

6,674,093 (“the ’093 patent”), U.S. Patent No. 6,891,196 (“the ’196 patent”), and U.S. Patent No. 7,499,119 (“the ’119 patent”), collectively, the “Asserted Patents.”

THE PARTIES AND RELATED BACKGROUND

1. Vista Peak Ventures, LLC is a Texas limited liability company, located at 1400 Preston Rd, Suite 472, Plano, TX 75093.

2. Upon information and belief, Defendant HannStar Display Corporation (“HannStar”) is a multinational corporation organized under the laws of Taiwan, with its principal place of business located at 26th floor., No.1, Songzhi Road, Xinyi District, Taipei 110, Taiwan, R.O.C.

3. Upon information and belief, Defendant HannStar Display (Nanjing) Corporation (“HannStar Nanjing”) is a company organized under the laws of the People’s Republic of China (“PRC” or “China”) and has its principal place of business located at No.18, Heng Fei Road, Nanjing Economic & Technology Development Zone, Nanjing 210038, China. HannStar Nanjing is a subsidiary and partner of HannStar that “specializes in the final stage assembling of Liquid Crystal Modules (LCM) and the production of Liquid Crystal Display Screens in aid of the production of LCD Monitors.” *See HannStar Partners*, HANNSTAR, <https://www.hannstar.com/Common.aspx?mid=96&tmid=1&modid=1>.

4. Upon information and belief, Defendant HANNspree, Inc. (“HANNspree”) is a company organized under the laws of Taiwan and has its principal place of business located at 4F, No. 15, Ln 168, Xing Shan Rd., Neihu Dist., Taipei City 114, Taiwan, R.O.C. HANNspree is a subsidiary and partner of HannStar. *See HannStar Partners*, HANNSTAR, <https://www.hannstar.com/Common.aspx?mid=96&tmid=1&modid=1>; *see also About Us*, HANNSPREE, <https://www.hannspree.eu/about-us/> (HANNspree is “part of the HannStar Display Corporation, one of the largest glass panel manufacturers in the world, consequently the

HANNspree brand benefits from a rich heritage and world-class technological process in display technology”).

5. Upon information and belief, Defendant HANNspree Europe GmbH (“HANNspree GmbH”) is a company organized under the laws of Germany and has its principal place of business located at Meerbuscher Str. 64 -78/ Haus 6b, 40670 Meerbusch, Germany. HANNspree GmbH is a subsidiary and partner of HannStar. *See HannStar Partners*, HANNSTAR, <https://www.hannstar.com/Common.aspx?mid=96&tmid=1&modid=1> (listing Defendant as one of its partners).

6. Upon information and belief, Defendant HANNspree Europe Holdings B.V. (“HANNspree BV”) is a company organized under the laws of the Netherlands and has its principal place of business located at Newtonweg 25 5928 PN Venlo, The Netherlands. *See Contact Us, European Offices*, HANNSPREE, <https://www.hannspree.eu/about-us/contact-us/>. HANNspree BV also has offices located at least in Shenzhen, Guangdong, China.

7. Upon information and belief, Defendant HANNspree Display (Nanjing) Corporation (“HANNspree Nanjing”) is a company organized under the laws of China and has its principal place of business located in Shenzhen Br. 22nd Floor Bldg. A, Excellence City II, No. 126, Zhong Kang Rd., Shangmeilin, Futian District, Shenzhen, China 518000. HANNspree Nanjing is at least a related entity to HANNspree and HannStar and part of the manufacturing and distribution network of the Defendants.

8. Upon information and belief, Defendant HannStar commenced operations in June 1998. HannStar and its subsidiaries and partners are “primarily engaged in the manufacturing and sale of thin film transistor liquid crystal display (“TFT-LCD”) panels, flat-panel displays, CCTV and related components.” *See Consolidated Financial Statements*, HANNSTAR DISPLAY CORP.

(December 31, 2019 and 2018), at p. 15, https://www.hannstar.com/HannstarUserFile/files/Quarterly/en/2019_Q4_e_con.pdf. HannStar was listed on the Taiwan Stock Exchange in September 2004. *See id.*

9. Upon information and belief, Defendant HannStar partners with Defendants HannStar Nanjing, HANNspree and its subsidiaries, including Defendant HANNspree B.V. and Defendant HANNspree GmbH (collectively referred to as “HANNspree Europe”) in a global manufacturing and supply network for TFT-LCD products. *See HannStar Partners*, HANNSTAR, <https://www.hannstar.com/Common.aspx?mid=96&tmid=1&modid=1> (listing HannStar Nanjing, HANNspree, and HANNspree GmbH as partners). On its European website, HANNspree indicates that it is “a global consumer electronics manufacturer specialising in visual technology.” *See About Us*, HANNSPREE, <https://www.hannspree.eu/about-us/>. HannStar maintains a global market for TFT-LCD products that includes HANNspree and its subsidiaries. *See id.* (HANNspree listing the logos of several companies, including HannStar’s logo, under a map of the world, indicating that HANNspree is “part of the HannStar Display Corporation, one of the largest glass panel manufacturers in the world, consequently the HANNspree brand benefits from a rich heritage and world-class technological process in display technology”).

10. Upon information and belief, Defendant HannStar along with its subsidiaries and partners Defendants HANNspree, HANNspree Europe, HannStar Nanjing, and HANNspree Nanjing maintain a corporate presence in the U.S. via at least unregistered corporate entities and employees of HannStar working in the U.S. Previously, HannStar maintained U.S.-based subsidiaries HANNspree North America Inc. (“HANNspree NA”) and HannStar USA Inc. (“HannStar USA”), which were each organized under the laws of Delaware. According to state records, HannStar USA was dissolved in about 2009, and HANNspree NA was dissolved in about

2014. Despite formal dissolution of HANNspree NA and HannStar USA, HannStar has continued to conduct business *de facto* in the United States via at least employees and unregistered companies who continue to conduct business in the United States on behalf of and for the benefit of HannStar by providing infringing TFT-LCD products to distributors, manufacturers, national retailers, and consumers via established channels. Furthermore, HannStar maintains unregistered corporate entities in the U.S., who continue to conduct business in the U.S. at least by receiving imported shipments of and distributing product from other HannStar companies and partners, including other Defendants, to the intended customer.

11. Upon information and belief, HannStar with its subsidiaries and partners, including Defendants HANNspree, HANNspree Europe, HannStar Nanjing, HANNspree Nanjing, and the unregistered HANNspree NA, and its employees, as part of global network of overseas sales, distribution, and manufacturing subsidiaries, have operated as agents of one another and vicariously as arms of the same business group to work in concert together and enter into agreements that are nearer than arm's length. HannStar, via at least its subsidiaries and/or partners HANNspree, HANNspree Europe, HannStar Nanjing, and HANNspree Nanjing (who are each Defendants in this action), and the unregistered HANNspree NA's activities and HannStar's U.S. employees, 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 (5th Cir. 2018) (“A defendant may be subject to personal jurisdiction because of the activities of its agent within the forum state....”); *see also Cephalon, Inc. v. Watson Pharmaceuticals, Inc.*, 629 F.Supp.2d 338, 348 (D. Del. 2009) (“The agency theory may be applied not only to parents and subsidiaries, but also to companies that are ‘two arms of the same business group,’ operate in concert with each other, and enter into agreements with each other that are nearer than arm's length.”).

12. Upon information and belief, Defendants' TFT-LCD products are incorporated into consumer electronic devices by product manufacturers, including GPS devices and bridge terminals manufactured by TomTom International BV (referred to as "TomTom") and satellite radios manufactured by Sirius XM Radio Inc. (referred to as "SiriusXM"). These products are sold at online and physical locations of national retailers. Defendants also provide their TFT-LCD panels to distributors, such as Newhaven Display International Inc. ("Newhaven Display") and Mouser Electronics, Inc. ("Mouser"), located in the U.S., including in Texas.

13. HannStar also continues to engage with the U.S. market and U.S. consumer brands in the area of TFT-LCD products for automobiles. In 2019, HannStar shifted 20% of its automotive panel production line from China "back to Taiwan, according to Hsuh Wu, vice president of the company's logistics center." *See HannStar Display to move auto-use panel production back to Taiwan*, INSTITUTE OF INFORMATION & COMMUNICATIONS TECHNOLOGY PLANNING & EVALUATION (June 7, 2019), <https://www.iitp.kr/en/2/notice/globalNews/view.it?identifier=0007861633>. This bid was intended to "cushion impacts of the US-China trade war on its US brand clients." *Id.* Thus, Defendants, even after the alleged dissolution of HannStar's U.S.-based subsidiaries, continue to orient their production for its "US brand clients" and do business directly and indirectly with U.S. customers via at least their distributors, national retailers, employees, and unregistered entities, in the U.S., the state of Texas, and in the Eastern District of Texas.

JURISDICTION AND VENUE

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

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

HannStar

16. Upon information and belief, Defendant HannStar 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 this judicial district, including: (A) at least part of its infringing activities alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this judicial district and, thus, submits itself to the jurisdiction of this court; and (B) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this judicial district, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents and residents of this judicial district vicariously through and/or in concert with its partners, alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers.

17. This Court has personal jurisdiction over HannStar, directly and/or through partners, intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including other Defendants in this action and its unregistered entities and employees located in and conducting business on behalf of HannStar in the U.S. Through direction and control of these entities, HannStar 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 HannStar would not offend traditional notions of fair play and substantial justice.

18. Upon information and belief, HannStar has employees who continue to work in the United States on behalf of and for the benefit of HannStar by doing business with HannStar's distributors, manufacturers, national retailers, and consumers. For example, in a search of LinkedIn, search results reveal 24 employees working at HANNspree NA. *See 24 results,*

LINKEDIN,

https://www.linkedin.com/search/results/people/?currentCompany=%5B%2291564%22%5D&geoUrn=%5B%22103644278%22%5D&origin=FACETED_SEARCH (search results based on input “United States” and “Hannspree”). At least two employees work for HannStar and are located in the United States. *Compare Wang Juary*, LINKEDIN, <https://www.linkedin.com/in/wang-juary-747334105/> (indicating that Wang Juary is located in Chula Vista, California) *with About HannStar*, HANNSTAR, <https://www.hannstar.com/Common.aspx?mid=95&tmid=1&modid=1> (indicating that “Juary Wang” works for HannStar in Taiwan in the “Quality Center”); *see also 2 results*, LINKEDIN, https://www.linkedin.com/search/results/people/?currentCompany=%5B%22153319%22%5D&geoUrn=%5B%22103644278%22%5D&origin=FACETED_SEARCH (search results based on input “United States” and “Hannstar Display”).

19. Upon information and belief, HannStar also has unregistered corporate entities in the U.S., who continue to conduct business in the U.S., including receiving shipments of product from HannStar and distributing such product to the intended customer. HannStar has confirmed, via its website, that HANNspree NA is the company’s partner in North America. *See About Hannstar Partners*, HANNSTAR, <https://www.hannstar.com/Common.aspx?mid=96&tmid=1&modid=1> (last accessed August 2020).

20. Despite the apparent formal dissolution of HANNspree NA in 2014, upon information and belief, HANNspree NA continues to operate *de facto* in the U.S. at least as a recipient of imported products for Defendant HannStar and other Defendants and as an intermediary for distribution of TFT-LCD products to their intended customer. For example,

import records from Panijiva.com indicate that in 2020—6 years after it purportedly dissolved and ceased to do business in the U.S.—HANNspree NA continues to receive shipments of product in the U.S. from Defendant HannStar Display Corporation. *See Supply Chain Intelligence about: Hannspree North America Inc.*, PANJIVA, <https://panjiva.com/Hannspree-North-America-Inc/27810215> (listing HANNspree NA with a U.S. address as the consignee of a shipment from HannStar). Since at least May 2019 to the present, HANNspree NA has received 86 shipments from HannStar. Products received by HANNspree NA include at least computer drivers, monitors, and LED monitors, all of which are known TFT-LCD products—the subject technology of the Asserted Patents. Some of the containers of “computer drivers” are marked “DELL EL PASO,” indicating that their intended destination is the well-known Texas company Dell in El Paso, Texas. Indeed, Dell Technologies, a subsidiary company of Dell, Inc. which sells computer monitors, has an office located at 5822 Cromo Drive, Texas 79912. *See Dell Technologies Global Offices*, DELL TECHNOLOGIES, <https://www.delltechnologies.com/en-us/office-locations.htm>; *Dell Monitors*, DELL TECHNOLOGIES, <https://www.delltechnologies.com/en-us/monitors-for-work/index.htm>. Moreover, HANNspree NA receives direct import shipments from other subsidiaries and/or partners of HannStar, including HANNspree Europe. For instance, HANNspree NA receives products including computer drivers and LED monitors in containers marked with “HANNspree Europe Holdings BV,” indicating their source, and “COUNTRY: USA,” indicating their intended destination. Both HANNspree Europe Holdings BV and HANNspree Nanjing, which is one of HannStar’s manufacturing plants in China, also directly ship HannStar products to third party customers in the U.S. *See, e.g., Facts Sheet*, HANNSTAR, <https://www.hannstar.com/Common.aspx?mid=29&tmid=1&modid=1> (indicating that Defendant HANNspree Nanjing is one of HannStar’s site[s] in China). Thus, HannStar and its subsidiaries

and partners supply HANNspree NA with HannStar TFT-LCD products so that HANNspree NA can then further distribute those products in the United States.

21. Upon information and belief, HannStar and HANNspree NA continued to participate as a litigant in lawsuits, including in this judicial district, beyond the date of HANNspree's purported dissolution in 2014. *See, e.g., Hilltop Technology LLC v. Hannstar Display Corporation and Hannspree North America, Inc.*, Civil Action No. 2:14-cv-00590, Dkt Nos. 53, 54 (E.D. Tex. 2015) (stipulation of dismissal based on settlement); *Eidos Display, LLC et al. v. AU Optronics Corporation, et al.*, Civil Action No. 6:11-cv-00201, Dkt. No. 818, 819 (E.D. Tex. 2017) (showing that HANNspree NA participated and litigated until dismissal in 2017). In *Hilltop*, HANNspree NA answered that it was "indirectly owned by Hannstar Display Corporation." *Eidos*, -00590, Dkt. Nos. 11 (corporate disclosure statement of HANNspree NA) and 12 (answer, dated September 10, 2014). HANNspree NA continued to litigate until 2015, when it apparently settled the lawsuit. In *Eidos*, HANNspree NA continued to defend along with HannStar in a patent infringement lawsuit, well past 2014, until 2017 when the parties were dismissed from the case. *See e.g., Eidos*, -00201, Dkt. No. 819; *see also Hannstar Display Corporation and Hannspree North America, Inc. v. Ironshore Specialty Insurance Company*, Civil Action No. 16-mc-00489, Dkt No. 1 (S.D. N.Y. 2016) (motion to compel filed by HannStar and HANNspree NA in 2016 related to *Eidos*); *In re: TFT-LCD (Flat Panel) Antitrust Litigation*, Nos. 13-17408, 13-17618, 14-16144 (9th Cir. Jan. 7, 2016) (court's memorandum finding that "HannStar's foreign conduct [was] within the reach of American antitrust law" supported by substantial evidence).

22. Upon information and belief, HannStar, in concert with other Defendants HANNspree, HANNspree Europe, HannStar Nanjing, and HANNspree Nanjing, manufactures

and purposefully places infringing TFT-LCD products in established distribution channels in the stream of commerce, including in Texas, via, for example, electronic device manufacturers, such as TomTom and Sirius XM. Such products include HannStar A4HSN55003093 (incorporated into the TomTom Rider 400), HannStar HSD070IFW1 (incorporated into the TomTom Bridge), and HannStar ET0240C3DM6 (incorporated into SiriusXM Onyx Plus SXPL2). HannStar contracts to manufacture TFT-LCD products for TomTom and Sirius XM, who are themselves national retailers and distribute their products through other national retailers. HannStar contracts with these companies with the expectation that HannStar TFT-LCD products will be further assembled and incorporated into electronic devices, distributed, advertised, offered for sale, sold, and used in the U.S. market, including under the brands of the respective electronic device manufacturers. For example, TomTom and Sirius XM import, distribute, advertise, offer for sale, and sell HannStar TFT-LCD products incorporated into electronic devices, such as GPS and satellite radios, in the U.S. market, via their own websites or via distribution to national retailers, including retailers located in and selling their products to consumers in Texas and this judicial district, e.g., Walmart, Amazon, and Best Buy. *See also TomTom Rider*, TOMTOM, https://www.tomtom.com/en_us/drive/motorcycle/#productLineup; *see also Our Featured Radios*, SIRIUSXM, <https://shop.siriusxm.com/radios/>. Moreover, HannStar knows that SiriusXM services, which are accessed by its satellite radios, “are available” exclusively “in the continental United States and its coastal regions as well as Southern Canada.” *See Coverage Map*, SIRIUSXM, <https://www.siriusxm.com/coveragemap> (showing map of SiriusXM satellite services). Based on HannStar’s connections and relationship with these electronic device manufacturers, including its knowledge that SiriusXM radios can only be used, primarily, in the U.S., HannStar knows and has known that Texas is a termination point of the established distribution channel, namely online and

brick and mortar stores offering TomTom and SiriusXM products incorporating infringing HannStar TFT-LCD products. HannStar, in concert with other Defendants HANNspree, HANNspree Europe, HannStar Nanjing, and HANNspree Nanjing, has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis. *See Icon Health & Fitness, Inc. v. Horizon Fitness, Inc.*, 2009 WL 1025467, at (E.D. Tex. 2009) (finding that “[a]s a result of contracting to manufacture products for sale in” national retailers’ stores, the defendant “could have expected that it could be brought into court in the states where [the national retailers] are located”).

23. Upon information and belief, HannStar, in concert with other Defendants HANNspree, HANNspree Europe, HannStar Nanjing, and HANNspree Nanjing, manufactures and purposefully places infringing TFT-LCD products in established distribution channels in the stream of commerce, including in Texas, via distributors and suppliers, such as at least Mouser and Newhaven Display. For example, HannStar imports to Texas or through a related entity and directly sells and offers for sale infringing liquid crystal display products in Texas to distributor Mouser Electronics, Inc. (“Mouser”), located 1000 North Main Street Mansfield, TX 76063. Mouser offers infringing HannStar Display LCD products for sale at least on its website. *See, e.g., NIT6X_10.2HANNSTAR*, Mouser Electronics, https://www.mouser.com/ProductDetail/Boundary-Devices/NIT6X_101HANNSTAR/?qs=%2Fha2pyFadujCMp%252B5YHfwoERUZ8N0ZFr6fF6hsUnjrTA%3D. Via this website, HannStar TFT-LCD products can and have been purchased from buyers in the state of Texas and shipped from the state of Texas to addresses in the state. Also, HannStar imports, directly sells and offers for sale infringing TFT-LCD products in Texas to supplier Newhaven Display located at 2661 Galvin Ct., Elgin, IL 60124, who provides HannStar TFT-LCD products to distributors, such as Mouser and Allied Electronics (“Allied,” located in

Fort Worth, TX), among other U.S.-based distributors. *See Our Distributors*, NEWHAVEN DISPLAY INTERNATIONAL, https://www.newhavendisplay.com/authorized_disty.html. These suppliers and distributors import, advertise and offer for sale and sell HannStar TFT-LCD products via their own websites to U.S. consumers, including to consumers in Texas. *See, e.g.*, www.mouser.com and www.alliedelec.com. Based on HannStar’s connections and relationship, including supply contracts and other agreements with the U.S. and Texas-based distributors and suppliers, such as Newhaven Display, Allied, and Mouser, HannStar knows and has known that Texas is a termination point of the established distribution channels for HannStar TFT-LCD products. HannStar, in concert with other Defendants HANNspree, HANNspree Europe, HannStar Nanjing, and HANNspree Nanjing, has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis. *See Ultravision Technologies, LLC v. Holophane Europe Limited*, 2020 WL 3493626, at *5 (E.D. Tex. 2020) (finding sufficient to make a *prima facie* showing of personal jurisdiction allegations that “Defendants either import the products to Texas themselves or through a related entity”); *see also Bench Walk Lighting LLC v. LG Innotek Co., Ltd et al.*, Civil Action No. 20-51-RGA, 2021 WL 65071, at *7-8 (D. Del., Jan. 7, 2021) (denying motion to dismiss for lack of personal jurisdiction based on the foreign defendant entering into supply contract with U.S. distributor and the distributor sold and shipped defendant’s products from the U.S. to the a customer in the forum state).

24. HannStar, in concert with other Defendants HANNspree, HANNspree Europe, HannStar Nanjing, and HANNspree Nanjing, also utilizes “selling agents” to provide its products to end customers. *See Consolidated Financial Statements*, HANNSTAR DISPLAY CORP. (December 31, 2019 and 2018), at p. 74, https://www.hannstar.com/HannstarUserFile/files/Quarterly/en/2019_Q4_e_con.pdf (identifying

its major customers as “A” and “B”). Upon information and belief, HannStar’s major customers, accounting for about a 50% share in sales revenue in 2019, are “selling agents” and not end customers. *Id.* These selling agents “reduce the risk of collection of accounts and provide better customer services” for the benefit of HannStar. *Id.* HannStar, in concert with other Defendants HANNspree, HANNspree Europe, and HANNspree Nanjing, utilizes these selling agents via supply contracts and other agreements, as related entities, to place and continue 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 the U.S., the State of Texas, and this judicial district.

25. In addition, HannStar has been sued for patent infringement in this judicial district related to its display products, and has not contested jurisdiction. *See e.g., Eidos Display, LLC et al. v. AU Optronics Corporation, et al.*, Civil Action No. 6:11-cv-00201, Dkt. No. 818, 819 (E.D. Tex. 2017) (case resolved June 16, 2017).

26. Upon information and belief, HannStar controls or otherwise directs and authorizes all activities of its subsidiaries, agents, and intermediaries, including, but not limited to other Defendants HANNspree, HANNspree Europe, HannStar Nanjing, and HANNspree Nanjing and also employees of HannStar and the unregistered entity HANNspree NA operating in the U.S. Via at least these subsidiaries, employees, and intermediaries, and/or directly, HannStar has placed and continues to place infringing TFT-LCD products into the U.S. stream of commerce via established distribution channels, by importing, distributing, marketing, offering for sale, selling, servicing infringing TFT-LCD products. Thus, HannStar has substantially the business advantages that it would have enjoyed if it conducted its business through its own offices or paid other agents in the state of Texas.

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

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

29. Upon information and belief, HannStar 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.

HANNspree

30. Upon information and belief, Defendant HANNspree 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 this judicial district, including: (A) at least part of its infringing activities alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this judicial district and, thus, submits itself to the jurisdiction of this court; and (B) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this judicial district, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents and residents of this judicial district vicariously through and/or in concert with its partners, alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, HANNspree, its parent and/or partner

HannStar, and its subsidiaries and partners HannStar Nanjing, HANNspree Europe and HANNspree Nanjing manufacture, import, offer for sale, and sell the Defendants' TFT-LCD products to electronic device manufacturers for incorporation into, for example, TomTom and Sirius XM products, which are distributed to national retailers, and to U.S. distributors and suppliers, such as at least Mouser and Newhaven Display, and to customers and end users in the U.S.

31. This Court has personal jurisdiction over HANNspree, directly and/or indirectly via partners, intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers including other Defendants in this action and its unregistered entities and employees located in and conducting business on behalf of HannStar in the U.S. Through partnership with other related entities and as part of the same group of companies, including other Defendants, HANNspree 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. For example, HANNspree is a partner with HannStar and its subsidiaries Defendant HANNspree B.V., Defendant HANNspree GmbH, and Defendant HANNspree Nanjing in a global network of sales and distribution of Defendants' TFT-LCD products. *See About Us*, HANNSPREE, <https://www.hannspree.eu/about-us/>. HANNspree directly and via direction and control of its subsidiaries has shipped and imported TFT-LCD products to the U.S., including delivering product to HannStar NA (HannStar's unregistered entity operating *de facto* in the U.S.) and directly to customers such as International Game Technology and Yellow Matter Entertainment LLC. Such shipments include delivering computer drivers and LED monitors to HannStar NA in containers marked with "HANNspree Europe Holdings BV," indicating their source is HANNspree's subsidiaries, and "COUNTRY: USA," indicating their

intended destination. As a part of HannStar's global manufacturing and distribution network, HANNspree also purposefully places infringing TFT-LCD products in established distribution channels in the stream of commerce, including in Texas, via electronic device manufacturers, such as TomTom and Sirius XM, via national retailers, and via distributors and suppliers, such as at least Mouser and Newhaven Display. Therefore, HANNspree, in concert with other Defendants HannStar, HANNspree Europe, HannStar Nanjing, and HANNspree Nanjing, has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis.

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

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

HANNspree BV

34. Upon information and belief, Defendant HANNspree BV 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 this judicial district, including: (A) at least part of its infringing activities alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this judicial district and, thus, submits

itself to the jurisdiction of this court; and (B) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this judicial district, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents and residents of this judicial district vicariously through and/or in concert with its partners, alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, HANNspree BV, its parent and/or partner HannStar, and its subsidiaries and partners HANNspree, HannStar Nanjing, HANNspree GmbH, and HANNspree Nanjing manufacture, import, offer for sale, and sell the Defendants' TFT-LCD products to electronic device manufacturers for incorporation into, for example, TomTom and Sirius XM products, which are distributed to national retailers, and to U.S. distributors and suppliers, such as at least Mouser and Newhaven Display, and to customers and end users in the U.S.

35. This Court has personal jurisdiction over HANNspree BV, directly and/or indirectly via partners, intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers including other Defendants in this action and its unregistered entities and employees located in and conducting business on behalf of HannStar in the U.S. Through partnership with other related entities and as part of the same group of companies, including other Defendants, HANNspree BV 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. For example, HANNspree BV is a partner with HannStar and its subsidiaries Defendants HANNspree, HANNspree GmbH, HannStar Nanjing, and HANNspree Nanjing in a global network of sales and distribution of Defendants' TFT-LCD products. *See About Us*, HANNSPREE, <https://www.hannspree.eu/about-us/>; *Contact Address*,

European Offices, HANNSPREE, <https://www.hannspree.eu/de/about-us/contact-us/> (showing that HANNspree BV is the “Europe Headquarters” for HANNspree). HANNspree BV directly and via direction and control by its parent entities and/or partners HannStar and HANNspree has shipped and imported TFT-LCD products to the U.S., including participating in delivering product to HannStar NA (HannStar’s unregistered entity operating *de facto* in the U.S.) and directly to customers such as International Game Technology and Yellow Matter Entertainment LLC. Such shipments include delivering computer drivers and LED monitors to HannStar NA in containers marked with “HANNspree Europe Holdings BV.,” indicating their source is HANNspree’s subsidiaries, and “COUNTRY: USA,” indicating their intended destination. As a part of HannStar’s global manufacturing and distribution network, HANNspree BV also purposefully places infringing TFT-LCD products in established distribution channels in the stream of commerce, including in Texas, via electronic device manufacturers, such as TomTom and Sirius XM, via national retailers, and via distributors and suppliers, such as at least Mouser and Newhaven Display. Therefore, HANNspree BV, in concert with other Defendants HannStar, HANNspree GmbH, HannStar Nanjing, and HANNspree Nanjing, has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis.

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

37. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391 because, among other things, HANNspree BV 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.).

HANNspree GmbH

38. Upon information and belief, Defendant HANNspree GmbH 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 this judicial district, including: (A) at least part of its infringing activities alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this judicial district and, thus, submits itself to the jurisdiction of this court; and (B) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this judicial district, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents and residents of this judicial district vicariously through and/or in concert with its partners, alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, HANNspree GmbH, its parent and/or partner HannStar, and its subsidiaries and partners HANNspree, HannStar Nanjing, HANNspree BV, and HANNspree Nanjing manufacture, import, offer for sale, and sell the Defendants’ TFT-LCD products to electronic device manufacturers for incorporation into, for example, TomTom and Sirius XM products, which are distributed to national retailers, and to U.S. distributors and suppliers, such as at least Mouser and Newhaven Display, and to customers and end users in the U.S.

39. This Court has personal jurisdiction over HANNspree GmbH, directly and/or indirectly via partners, intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers including other Defendants in this action and its unregistered entities and employees located in and conducting business on behalf of HannStar in the U.S. Through partnership with other related entities and as part of the same group of companies, including other Defendants, HANNspree GmbH 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. For example, HANNspree GmbH is a partner with HannStar and its subsidiaries Defendants HANNspree, HANNspree BV, HannStar Nanjing, and HANNspree Nanjing in a global network of sales and distribution of Defendants' TFT-LCD products. *See About Us*, HANNSPREE, <https://www.hannspree.eu/about-us/>; *HannStar Partners*, HANNSTAR, <https://www.hannstar.com/Common.aspx?mid=96&tmid=1&modid=1> (listing Defendant as a partner); *Contact Address, European Offices*, HANNSPREE, <https://www.hannspree.eu/de/about-us/contact-us/> (showing that HANNspree GmbH is the "Europe Head Office" for HANNspree). HANNspree GmbH directly and via direction and control by its parent entities and/or partners HannStar and HANNspree participated in the manufacture and supply of imported TFT-LCD products to the U.S., including participating in delivering product to HannStar NA (HannStar's unregistered entity operating *de facto* in the U.S.) and directly to customers. As a part of HannStar's global manufacturing and distribution network, HANNspree BV also purposefully places infringing TFT-LCD products in established distribution channels in the stream of commerce, including in Texas, via electronic device manufacturers, such as TomTom and Sirius XM, via national retailers, and via distributors and suppliers, such as at least Mouser and Newhaven Display. Therefore, HANNspree GmbH, in concert with other

Defendants HannStar, HANNspree, HANNspree BV, HannStar Nanjing, and HANNspree Nanjing, has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis.

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

41. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391 because, among other things, HANNspree GmbH 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.).

HannStar Nanjing

42. Upon information and belief, Defendant HannStar Nanjing 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 this judicial district, including: (A) at least part of its infringing activities alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this judicial district and, thus, submits itself to the jurisdiction of this court; and (B) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this judicial district, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents and residents of this judicial district vicariously through and/or in concert with its partners, alter egos, intermediaries, agents, distributors, importers,

customers, subsidiaries, and/or consumers. For example, HannStar Nanjing, its parent and/or partner HannStar, and its parents, subsidiaries, and partners HANNspree, HANNspree Europe, and HANNspree Nanjing manufacture, import, offer for sale, and sell the Defendants' TFT-LCD products to electronic device manufacturers for incorporation into, for example, TomTom and Sirius XM products, which are distributed to national retailers, and to U.S. distributors and suppliers, such as at least Mouser and Newhaven Display, and to customers and end users in the U.S.

43. This Court has personal jurisdiction over HannStar Nanjing, directly and/or indirectly via partners, intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers including other Defendants in this action and its unregistered entities and employees located in and conducting business on behalf of HannStar in the U.S. Through partnership with other related entities and as part of the same group of companies, including other Defendants, HannStar Nanjing 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. For example, HannStar Nanjing is a partner with HannStar and its subsidiaries Defendants HANNspree, HANNspree Europe, and HANNspree Nanjing in a global network of sales and distribution of Defendants' TFT-LCD products. *See About Us*, HANNSPREE, <https://www.hannspree.eu/about-us/>; *HannStar Partners*, HANNSTAR, <https://www.hannstar.com/Common.aspx?mid=96&tmid=1&modid=1> (listing Defendant as a partner); *Facts Sheet*, HANNSTAR, <https://www.hannstar.com/Common.aspx?mid=29&tmid=1&modid=1> (showing that Defendant HannStar Nanjing is one of HannStar's "site[s]" in China along with Defendant HANNspree Nanjing). HannStar Nanjing directly and via direction and control by its parent entities and/or

partners HannStar and HANNspree participated in the manufacture and supply of imported TFT-LCD products to the U.S., including participating in delivering product to HannStar NA (HannStar's unregistered entity operating *de facto* in the U.S.) and directly to customers. As a part of HannStar's global manufacturing and distribution network, HannStar Nanjing also purposefully places infringing TFT-LCD products in established distribution channels in the stream of commerce, including in Texas, via electronic device manufacturers, such as TomTom and Sirius XM, via national retailers, and via distributors and suppliers, such as at least Mouser and Newhaven Display. Therefore, HannStar Nanjing, in concert with other Defendants HannStar, HANNspree, HANNspree Europe, and HANNspree Nanjing, has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis.

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

45. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391 because, among other things, HannStar Nanjing 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.).

HANNspree Nanjing

46. Upon information and belief, Defendant HANNspree Nanjing 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 this judicial district, including: (A) at least part of its infringing activities alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this judicial district and, thus, submits itself to the jurisdiction of this court; and (B) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this judicial district, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents and residents of this judicial district vicariously through and/or in concert with its partners, alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, HANNspree Nanjing, its parent and/or partner HannStar, and its parents, subsidiaries, and partners HANNspree, HannStar Nanjing, and HANNspree Europe, manufacture, import, offer for sale, and sell the Defendants' TFT-LCD products to electronic device manufacturers for incorporation into, for example, TomTom and Sirius XM products, which are distributed to national retailers, and to U.S. distributors and suppliers, such as at least Mouser and Newhaven Display, and to customers and end users in the U.S.

47. This Court has personal jurisdiction over HANNspree Nanjing, directly and/or indirectly via partners, intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers including other Defendants in this action and its unregistered entities and employees located in and conducting business on behalf of HannStar in the U.S. Through partnership with other related entities and as part of the same group of companies, including other Defendants, HANNspree Nanjing 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. For example, HANNspree Nanjing is a

partner with HannStar and its subsidiaries Defendants HANNspree, HANNspree Europe, and HannStar Nanjing in a global network of sales and distribution of Defendants' TFT-LCD products. *See, e.g., Facts Sheet, HANNSTAR*, <https://www.hannstar.com/Common.aspx?mid=29&tmid=1&modid=1> (showing that Defendant HANNspree Nanjing is one of HannStar's "site[s]" in China along with Defendant HannStar Nanjing). HANNspree Nanjing directly and via direction and control by its parent entities and/or partners HannStar and HANNspree has shipped and imported TFT-LCD products to the U.S., including delivering product directly to customers such as Yellow Matter Entertainment LLC. Such shipments include delivering computer drivers and LED monitors to Yellow Matter Entertainment LLC in the United States in containers marked with "HANNspree Europe Holdings BV," indicating their source is HANNspree's subsidiaries. *See, e.g., Supply Chain Intelligence about: Yellow Matter Entertainment LLC, PANJIVA*, <https://panjiva.com/Yellow-Matter-Entertainment-Llc/63515762>. As a part of HannStar's global manufacturing and distribution network, HANNspree Nanjing also purposefully places infringing TFT-LCD products in established distribution channels in the stream of commerce, including in Texas, via electronic device manufacturers, such as TomTom and Sirius XM, via national retailers, and via distributors and suppliers, such as at least Mouser and Newhaven Display. Therefore, HANNspree Nanjing, in concert with other Defendants HannStar, HANNspree, HANNspree Europe, and HannStar Nanjing, has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis.

48. In the alternative, the Court has personal jurisdiction over HANNspree Nanjing under Federal Rule of Civil Procedure 4(k)(2), because the claims for patent infringement in this action arise under federal law, HANNspree Nanjing is not subject to the jurisdiction of the courts

of general jurisdiction of any state, and exercising jurisdiction over HANNspree Nanjing is consistent with the U.S. Constitution.

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

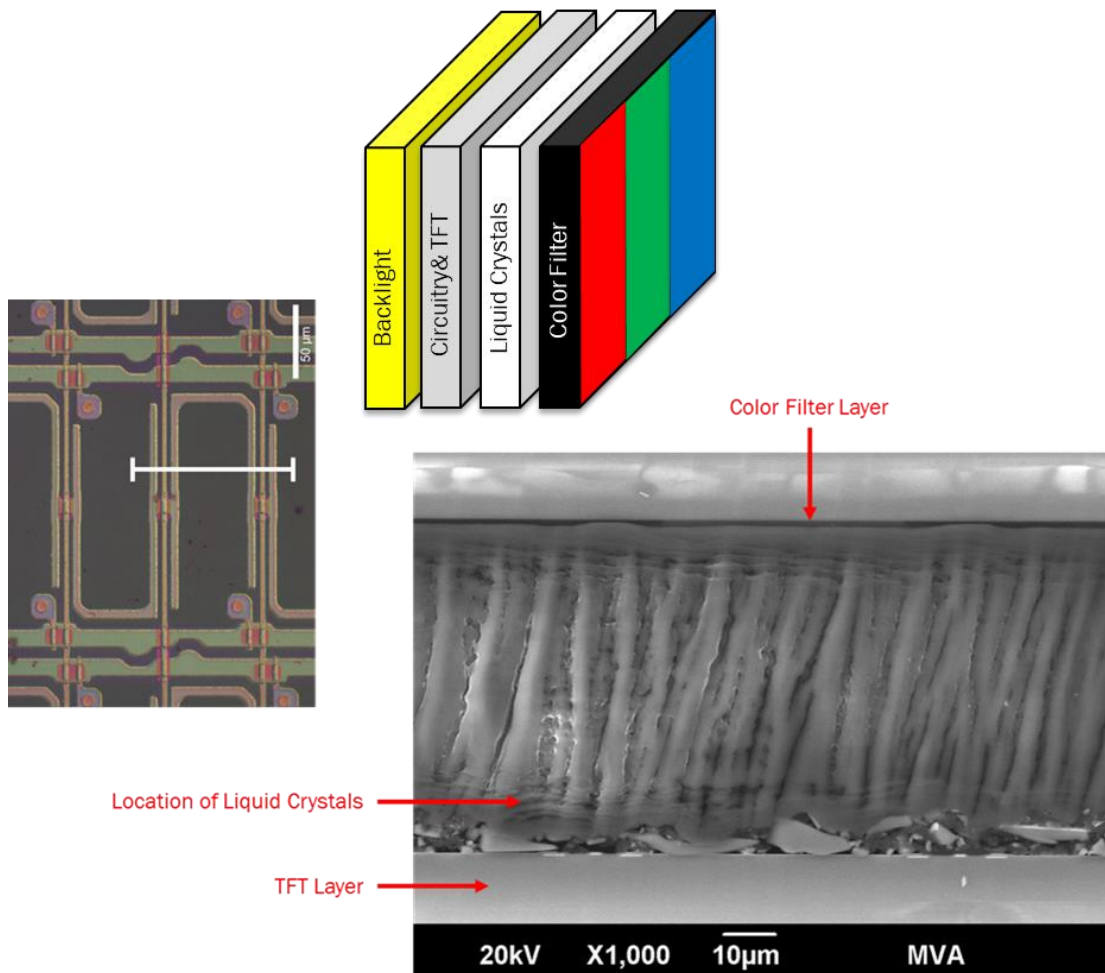
THE ASSERTED PATENTS AND TECHNOLOGY

50. Upon information and belief, a significant portion of operating revenue of Defendants is derived from the manufacture and sale of TFT-LCD flat panel displays and related components, which are imported into the United States, distributed, and ultimately sold to U.S. consumers. For example, HannStar “acquired [] state-of-the-art TFT-LCD manufacturing technology with the highest efficiency for mass production.” *See Company Profile*, HANNSTAR, <https://www.hannstar.com/Common.aspx?mid=28&tmid=1&modid=1>. HannStar reported over 16 billion NT\$ (about 544 million US\$) in sales revenue in 2019 of which 99% came from the “production and sale of TFT-LCD panels, flat-panel displays and CCTV.” *See Consolidated Financial Statements*, HANNSTAR DISPLAY CORP. (December 31, 2019 and 2018), at pp. 73-74, https://www.hannstar.com/HannstarUserFile/files/Quarterly/en/2019_Q4_e_con.pdf. HannStar’s “customers include leading electronics companies both in Taiwan and overseas.” *Id.* Defendants’ partners, subsidiaries, selling agents, customers and distributors having a significant U.S. business presence, such as unincorporated HANNspree NA, employees, distributors Newhaven Display, Allied, and Mouser, and customers TomTom and SiriusXM, receive HannStar TFT-LCD products, including incorporated into electronic devices, and distribute and sell those products to consumers in the U.S.

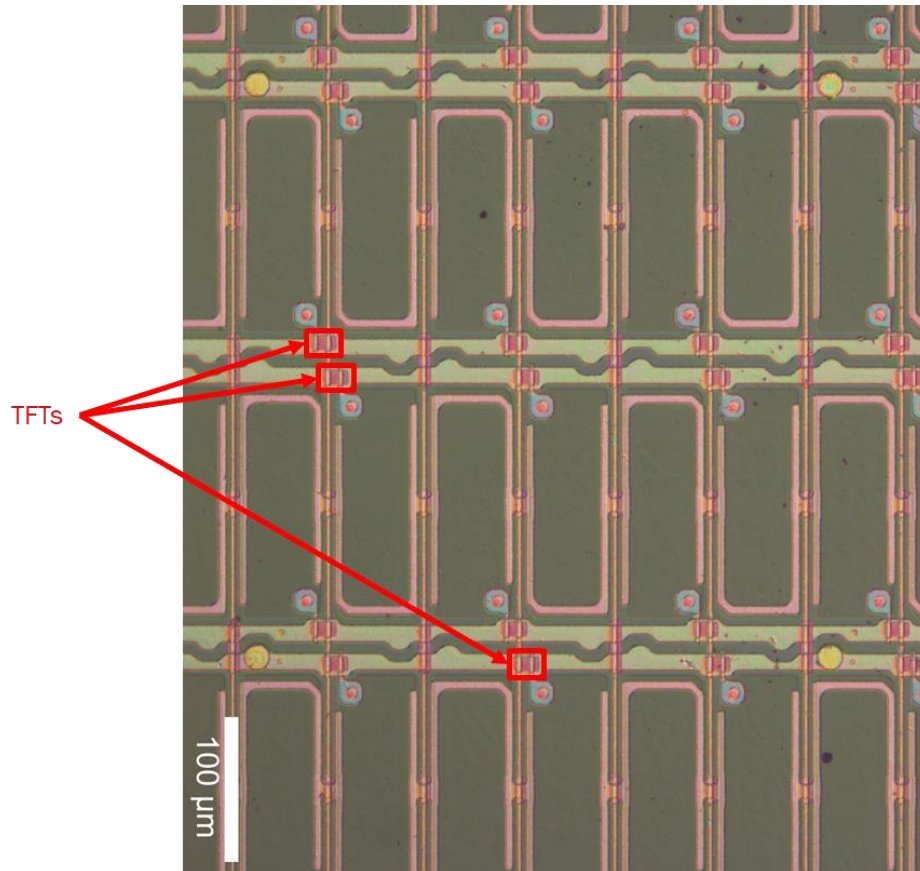
51. The Asserted Patents cover TFT-LCD panels, their components, including infringing TFT-LCD panels made by Defendants distributed in the U.S. to distributors such as Newhaven Display, Allied, and Mouser, and also those incorporated, for example, into TomTom and SiriusXM-branded products, and processes related to the same (referred to as the “Accused Products”) for importation, distribution, and sale in the U.S. Examples of Defendants’ Accused Products are HannStar A4HSN55003093 (incorporated into the TomTom Rider 400), HannStar HSD070IFW1 (incorporated into the TomTom Bridge), and HannStar ET0240C3DM6 (incorporated into SiriusXM Onyx Plus SXPL2). As one exemplary Accused Product, the labels for model no. HannStar A4HSN55003093 and the TomTom Rider 400 product are shown below:



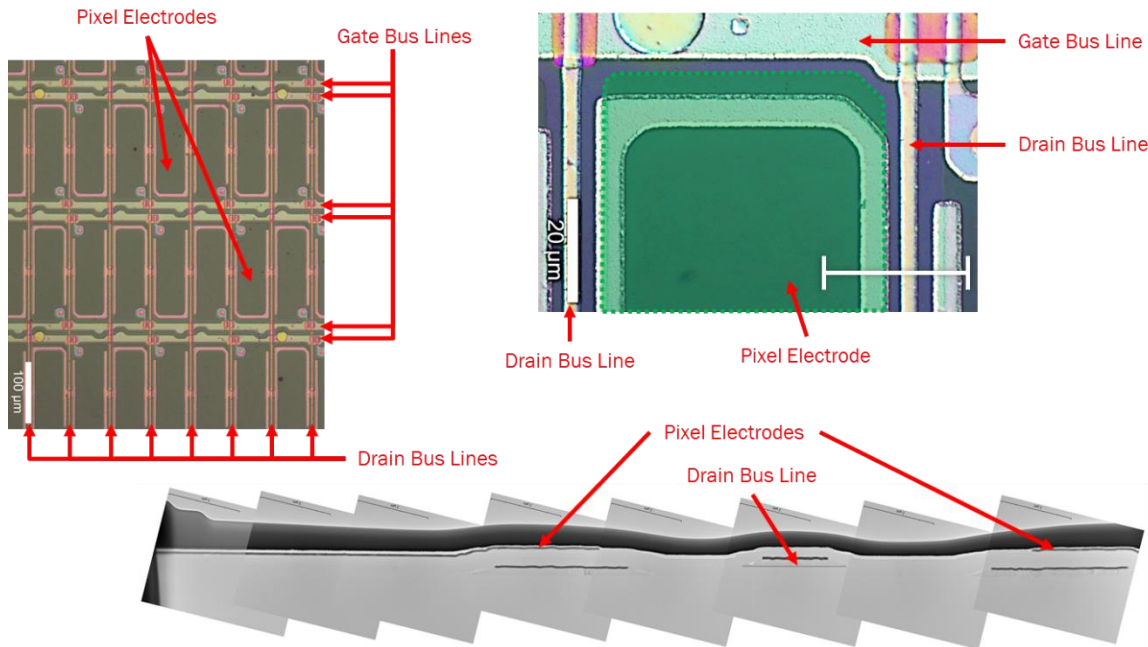
52. Typically, a TFT-LCD has the following structure shown below for the HannStar LCD Model No. A4HSN55003093, comprising of a backlight, a TFT/circuitry layer, a liquid crystal layer, and a color filter:



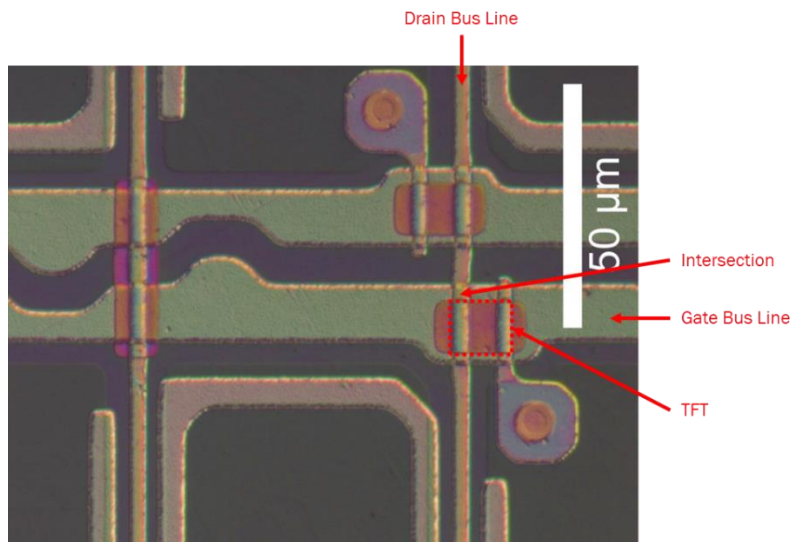
53. As shown above, the TFT-LCD panel contains a TFT array substrate and many TFTs. A teardown image below from the HannStar LCD Model No. A4HSN55003093 shows a sampling of TFTs.



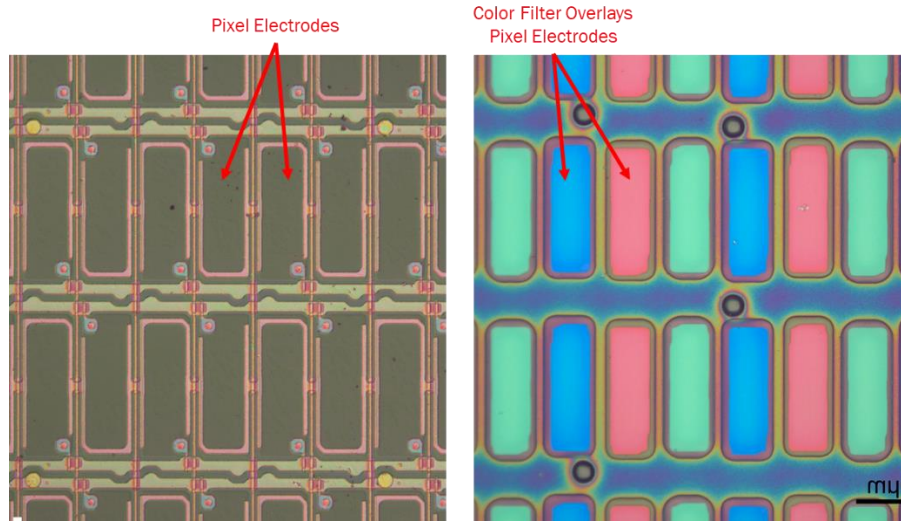
54. The Accused Product has circuitry lines accompanying the TFTs, with larger rectangular areas associated with the pixels. As shown below, the plurality of drain lines is arranged perpendicularly to the plurality of gate bus lines. A pixel electrode is arranged in a region surrounded by the gate and drain bus lines and made of transparent conductive film.



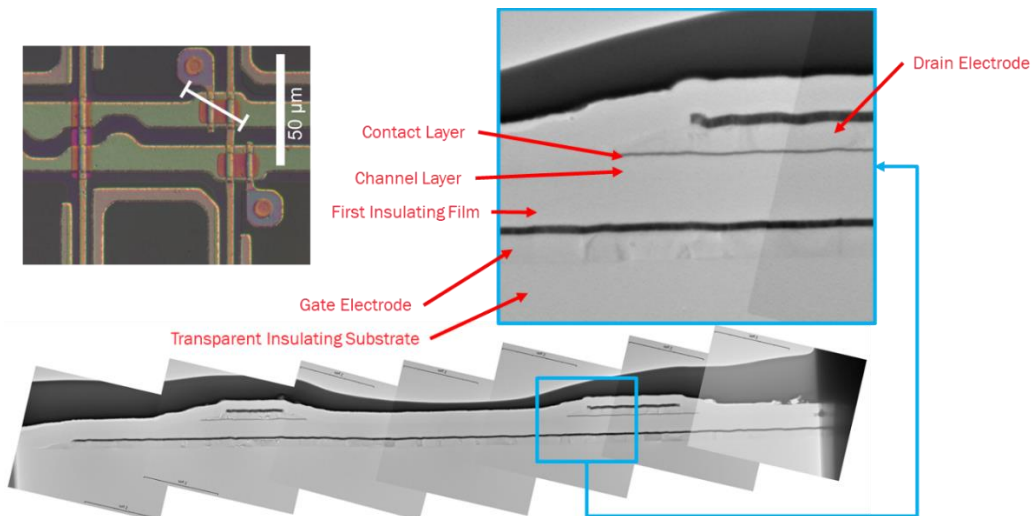
55. Each TFT is arranged near an intersection of gate and drain bus lines.



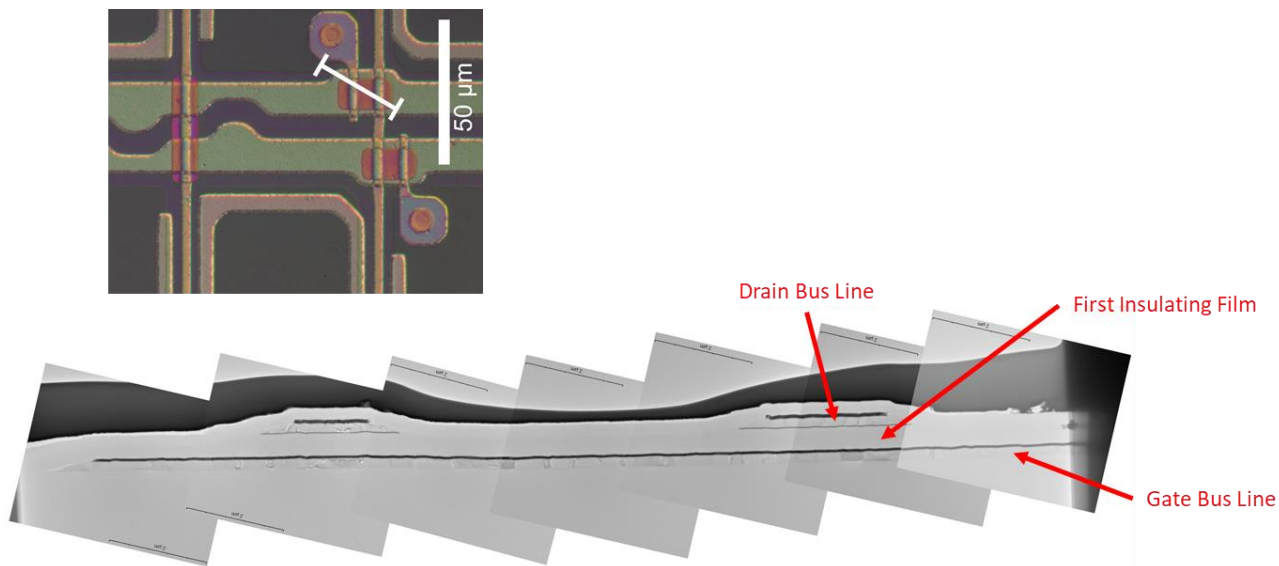
56. Each TFT acts as a switch that operates its respective individual pixel using the circuitry lines. In that way, the pixels can be turned on and off to create an image on an LCD by allowing or preventing light to pass through. The individual pixels are more apparent when a color filter layer overlays the circuits as shown in the image below for the HannStar LCD Model No. A4HSN55003093.



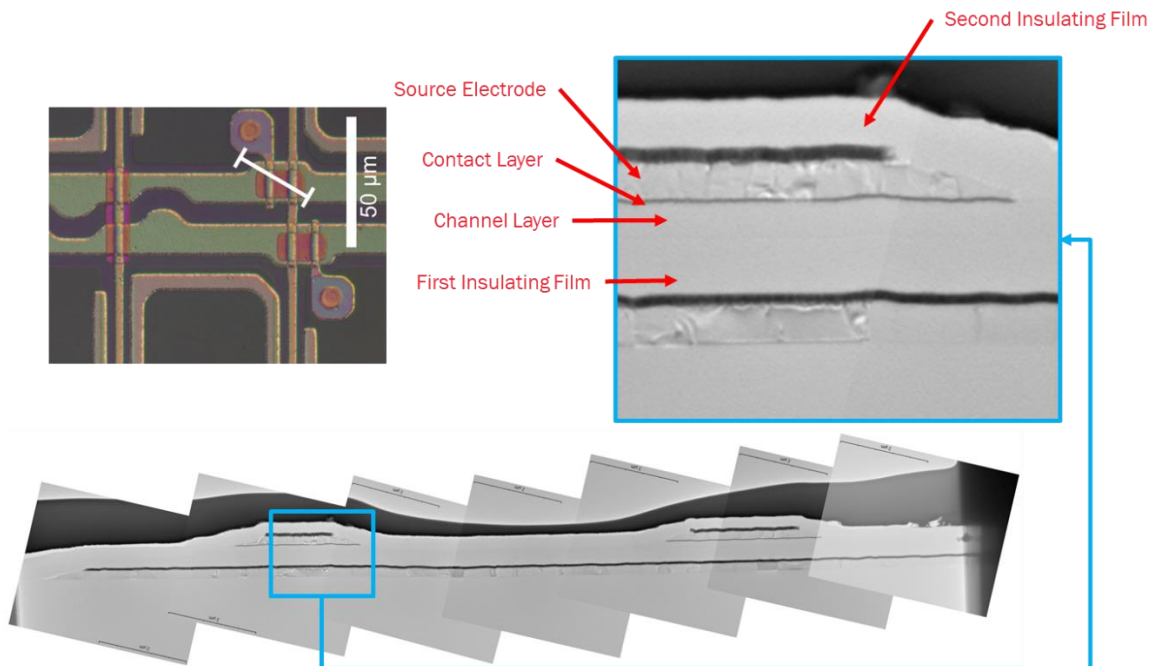
57. As shown below, each TFT in the array comprises a 1) gate electrode formed on a transparent insulating substrate and electrically connected to the gate bus line, 2) a drain electrode, 3) a channel layer, and 4) a contact layer, and is electrically connected to the drain bus line.



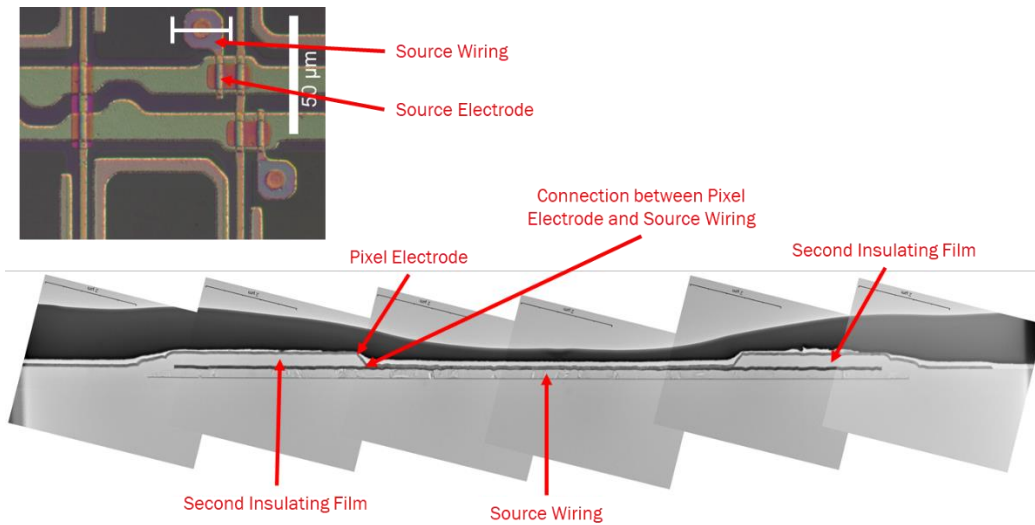
58. The plurality of drain lines are arranged perpendicularly to the gate bus lines and electrically isolated via a first insulating film.



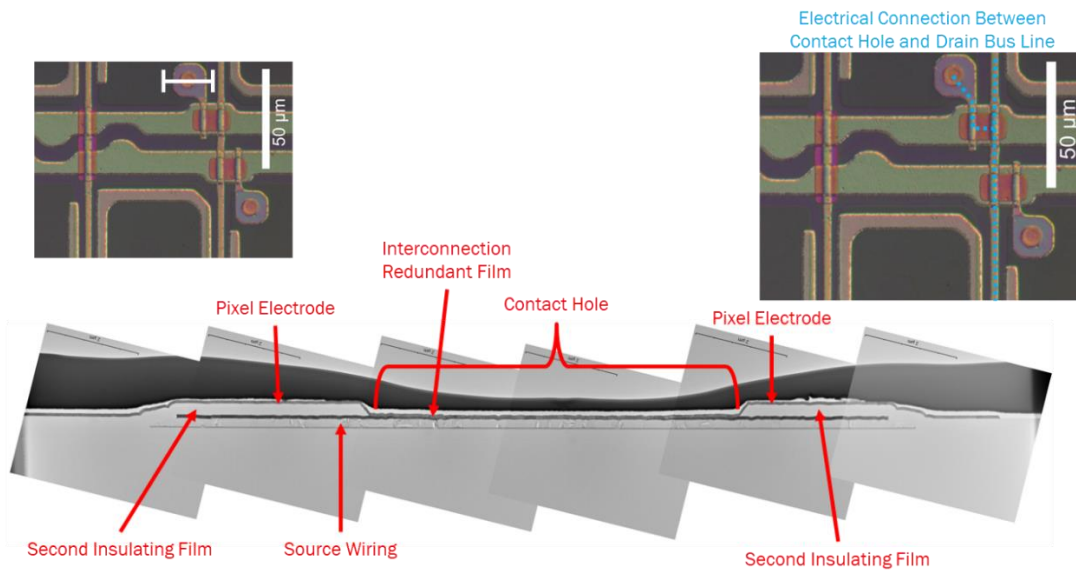
59. In the Accused Product shown below, a source electrode is connected to a pixel electrode.



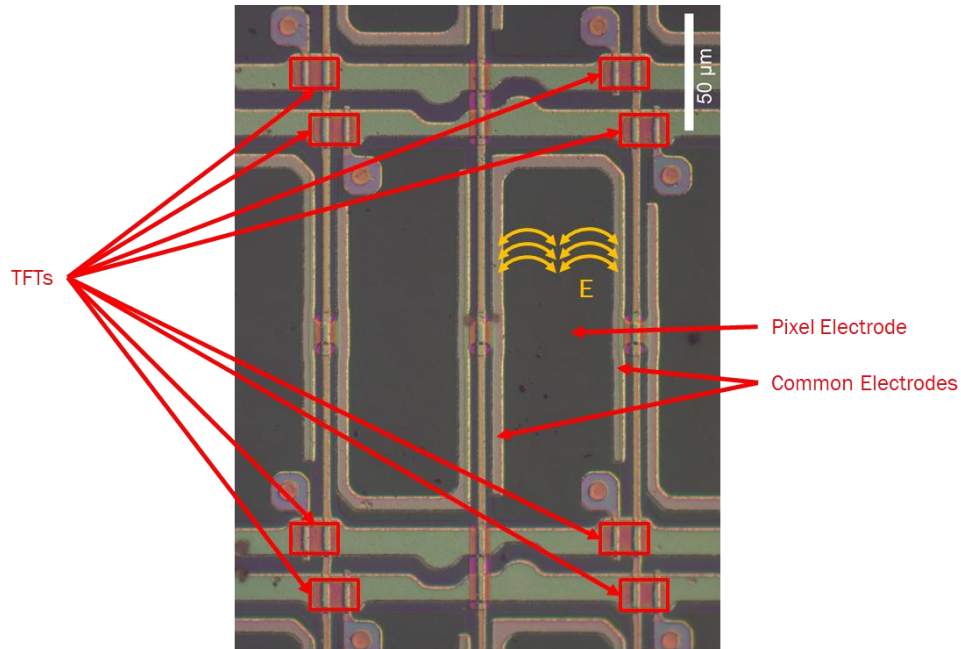
60. As shown below, a source electrode is electrically isolated from the drain electrode and bus lines by a second insulating film.



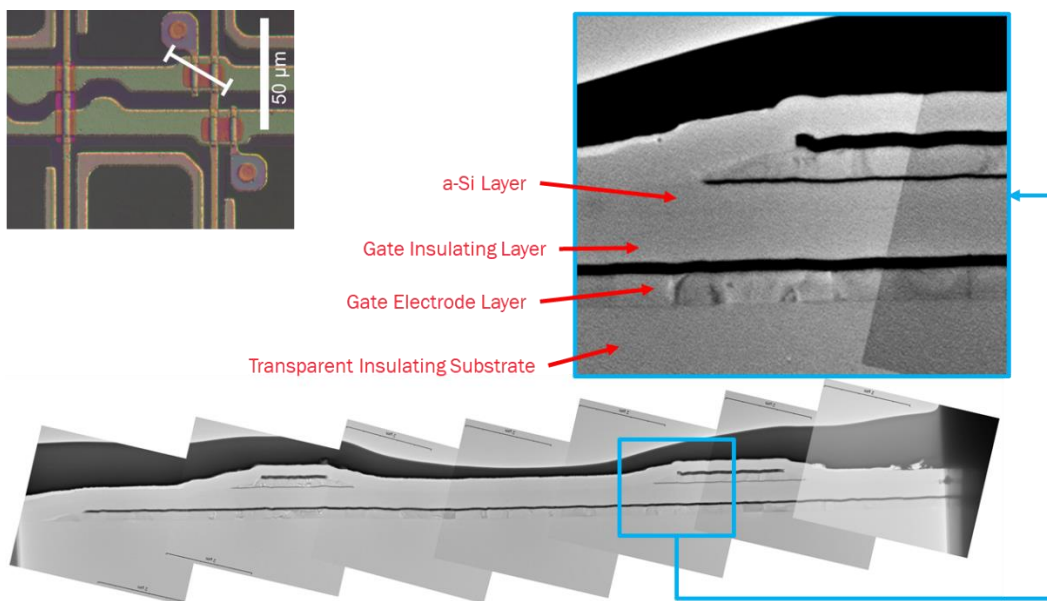
61. The Accused Product includes an interconnection redundant film located in a contact hole formed in second insulating film is electrically connected to the drain bus line via source wiring.



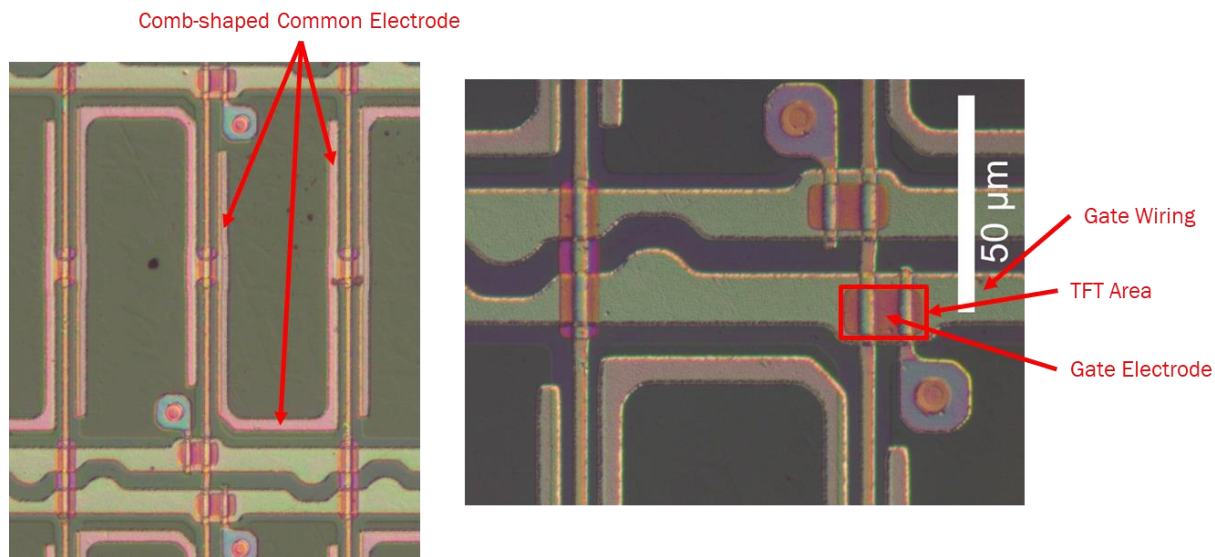
62. As shown below, the active matrix substrate of HannStar LCD Model No. A4HSN55003093 has a lateral electrical field type active matrix substrate comprised of thin-film transistors (TFTs), pixel electrodes, and common electrodes.



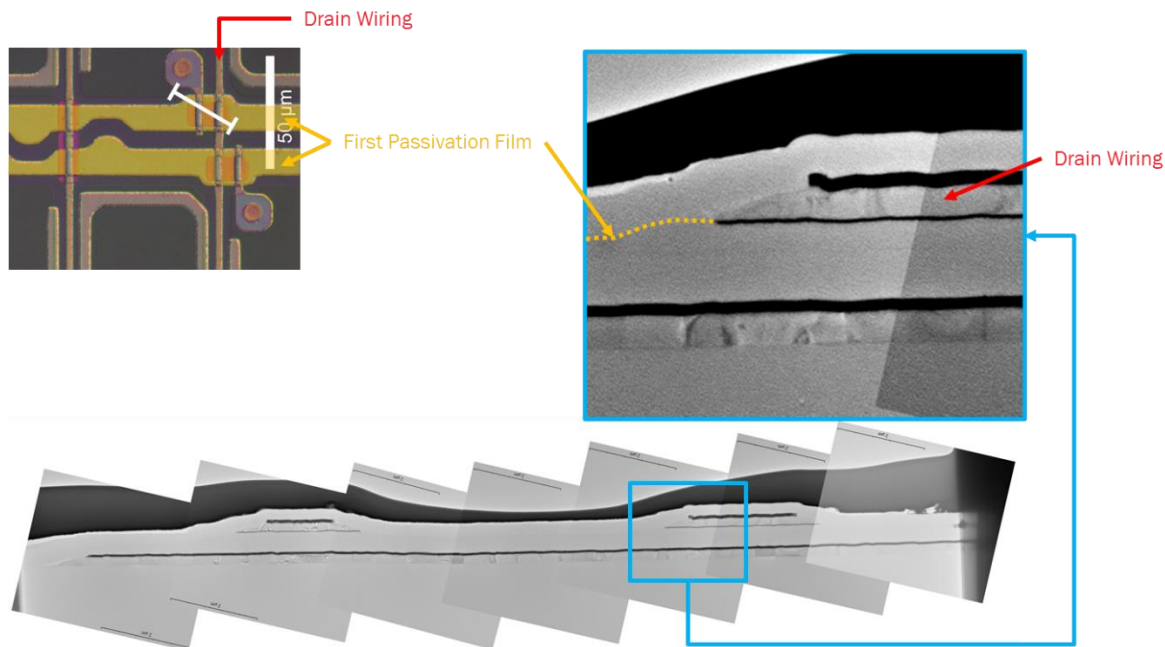
63. The active matrix substrate of the Accused Product has a gate electrode layer, a gate insulating layer, and an amorphous silicon (a-Si) layer stacked on a transparent insulating substrate.



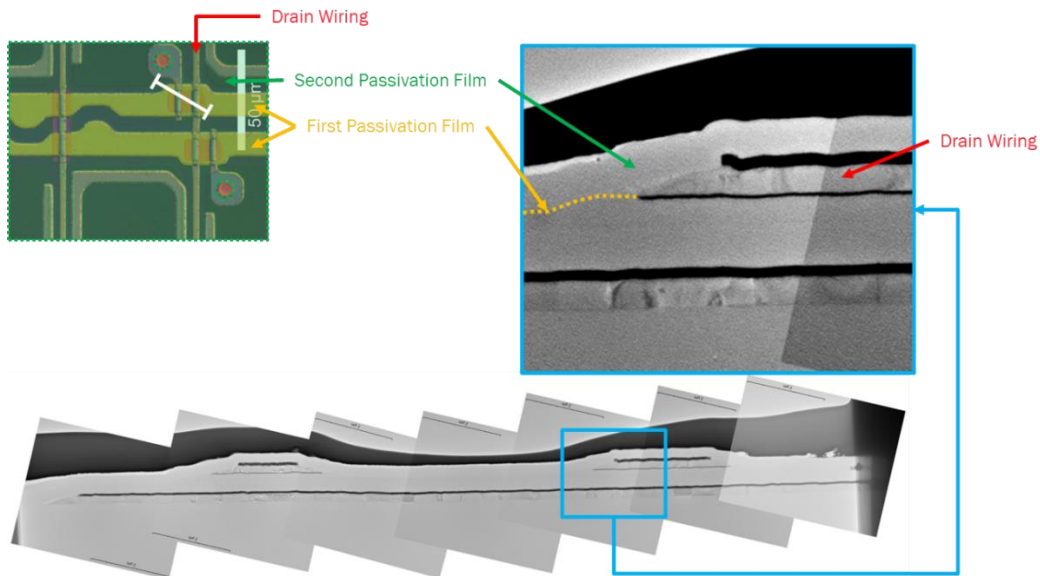
64. As shown below, the layered structure of the active matrix substrate includes a gate electrode, a gate wiring, a comb-shaped common electrode, and a TFT area.



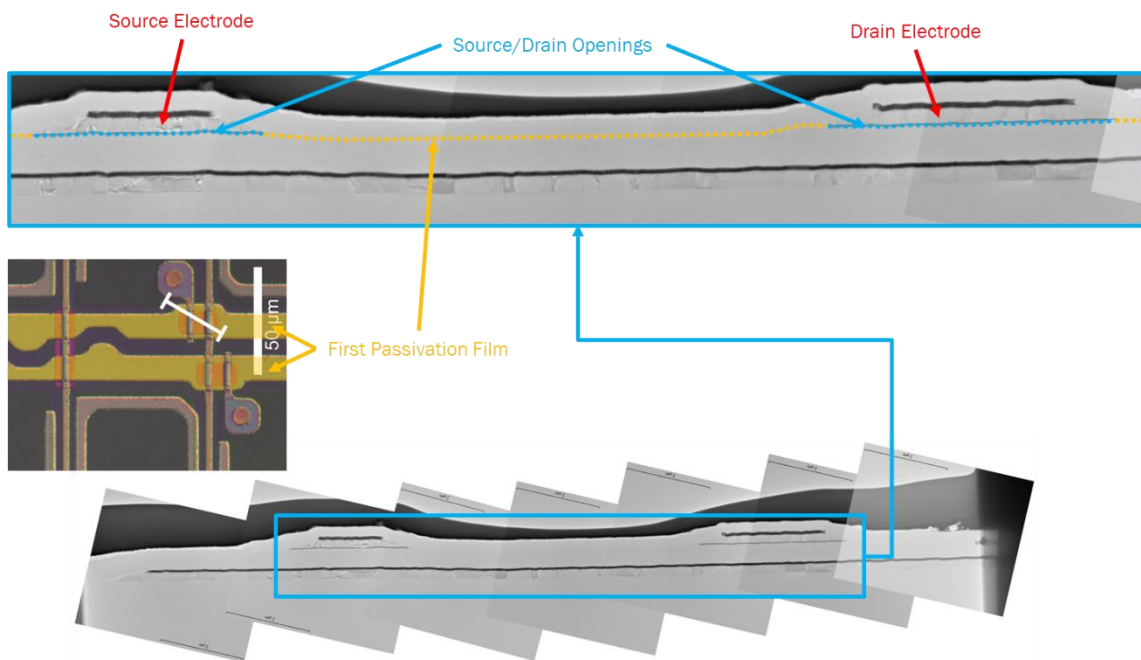
65. Drain wiring is present and formed on a passivation film shown below, which covers the layered structure.



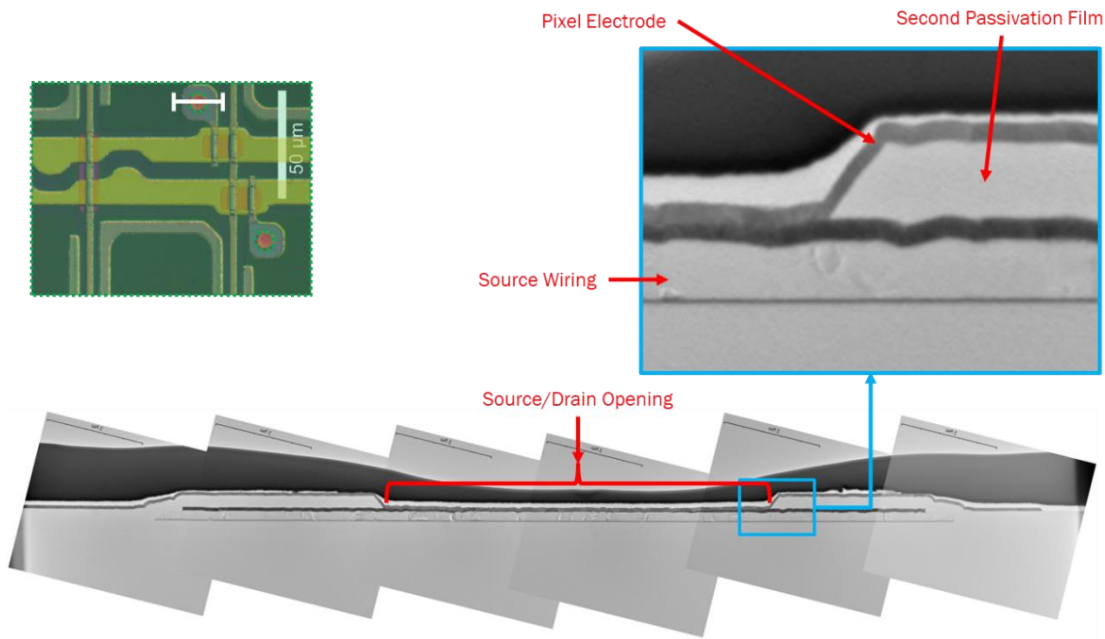
66. A second passivation film is present and overlays the drain wire and first passivation film.



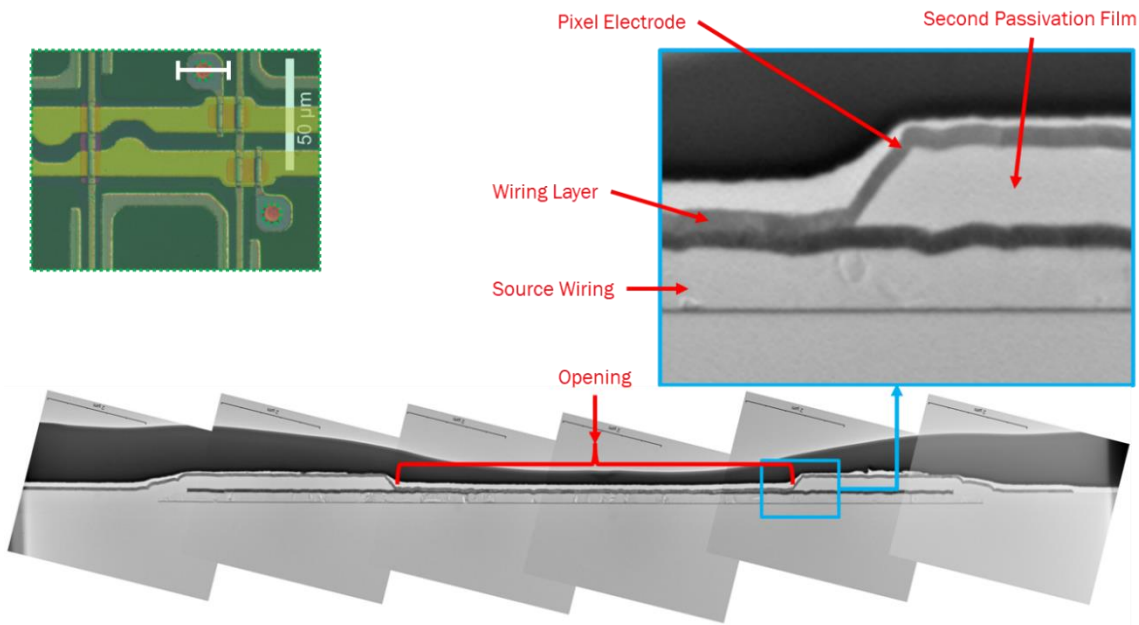
67. As shown below, openings are present that pass through the passivation films.



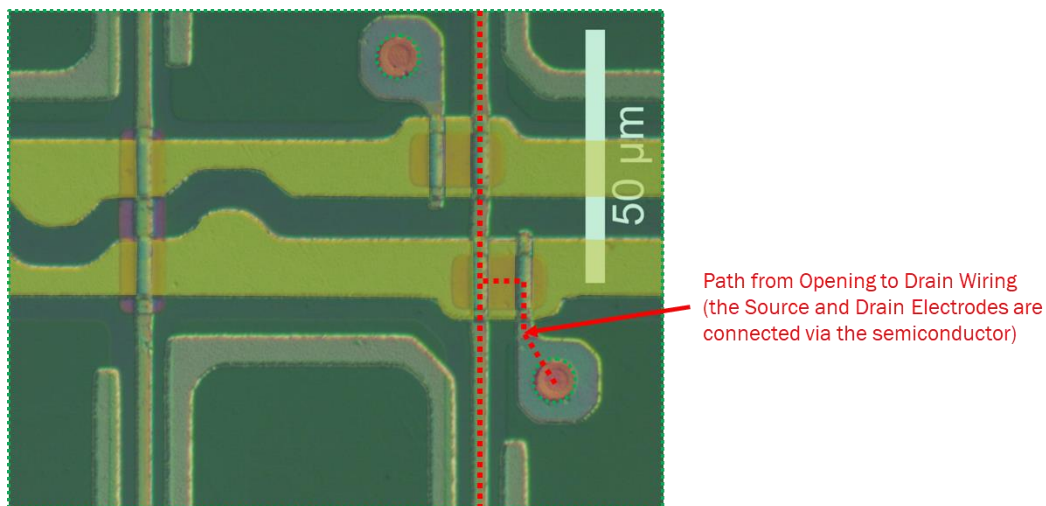
68. The openings that pass through the passivation films reach the amorphous silicon semiconductor layer.



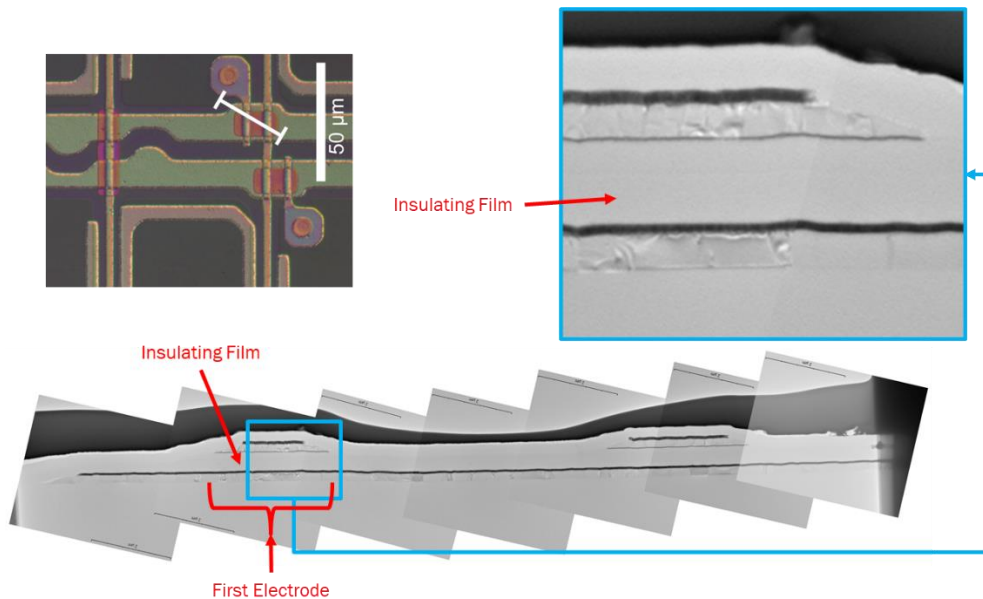
69. An opening is present in the second passivation film with a wiring layer formed of ITO extending through it that connects with the drain wiring.



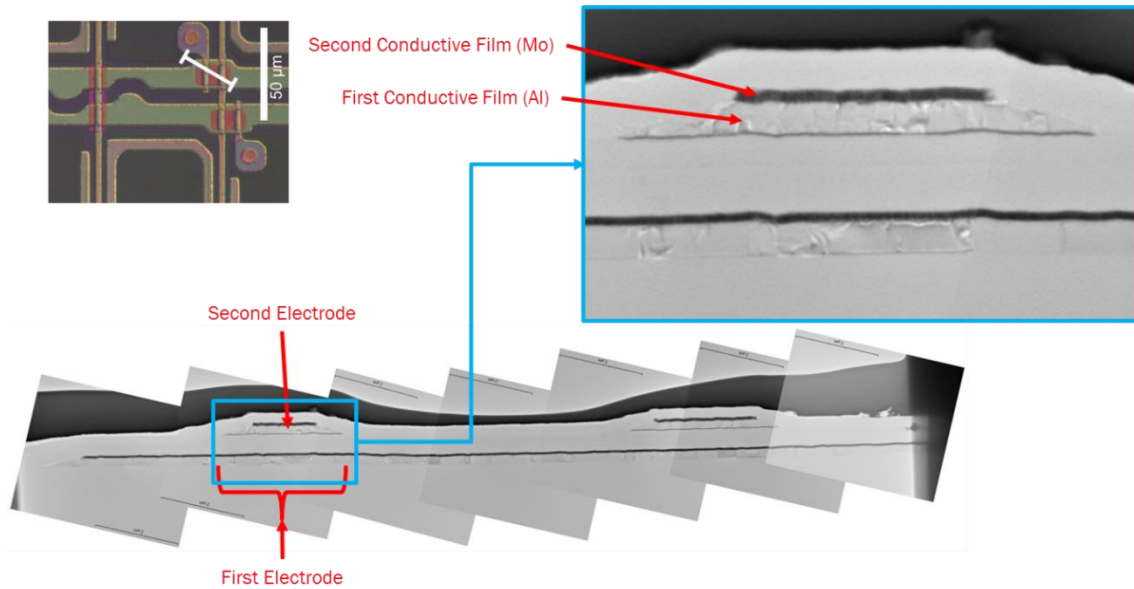
70. As shown below, the wiring layer extends through the opening and openings for connection.



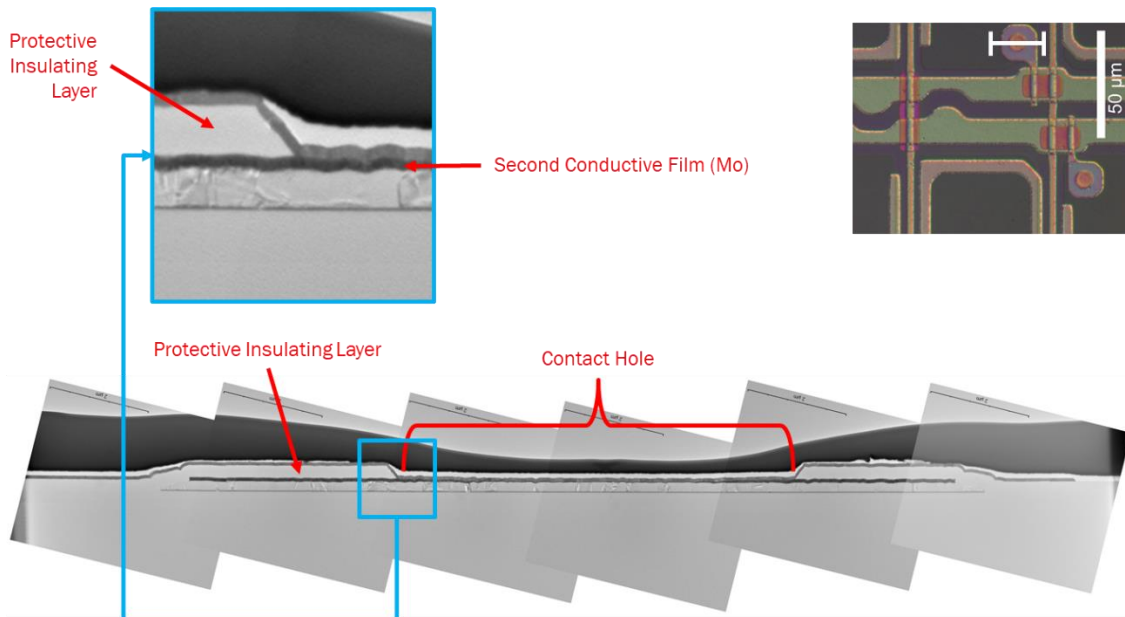
71. The Accused Products such as HannStar LCD Model No. A4HSN55003093 also comprise a first electrode on a substrate that forms one of two electrodes of an accumulation capacitor. A first insulating film covers the first electrode.



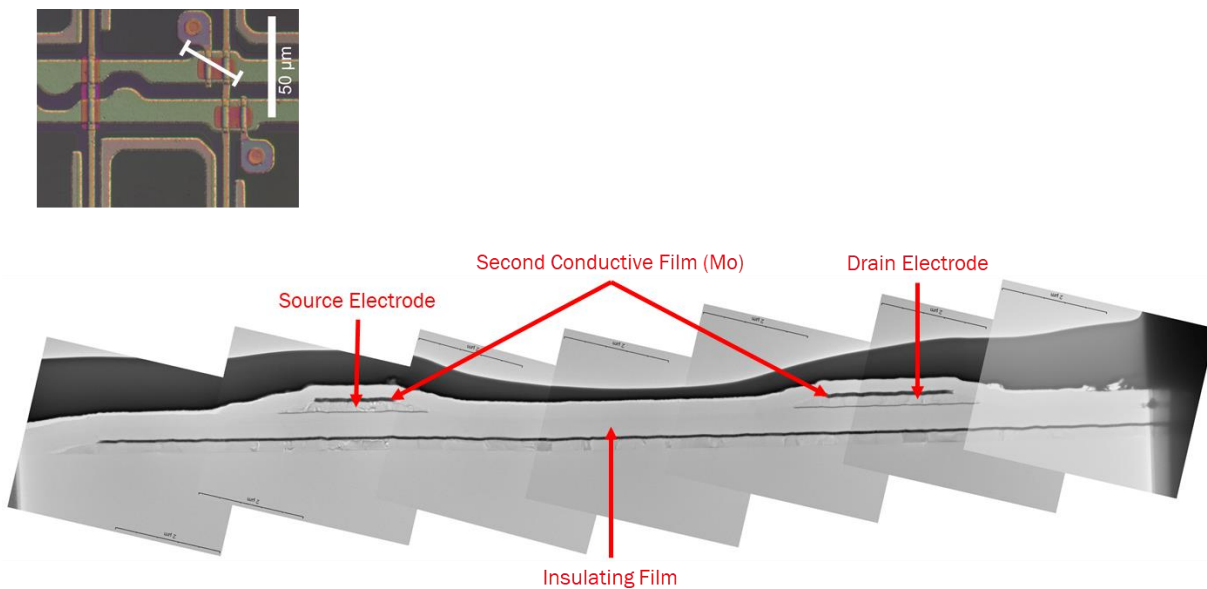
72. As shown below, each TFT has a second electrode with conductive films (e.g., Al and Mo) that completes the accumulation capacitor with the first electrode.



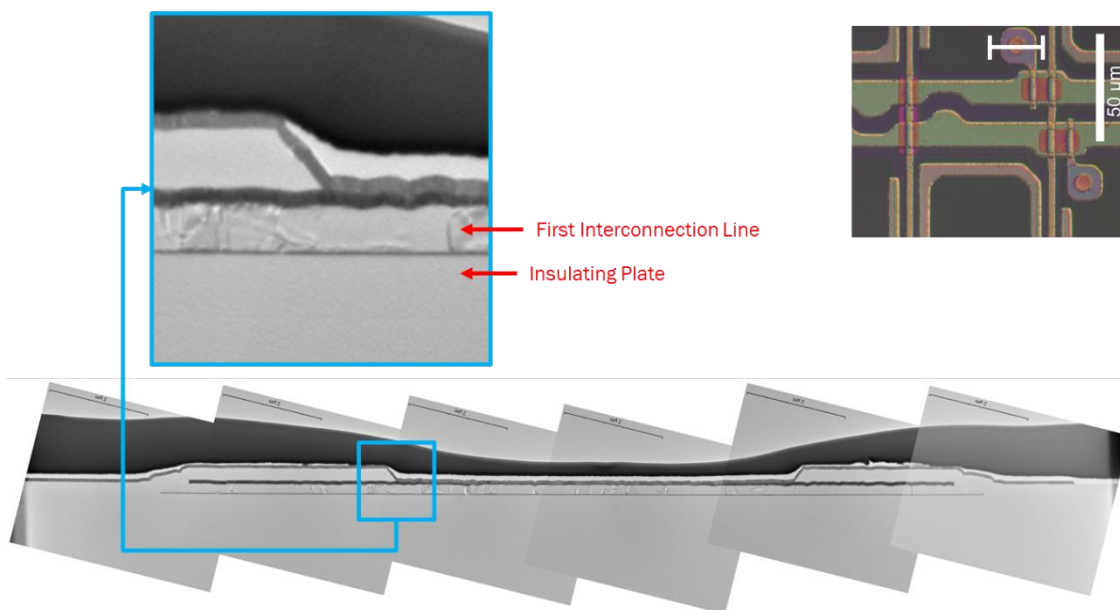
73. The LCD has a protective insulating layer which has a contact hole in a layer above the first and second electrodes with the second conductive film (e.g., Mo) at the bottom.



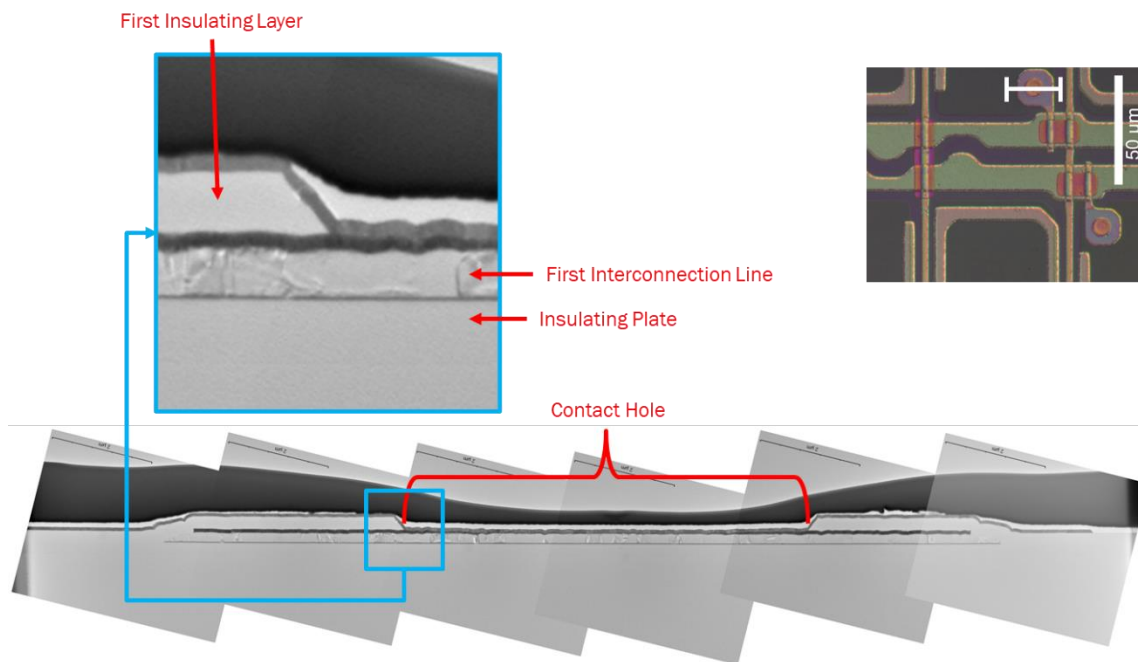
74. The LCD, as shown below, has a TFT with source and drain electrodes comprising the second conductive film (e.g., Mo) formed on the insulating film.



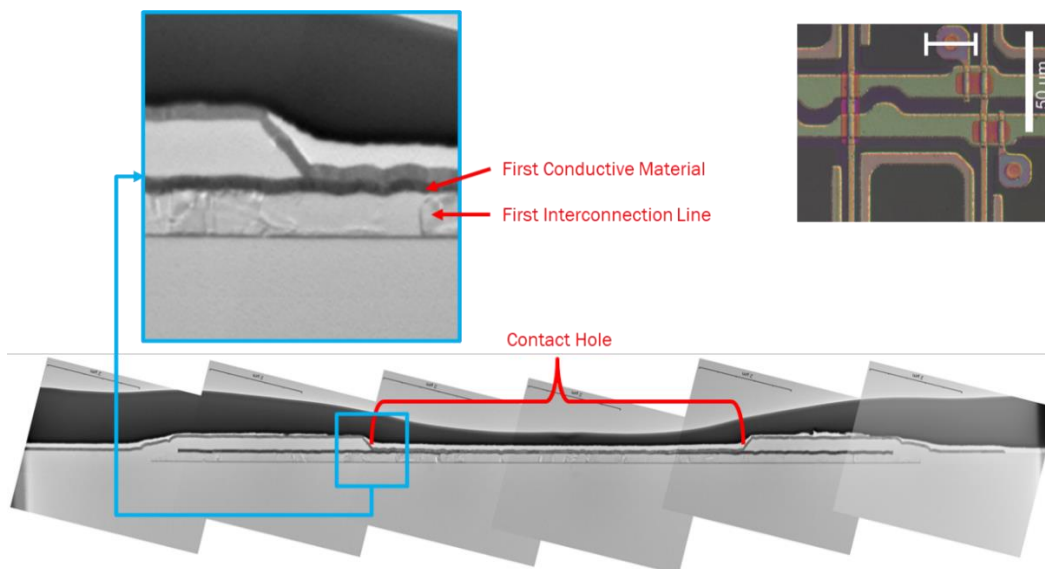
75. The Accused Products, such as HannStar LCD Model No. A4HSN55003093, further comprise an LCD device, as shown below, having a patterned Al or Al alloy interconnection line disposed on an insulating plate by way of an insulating layer.



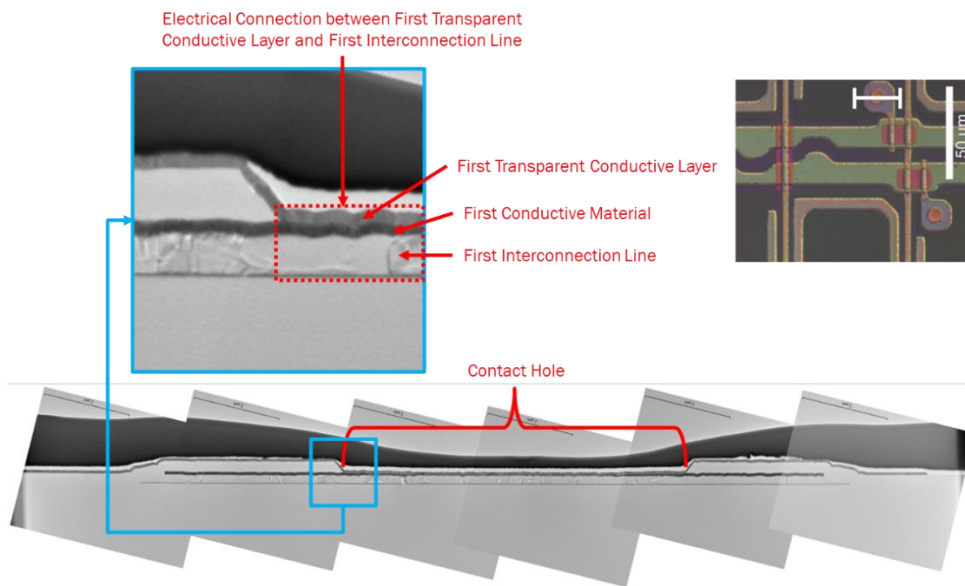
76. As shown below, the LCD has an insulating layer that covers the interconnection line and a contact hole that exposes part of the interconnection line.



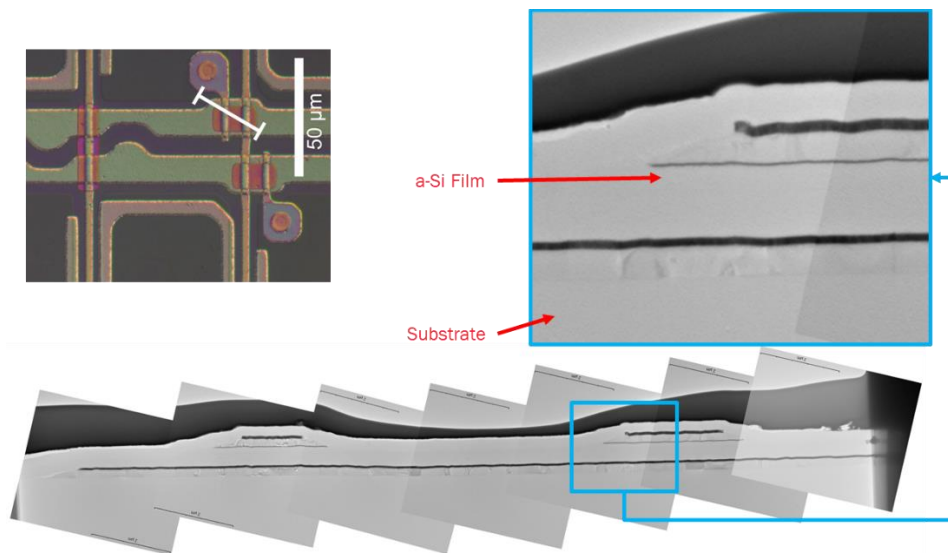
77. A first conductive material made of molybdenum is in contact with the exposed part of the interconnection line and covers the whole exposed part, as shown below.



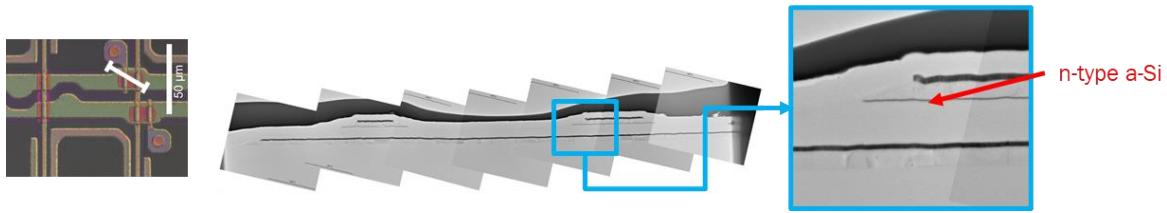
78. The LCD device shown below also has a transparent conductive layer (e.g., ITO) in contact with the first conductive material and thereby electrically connected to the first interconnection line.



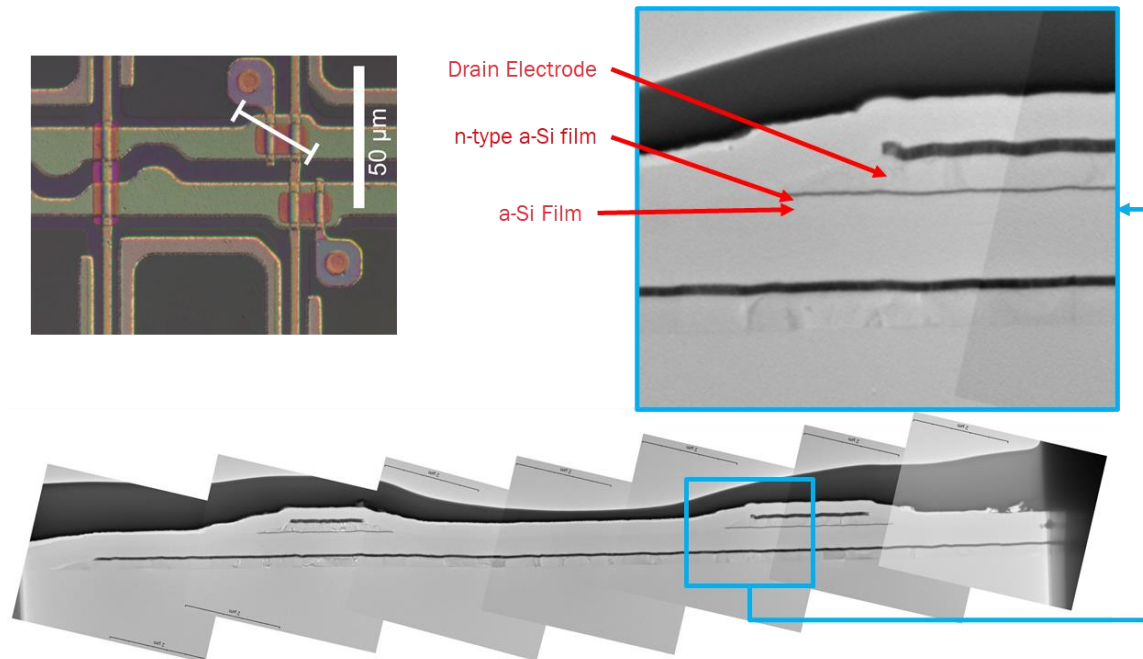
79. The Asserted Patents also cover Defendants’ processes for making TFT-LCD panels. Below is a schematic cross-sectional view of a TFT from HannStar LCD Model No. A4HSN55003093. The images show an amorphous silicon film formed on a substrate with an n-type region in the top surface of the amorphous silicon film.



80. As shown below, a metal film is formed on the amorphous silicon film to form an n-type amorphous silicon film.



81. Aluminum source and drain electrodes are formed on the amorphous silicon with the n-type amorphous silicon film there between, as shown below.



COUNT I

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

82. Plaintiff incorporates paragraphs 1 through 81 herein by reference.

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

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

85. Defendants have and continue to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '947 patent in this judicial district and elsewhere in Texas and the United States.

86. Upon information and belief, Defendants design, manufacture, imports, distribute, offer for sale, and sell the Accused Products, including via Defendants' subsidiaries, related entities (such as unregistered corporate entity HANNspree NA), partners, distributors, employees, and customers. For example, Defendants' TFT-LCD panels are incorporated into electronic devices such as GPS devices, bridges, and satellite radios, including such devices distributed and sold in the U.S. under at least the TomTom and SiriusXM brands, which are then distributed in the U.S. to national retailers for sale to U.S. customers and end users. Defendants also import and deliver Defendants' TFT-LCD products to intermediaries in the U.S., where such products are further distributed in the U.S. by product suppliers and distributors, including, but not limited to, Mouser and Newhaven Display. And Defendants also import and deliver Defendants' TFT-LCD products directly to customers, such as International Game Technology and Yellow Matter Entertainment LLC.

87. Defendants directly infringe the '947 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing Accused Products, their components, and/or products containing same that incorporate the fundamental technologies covered by the '947 patent to, for example, alter egos, agents, intermediaries, partners, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, Defendants sell and

make Accused Products outside of the United States, deliver those products to their alter egos, agents, intermediaries, partners, distributors, importers, customers, subsidiaries, and/or consumers in the United States, or in the case that Defendants deliver the Accused Products outside of the United States, Defendants do so intending and/or knowing that those Accused Products are destined for the United States and/or designing those products for sale and use in the United States, thereby directly infringing the '947 patent. *See, e.g., Lake Cherokee Hard Drive Techs., L.L.C. v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013) (denying summary judgment and allowing presentation to jury as to “whether accused products manufactured and delivered abroad but imported into the United States market by downstream customers ... constitute an infringing sale under § 271(a)”). Furthermore, Defendants directly infringe the '947 patent through their direct involvement in the activities of Defendants' subsidiaries, partners, distributors, employees, and customers that conduct business in the U.S. on behalf of and for the benefit of Defendants. Such direct infringement includes selling and offering for sale the Accused Products directly to their U.S. customers, electronic device manufacturers, and distributors, such as TomTom and SiriusXM and importing the Accused Products into the United States for their customers. Upon information and belief, Defendants' U.S.-based distributors, related entities, employees, and subsidiaries conduct activities that constitute direct infringement of the '947 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. Defendants are vicariously liable for this infringing conduct of Defendants' subsidiaries, related entities, employees, and their selling agents having a significant U.S. business presence (under both the alter ego and agency theories) because, as an example and, upon information and belief, Defendants and their U.S.-based subsidiaries, related entities, employees, and selling agents operate as agents of one another and vicariously as arms of the same business group to work in

concert together, including as business partners or in a joint venture, entering into agreements that are nearer than arm's length to conduct business in the United States. Defendants further receive a direct financial benefit from the infringement of their subsidiaries, related entities, employees, and selling agents that conduct business in the U.S.

88. For example, Defendants infringe claim 1 of the '947 patent via the Accused Products such as HannStar A4HSN55003093 (incorporated into the TomTom Rider 400), HannStar HSD070IFW1 (incorporated into the TomTom Bridge), and HannStar ET0240C3DM6 (incorporated into SiriusXM Onyx Plus SXPL2). Those Accused Products include “[a] liquid crystal display thin film transistor array comprising” each of the limitations of claim 1. The technology discussion above and the example Accused Products provide context for Plaintiff's allegations that each of those limitations are met. For example, the Accused Products include a plurality of parallel gate bus lines arranged on a transparent insulating substrate; a plurality of drain bus lines arranged perpendicularly to said gate bus lines and electrically isolated from said gate bus lines by a first insulating film; a thin film transistor arranged near an intersection of said gate bus line and said drain bus line; and a pixel electrode arranged in a region surrounded by said gate bus lines and said drain bus lines and made of a transparent conductive film, said thin film transistor comprising a gate electrode formed on said transparent insulating substrate and electrically connected to said gate bus line, a drain electrode formed via said first insulating film, a channel layer, and a contact layer and electrically connected to said drain bus line, and a source electrode formed via said first insulating film, said channel layer, and said contact layer and electrically connected to said pixel electrode, and said pixel electrode being electrically isolated from said drain electrode and said drain bus line by a second insulating film, wherein a contact hole which is to be electrically connected to said drain bus line is formed in said second insulating

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

89. Defendants further infringe the '947 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 '947 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.

90. Defendants further infringe based on the importation, sale, offer for sale, or use of the Accused Products that are made from a process covered by the '947 patent. To the extent that Plaintiff VPV made reasonable efforts to determine whether the patented processes of the '947 patent were used in the production of the Accused Products but was not able to so determine, the Accused Products should be presumed by this Court to have been so made, pursuant to 35 U.S.C. § 295.

91. At a minimum, Defendants have known of the '947 patent at least as early as the filing date of the complaint. In addition, Defendants have known of the '947 patent since December 17, 2019 when Defendants were provided access to a data room containing claim charts, including for the '947 patent.

92. Upon information and belief, since at least the above-mentioned date when Defendants were on notice of its infringement, Defendants have actively induced, under U.S.C. § 271(b), distributors, customers, partners, related entities, subsidiaries, selling agents, importers,

and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '947 patent to directly infringe one or more claims of the '947 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Defendants do so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '947 patent. Upon information and belief, Defendants intend to cause, and have taken affirmative steps to induce infringement by distributors, importers (including inducement to import in violation of § 271(g)), related entities, selling agents, customers, subsidiaries, and/or consumers by, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States. Furthermore, TomTom GPS products that incorporate HannStar TFT-LCD panels are designed for and sold to consumers in the United States. *See TomTom Rider 400, TOMTOM, https://www.tomtom.com/en_us/drive/motorcycle/products/rider-400/ (indicating that the “Map Coverage” for the device includes the “United States”); *see also Coverage Map, SIRIUSXM, <https://www.siriusxm.com/coveragemap> (showing coverage map of SiriusXM satellite services is primarily the continental United States).**

93. Upon information and belief, despite having knowledge of the '947 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '947 patent, Defendants have nevertheless continued their infringing conduct and disregarded an objectively

high likelihood of infringement. Defendants' infringing activities relative to the '947 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

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

COUNT II

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

95. Plaintiff incorporates paragraphs 1 through 94 herein by reference.

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

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

98. Defendants have and continue to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '401 patent in this judicial district and elsewhere in Texas and the United States.

99. Upon information and belief, Defendants design, manufacture, imports, distribute, offer for sale, and sell the Accused Products, including via Defendants' subsidiaries, related

entities (such as unregistered corporate entity HANNspree NA), partners, distributors, employees, and customers. For example, Defendants' TFT-LCD panels are incorporated into electronic devices such as GPS devices, bridges, and satellite radios, including such devices distributed and sold in the U.S. under at least the TomTom and SiriusXM brands, which are then distributed in the U.S. to national retailers for sale to U.S. customers and end users. Defendants also import and deliver Defendants' TFT-LCD products to intermediaries in the U.S., where such products are further distributed in the U.S. by product suppliers and distributors, including, but not limited to, Mouser and Newhaven Display. And Defendants also import and deliver Defendants' TFT-LCD products directly to customers, such as International Game Technology and Yellow Matter Entertainment LLC.

100. Defendants directly infringe the '401 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing Accused Products, their components, and/or products containing same that incorporate the fundamental technologies covered by the '401 patent to, for example, alter egos, agents, intermediaries, partners, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, Defendants sell and make Accused Products outside of the United States, deliver those products to their alter egos, agents, intermediaries, partners, distributors, importers, customers, subsidiaries, and/or consumers in the United States, or in the case that Defendants deliver the Accused Products outside of the United States, Defendants do so intending and/or knowing that those Accused Products are destined for the United States and/or designing those products for sale and use in the United States, thereby directly infringing the '401 patent. *See, e.g., Lake Cherokee Hard Drive Techs., L.L.C. v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013) (denying summary judgment and allowing presentation to jury as to “whether accused products manufactured and

delivered abroad but imported into the United States market by downstream customers ... constitute an infringing sale under § 271(a)"). Furthermore, Defendants directly infringe the '401 patent through their direct involvement in the activities of Defendants' subsidiaries, partners, distributors, employees, and customers that conduct business in the U.S. on behalf of and for the benefit of Defendants. Such direct infringement includes selling and offering for sale the Accused Products directly to their U.S. customers, electronic device manufacturers, and distributors, such as TomTom and SiriusXM and importing the Accused Products into the United States for their customers. Upon information and belief, Defendants' U.S.-based distributors, related entities, employees, and subsidiaries conduct activities that constitute direct infringement of the '401 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. Defendants are vicariously liable for this infringing conduct of Defendants' subsidiaries, related entities, employees, and their selling agents having a significant U.S. business presence (under both the alter ego and agency theories) because, as an example and, upon information and belief, Defendants and their U.S.-based subsidiaries, related entities, employees, and selling agents operate as agents of one another and vicariously as arms of the same business group to work in concert together, including as business partners or in a joint venture, entering into agreements that are nearer than arm's length to conduct business in the United States. Defendants further receive a direct financial benefit from the infringement of their subsidiaries, related entities, employees, and selling agents that conduct business in the U.S.

101. For example, Defendants infringe claim 1 of the '401 patent via the Accused Products such as HannStar A4HSN55003093 (incorporated into the TomTom Rider 400), HannStar HSD070IFW1 (incorporated into the TomTom Bridge), and HannStar ET0240C3DM6 (incorporated into SiriusXM Onyx Plus SXPL2). Those Accused Products include a "liquid crystal

display device, comprising” each of the limitations of claim 1. The technology discussion above and the example Accused Products provide context for Plaintiff’s allegations that each of those limitations are met. For example, the Accused Products each include a first electrode formed on a substrate as one of two electrodes of an accumulation capacitor, said first electrode comprising a portion of a gate bus line pattern of said liquid crystal display device; an insulating film formed on said first electrode to cover said first electrode; a second electrode formed on said first electrode via said insulating film as the other electrode of said accumulation capacitor and including a first conductive film and a second conductive film formed on said first conductive film; a protective insulating layer formed on said second electrode and having a contact hole which is formed over said first and second electrodes, a bottom of said contact hole being defined by said second conductive film; and a thin film transistor comprising source and drain electrodes which are formed on said insulating film and comprise said second conductive film, wherein one of said first conductive film and said second conductive film comprises a layer formed of a material selected from the group consisting of Al (Aluminum), W (Tungsten), Cu (Copper), Ta (Tantalum) and TaN (Tantalum Nitride).

102. Defendants further infringe the ’401 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 ’401 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.

103. Defendants further infringe based on the importation, sale, offer for sale, or use of the Accused Products that are made from a process covered by the ’401 patent. To the extent that

Plaintiff VPV made reasonable efforts to determine whether the patented processes of the '401 patent were used in the production of the Accused Products but was not able to so determine, the Accused Products should be presumed by this Court to have been so made, pursuant to 35 U.S.C. § 295.

104. At a minimum, Defendants have known of the '401 patent at least as early as the filing date of the complaint. In addition, Defendant have known of the '401 patent since December 17, 2019 when Defendants were provided access to a data room containing claim charts, including for the '401 patent.

105. Upon information and belief, since at least the above-mentioned date when Defendants were on notice of its infringement, Defendants have actively induced, under U.S.C. § 271(b), distributors, customers, partners, related entities, subsidiaries, selling agents, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '401 patent to directly infringe one or more claims of the '401 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Defendants do so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '401 patent. Upon information and belief, Defendants intend to cause, and have taken affirmative steps to induce infringement by distributors, importers (including inducement to import in violation of § 271(g)), related entities, selling agents, customers, subsidiaries, and/or consumers by, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and

prospective buyers, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States. Furthermore, TomTom GPS products that incorporate HannStar TFT-LCD panels are designed for and sold to consumers in the United States. See *TomTom Rider 400*, TOMTOM, https://www.tomtom.com/en_us/drive/motorcycle/products/rider-400/ (indicating that the “Map Coverage” for the device includes the “United States”); see also *Coverage Map*, SIRIUSXM, <https://www.siriusxm.com/coveragemap> (showing coverage map of SiriusXM satellite services is primarily the continental United States).

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

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

COUNT III

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

108. Plaintiff incorporates paragraphs 1 through 107 herein by reference.

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

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

111. Defendants have and continue to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '749 patent in this judicial district and elsewhere in Texas and the United States.

112. Upon information and belief, Defendants design, manufacture, imports, distribute, offer for sale, and sell the Accused Products, including via Defendants' subsidiaries, related entities (such as unregistered corporate entity HANNspree NA), partners, distributors, employees, and customers. For example, Defendants' TFT-LCD panels are incorporated into electronic devices such as GPS devices, bridges, and satellite radios, including such devices distributed and sold in the U.S. under at least the TomTom and SiriusXM brands, which are then distributed in the U.S. to national retailers for sale to U.S. customers and end users. Defendants also import and deliver Defendants' TFT-LCD products to intermediaries in the U.S., where such products are further distributed in the U.S. by product suppliers and distributors, including, but not limited to, Mouser and Newhaven Display. And Defendants also import and deliver Defendants' TFT-LCD products directly to customers, such as International Game Technology and Yellow Matter Entertainment LLC.

113. Defendants directly infringe the '749 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing Accused Products, their components, and/or products containing same that incorporate the fundamental technologies covered by the '749 patent to, for example, alter egos, agents, intermediaries, partners, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, Defendants sell and make Accused Products outside of the United States, deliver those products to their alter egos, agents, intermediaries, partners, distributors, importers, customers, subsidiaries, and/or consumers in the United States, or in the case that Defendants deliver the Accused Products outside of the United States, Defendants do so intending and/or knowing that those Accused Products are destined for the United States and/or designing those products for sale and use in the United States, thereby directly infringing the '749 patent. *See, e.g., Lake Cherokee Hard Drive Techs., L.L.C. v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013) (denying summary judgment and allowing presentation to jury as to “whether accused products manufactured and delivered abroad but imported into the United States market by downstream customers ... constitute an infringing sale under § 271(a)”). Furthermore, Defendants directly infringe the '749 patent through their direct involvement in the activities of Defendants' subsidiaries, partners, distributors, employees, and customers that conduct business in the U.S. on behalf of and for the benefit of Defendants. Such direct infringement includes selling and offering for sale the Accused Products directly to their U.S. customers, electronic device manufacturers, and distributors, such as TomTom and SiriusXM and importing the Accused Products into the United States for their customers. Upon information and belief, Defendants' U.S.-based distributors, related entities, employees, and subsidiaries conduct activities that constitute direct infringement of the '749 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused

Products. Defendants are vicariously liable for this infringing conduct of Defendants' subsidiaries, related entities, employees, and their selling agents having a significant U.S. business presence (under both the alter ego and agency theories) because, as an example and, upon information and belief, Defendants and their U.S.-based subsidiaries, related entities, employees, and selling agents operate as agents of one another and vicariously as arms of the same business group to work in concert together, including as business partners or in a joint venture, entering into agreements that are nearer than arm's length to conduct business in the United States. Defendants further receive a direct financial benefit from the infringement of their subsidiaries, related entities, employees, and selling agents that conduct business in the U.S.

114. For example, Defendants infringe claim 13 of the '749 patent via the Accused Products such as HannStar A4HSN55003093 (incorporated into the TomTom Rider 400), HannStar HSD070IFW1 (incorporated into the TomTom Bridge), and HannStar ET0240C3DM6 (incorporated into SiriusXM Onyx Plus SXPL2). Those Accused Products are made pursuant to a "method for fabricating a semiconductor device, comprising the steps of" each of the limitations of claim 13. The technology discussion above and the example accused TFT-LCD panels provide context for Plaintiff's allegations that each of those limitations are met. For example, the Accused Products include semiconductor devices made pursuant to a first step of forming an amorphous silicon film on a substrate; and a second step of performing plasma processing with respect to said substrate having said amorphous silicon film formed thereon, said plasma containing an n-type impurity element selected from group V of a periodic table to provide an n-type region in the top surface of the amorphous silicon film; and a third step of forming a metal film on said amorphous silicon film to form an n-type amorphous silicon film there between, wherein at least one of said

second and third steps are performed successively after the previous step and without exposing said substrate to an oxidizing atmosphere in the successive steps.

115. Defendants further infringe the '749 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 '749 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.

116. Defendants further infringe based on the importation, sale, offer for sale, or use of the Accused Products that are made from a process covered by the '749 patent. To the extent that Plaintiff VPV made reasonable efforts to determine whether the patented processes of the '749 patent were used in the production of the Accused Products but was not able to so determine, the Accused Products should be presumed by this Court to have been so made, pursuant to 35 U.S.C. § 295.

117. At a minimum, Defendants have known of the '749 patent at least as early as the filing date of the complaint. In addition, Defendants have known of the '749 patent since December 17, 2019 when Defendants were provided access to a data room containing claim charts, including for the '749 patent.

118. Upon information and belief, since at least the above-mentioned date when Defendants were on notice of its infringement, Defendants have actively induced, under U.S.C. § 271(b), distributors, customers, partners, related entities, subsidiaries, selling agents, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '749 patent to directly infringe one or more

claims of the '749 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Defendants do so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '749 patent. Upon information and belief, Defendants intend to cause, and have taken affirmative steps to induce infringement by distributors, importers (including inducement to import in violation of § 271(g)), related entities, selling agents, customers, subsidiaries, and/or consumers by, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States. Furthermore, TomTom GPS products that incorporate HannStar TFT-LCD panels are designed for and sold to consumers in the United States. *See TomTom Rider 400, TOMTOM, https://www.tomtom.com/en_us/drive/motorcycle/products/rider-400/* (indicating that the “Map Coverage” for the device includes the “United States”); *see also Coverage Map, SIRIUSXM, <https://www.siriusxm.com/coveragemap>* (showing coverage map of SiriusXM satellite services is primarily the continental United States).

119. Upon information and belief, despite having knowledge of the '749 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '749 patent, Defendants have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement. Defendants' infringing activities relative to the '749 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful,

flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

120. VPV has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to VPV in an amount that adequately compensates VPV for Defendants' 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. 6,674,093)

121. Plaintiff incorporates paragraphs 1 through 120 herein by reference.

122. VPV is the assignee of the '093 patent, entitled "Active matrix substrate and manufacturing method therefor," with ownership of all substantial rights in the '093 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

123. The '093 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '093 patent issued from U.S. Patent Application No. 09/695,321.

124. Defendants have and continue to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '093 patent in this judicial district and elsewhere in Texas and the United States.

125. Upon information and belief, Defendants design, manufacture, imports, distribute, offer for sale, and sell the Accused Products, including via Defendants' subsidiaries, related entities (such as unregistered corporate entity HANNspree NA), partners, distributors, employees,

and customers. For example, Defendants' TFT-LCD panels are incorporated into electronic devices such as GPS devices, bridges, and satellite radios, including such devices distributed and sold in the U.S. under at least the TomTom and SiriusXM brands, which are then distributed in the U.S. to national retailers for sale to U.S. customers and end users. Defendants also import and deliver Defendants' TFT-LCD products to intermediaries in the U.S., where such products are further distributed in the U.S. by product suppliers and distributors, including, but not limited to, Mouser and Newhaven Display. And Defendants also import and deliver Defendants' TFT-LCD products directly to customers, such as International Game Technology and Yellow Matter Entertainment LLC.

126. Defendants directly infringe the '093 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing Accused Products, their components, and/or products containing same that incorporate the fundamental technologies covered by the '093 patent to, for example, alter egos, agents, intermediaries, partners, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, Defendants sell and make Accused Products outside of the United States, deliver those products to their alter egos, agents, intermediaries, partners, distributors, importers, customers, subsidiaries, and/or consumers in the United States, or in the case that Defendants deliver the Accused Products outside of the United States, Defendants do so intending and/or knowing that those Accused Products are destined for the United States and/or designing those products for sale and use in the United States, thereby directly infringing the '093 patent. *See, e.g., Lake Cherokee Hard Drive Techs., L.L.C. v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013) (denying summary judgment and allowing presentation to jury as to "whether accused products manufactured and delivered abroad but imported into the United States market by downstream customers ...

constitute an infringing sale under § 271(a)"). Furthermore, Defendants directly infringe the '093 patent through their direct involvement in the activities of Defendants' subsidiaries, partners, distributors, employees, and customers that conduct business in the U.S. on behalf of and for the benefit of Defendants. Such direct infringement includes selling and offering for sale the Accused Products directly to their U.S. customers, electronic device manufacturers, and distributors, such as TomTom and SiriusXM and importing the Accused Products into the United States for their customers. Upon information and belief, Defendants' U.S.-based distributors, related entities, employees, and subsidiaries conduct activities that constitute direct infringement of the '093 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. Defendants are vicariously liable for this infringing conduct of Defendants' subsidiaries, related entities, employees, and their selling agents having a significant U.S. business presence (under both the alter ego and agency theories) because, as an example and, upon information and belief, Defendants and their U.S.-based subsidiaries, related entities, employees, and selling agents operate as agents of one another and vicariously as arms of the same business group to work in concert together, including as business partners or in a joint venture, entering into agreements that are nearer than arm's length to conduct business in the United States. Defendants further receive a direct financial benefit from the infringement of their subsidiaries, related entities, employees, and selling agents that conduct business in the U.S.

127. For example, Defendants infringe claim 1 of the '093 patent via the Accused Products such as HannStar A4HSN55003093 (incorporated into the TomTom Rider 400), HannStar HSD070IFW1 (incorporated into the TomTom Bridge), and HannStar ET0240C3DM6 (incorporated into SiriusXM Onyx Plus SXPL2). Those Accused Products includes an "active matrix substrate comprising" each of the limitations of claim 1. The technology discussion above

and the Accused Products provide context for Plaintiff's allegations that each of those limitations are met. For example, the Accused Products include (a) a gate electrode layer, a gate insulating layer and an amorphous silicon semiconductor layer deposited in a substantially stacked fashion on a transparent insulating substrate, viewed from a direction normal to said transparent insulating substrate, to form a layered structure including a gate electrode, a gate wiring and a thin-film transistor area; (b) a drain wiring formed on a first passivation film disposed on said substrate so as to cover said layered structure; (c) a second passivation film formed as a layer overlying said drain wiring and said first passivation film; (d) source/drain openings passing through said first passivation film and said second passivation film to reach said amorphous silicon semiconductor layer; (e) an opening passing through said second passivation film to reach said drain wiring; and (f) a wiring layer formed by a pixel electrode film disposed on said second passivation film, said wiring layer extending through said opening and openings for connection.

128. At a minimum, Defendants have known of the '093 patent at least as early as the filing date of the complaint. In addition, Defendants have known of the '093 patent since December 17, 2019 when Defendants were provided access to a data room containing claim charts, including for the '093 patent.

129. Upon information and belief, since at least the above-mentioned date when Defendants were on notice of its infringement, Defendants have actively induced, under U.S.C. § 271(b), distributors, customers, partners, related entities, subsidiaries, selling agents, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '093 patent to directly infringe one or more claims of the '093 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Defendants do so with

knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '093 patent. Upon information and belief, Defendants intend to cause, and have taken affirmative steps to induce infringement by distributors, importers (including inducement to import in violation of § 271(g)), related entities, selling agents, customers, subsidiaries, and/or consumers by, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States. Furthermore, TomTom GPS products that incorporate HannStar TFT-LCD panels are designed for and sold to consumers in the United States. See *TomTom Rider 400*, TOMTOM, https://www.tomtom.com/en_us/drive/motorcycle/products/rider-400/ (indicating that the “Map Coverage” for the device includes the “United States”); see also *Coverage Map*, SIRIUSXM, <https://www.siriusxm.com/coveragemap> (showing coverage map of SiriusXM satellite services is primarily the continental United States).

130. Upon information and belief, despite having knowledge of the '093 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '093 patent, Defendants have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement. Defendants' infringing activities relative to the '093 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.

131. VPV has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to VPV in an amount that adequately compensates VPV for Defendants' 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. 6,891,196)

132. Plaintiff incorporates paragraphs 1 through 131 herein by reference.

133. VPV is the assignee of the '196 patent, entitled "Active matrix substrate and manufacturing method therefor," with ownership of all substantial rights in the '196 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

134. The '196 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '196 patent issued from U.S. Patent Application No. 10/617,035.

135. Defendants have and continue to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '196 patent in this judicial district and elsewhere in Texas and the United States.

136. Upon information and belief, Defendants design, manufacture, imports, distribute, offer for sale, and sell the Accused Products, including via Defendants' subsidiaries, related entities (such as unregistered corporate entity HANNspree NA), partners, distributors, employees, and customers. For example, Defendants' TFT-LCD panels are incorporated into electronic

devices such as GPS devices, bridges, and satellite radios, including such devices distributed and sold in the U.S. under at least the TomTom and SiriusXM brands, which are then distributed in the U.S. to national retailers for sale to U.S. customers and end users. Defendants also import and deliver Defendants' TFT-LCD products to intermediaries in the U.S., where such products are further distributed in the U.S. by product suppliers and distributors, including, but not limited to, Mouser and Newhaven Display. And Defendants also import and deliver Defendants' TFT-LCD products directly to customers, such as International Game Technology and Yellow Matter Entertainment LLC.

137. Defendants directly infringe the '196 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing Accused Products, their components, and/or products containing same that incorporate the fundamental technologies covered by the '196 patent to, for example, alter egos, agents, intermediaries, partners, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, Defendants sell and make Accused Products outside of the United States, deliver those products to their alter egos, agents, intermediaries, partners, distributors, importers, customers, subsidiaries, and/or consumers in the United States, or in the case that Defendants deliver the Accused Products outside of the United States, Defendants do so intending and/or knowing that those Accused Products are destined for the United States and/or designing those products for sale and use in the United States, thereby directly infringing the '196 patent. *See, e.g., Lake Cherokee Hard Drive Techs., L.L.C. v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013) (denying summary judgment and allowing presentation to jury as to “whether accused products manufactured and delivered abroad but imported into the United States market by downstream customers ... constitute an infringing sale under § 271(a)”). Furthermore, Defendants directly infringe the '196

patent through their direct involvement in the activities of Defendants' subsidiaries, partners, distributors, employees, and customers that conduct business in the U.S. on behalf of and for the benefit of Defendants. Such direct infringement includes selling and offering for sale the Accused Products directly to their U.S. customers, electronic device manufacturers, and distributors, such as TomTom and SiriusXM and importing the Accused Products into the United States for their customers. Upon information and belief, Defendants' U.S.-based distributors, related entities, employees, and subsidiaries conduct activities that constitute direct infringement of the '196 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. Defendants are vicariously liable for this infringing conduct of Defendants' subsidiaries, related entities, employees, and their selling agents having a significant U.S. business presence (under both the alter ego and agency theories) because, as an example and, upon information and belief, Defendants and their U.S.-based subsidiaries, related entities, employees, and selling agents operate as agents of one another and vicariously as arms of the same business group to work in concert together, including as business partners or in a joint venture, entering into agreements that are nearer than arm's length to conduct business in the United States. Defendants further receive a direct financial benefit from the infringement of their subsidiaries, related entities, employees, and selling agents that conduct business in the U.S.

138. For example, Defendants infringe claim 1 of the '196 patent via the Accused Products such as HannStar A4HSN55003093 (incorporated into the TomTom Rider 400), HannStar HSD070IFW1 (incorporated into the TomTom Bridge), and HannStar ET0240C3DM6 (incorporated into SiriusXM Onyx Plus SXPL2). Those Accused Products includes a "lateral electrical field type active matrix substrate comprising" each of the limitations of claim 1. The technology discussion above and the example Accused Products provide context for Plaintiff's

allegations that each of those limitations are met. For example, the Accused Products include (a) a gate electrode layer, a gate insulating layer and an amorphous silicon semiconductor layer deposited in a substantially stacked fashion on a transparent insulating substrate, viewed from a direction normal to said transparent insulating substrate, to form a layered structure, including a gate electrode, a gate wiring, a comb-shaped common electrode and a thin-film transistor area; (b) a drain wiring formed on a first passivation film disposed on said substrate so as to cover said layered structure; and (c) a second passivation film formed as a layer overlying said drain wiring and said first passivation film; (d) source/drain openings passing through said first passivation film and said second passivation film to reach said amorphous silicon semiconductor layer, and (e) an opening passing through said second passivation film to reach said drain wiring; wherein (f) a wiring layer extending through said drain opening to said drain wiring and a pixel electrode connected to said source opening are formed by a pixel electrode film disposed on said second passivation film.

139. Defendants further infringe the '196 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 '196 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.

140. Defendants further infringe based on the importation, sale, offer for sale, or use of the Accused Products that are made from a process covered by the '196 patent. To the extent that Plaintiff VPV made reasonable efforts to determine whether the patented processes of the '196 patent were used in the production of the Accused Products but was not able to so determine, the

Accused Products should be presumed by this Court to have been so made, pursuant to 35 U.S.C. § 295.

141. At a minimum, Defendants have known of the '196 patent at least as early as the filing date of the complaint. In addition, Defendants have known of the '196 patent since December 17, 2019 when Defendants were provided access to a data room containing claim charts, including for the '196 patent.

142. Upon information and belief, since at least the above-mentioned date when Defendants were on notice of its infringement, Defendants have actively induced, under U.S.C. § 271(b), distributors, customers, partners, related entities, subsidiaries, selling agents, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '196 patent to directly infringe one or more claims of the '196 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Defendants do so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '196 patent. Upon information and belief, Defendants intend to cause, and have taken affirmative steps to induce infringement by distributors, importers (including inducement to import in violation of § 271(g)), related entities, selling agents, customers, subsidiaries, and/or consumers by, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States. Furthermore, TomTom GPS products that

incorporate HannStar TFT-LCD panels are designed for and sold to consumers in the United States. *See TomTom Rider 400*, TOMTOM, https://www.tomtom.com/en_us/drive/motorcycle/products/rider-400/ (indicating that the “Map Coverage” for the device includes the “United States”); *see also Coverage Map*, SIRIUSXM, <https://www.siriusxm.com/coveragemap> (showing coverage map of SiriusXM satellite services is primarily the continental United States).

143. Upon information and belief, despite having knowledge of the ’196 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’196 patent, Defendants have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement. Defendants’ infringing activities relative to the ’196 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.

144. VPV has been damaged as a result of Defendants’ infringing conduct described in this Count. Defendants are, thus, liable to VPV in an amount that adequately compensates VPV for Defendants’ 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 VI

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

145. Plaintiff incorporates paragraphs 1 through 144 herein by reference.

146. 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.

147. 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.

148. Defendants have and continue 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.

149. Upon information and belief, Defendants design, manufacture, imports, distribute, offer for sale, and sell the Accused Products, including via Defendants' subsidiaries, related entities (such as unregistered corporate entity HANNspree NA), partners, distributors, employees, and customers. For example, Defendants' TFT-LCD panels are incorporated into electronic devices such as GPS devices, bridges, and satellite radios, including such devices distributed and sold in the U.S. under at least the TomTom and SiriusXM brands, which are then distributed in the U.S. to national retailers for sale to U.S. customers and end users. Defendants also import and deliver Defendants' TFT-LCD products to intermediaries in the U.S., where such products are further distributed in the U.S. by product suppliers and distributors, including, but not limited to, Mouser and Newhaven Display. And Defendants also import and deliver Defendants' TFT-LCD products directly to customers, such as International Game Technology and Yellow Matter Entertainment LLC.

150. Defendants directly infringe the '119 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing Accused Products, their components, and/or products containing same that incorporate the fundamental technologies covered by the '119 patent to, for

example, alter egos, agents, intermediaries, partners, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, Defendants sell and make Accused Products outside of the United States, deliver those products to their alter egos, agents, intermediaries, partners, distributors, importers, customers, subsidiaries, and/or consumers in the United States, or in the case that Defendants deliver the Accused Products outside of the United States, Defendants do so intending and/or knowing that those Accused Products are destined for the United States and/or designing those products for sale and use in the United States, thereby directly infringing the '119 patent. *See, e.g., Lake Cherokee Hard Drive Techs., L.L.C. v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013) (denying summary judgment and allowing presentation to jury as to “whether accused products manufactured and delivered abroad but imported into the United States market by downstream customers ... constitute an infringing sale under § 271(a)”). Furthermore, Defendants directly infringe the '119 patent through their direct involvement in the activities of Defendants' subsidiaries, partners, distributors, employees, and customers that conduct business in the U.S. on behalf of and for the benefit of Defendants. Such direct infringement includes selling and offering for sale the Accused Products directly to their U.S. customers, electronic device manufacturers, and distributors, such as TomTom and SiriusXM and importing the Accused Products into the United States for their customers. Upon information and belief, Defendants' U.S.-based distributors, related entities, employees, and subsidiaries conduct activities that constitute direct infringement of the '119 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. Defendants are vicariously liable for this infringing conduct of Defendants' subsidiaries, related entities, employees, and their selling agents having a significant U.S. business presence (under both the alter ego and agency theories) because, as an example and, upon information and

belief, Defendants and their U.S.-based subsidiaries, related entities, employees, and selling agents operate as agents of one another and vicariously as arms of the same business group to work in concert together, including as business partners or in a joint venture, entering into agreements that are nearer than arm's length to conduct business in the United States. Defendants further receive a direct financial benefit from the infringement of their subsidiaries, related entities, employees, and selling agents that conduct business in the U.S.

151. For example, Defendants infringe claim 1 of the '119 patent via the Accused Products such as HannStar A4HSN55003093 (incorporated into the TomTom Rider 400), HannStar HSD070IFW1 (incorporated into the TomTom Bridge), and HannStar ET0240C3DM6 (incorporated into SiriusXM Onyx Plus SXPL2). That Accused Product includes a "liquid-crystal display device comprising" each of the limitations of claim 1. The technology discussion above and the example Accused Products provide context for Plaintiff's allegations that each of those limitations are met. For example, the Accused Product 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.

152. Defendants further infringe 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.

153. Defendants further infringe based on the importation, sale, offer for sale, or use of the Accused Products that are made from a process covered by the '119 patent. To the extent that Plaintiff VPV made reasonable efforts to determine whether the patented processes of the '119 patent were used in the production of the Accused Products but was not able to so determine, the Accused Products should be presumed by this Court to have been so made, pursuant to 35 U.S.C. § 295.

154. At a minimum, Defendants have known of the '119 patent at least as early as the filing date of the complaint. In addition, Defendants have known of the '119 patent since December 17, 2019 when Defendants were provided access to a data room containing claim charts, including for the '119 patent.

155. Upon information and belief, since at least the above-mentioned date when Defendants were on notice of its infringement, Defendants have actively induced, under U.S.C. § 271(b), distributors, customers, partners, related entities, subsidiaries, selling agents, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '119 patent to directly infringe one or more claims of the '119 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Defendants do so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '119 patent. Upon information and belief, Defendants intend to cause, and have taken

affirmative steps to induce infringement by distributors, importers (including inducement to import in violation of § 271(g)), related entities, selling agents, customers, subsidiaries, and/or consumers by, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States. Furthermore, TomTom GPS products that incorporate HannStar TFT-LCD panels are designed for and sold to consumers in the United States. *See TomTom Rider 400*, TOMTOM, https://www.tomtom.com/en_us/drive/motorcycle/products/rider-400/ (indicating that the “Map Coverage” for the device includes the “United States”); *see also Coverage Map*, SIRIUSXM, <https://www.siriusxm.com/coveragemap> (showing coverage map of SiriusXM satellite services is primarily the continental United States).

156. 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, Defendants have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement. Defendants’ 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.

157. VPV has been damaged as a result of Defendants’ infringing conduct described

in this Court. Defendants are, thus, liable to VPV in an amount that adequately compensates VPV for Defendants' infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

CONCLUSION

158. Plaintiff VPV is entitled to recover from Defendants the damages sustained by Plaintiff as a result of Defendants' 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.

159. 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

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

PRAYER FOR RELIEF

161. Plaintiff VPV respectfully requests that the Court find in its favor and against Defendants, and that the Court grant Plaintiff the following relief:

1. A judgment that Defendants have 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 Defendants;

3. A judgment and order requiring Defendants to pay Plaintiff damages under 35 U.S.C. § 284, including up to treble damages as provided by 35 U.S.C. § 284, and any royalties determined to be appropriate;
4. A judgment and order requiring Defendants to pay Plaintiff pre-judgment and post-judgment interest on the damages awarded;
5. A judgment and order finding this to be an exceptional case and requiring Defendants to pay the costs of this action (including all disbursements) and attorneys' fees as provided by 35 U.S.C. § 285; and
6. Such other and further relief as the Court deems just and equitable.

Dated: January 22, 2021

Respectfully submitted,

/s/ Patrick J. Conroy

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record are being served with a true and correct copy of the foregoing document, PLAINTIFF'S FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT IN CIVIL ACTION NO. 2:20-CV-00250 via electronic mail on January 22, 2021.

*/s/ Patrick J. Conroy*_____