

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). 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 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 no. LVF430ND1L CJ9W04, 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 no. LVF430ND1L CJ9W04, 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 and 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 I 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).

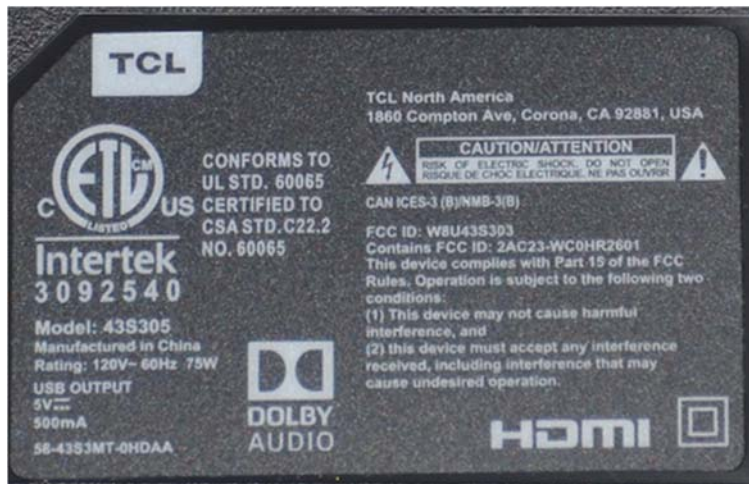
20. Upon information and belief, TCL has significant ties to, and presence in, the State of Texas and the Eastern District of Texas, making venue in this judicial district both proper and convenient for this action.

THE ASSERTED PATENTS AND TECHNOLOGY

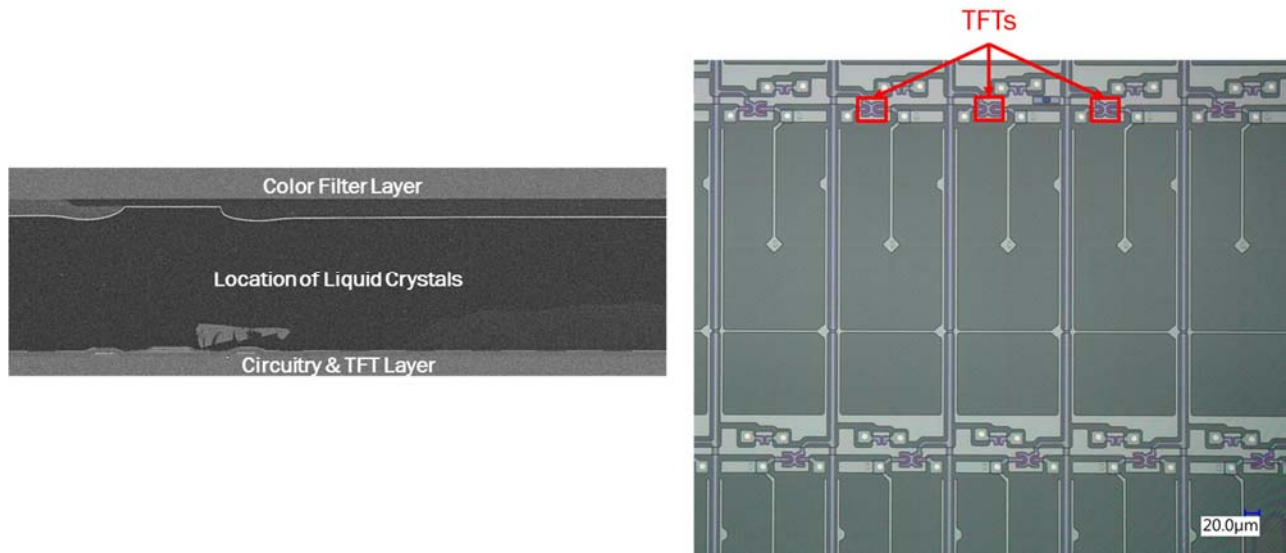
21. Upon information and belief, a significant portion of operating revenue of TCL is derived from the manufacture and sale of TFT-LCD flat panel displays, and TCL’s main

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 1st 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).

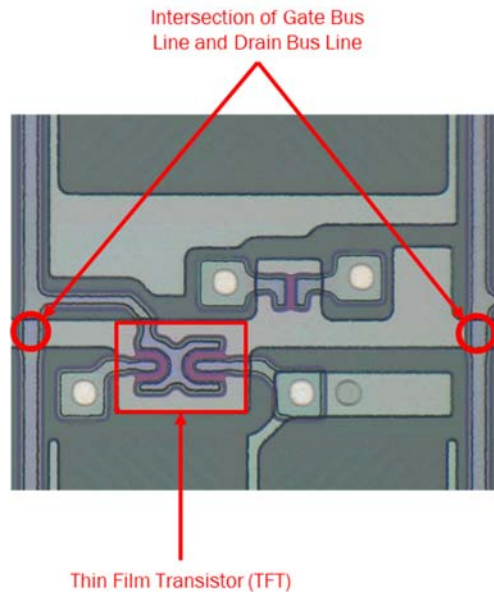
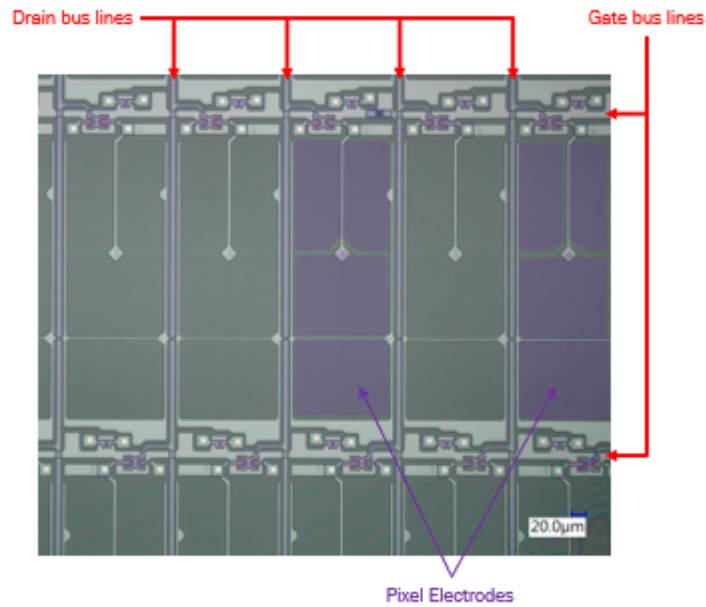
22. The Asserted Patents cover TCL's TFT-LCDs, their components, and processes related to the same. An example of a TCL TFT-LCD is model no. LVF430ND1L CJ9W04, which is used in end-user products such as TCL Class 3-Series FHD LED Roku Smart TV – 43S305. Model no. LVF430ND1L CJ9W04 and the label for the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



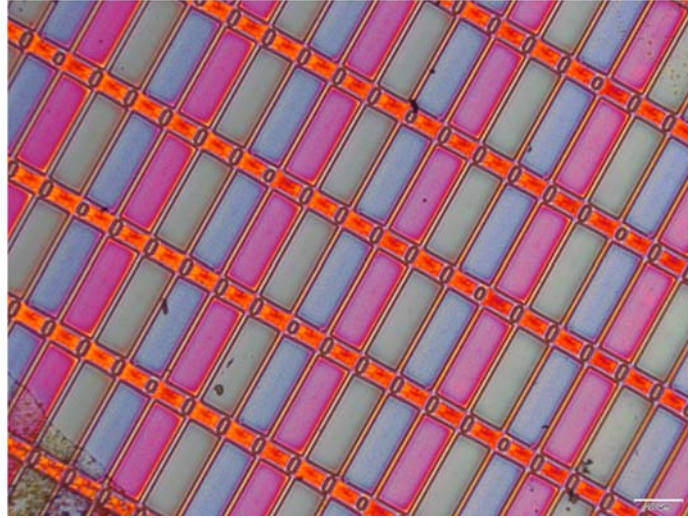
23. Typically, a TFT-LCD has the following structure shown below, comprising of a backlight, a TFT/circuitry layer, a liquid crystal layer, and a color filter:



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.

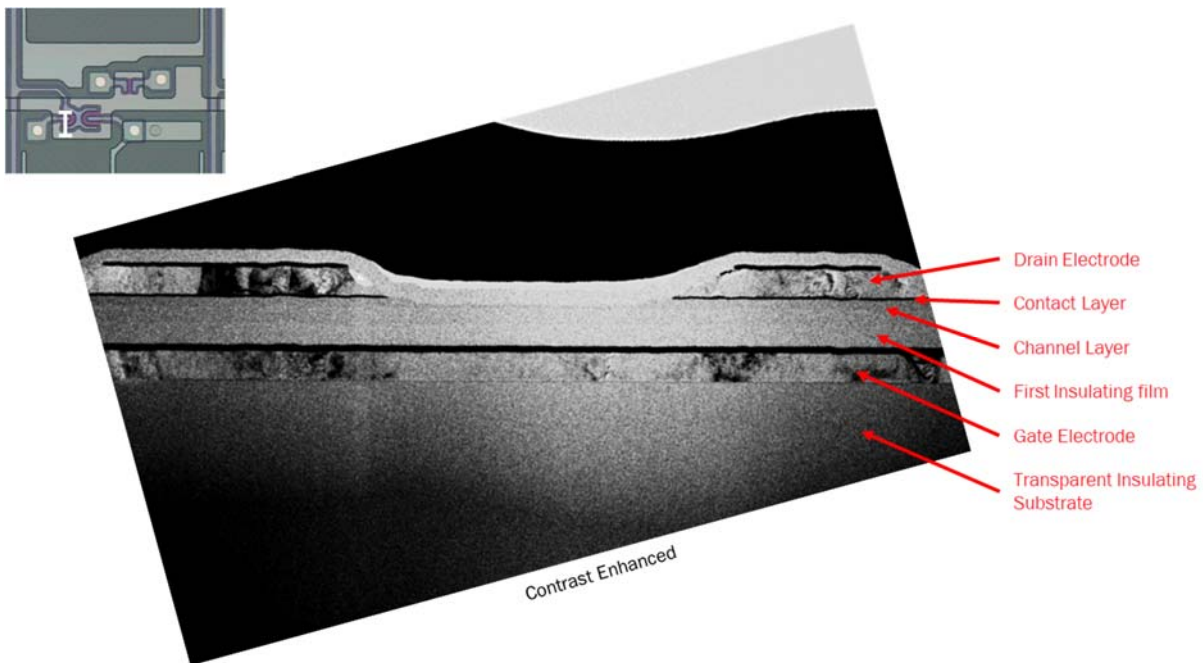


25. A TFT acts as a switch that operates its respective individual pixels using the circuitry lines. In that way, the pixels can be turned on and off to create an image on an LCD by allowing or preventing light to pass through. The individual pixels are more apparent when a color filter layer overlays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



Color Filter Layer

26. The Asserted Patents also cover TCL's processes for making TFT LCDs. The microscopic cross-sectional view of a TFT in model no. LVF430ND1L CJ9W04 shows a TFT made using TCL's processes and identifies the components of that TFT.



27. For in-plane switching devices, the output of the TCL TFTs creates electric fields that orient the liquid crystals to determine whether light passes through the pixels. When an electric field is created, the liquid crystal molecules orient themselves parallel to the electric field and rotate on the same plane, so that light can pass through a polarizer and create an image on the display.

COUNT I

(INFRINGEMENT OF U.S. PATENT NO. 6,078,375)

28. Plaintiff incorporates paragraphs 1 through 27 herein by reference.

29. VPV is the assignee of the '375 patent, entitled "Liquid crystal display device with wide viewing angle," with ownership of all substantial rights in the '375 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

30. The '375 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '375 patent issued from U.S. Patent Application No. 09/154,039.

31. TCL has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '375 patent in this judicial district and elsewhere in Texas and the United States.

32. 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 1st Quarter Press Release, April 23, 2019.

33. TCL directly infringes the '375 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 '375 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 '375 patent.

34. For example, TCL infringes claim 1 of the '375 patent via its LCD panel model no. LVF430ND1L CJ9W04. Those products each include a “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. LVF430ND1L CJ9W04) provide context for Plaintiff’s allegations that each of those limitations are met. For example, the model no. LVF430ND1L CJ9W04 includes a first substrate having a first principal surface; a first alignment film which is formed on said first principal surface and is subjected to a first aligning treatment; a second substrate having a second principal surface; a second alignment film which is formed on said second principal surface, said second alignment film oppositely disposed to said first alignment film with a predetermined space left between said first alignment film and said second alignment film, and said second alignment film subjected to a second aligning treatment in the same directional orientation as the first aligning treatment; a liquid crystal layer formed by a plurality of liquid crystal molecules which are interposed and sealed between said first and said second alignment films, a part of said molecules adjacent to said first alignment film having a first pretilt angle falling within a first predetermined range which is not smaller than two degrees from said first alignment film due to the influence of said first aligning treatment, the other part of said molecules adjacent to said second alignment film having a second pretilt angle falling within a second predetermined range which is not smaller than two degrees from said second alignment film due to influence of said second aligning

treatment; and field generating means for generating an electric field which is substantially parallel to said first and said second principal surfaces in said predetermined space to make said molecules rotate in accordance with said electric field.

35. TCL further infringes the '375 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 '375 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.

36. At a minimum, TCL has known of the '375 patent at least as early as the filing date of the complaint.

37. 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 '375 patent to directly infringe one or more claims of the '375 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 '375 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.”).

38. Upon information and belief, despite having knowledge of the ’375 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’375 patent, TCL has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. TCL’s infringing activities relative to the ’375 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.

39. 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. 6,404,474)

40. Plaintiff incorporates paragraphs 1 through 39 herein by reference.

41. VPV is the assignee of the ’474 patent, entitled “Horizontal electric field LCD with increased capacitance between pixel and common electrodes,” with ownership of all

substantial rights in the '474 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

42. The '474 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '474 patent issued from U.S. Patent Application No. 09/357,060.

43. TCL has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '474 patent in this judicial district and elsewhere in Texas and the United States.

44. 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 1st Quarter Press Release, April 23, 2019.

45. TCL directly infringes the '474 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 '474 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 '474 patent.

46. For example, TCL infringes claim 1 of the '474 patent via its LCD panel model no. LVF430ND1L CJ9W04. That product includes an "active matrix type 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. LVF430ND1L CJ9W04) provide context for Plaintiff's allegations that each of those limitations are met. For example, model no. LVF430ND1L CJ9W04

includes two opposing transparent insulating substrates and liquid crystal interposed therebetween, wherein said liquid crystal is controlled by generating an electric field substantially parallel to the liquid crystal layer with a voltage applied between pixel electrodes and common electrodes both disposed on the first of said substrates, said display device further comprising: on said first substrate: a plurality of scanning lines and a plurality of signal lines orthogonal to one another; a thin film transistor provided near each intersection of a scanning line and a signal line; common electrodes extending substantially parallel to said scanning lines and having a plurality of comb-tooth projections extending toward said scanning lines; pixel electrodes formed substantially parallel to the comb-tooth projections in gaps between the adjacent comb-tooth projections of said common electrodes when said substrate is viewed from the normal direction, at least a portion of each pixel electrode being opposite to a common electrode interposed by an interlayer insulating film; an interlayer insulating film disposed between said common electrodes and said pixel electrodes; and a first alignment film formed above said pixel electrodes interposed by a protective insulating film; on said second substrate: a black matrix provided with openings in areas opposite to each of said pixel electrodes; and a second alignment film; and said active matrix type liquid crystal display device further comprising: accumulated capacitance increasing means for obtaining an accumulated capacitance between said pixel electrode and said common electrodes larger than that generated when said interlayer insulating film is of even thickness and flat structure.

47. At a minimum, TCL has known of the '474 patent at least as early as the filing date of the complaint.

48. 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 '474 patent to directly infringe one or more claims of the '474 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 '474 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.”).

49. Upon information and belief, despite having knowledge of the '474 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '474 patent, TCL has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. TCL’s infringing activities relative to the '474 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.

50. 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. 6,657,699)

51. Plaintiff incorporates paragraphs 1 through 50 herein by reference.

52. VPV is the assignee of the '699 patent, entitled "Liquid crystal display unit having pixel electrode encircled with partition wall and process for fabrication thereof," with ownership of all substantial rights in the '699 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

53. The '699 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '699 patent issued from U.S. Patent Application No. 09/901,034.

54. TCL has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '699 patent in this judicial district and elsewhere in Texas and the United States.

55. 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 1st Quarter Press Release, April 23, 2019.

56. TCL directly infringes the '699 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 '699 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 '699 patent.

57. For example, TCL infringes claim 20 of the '699 patent via its LCD panel model no. LVF430ND1L CJ9W04. That product includes an “in-plane switching type liquid crystal display panel having a plurality of pixel areas, the panel comprising” each of the limitations of claim 20. 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 liquid crystals between a pair of substrate structures and comprising optical elements within each of said plurality of pixel areas; a common electrode on one of said substrate structures for each pixel area; a pixel electrode for each pixel area offset from said common electrode on said one of said substrate structures, wherein said common electrode and said pixel electrode define said pixel area; a switching transistor on said one of said substrate structures and having a source connected to said pixel electrode, a data line extending outside a periphery of said pixel area and a gate electrode extending outside of said periphery; and a partition wall structure formed on said common electrode of at least one of said pixel areas for separating said optical elements from the remaining liquid crystal.

58. TCL further infringes the '699 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 '699 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.

59. At a minimum, TCL has known of the '699 patent at least as early as the filing date of the complaint. In addition, TCL has known of the '699 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 '699 patent.

60. 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 '699 patent to directly infringe one or more claims of the '699 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 '699 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.”).

61. Upon information and belief, despite having knowledge of the '699 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '699 patent, TCL has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. TCL's infringing activities relative to the '699 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.

62. 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. 7,009,673)

63. Plaintiff incorporates paragraphs 1 through 62 herein by reference.

64. VPV is the assignee of the '673 patent, entitled “Active matrix liquid crystal display having a thin film transistor over which alignment of liquid crystal molecules does not change,” with ownership of all substantial rights in the '673 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

65. The '673 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '673 patent issued from U.S. Patent Application No. 10/656,138.

66. TCL has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '673 patent in this judicial district and elsewhere in Texas and the United States.

67. 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 1st Quarter Press Release, April 23, 2019.

68. TCL directly infringes the '673 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 '673 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 '673 patent.

69. For example, TCL infringes claim 1 of the '673 patent via its LCD panel model no. LVF430ND1L CJ9W04. Those products each includes an “active matrix liquid crystal display, comprising” 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 pair of substrates with a liquid crystal layer between said substrates; a pixel electrode and a common electrode having a common longitudinal axis and that are arranged and adapted to

generate an electric field parallel to said substrates in said liquid crystal layer, said liquid crystal layer having a non-zero initial alignment angle relative to the common longitudinal axis; and a thin film transistor having a source electrode and a drain electrode adjacent to a first part of said liquid crystal layer, said source and drain electrodes being arranged and adapted so that an electric field generated between said source and drain electrodes is one of substantially parallel to and perpendicular to the non-zero initial alignment angle, whereby an alignment of the first part of said liquid crystal layer does not change when an electric field is generated between said source and drain electrodes.

70. At a minimum, TCL has known of the '673 patent at least as early as the filing date of the complaint.

71. 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 '673 patent to directly infringe one or more claims of the '673 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 '673 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.”).

72. Upon information and belief, despite having knowledge of the ’673 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’673 patent, TCL has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. TCL’s infringing activities relative to the ’673 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.

73. 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 V

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

74. Plaintiff incorporates paragraphs 1 through 73 herein by reference.

75. 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.

76. 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.

77. TCL 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.

78. 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 1st Quarter Press Release, April 23, 2019.

79. TCL directly infringes the '119 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 '119 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 '119 patent.

80. For example, TCL infringes claim 1 of the '119 patent via its LCD panel model no. LVF430ND1L CJ9W04. That product includes a "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. LVF430ND1L CJ9W04) provide context for Plaintiff's allegations that each of those limitations are met. For example, model no. LVF430ND1L CJ9W04 includes 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.

81. TCL further infringes the '119 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 '119 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.

82. At a minimum, TCL has known of the '119 patent at least as early as the filing date of the complaint.

83. 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 '119 patent to directly infringe one or more claims of the '119 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 '119 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.”).

84. Upon 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, TCL has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. TCL’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.

85. 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

86. 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 and Hong Kong, 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

87. 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.

88. 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

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

PRAYER FOR RELIEF

90. 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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