and most of its products are TFT-LCD panels. *See JDI's LCD Technology*, JAPAN DISPLAY INC., <https://www.j-display.com/english/technology/jdilcdtech.html> (last visited Sept. 29, 2019).

72. JDI directly infringes the '749 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Panels, their components, and/or products

containing same that incorporate the fundamental technologies covered by the '749 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, JDI sells and makes Accused Panels 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 Panels outside of the United States it does so intending and/or knowing that those panels are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '749 patent. *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, JDI directly infringes the '749 patent through its direct involvement in the activities of its subsidiaries, including JDI-A, including by selling and offering for sale the Accused Panels directly to JDI-A and importing the Accused Panels into the United States for JDI-A. Upon information and belief, JDI-A conducts activities that constitutes direct infringement of the '749 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Panels. JDI is vicariously liable for this infringing conduct of JDI-A (under both the alter ego and agency theories) because, as an example and on information and belief, JDI and JDI-A are essentially the same company, and JDI has the right and ability to control JDI-A's infringing acts and receives a direct financial benefit from JDI-A's infringement.

73. For example, JDI infringes claim 13 of the '749 patent via Accused Panels such as model no. LAM062M109A 2N6I519997 utilized in the Nintendo Switch. That Accused Panel is made by JDI pursuant to a "method for fabricating a semiconductor device, comprising the steps of" each of the limitations of claim 13. The technology discussion above and the example Accused Panel provide context for Plaintiff's allegations that each of those limitations are met. For example,

the Accused Panel includes semiconductor devices made pursuant to a first step of forming an amorphous silicon film on a substrate; and a second step of performing plasma processing with respect to said substrate having said amorphous silicon film formed thereon, said plasma containing an n-type impurity element selected from a group V of a periodic table to provide an n-type region in the top surface of the amorphous silicon film; and then directly a third step of forming a metal film on said amorphous silicon film to form an n-type amorphous silicon film therebetween.

74. JDI further infringes the '749 patent via 35 U.S.C. § 271(g) by using, selling, offering to sell, and/or importing Accused Panels, their components, and/or products containing same, that are made by a process covered by the '749 patent. Upon information and belief, the infringing Accused Panels, their components, and/or products containing same are not materially changed by subsequent processes, and they are neither trivial nor nonessential components of another product.

75. At a minimum, JDI has known of the '749 patent at least as early as the filing date of the complaint. In addition, JDI has known of the '749 patent since May 1, 2018, when JDI was provided access to a data room containing claim charts, including for the '749 patent.

76. Upon information and belief, since at least the above-mentioned date when JDI was on notice of its infringement, JDI has actively induced, under U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell Accused Panels that include or are made using all of the limitations of one or more claims of the '749 patent to directly infringe one or more claims of the '749 patent by using, offering for sale, selling, and/or importing the Accused Panels. Since at least the notice provided on the above-mentioned date, JDI does so with knowledge, or with willful blindness of the fact, that the induced acts constitute

infringement of the '749 patent. Upon information and belief, JDI 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 Panels, creating established distribution channels for the Accused Panels into and within the United States, manufacturing the Accused Panels 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. *See, e.g., Global Network, JAPAN DISPLAY INC., <https://www.j-display.com/english/company/overseas.html>* (last visited Sept. 29, 2019) (listing its U.S. sales subsidiary Japan Display America, Inc. as part of a global sales network).

77. Upon information and belief, despite having knowledge of the '749 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '749 patent, JDI has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. JDI's infringing activities relative to the '749 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

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

COUNT IV

(INFRINGEMENT OF U.S. PATENT NO. 7,499,119)

79. Plaintiff incorporates paragraphs 1 through 78 herein by reference.

80. VPV is the assignee of the '119 patent, entitled "Liquid crystal display device with thin-film transistors and method of fabricating the same," with ownership of all substantial rights in the '119 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

81. The '119 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '119 patent issued from U.S. Patent Application No. 11/582,315.

82. JDI has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '119 patent in this judicial district and elsewhere in Texas and the United States.

83. Upon information and belief, JDI designs, develops, manufactures, assembles and markets flat panel displays and most of its products are TFT-LCD panels. *See JDI's LCD Technology*, JAPAN DISPLAY INC., <https://www.j-display.com/english/technology/jdilcdtech.html> (last visited Sept. 29, 2019).

84. JDI directly infringes the '119 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Panels, their components, and/or products containing same that incorporate the fundamental technologies covered by the '119 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, JDI sells and makes Accused Panels 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 Panels outside of the United States it does so intending and/or knowing that those panels are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '119 patent. *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, JDI directly infringes the '119 patent through its direct involvement in the activities of its subsidiaries, including JDI-A, including by selling and offering for sale the Accused Panels directly to JDI-A and importing the Accused Panels into the United States for JDI-A. Upon information and belief, JDI-A conducts activities that constitutes direct infringement of the '119 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Panels. JDI is vicariously liable for this infringing conduct of JDI-A (under both the alter ego and agency theories) because, as an example and on information and belief, JDI and JDI-A are essentially the same company, and JDI has the right and ability to control JDI-A's infringing acts and receives a direct financial benefit from JDI-A's infringement.

85. For example, JDI infringes claim 1 of the '119 patent via the Accused Panels such as model no. LPM030M369H utilized in Fujifilm X-T100 and panel model no. LPM055A291A utilized in the OnePlus 2. These Accused Panels include a "liquid-crystal display device comprising" each of the limitations of claim 1. The technology discussion above and the example Accused Panels provide context for Plaintiff's allegations that each of those limitations are met. For example, the Accused Panels include a first interconnection line comprising a patterned Al or Al alloy layer, disposed directly on an insulating plate or over the plate by way of an underlying insulating layer: a first insulating layer formed on the plate to cover the first interconnection line, the first insulating layer having a contact hole that exposes a part of the first interconnection line;

a first conductive material made of a plated metal, the first conductive material being in contact with the exposed part of the first interconnection line in the contact hole in such a way as to cover the whole exposed part thereof; and a first transparent conductive layer in contact with the first conductive material; wherein the first transparent conductive layer is electrically connected to the first interconnection line by way of the first conductive material.

86. JDI further infringes the '119 patent via 35 U.S.C. § 271(g) by using, selling, offering to sell, and/or importing Accused Panels, their components, and/or products containing same, that are made by a process covered by the '119 patent. Upon information and belief, the infringing Accused Panels, their components, and/or products containing same are not materially changed by subsequent processes, and they are neither trivial nor nonessential components of another product.

87. At a minimum, JDI has known of the '119 patent at least as early as the filing date of the complaint. In addition, JDI has known of the '119 patent since at least February 16, 2018 when a letter providing notice of the infringement of the '119 patent was sent to Mr. Ulysses Hui, General Counsel of Japan Display Group America. Subsequently, on May 1, 2018, JDI was provided access to a data room containing claim charts, including for the '119 patent.

88. Upon information and belief, since at least the above-mentioned date when JDI was on notice of its infringement, JDI has actively induced, under U.S.C. § 271(b), distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell Accused Panels that include or are made using all of the limitations of one or more claims of the '119 patent to directly infringe one or more claims of the '119 patent by using, offering for sale, selling, and/or importing the Accused Panels. Since at least the notice provided on the above-mentioned date, JDI does so with knowledge, or with willful blindness of the fact, that the induced acts constitute

infringement of the '119 patent. Upon information and belief, JDI 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 Panels, creating established distribution channels for the Accused Panels into and within the United States, manufacturing the Accused Panels 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. *See, e.g., Global Network, JAPAN DISPLAY INC., <https://www.j-display.com/english/company/overseas.html> (last visited Sept. 29, 2019) (listing its U.S. sales subsidiary Japan Display America, Inc. as part of a global sales network).*

89. On information and belief, despite having knowledge of the '119 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '119 patent, JDI has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. JDI's infringing activities relative to the '119 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

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

CONCLUSION

91. Plaintiff is entitled to recover from JDI the damages sustained by Plaintiff as a result of JDI's wrongful acts in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court.

92. Plaintiff has incurred and will incur attorneys' fees, costs, and expenses in the prosecution of this action. The circumstances of this dispute may give rise to an exceptional case within the meaning of 35 U.S.C. § 285, and Plaintiff is entitled to recover its reasonable and necessary attorneys' fees, costs, and expenses.

JURY DEMAND

93. Plaintiff hereby requests a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

PRAYER FOR RELIEF

94. Plaintiff respectfully requests that the Court find in its favor and against JDI, and that the Court grant Plaintiff the following relief:

1. A judgment that JDI has infringed the Asserted Patents as alleged herein, directly and/or indirectly by way of inducing infringement of such patents;
2. A judgment for an accounting of all damages sustained by Plaintiff as a result of the acts of infringement by JDI;
3. A judgment and order requiring JDI to pay Plaintiff damages under 35 U.S.C. § 284, including up to treble damages as provided by 35 U.S.C. § 284, and any royalties determined to be appropriate;
4. A judgment and order requiring JDI to pay Plaintiff pre-judgment and post-judgment interest on the damages awarded;

5. A judgment and order finding this to be an exceptional case and requiring JDI to pay the costs of this action (including all disbursements) and attorneys' fees as provided by 35 U.S.C. § 285; and
6. Such other and further relief as the Court deems just and equitable.

Dated: September 30, 2019

Respectfully submitted,

/s/ Patrick J. Conroy by permission Claire Henry

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