



3. Upon information and belief, TCL Electronics Holdings Limited (“TCL Electronics”) is a limited liability company incorporated in the Cayman Islands. The registered address of the Company is P.O. Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands. The principal place of business of the Company is located at 7th Floor, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, New Territories, Hong Kong. *See* TCL Electronics Holdings Limited Annual Report 2018 (*available at* <http://electronics.tcl.com/UserFiles/File/IR/Annual%20Report/2018%20AR-E.pdf>), at p. 135 of 285. TCL Electronics does business in the State of Texas and in the Eastern District of Texas.

4. Upon information and belief, TCL Corp. was founded in 1981. TCL Corp. is “one of China’s largest business groups of consumer electronics operating in a global scale.” *See* About TCL [Page](http://electronics.tcl.com/en/aboutus/main.do?method=listing&mappingName=AboutUs_CompanyProfile) (*available at* [http://electronics.tcl.com/en/aboutus/main.do?method=listing&mappingName=AboutUs\\_CompanyProfile](http://electronics.tcl.com/en/aboutus/main.do?method=listing&mappingName=AboutUs_CompanyProfile)). TCL Corp. owns at least three other companies: TCL Electronics (publicly listed as 01070.HK and co-defendant in this action), China Display Optoelectronics (publicly listed as 00334.HK) and Tonly Electronics (publicly listed as 01249.HK). *Id.*

5. Upon information and belief, TCL Corp. holds a controlling interest in TCL Electronics. *See* TCL Electronics Holdings Limited Annual Report 2018, at p. 113 of 285 (stating that TCL Corporation is the “ultimate controlling shareholder of the company”). TCL Electronics is “mainly involved in the manufacture and sale of colour television sets, Smart audio-visual (‘Smart AV’) and Smart home products.” *Id.* In May of 2018, TCL Electronics changed its name from “TCL Multimedia Technology Holdings Limited” to “TCL Electronics Holdings Limited.” *Id.* *See* TCL Electronics Holdings Limited Annual Report 2018, at p. 8 of 285.

6. Upon information and belief, TCL Electronics is a part of a related “Group” of companies under the umbrella of TCL Corp., which includes TCL Electronics and its subsidiaries, and that brands itself as the “world’s leading consumer electronics company” that “is engaged in the research and development, manufacturing and sale of consumer electronics products,” which “are sold all over the world.” *See* TCL Electronics Holdings Limited Annual Report 2018, at p. 7 of 285. In 2018, ninety-eight percent (98%) of TCL Electronics’ worldwide gross sales were from the sale of television products. *See id.* at p. 12 of 285. Furthermore, TCL Electronics asserts that “[t]he Group’s major customers are all from consumer television products industry.” *Id.* at p. 94 of 285.

7. Upon information and belief, TCL Electronics, as part of the Group, and TCL Corp., along with its own subsidiaries and associates (separately referred to as the “TCL Group”), 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 to conduct 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 (C.A.5 (Tex.), 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.”).

8. Upon information and belief, TCL Corp. and TCL Electronics engaged in a concerted effort to sell, offer to sell, and import infringing products. For example in 2018, TCL Electronics carried out a series of “connected transactions” with TCL Corp. in furtherance of its

mutual business interests and goals, including, but not limited to, 1) renewing its “Master TCL Trademark License,” which was exclusive and royalty-free, to use the TCL trademark for “the manufacture, production, sale and distribution of electronic products including televisions, audio-visual products and commercial use display products”; 2) entering into a “Master Sale and Purchase (2017) Agreement” for the purchase of “goods produced or manufactured in the PRC from TCL Group amounting to HK\$12,892,395,000; and... sold goods to TCL Group”; and 3) entering into a “Master Sourcing (2017 Renewal) Agreement” wherein the Group “sold overseas materials to TCL Group amounting to HK\$1,049,403,000; and...purchased overseas materials from TCL Group amounting to HK\$840,166,000 during the year amounting to HK\$5,566,381,000 during the year.” *See* TCL Electronics Holdings Limited Annual Report 2018, at pp. 109-113 of 285.

### **JURISDICTION AND VENUE**

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

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

11. Upon information and belief, TCL Corp. 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 own 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 subsidiaries, intermediaries, and/or agents.

12. This Court has personal jurisdiction over TCL Corp., directly or through intermediaries, such as TCL Electronics and TCL Electronics' wholly-owned U.S.-based subsidiary TTE Technology Inc. ("TTE"), because TCL Corp. 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 TCL would not offend traditional notions of fair play and substantial justice. For example, TCL Corp. has placed and continues to place into the stream of commerce using established distribution channels infringing products with the knowledge and understanding that such products are, will be, and continue to be sold, offered for sale, and/or imported into this judicial district and the State of Texas. For example, TCL Corp. touts that it has "employees through Asia, the Americas, Europe and Oceania" and has a "Sales Network" that spans "Regional Business Centers" in North America. TCL products, including for example TCL TFT-LCD model nos. LVW320ND1L CJ9W23, LVF430ND1L CJ9W04, and LVF550ND1L CD9W16, are or have been widely sold in retail stores, both brick and mortar and online, within this judicial district and in Texas. *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)).

13. Upon information and belief, TCL Corp. controls its subsidiaries and intermediaries, including, but not limited to TCL Electronics and TTE. These subsidiaries give

TCL Corp. substantially the business advantages that it would have enjoyed if it conducted its business through its own offices or paid agents in the state of Texas.

14. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391 because, among other things, TCL Corp. 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.).

15. Upon information and belief, TCL Electronics is also 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 own 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 subsidiaries, intermediaries, and/or agents.

16. This Court has personal jurisdiction over TCL Electronics, directly or through intermediaries and subsidiaries including, but not limited to, its U.S.-based subsidiary TTE, because TCL Electronics has committed acts within Texas giving rise to this action and/or has established minimum contacts with Texas such that personal jurisdiction over TCL would not offend traditional notions of fair play and substantial justice. For example, via its wholly-owned subsidiary TTE, TCL Electronics asserts the following:

We are America’s Fastest-Growing TV Brand. As a globally trusted leader, TCL sold more than 20 million TVs worldwide last year [in 2017] which ranks us among the largest TV brands in the world.

*See Our Story* (available at <https://www.tclusa.com/about-us/our-story>). These TCL products include for example TCL TFT-LCD model nos. LVW320ND1L CJ9W23, LVF430ND1L CJ9W04, and LVF550ND1L CD9W16, which are or have been widely sold in retail stores, both brick and mortar and online, within this judicial district and in Texas. Through the websites [electronics.tcl.com](http://electronics.tcl.com) and [www.tclusa.com](http://www.tclusa.com), TCL Electronics and its subsidiary TTE have jointly maintained a web presence that consumers would perceive as jointly and vicariously being engaged in acts of infringement. Indeed, there is no meaningful way for a customer to separate TCL Corp., TCL Electronics, and TTE in a meaningful way, which would make the exercise of specific jurisdiction fair and reasonable. *See, e.g., Godo Kaisha IP Bridge 1 v. Broadcom Limited*, 2017 WL 970383, at \*7 (E.D. Tex. 2017) (finding that it would not be improper to exercise specific jurisdiction over a foreign holding corporation based on the “web presence ... in which there is no meaningful way for a customer to determine if Defendants are truly separate and apart from their domestic subsidiaries (partly because they identified and advertised themselves interchangeably or as related entities on their websites)”).

17. Upon information and belief, the U.S.-based entity TTE is “an entity...directly or indirectly, controlled by” TCL Electronics, as well as other subsidiaries. *See* TCL Electronics Holdings Limited Annual Report 2018, at p. 139 of 285. According to TCL Electronics, such control over TTE means that the “Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee (i.e. existing rights that give the Group the current ability to direct the relevant activities of the investee).” *Id.* The business TTE, among other subsidiaries or intermediaries, conducts in the U.S. gives TCL Electronics substantially the business advantages that it would have enjoyed if it conducted its business through its own offices or paid agents in this judicial district and in the

state of Texas. Through their statements on their websites and through the conduct of TTE in the United States, TCL Corp. and TCL Electronics have each demonstrated an intent to serve the U.S. market, including the Texas market in this judicial district. *See, e.g., 3G Licensing, S.A. v. HTC Corporation*, 2017 WL 6442101, at \*3 (D. Del. 2017). (finding that the preconditions for personal jurisdiction were met based on certain statements made by a foreign defendant in its Annual Report that it “maintains a presence in all key markets, including the United States” and its “products are distributed across ... America[ ] ... through major carriers and local retail channels”).

18. Upon information and belief, TCL Electronics has placed and continues to place infringing thin-film transistor – liquid crystal display (“TFT-LCD”) panels into the stream of commerce via an established distribution channel 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. In 2018, TCL Electronics reported 45,582 HK\$ Million (approx. 5.8 billion U.S. dollars) in global gross sales. *See TCL Electronics Holdings Limited Annual Report 2018* at p. 12 of 285. Gross sales in the North America were reported at 10,232,343,000 (approx. 1.3 billion U.S. dollars).

19. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391 because, among other things, TCL Electronics 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).

20. Upon information and belief, TCL has significant ties to, and presence in, the State of Texas and the Eastern District of Texas, making venue in this judicial district both proper and convenient for this action.

### **THE ASSERTED PATENTS AND TECHNOLOGY**



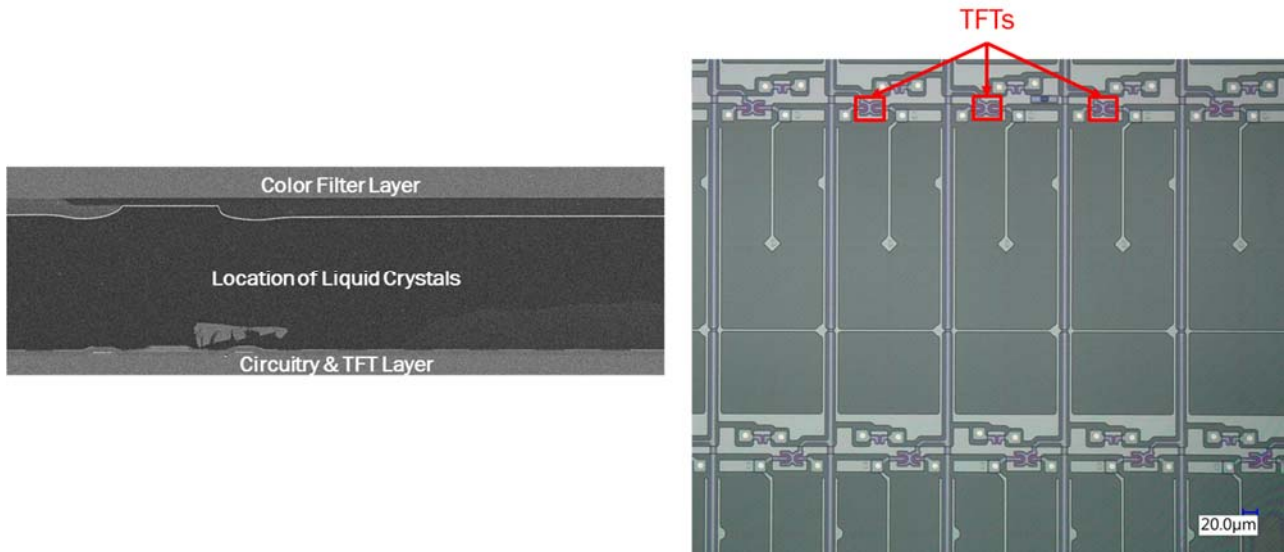
21. Upon information and belief, a significant portion of operating revenue of TCL is derived from the manufacture and sale of TFT-LCD flat panel displays, and TCL's main commodities include medium-to-large-sized TFT-LCD related products. *See* Home Theater Page (*available at* <https://www.tclusa.com/catalog/home-theater>). In a 2019 press release, TCL asserts that its LCD TV sales “[m]aintained strong growth momentum, with sales volume rocketed by 112.0% year-on-year... in the first quarter of 2019, TCL was among the top two in North American markets by sales volume for six consecutive weeks, during which climbing up to No. 1 for three weeks.” 2019 1<sup>st</sup> Quarter Press Release, April 23, 2019 (*available at* [http://electronics.tcl.com/UserFiles/File/IR/Press%20Releases/2019/ENG\\_TCL\\_2019Q1\\_Press%20Release\\_20190423\\_Final\\_Clean.pdf](http://electronics.tcl.com/UserFiles/File/IR/Press%20Releases/2019/ENG_TCL_2019Q1_Press%20Release_20190423_Final_Clean.pdf)).

22. The Asserted Patents cover TCL’s TFT-LCDs, their components, and processes related to the same. An example of a TCL TFT-LCD is model no. LVF430ND1L CJ9W04, which is used in end-user products such as TCL Class 3-Series FHD LED Roku Smart TV – 43S305. Another example of a TCL TFT-LCD is model no. LVW320ND1L CJ9W23, which is used in end-user products such as the TCL Class 3-Series HD LED Roku Smart TV – 32S305, and model no. LVF550ND1L CD9W16, which is used in TCL TV Model No. 55S405. Model no. LVF430ND1L CJ9W04 and the label for the TCL TFT-LCD panel are shown below:

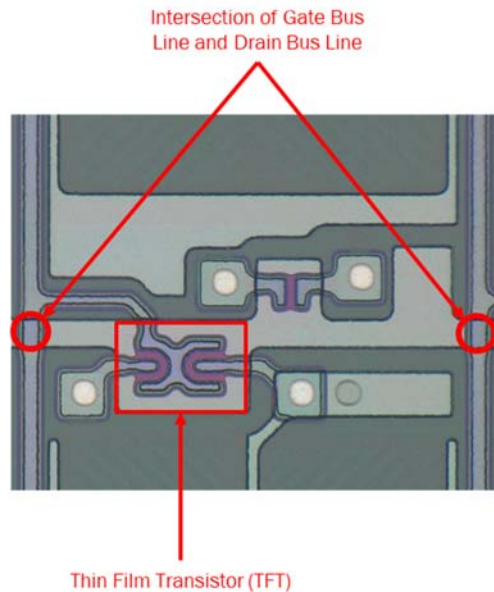
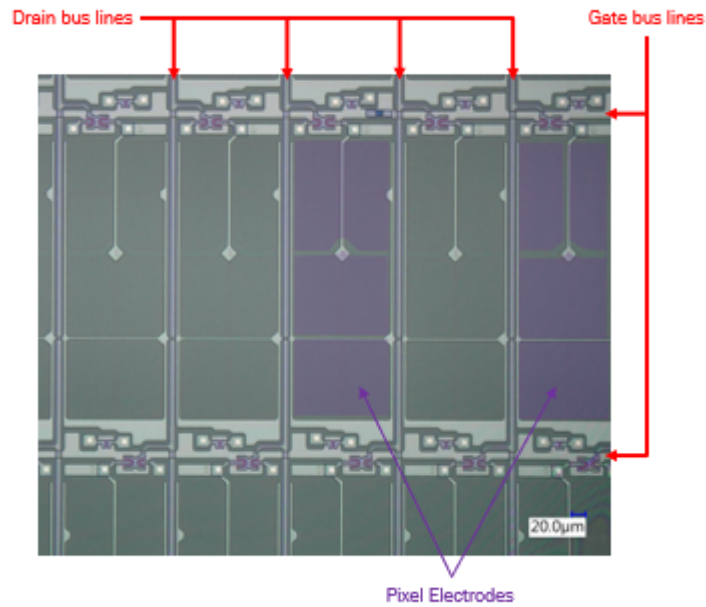




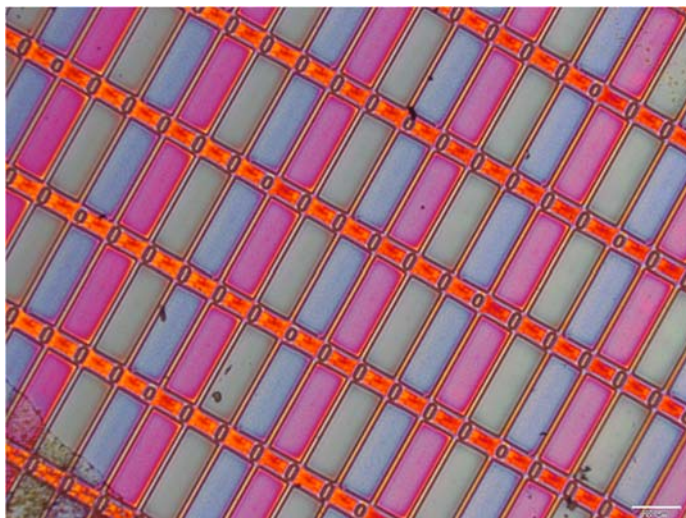
23. Typically, a TFT-LCD has the following structure shown below, comprising of a backlight, a TFT/circuitry layer, a liquid crystal layer, and a color filter:



24. As shown above, the TFT-LCD panel contains a TFT array substrate and many TFTs. A teardown image below from the TCL TFT-LCD model no. LVF430ND1L CJ9W04 shows a sampling of TFTs and their accompanying circuitry lines, with larger rectangular areas associated with the pixels.

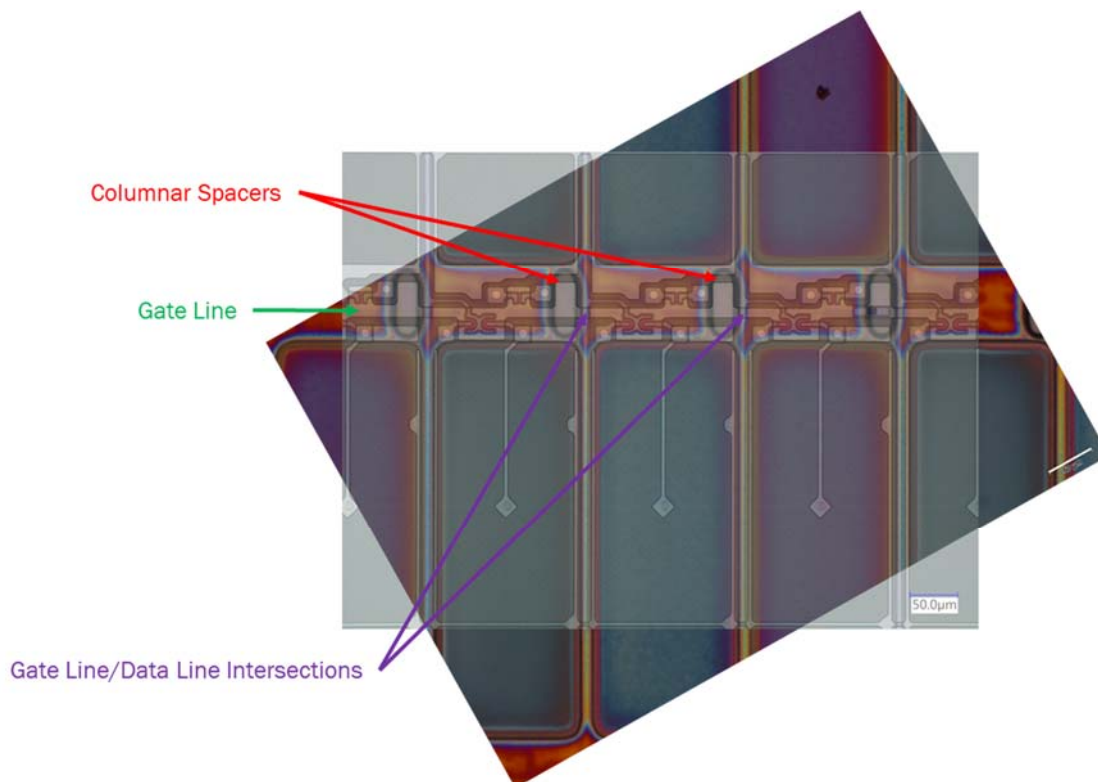


25. A TFT acts as a switch that operates its respective individual pixels using the circuitry lines. In that way, the pixels can be turned on and off to create an image on an LCD by allowing or preventing light to pass through. The individual pixels are more apparent when a color filter layer overlays the circuits as shown in the image below for the LVF430ND1L CJ9W04.



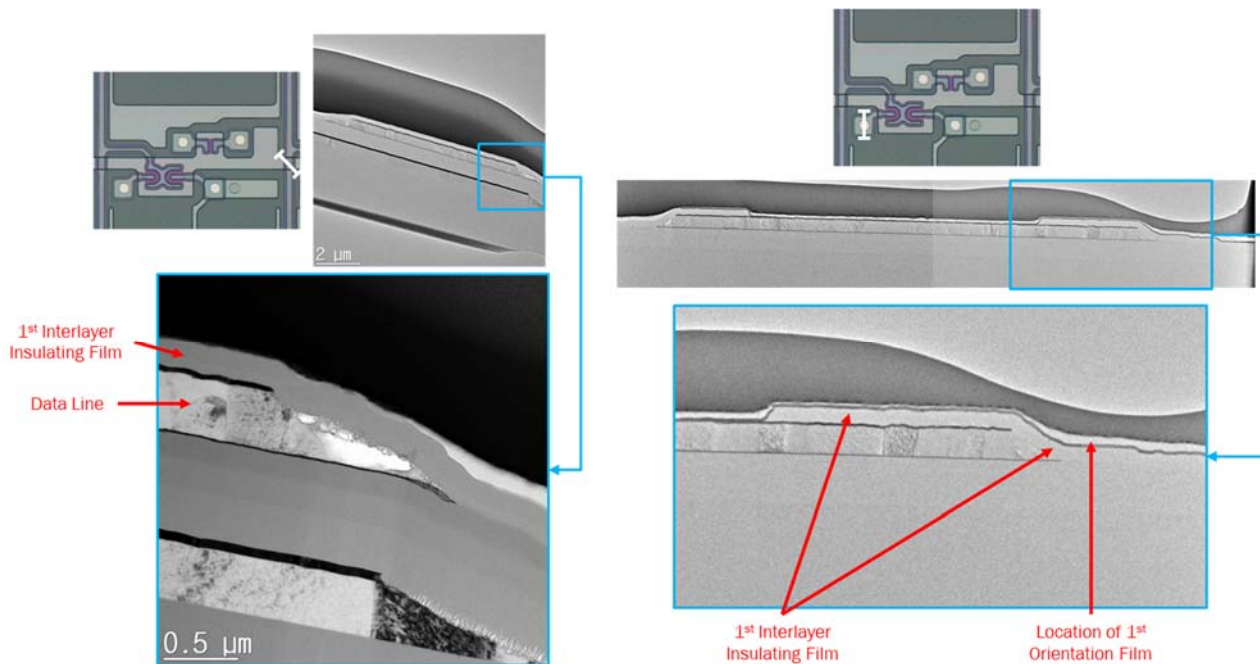
**Color Filter Layer**

26. Another teardown image of model no. LVF430ND1L CJ9W04 shows the position of columnar spacers relative to the gate and data lines, as annotated.

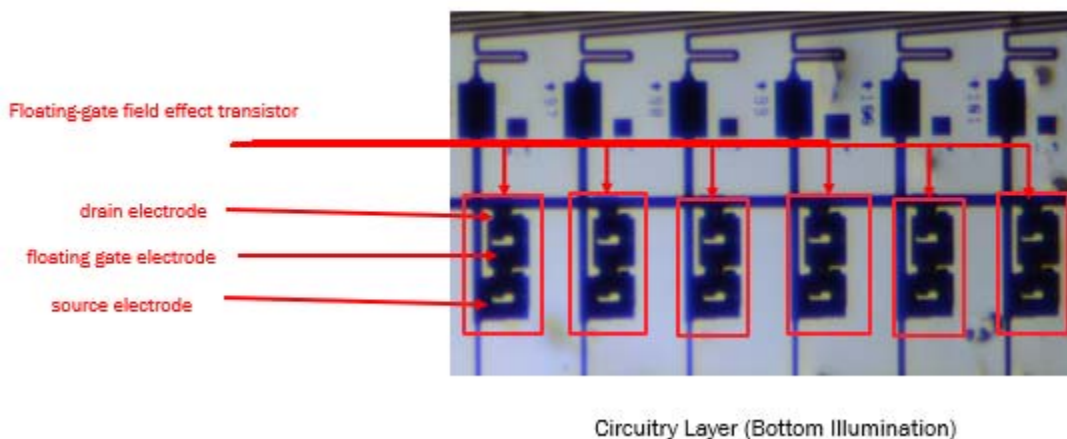


27. The microscopic teardown images below from model no. LVF430ND1L CJ9W04 shows a sampling of films in the device:

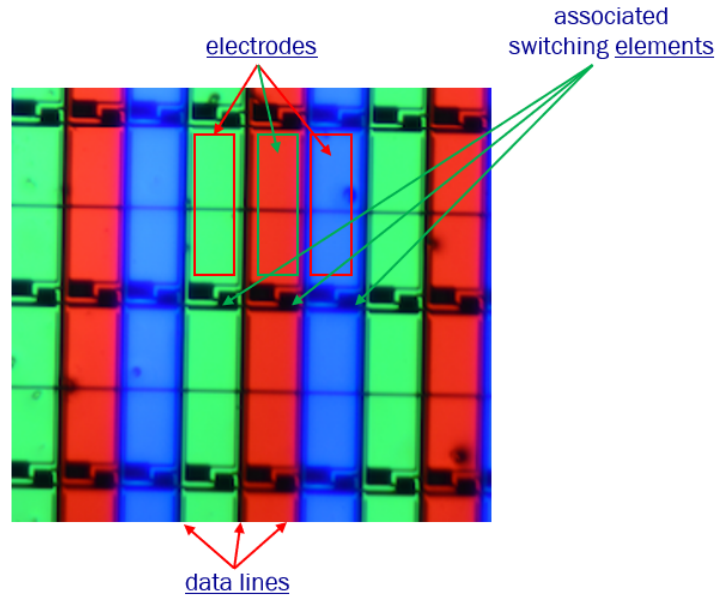




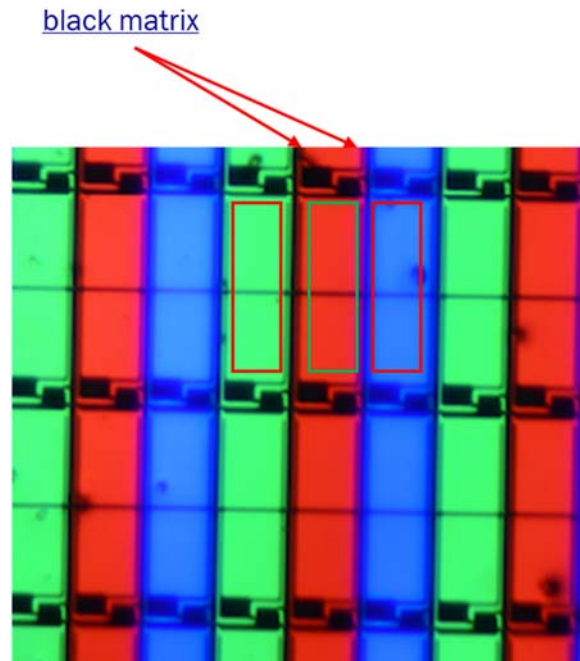
28. A teardown image below from model no. LVF430ND1L CJ9W04 shows a sampling of floating-gate field effect transistors shown relative to drain, floating gate and source electrodes used for surge protection in the device.



29. Lastly, the TCT-LCD of model no. LVF550ND1L CD9W16 has a plurality of pixel electrodes with data lines between adjacent pixel electrodes and associated switching elements, as shown in the image below.



30. As shown in the image below, model no. LVF550ND1L CD9W16 further has a black matrix disposed in association with the data lines between adjacent pixel electrodes blocking light passing in a predetermined viewing angle.



**COUNT I**

(INFRINGEMENT OF U.S. PATENT NO. 7,046,327)

31. Plaintiff incorporates paragraphs 1 through 30 herein by reference.

32. VPV is the assignee of the '327 patent, entitled "Liquid crystal display device including columnar spacer above gate line," with ownership of all substantial rights in the '327 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

33. The '327 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '327 patent issued from U.S. Patent Application No. 10/833,318.

34. TCL has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '327 patent in this judicial district and elsewhere in Texas and the United States.

35. Upon information and belief, TCL "is engaged in the research and development, manufacturing and distribution of consumer electronic products," which includes "Smart TVs" incorporating TFT-LCD technology. *See* 2019 1<sup>st</sup> Quarter Press Release, April 23, 2019.

36. TCL directly infringes the '327 patent via 35 U.S.C. § 271(a) by making, having made, offering for sale, selling, and/or importing those TFT-LCD panels, their components, and/or products containing same that incorporate the fundamental technologies covered by the '327 patent, or by having its controlled subsidiaries, intermediaries, and/or agents do the same. Furthermore, upon information and belief, TCL sells and makes TFT-LCD panels outside of the United States, 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 '327 patent.



37. For example, TCL infringes claim 1 of the '327 patent via its LCD panel model no. LVF430ND1L CJ9W04. That product includes a "liquid crystal display device including" each of the limitations of claim 1. The technology discussion above and the example accused TFT-LCD panel (model no. LVF430ND1L CJ9W04) provide context for Plaintiff's allegations that each of those limitations are met. For example, model no. LVF430ND1L CJ9W04 includes a first substrate, a second substrate, and a liquid crystal layer sandwiched between the first and second substrates, the device comprising, on the first substrate: a gate line; a common line parallel to the gate line; a data line intersecting the gate line while sandwiching a gate insulating film on the gate line therebetween; a first interlayer insulating film coating the data line; and a first orientation film coating the first interlayer insulating film, and the device comprising, on the second substrate: a light shielding film opposite to the gate line; a second interlayer insulating film coating the light shielding film; a columnar spacer located above the gate line apart from an intersection of the gate line and the data line and provided on the second interlayer insulating film; and a second orientation film coating the second interlayer insulating film and the columnar spacer, wherein a center of a top of the columnar spacer is shifted from above a widthwise center of the gate line toward above the common line, and the top of the columnar spacer partially overruns from above the gate line toward above the common line when viewed from the above, the top being directed to the first substrate.

38. At a minimum, TCL has known of the '327 patent at least as early as the filing date of the complaint.

39. Upon information and belief, since at least the above-mentioned date when TCL was on notice of its infringement, TCL has actively induced, under U.S.C. § 271(b), distributors, importers and/or consumers that purchase or sell TFT-LCD panels that include all of the

limitations of one or more claims of the '327 patent to directly infringe one or more claims of the '327 patent by using, offering for sale, selling, and/or importing the TFT-LCD panels. Since at least the notice provided on the above-mentioned date, TCL does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '327 patent. Upon information and belief, TCL intends to cause, and has taken affirmative steps to induce, infringement by the distributors, importers, and/or consumers by, inter alia, creating advertisements that promote the infringing use of the TFT-LCD panels, creating established distribution channels for the TFT-LCD panels into and within the United States, manufacturing the TFT-LCD 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.*, TCL Electronics Holdings Limited Annual Report 2018, at p.16 of 285 (“The Group’s sales volume in overseas markets for the year of 2018 reached 18.21 million sets, a year-on-year increase of 29.5%, of which the North American market made significant breakthrough.”).

40. Upon information and belief, despite having knowledge of the '327 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '327 patent, TCL has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. TCL’s infringing activities relative to the '327 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.

41. VPV has been damaged as a result of TCL's infringing conduct described in this Count. TCL is, thus, liable to VPV in an amount that adequately compensates VPV for TCL'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. 6,812,528)

42. Plaintiff incorporates paragraphs 1 through 41 herein by reference.

43. VPV is the assignee of the '528 patent, entitled "Surge protection circuit for semiconductor devices," with ownership of all substantial rights in the '528 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

44. The '528 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '528 patent issued from U.S. Patent Application No. 09/874,296.

45. TCL has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '528 patent in this judicial district and elsewhere in Texas and the United States.

46. Upon information and belief, TCL "is engaged in the research and development, manufacturing and distribution of consumer electronic products," which includes "Smart TVs" incorporating TFT-LCD technology. *See* 2019 1<sup>st</sup> Quarter Press Release, April 23, 2019.

47. TCL directly infringes the '528 patent via 35 U.S.C. § 271(a) by making, having made, offering for sale, selling, and/or importing those TFT-LCD panels, their components, and/or products containing same that incorporate the fundamental technologies covered by the '528 patent, or by having its controlled subsidiaries, intermediaries, and/or agents do the same.

Furthermore, upon information and belief, TCL sells and makes TFT-LCD panels outside of the United States, 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 '528 patent.

48. For example, TCL infringes claim 23 of the '528 patent via its LCD panel model nos. LVW320ND1L CJ9W23 and LVF430ND1L CJ9W04. That product includes a “surge protection circuit for a semiconductor display panel, comprising” each of the limitations of claim 23. The technology discussion above and the example accused TFT-LCD panel (model nos. LVW320ND1L CJ9W23 and LVF430ND1L CJ9W04) provide context for Plaintiff’s allegations that each of those limitations are met. For example, model nos. LVW320ND1L CJ9W23 and LVF430ND1L CJ9W04 include a plurality of vertical signal lines; a plurality of horizontal signal lines intersecting said vertical signal lines; and a plurality of floating-gate field effect transistors, each having a channel capacitance and including a floating gate electrode, a source electrode and a drain electrode, said source and drain electrodes of each of said transistors being respectively connected to said vertical signal lines, each of said transistors being responsive to the respective vertical signal line being subjected to a surge potential for developing a voltage on said channel capacitance sufficient to turn on said floating-gate field effect transistor and establish a low-impedance path to ground.

49. At a minimum, TCL has known of the '528 patent at least as early as the filing date of the complaint. In addition, TCL has known of the '528 patent since at least February 17, 2018, when TCL was provided notice that it was required to take a license to a number of patents, including the '528 patent.

50. Upon information and belief, since at least the above-mentioned date when TCL was on notice of its infringement, TCL has actively induced, under U.S.C. § 271(b), distributors,

importers and/or consumers that purchase or sell TFT-LCD panels that include all of the limitations of one or more claims of the '528 patent to directly infringe one or more claims of the '528 patent by using, offering for sale, selling, and/or importing the TFT-LCD panels. Since at least the notice provided on the above-mentioned date, TCL does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '528 patent. Upon information and belief, TCL intends to cause, and has taken affirmative steps to induce, infringement by the distributors, importers, and/or consumers by, inter alia, creating advertisements that promote the infringing use of the TFT-LCD panels, creating established distribution channels for the TFT-LCD panels into and within the United States, manufacturing the TFT-LCD 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.*, TCL Electronics Holdings Limited Annual Report 2018, at p.16 of 285 (“The Group’s sales volume in overseas markets for the year of 2018 reached 18.21 million sets, a year-on-year increase of 29.5%, of which the North American market made significant breakthrough.”).

51. Upon information and belief, despite having knowledge of the '528 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '528 patent, TCL has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. TCL’s infringing activities relative to the '528 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.

52. VPV has been damaged as a result of TCL's infringing conduct described in this Count. TCL is, thus, liable to VPV in an amount that adequately compensates VPV for TCL'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. 6,549,259)

53. Plaintiff incorporates paragraphs 1 through 52 herein by reference.

54. VPV is the assignee of the '259 patent, entitled "Liquid crystal display panel and fabrication method of the same," with ownership of all substantial rights in the '259 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

55. The '259 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '259 patent issued from U.S. Patent Application No. 09/780,382.

56. TCL has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '259 patent in this judicial district and elsewhere in Texas and the United States.

57. Upon information and belief, TCL "is engaged in the research and development, manufacturing and distribution of consumer electronic products," which includes "Smart TVs" incorporating TFT-LCD technology. *See* 2019 1<sup>st</sup> Quarter Press Release, April 23, 2019.

58. TCL directly infringes the '259 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those TFT-LCD panels, their components, and/or products containing same that incorporate the fundamental technologies covered by the '259 patent, or by having its controlled subsidiaries, intermediaries, and/or agents do the same. Furthermore, upon information and belief, TCL sells and makes TFT-LCD panels outside of the United States, 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 '259 patent.

59. For example, TCL infringes claim 1 of the '259 patent via its LCD panel model nos. LVW320ND1L CJ9W23 and LVF430ND1L CJ9W04. That product includes a “liquid crystal display panel comprising” each of the limitations of claim 1. The technology discussion above and the example accused TFT-LCD panel (model nos. LVW320ND1L CJ9W23 and LVF430ND1L CJ9W04) provide context for Plaintiff’s allegations that each of those limitations are met. For example, model nos. LVW320ND1L CJ9W23 and LVF430ND1L CJ9W04 include an array substrate having a switching element array; an opposing substrate opposing to said array substrate; a liquid crystal layer disposed between said array substrate and said opposing substrate; a seal member sealing said liquid crystal layer within said display panel; a spacer disposed within said seal member so as to make a gap between said array substrate and said opposing substrate constant; and a leveling layer formed on said switching element array, said leveling layer being provided with one of an opening area and a thin region at a seal area of said seal member, said thin region being thinner than thickness of said leveling layer on each switching element of said switching element array.

60. TCL further infringes the '259 patent via 35 U.S.C. § 271(g) by selling, offering to sell, and/or importing TFT-LCD panels, their components, and/or products containing same, that

are made by a process covered by the '259 patent. Upon information and belief, the infringing TFT-LCD 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.

61. At a minimum, TCL has known of the '259 patent at least as early as the filing date of the complaint.

62. Upon information and belief, since at least the above-mentioned date when TCL was on notice of its infringement, TCL has actively induced, under U.S.C. § 271(b), distributors, importers and/or consumers that purchase or sell TFT-LCD panels that include or are made using all of the limitations of one or more claims of the '259 patent to directly infringe one or more claims of the '259 patent by using, offering for sale, selling, and/or importing the TFT-LCD panels. Since at least the notice provided on the above-mentioned date, TCL does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '259 patent. Upon information and belief, TCL intends to cause, and has taken affirmative steps to induce, infringement by the distributors, importers, and/or consumers by, *inter alia*, creating advertisements that promote the infringing use of the TFT-LCD panels, creating established distribution channels for the TFT-LCD panels into and within the United States, manufacturing the TFT-LCD 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.*, TCL Electronics Holdings Limited Annual Report 2018, at p.16 of 285 (“The Group’s sales volume in overseas markets for the year of 2018 reached 18.21



million sets, a year-on-year increase of 29.5%, of which the North American market made significant breakthrough.”).

63. Upon information and belief, despite having knowledge of the '259 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '259 patent, TCL has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. TCL's infringing activities relative to the '259 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.

64. VPV has been damaged as a result of TCL's infringing conduct described in this Count. TCL is, thus, liable to VPV in an amount that adequately compensates VPV for TCL'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. 7,224,414)

65. Plaintiff incorporates paragraphs 1 through 64 herein by reference.

66. VPV is the assignee of the '414 patent, entitled “Active Matrix Liquid Crystal Display Device,” with ownership of all substantial rights in the '414 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

67. The '414 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '414 patent issued from U.S. Patent Application No. 10/761,354.

68. TCL has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '414 patent in this judicial district and elsewhere in Texas and the United States.

69. Upon information and belief, TCL "is engaged in the research and development, manufacturing and distribution of consumer electronic products," which includes "Smart TVs" incorporating TFT-LCD technology. *See* 2019 1<sup>st</sup> Quarter Press Release, April 23, 2019.

70. TCL directly infringes the '414 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those TFT-LCD panels, their components, and/or products containing same that incorporate the fundamental technologies covered by the '414 patent, or by having its controlled subsidiaries, intermediaries, and/or agents do the same. Furthermore, upon information and belief, TCL sells and makes TFT-LCD panels outside of the United States, 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 '414 patent.

71. For example, TCL infringes claim 1 of the '414 patent via its LCD panel model no. LVF550ND1L CD9W16. That product includes an "active matrix liquid crystal display device comprising" each of the limitations of claim 1. The technology discussion above and the example accused TFT-LCD panel (model no. LVF550ND1L CD9W16) provide context for Plaintiff's allegations that each of those limitations are met. For example, model no. LVF550ND1L CD9W16 includes a first substrate; a second substrate disposed in opposing relation to said first substrate; a liquid crystal layer sandwiched between said first substrate and said second substrate; a plurality

of pixel electrodes arranged in a matrix on said first substrate; a plurality of switching elements disposed on said first substrate in association with said pixel electrodes respectively, for driving the pixel electrodes, respectively; a plurality of data lines disposed on said first substrate at respective gaps between adjacent two of said pixel electrodes, for supplying data signals to said switching elements; and a black matrix disposed on said first substrate in association with said data lines, for blocking light passing in a predetermined viewing angle range through a light leakage region created in said liquid crystal layer depending on a potential difference between two of said pixel electrodes.

72. TCL further infringes the '414 patent via 35 U.S.C. § 271(g) by selling, offering to sell, and/or importing TFT-LCD panels, their components, and/or products containing same, that are made by a process covered by the '414 patent. Upon information and belief, the infringing TFT-LCD 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.

73. At a minimum, TCL has known of the '414 patent at least as early as the filing date of the complaint.

74. Upon information and belief, since at least the above-mentioned date when TCL was on notice of its infringement, TCL has actively induced, under U.S.C. § 271(b), distributors, importers and/or consumers that purchase or sell TFT-LCD panels that include or are made using all of the limitations of one or more claims of the '414 patent to directly infringe one or more claims of the '414 patent by using, offering for sale, selling, and/or importing the TFT-LCD panels. Since at least the notice provided on the above-mentioned date, TCL does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of

the '414 patent. Upon information and belief, TCL intends to cause, and has taken affirmative steps to induce, infringement by the distributors, importers, and/or consumers by, *inter alia*, creating advertisements that promote the infringing use of the TFT-LCD panels, creating established distribution channels for the TFT-LCD panels into and within the United States, manufacturing the TFT-LCD 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.*, TCL Electronics Holdings Limited Annual Report 2018, at p.16 of 285 (“The Group’s sales volume in overseas markets for the year of 2018 reached 18.21 million sets, a year-on-year increase of 29.5%, of which the North American market made significant breakthrough.”).

75. Upon information and belief, despite having knowledge of the '414 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '414 patent, TCL has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. TCL’s infringing activities relative to the '414 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.

76. VPV has been damaged as a result of TCL’s infringing conduct described in this Count. TCL is, thus, liable to VPV in an amount that adequately compensates VPV for TCL’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.

### **INJUNCTIVE RELIEF**

77. Plaintiff seeks preliminary and permanent injunctions as a result of TCL's infringement of the Asserted Patents. Plaintiff is likely to succeed in showing that TCL infringes the Asserted Patents. Because of that infringement, Plaintiff has suffered an irreparable injury, and the remedies available at law, such as monetary damages, are inadequate to compensate for that injury. For example, if Plaintiff must enforce a judgment against TCL in China, Hong Kong, and/or the Cayman Islands, Plaintiff will face a historically challenging burden in persuading courts in these jurisdictions to enforce a judgment from a U.S. court, likely preventing Plaintiff from obtaining any monetary damages from TCL. Considering the balance of hardships between the Plaintiff and TCL, a remedy in equity is warranted; and the public interest would not be disserved by a permanent or preliminary injunction.

### **CONCLUSION**

78. Plaintiff is entitled to recover from TCL the damages sustained by Plaintiff as a result of TCL'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.

79. 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**

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

**PRAYER FOR RELIEF**

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

1. A judgment that TCL 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 TCL;
3. A preliminary and permanent injunction against TCL, its subsidiaries, or anyone acting on its behalf from making, using, selling, offering to sell, or importing any products that infringe the Asserted Patents, and any other injunctive relief the Court deems just and equitable;
4. A judgment and order requiring TCL 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;
5. A judgment and order requiring TCL to pay Plaintiff pre-judgment and post-judgment interest on the damages awarded;
6. A judgment and order finding this to be an exceptional case and requiring TCL to pay the costs of this action (including all disbursements) and attorneys' fees as provided by 35 U.S.C. § 285; and
7. Such other and further relief as the Court deems just and equitable.

Dated: May 23, 2019

Respectfully submitted,

/s/Patrick J. Conroy w/permission Claire A. Henry

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