

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

STINGRAY IP SOLUTIONS, LLC,

Plaintiff,

V.

**SIGNIFY N.V.,
SIGNIFY (CHINA) INVESTMENT CO.,
LTD.,
SIGNIFY HONG KONG LIMITED,
SIGNIFY NETHERLANDS B.V., and
SIGNIFY POLAND SP. Z.O.O.,**

Defendants.

[illegible]

JURY TRIAL DEMANDED

CIVIL ACTION NO. 2:21-CV-00043-JRG

PLAINTIFF'S FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Stingray IP Solutions, LLC (“Stingray” or “Plaintiff”) files this First Amended Complaint in this Eastern District of Texas (referred to herein as “this District”) against Signify N.V., Signify (China) Investment Co., Ltd., Signify Hong Kong Limited, Signify Netherlands B.V., and Signify Poland Sp. z.o.o. (collectively referred to as “Signify Defendants” or “Defendants”) for infringement of U.S. Patent No. 6,958,986 (the “’986 patent”), U.S. Patent No. 6,961,310 (the “’310 patent”), and U.S. Patent No. 7,027,426 (the “’426 patent”), which are referred to herein as the “Asserted Patents.”

THE PARTIES

1. Stingray IP Solutions, LLC is a Texas limited liability company, located at 6136 Frisco Sq. Blvd., Suite 400, Frisco, TX 75034.
2. On information and belief, Defendant Signify N.V. (referred to herein as “Signify NV”) is a public company with limited liability incorporated under the laws of the Netherlands.

Its principal place of business is located at High Tech Campus 48, 5656 AE Eindhoven, The Netherlands. Signify NV was established as “Philips Lighting” in 2016 after spinning off from Koninklijke Philips N.V., then changed its name to Signify N.V. in 2018. Signify NV is the “parent company of the Signify group.” The term “Signify,” as used herein shall refer to Defendant Signify NV and its subsidiaries in the “Signify group,” which include, but are not limited, to other defendants named in this lawsuit. *See also Annual Report 2020*, SIGNIFY, at 62, <https://www.signify.com/static/2020/signify-annual-report-2020.pdf> (tying the term “Signify” to Section 2:24b of the Dutch Civil Code, which refers to a group as “an economic unit in which legal persons and commercial partnerships are organizationally interconnected”) (last visited June 7, 2021); *see also Article 24b Definition of a ‘group’, DUTCH CIVIL CODE*, available at <http://www.dutchcivillaw.com/civilcodebook022.htm> (last visited June 8, 2021).

3. Signify NV “operates in many countries,” including the U.S., “via its subsidiaries and affiliated companies as well as a limited number of branch offices, which primarily act under the Signify trade name.” *See Annual Report 2020*, SIGNIFY, at 62, <https://www.signify.com/static/2020/signify-annual-report-2020.pdf> (last visited June 7, 2021). As the parent company of about 150 subsidiaries operating in 74 countries, including the U.S., Signify NV participates in the management and operations of three divisions of Signify for Signify products: Division Digital Solutions, Division Digital Products, and Division Conventional Products. *See Annual Report 2020*, SIGNIFY, at 29, <https://www.signify.com/static/2020/signify-annual-report-2020.pdf> (last visited June 7, 2021). In particular, among other duties, “[t]he Board of Management is responsible for the establishment and adequate functioning of a system of governance, risk management and internal controls in the company.” *Id.* at 77 (Statement of the Board of Management of Signify NV). Moreover, the Board of Management is the “chief operating

decision maker” of the operating segments which are “components of Signify’s business activities.” *Id.* at 90.

4. On information and belief, Defendant Signify (China) Investment Co., Ltd. (referred to herein as “Signify China”) is a limited liability company organized under the laws of the People’s Republic of China (“China”), with its principal place of business located at Building No. 9 Lane 888, Tian Lin Road, Shanghai, China and/or No. 8 Min Tai Road Economy Development Zone, Yizheng, Jiangsu province. Signify China was formerly known as “Philips Lighting (China) Investment Co., Ltd.” and is a wholly owned and controlled subsidiary of Signify NV. *See Annual Report 2020*, at 107 (listing Signify China as a 100% owned and consolidated company). Signify China designs, develops, manufactures Signify products for importation, distribution, and sale in the United States.

5. On information and belief, Defendant Signify Hong Kong Limited (referred to herein as “Signify HK”) is a limited liability company organized under the laws of Hong Kong, China, with its principal place of business located at 20th Floor, Tower 2, Enterprise Square One No.9 Sheung Yuet Road, Kowloon Bay, Hong Kong, China. *See Signify Hong Kong*, SIGNIFY, <https://www.signify.com/en-hk/contact> (last visited June 7, 2021). Signify HK is a wholly owned and controlled subsidiary of Signify NV. *See Annual Report 2020*, at 107 (listing Signify HK as a 100% owned and consolidated company). Signify HK imports Signify products into the U.S. for distribution and sale by U.S. based subsidiaries of Signify and by third-party distributors.

6. On information and belief, Defendant Signify Netherlands B.V. (referred to herein as “Signify Netherlands”) is a corporation organized under the laws of the Netherlands, with its principal place of business located at High Tech Campus 48, 5656 AE Eindhoven. Signify Netherlands is a wholly owned (indirectly) and controlled subsidiary of Signify NV. *See Annual*

Report 2020, at 107 (listing Signify Netherlands as a 100% owned and consolidated company). Defendant Signify Netherlands shares the same corporate office/headquarters with its direct parent Signify Holding B.V. (a corporation formed under the laws of The Netherlands) and with Defendant Signify NV, which is the parent company of all Signify subsidiaries. Signify Netherlands imports Signify products into the U.S. for distribution and sale by U.S. based subsidiaries of Signify and by third-party distributors.

7. On information and belief, Defendant Signify Poland Sp. z.o.o. (referred to herein as “Signify Poland”) is a limited liability company organized under the laws of Poland, with its principal place of business located at Al. Jerozolimskie 195B, 02-222 Warszawa, Poland. Signify Poland is a wholly owned and controlled subsidiary of Signify NV. *See Annual Report 2020*, SIGNIFY, at 107 (listing Signify Poland as a 100% owned and consolidated company). Signify Poland operates production sites in Poland to design develop, and manufacture Signify products for importation, distribution, and sale in the United States.

8. On information and belief, the Signify Defendants maintain a corporate presence in the United States via at least Signify NV’s wholly-owned (indirectly) and controlled U.S.-based subsidiary Signify North America Corporation (“Signify NA”), among other subsidiaries and affiliates. *See Annual Report 2020*, SIGNIFY, at 107, <https://www.signify.com/static/2020/signify-annual-report-2020.pdf> (listing Signify NA as a 100% owned and consolidated company) (last visited June 7, 2021). Signify NA is organized under the laws of the state of Delaware, with its principal place of business located at 200 Franklin Square Drive, Somerset, New Jersey 08873. Signify NA is registered to do business in Texas and has a place of business located at 1611 Clovis R Barker Rd, San Marcos, TX 78666. As part of its activities in the United States, Signify NA receives Signify products shipped by the Signify group, including, but not limited to, the Signify

Defendants. These Signify products are distributed, offered for sale and sold by Signify NA as part of and on behalf of the Signify group, which includes the Defendants in this lawsuit.

9. On information and belief, Signify NA is wholly owned by the Genlyte Group Inc. (referred to herein as “Genlyte”), a corporation organized under the laws of Delaware and having its principal office in 200 Franklin Square Drive, Somerset NJ 00873. Genlyte is wholly owned by Signify Holding B.V., a corporation organized under the laws of The Netherlands. And Signify Holding B.V. is wholly owned by Defendant Signify NV. Genlyte is engaged in the business of manufacturing and selling luminaires and lighting fixtures.

10. On information and belief, the Signify Defendants may also be served with process in the U.S. through at least Signify NA, including via its corporate officers and via Signify NA’s registered agent for service of process, Corporation Service Company, at 251 Little Falls Dr., Wilmington, Delaware 19808. Signify NA operates as least as an agent (e.g., a managing or general agent) for the Signify Defendants under Federal Rule of Civil Procedure 4(h)(1)(B) and/or is the alter ego of one or more of the Signify Defendants.

11. On information and belief, Signify states that it “is the world leader in lighting.” *Annual Report 2020*, SIGNIFY, at 2. Signify has seven manufacturing sites in the United States. *Id.* at 28. In its Digital Products division, Signify offers products under at least two “smart home lighting brands, Philips Hue and WiZ Connected.” *See Annual Report 2020*, SIGNIFY, at 18. In 2020, worldwide sales, including from the U.S., of Signify’s Digital Products were €2.29 billion EUR (about \$2.79 billion U.S. dollars). *Id.* at 25. Signify also holds €2.26 billion EUR (about \$2.76 billion U.S. dollars) worth of tangible and intangible assets in the United States. Signify (formerly Philips Lighting) introduced the Philips Hue line of products in 2012, which provided

connected lighting for consumers. *Id.* at 24-25. These products allow users to “control lights wirelessly through apps and smart devices, with their voice or with remote control switches.” *Id.*

12. On information and belief, in 2019, Signify acquired full ownership of WiZ Connected Lighting Company Ltd. (“WiZ”) for its “WiFi-based connected lighting” products. *Annual Report 2019*, SIGNIFY, at 7, <https://www.signify.com/static/2019/signify-annual-report-2019.pdf> (last visited June 8, 2021). The acquisition “enables Signify to extend its leadership by stepping into the Wi-Fi-based smart lighting market.” *Id.* at 25. WiZ is a “lighting software solutions company based in Hong Kong” that is “deployed in 40 countries across the Americas, Europe, the Middle East and Asia Pacific.” *WiZ – About*, WiZ CONNECTED, <https://www.wizconnected.com/en-MY/about-wiz/> (last visited January 29, 2021). Signify made the acquisition in order to “address a larger customer base in the growing market of Wi-Fi-based lighting.” *Id.* WiZ provides “an open IoT [Internet-of-Things] platform” with an “easy-to-use, scalable solution” that is “accessible to all lighting and electrical vendors.” *Id.*

13. On information and belief, in 2020, Signify announced an expansion of WiZ product availability in the United States, increasing the variety of bulbs, downlights, lightstrips, and accessories available to U.S. customers. *See Signify US expands WiZ Connected Ecosystem*, SIGNIFY, <https://www.signify.com/en-us/our-company/news/press-releases/2020/20200827-wiz-launches-a-brand-new-generation-of-products> (August 27, 2020). Recently, WiZ developed ROBUST, a “new Wi-Fi + Bluetooth mesh architecture” that is being rolled out on its products as of the first quarter of 2021 and will also be implemented on other existing WiZ products. *WiZ – Innovation*, WiZ CONNECTED, <https://www.wizconnected.com/en-MY/innovation/> (last visited January 29, 2021). WiZ products and other Signify products connect to users’ Wi-Fi networks and are controlled by the WiZ mobile application, which is available on iOS or Android and can

integrate with Amazon Alexa, Google Home, or Siri. *Signify US expands WiZ Connected Ecosystem*, SIGNIFY, *supra*. The acquisition of WiZ “further extended the accessibility of consumer connected lighting...enabling users “to connect via WiFi, Bluetooth, or via the Philips Hue bridge.” WiZ also offers its products as an OEM component for third-party manufacturers. *See, e.g., WiZ Connected, OEM Partnerships, WiZ CONNECTED LIGHTING CO., LTD.* <https://www.wizconnected.com/en-MY/oem/> (last visited June 9, 2021). The CEO of Signify and member of Defendant Signify NV’s Board of Management states that “[w]e are very pleased to join forces with the teams of WiZ Connected who have developed a great technology platform enabling us to address a larger customer base in the growing market of Wi-Fi-based lighting.” *Id.*

14. On information and belief, in 2020, Signify acquired Cooper Lighting, LLC (“Cooper Lighting”) as a consolidated and controlled subsidiary. *See Annual Report 2020*, SIGNIFY, at 23, 106-107 (identifying Cooper Lighting as a material acquisition). Cooper Lighting provides “professional lighting, lighting controls, and connected lighting.” *Id.* at 23. Cooper Lighting is a limited liability company headquartered in Peachtree City, Georgia and provides its products under the “Halo, McGraw, Metalux and StreetWorks” brands. *Id.* at 106.

15. On information and belief, Signify NV controls its consolidated subsidiaries identified at least in Signify’s *Annual Report 2020*, including, but not limited to, Defendants Signify China, Signify HK, Signify Netherlands, and Signify Poland and other subsidiaries Signify NA (US based), and Cooper Lighting (US based)). *See Annual Report 2020*, SIGNIFY, at 107 (identifying Signify’s “material subsidiaries” and stating that “[t]he Consolidated financial statements comprise the assets and liabilities of approximately 150 legal entities.”). In that report it states, in relevant part, “[t]he Consolidated financial statements comprise the financial statements of Signify N.V. and all subsidiaries it controls (i.e., when it is exposed, or has rights, to

variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee).” *Id.* at 91. The report further adds that “[s]ubsidiaries are fully consolidated from the date that control commences until the date that control ceases.” *Id.* Each of the listed consolidated subsidiaries, by nature of being controlled by Signify NV, is an agent and/or alter ego of Signify NV, as the parent of the Signify group.

16. Through offers to sell, sales, imports, distributions, and other related agreements with affiliates, distributors, and customers operating in and maintaining a significant business presence in the U.S. and/or via their subsidiaries maintaining such a presence, including via wholly owned (indirectly), consolidated, and controlled subsidiaries Signify NA, Genlyte, WiZ, and Cooper Lighting, Signify does business in the U.S., the state of Texas, and in this District. Defendants may be served with process via its agents and/or alter egos in the U.S., including via Signify NA, and/or via the relevant provisions of the Hague Convention.

JURISDICTION AND VENUE

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

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

Defendant Signify NV

19. On information and belief, Defendant Signify NV 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, including: (A) based on at least part of its own infringing activities or those committed vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers 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/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, Signify NV is related to, owns, and/or controls consolidated subsidiaries (such as Defendants Signify China, Signify HK, Signify Netherlands, and Signify Poland and other subsidiaries Signify NA (US based), Genlyte (US based), WiZ, and Cooper Lighting) that have a significant business presence, including by conducting activities vicariously through or in concert with other related entities, in the U.S. and in Texas. Such a presence and activities further the development, design, manufacture, importation, distribution, sale, and use of infringing Signify products in Texas. As one example of such activities, Signify NV's wholly-owned and controlled, U.S.-based subsidiary Signify NA, which manages its North America operations and is based in the United States, has offices and employees in Texas at least at 1611 Clovis R Barker Rd, San Marcos, TX 78666 where it operates a manufacturing facility. *See Production Worker*, SIGNIFY, <https://www.careers.signify.com/jobs/production-worker-san-marcos-2/> (last visited June 7, 2021) (advertising a job "for a Production Worker to join our luminaire manufacturing team in San Marcos, TX"). Through direction and control of its subsidiaries, Signify NV has committed acts of direct and/or indirect patent infringement within Texas, and elsewhere in the United States, giving rise to this action and/or has established minimum contacts with Texas such that personal jurisdiction over Signify NV would not offend traditional notions of fair play and substantial justice.

20. Upon information and belief, Defendant Signify NV controls or otherwise directs and authorizes all activities of its subsidiaries, including, but not limited to Defendants Signify China, Signify HK, Signify Netherlands, and Signify Poland and other subsidiaries Signify NA, Genlyte, WiZ, and Cooper Lighting, which, have a significant business presence in Texas. Directly and via at least its subsidiaries in the Signify group, who act as agents and/or alter egos of Defendant, and via intermediaries, such as affiliates, distributors, and customers, Signify NV has placed and continues to place infringing Signify products into the U.S. stream of commerce. Signify NV has placed such products into the stream of commerce with the knowledge and understanding that such products are, will be, and continue to be sold, offered for sale, and/or imported into this judicial district and the State of Texas. *See Litecubes, LLC v. Northern Light Products, Inc.*, 523 F.3d 1353, 1369-70 (Fed. Cir. 2008) (“[T]he sale [for purposes of § 271] occurred at the location of the buyer.”); *see also Semcon IP Inc. v. Kyocera Corporation*, No. 2:18-cv-00197-JRG, 2019 WL 1979930, at *3 (E.D. Tex. May 3, 2019) (denying accused infringer’s motion to dismiss because plaintiff sufficiently plead that purchases of infringing products outside of the United States for importation into and sales to end users in the U.S. may constitute an offer to sell under § 271(a)).

21. On information and belief, Defendant Signify NV utilizes established distribution channels to distribute, market, offer for sale, sell, service, and warrant infringing products directly to consumers, including offering such products for sale via its own websites—www.philips-hue.com and www.usa.lighting.philips.com. *See, e.g., Choose a bulb – Smart Lighting*, PHILIPS, https://www.usa.lighting.philips.com/consumer/choose-a-bulb/products#filters=SMARTLIGHTING_BULB_SU&sliders=&support=&price=&priceBoxes=&page=&layout=12.subcategory.p-grid-icon. Signify NV’s corporate website also provides links for consumers and professionals to access on-line stores operated by the Signify group. *See, e.g., For Consumers*,

SIGNIFY, <https://www.signify.com/global/our-offers/for-consumers> (providing a link to the Philips Hue brand of “Smart Home Lighting”). Moreover, Signify NV utilizes its subsidiaries and intermediaries, such as Defendants Signify China, Signify HK, Signify Netherlands, and Signify Poland and other subsidiaries Signify NA, Genlyte, WiZ, and Cooper Lighting, to design, develop, import, distribute, and service infringing products, such as Philips and WiZ Wi-Fi connected lighting devices and Philips Hue products. Such Signify products have been sold in retail stores, both brick and mortar and online, within this judicial district and in Texas. *See, e.g., Where to Buy*, PHILIPS, <https://www.usa.lighting.philips.com/consumer/where-to-buy> (providing links to purchase Philips lighting products online or at Home Depot or Walmart stores, which each have multiple locations in this judicial district and elsewhere in Texas).

22. On information and belief, Signify NV purposefully places infringing Signify products in established distribution channels in the stream of commerce by contracting with national retailers who sell Signify’s products in the U.S., including in Texas and this judicial district. Signify NV, directly or through its subsidiaries and affiliates, contracts with these companies with the knowledge and expectation that Signify products will be imported, distributed, advertised, offered for sale, and sold in the U.S. market. *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”). For example, at least Home Depot, Walmart, and Amazon.com offer for sale and sell Signify products, in and specifically for the U.S. market, via their own websites or retail stores located in and selling their products to consumers in Texas and this judicial district. *See, e.g., White and Color Ambiance Dimmable LED Light Strip Plus Smart Wireless Light Base Kit (80”) by Philips Hue*, HOME

DEPOT, <https://www.homedepot.com/p/Philips-Hue-White-and-Color-Ambiance-Dimmable-LED-Light-Strip-Plus-Smart-Wireless-Light-Base-Kit-80-555334/313025879> (last visited January 29, 2021) (showing Signify’s Philips Hue product for sale and in stock at a Home Depot location in Frisco, Texas in this judicial district). Signify NV, directly and through its subsidiaries and affiliates, also provides multiple types of application software for download and use in conjunction with and as part of its wireless lighting devices: the “Philips Hue App” is used in conjunction with Philips Hue products and the “WiZ App” is used in conjunction with WiZ products as well as Philips Smart Lighting products. Both the Philips Hue App and the WiZ App are available via digital distribution platforms by Apple Inc. and Google. *See, e.g., Philips Hue*, GOOGLE PLAY, https://play.google.com/store/apps/details?id=com.philips.lighting.hue2&hl=en_US&gl=US (last visited January 29, 2021) (offering the application for download and indicating that the application is offered by “Signify Netherlands B.V.”); *WiZ*, GOOGLE PLAY, https://play.google.com/store/apps/details?id=com.tao.wiz&hl=en_US&gl=US (last visited January 29, 2021) (offering the application for download and indicating that the application is offered by “WiZ Connected Lighting Company Limited”).

23. Based on Signify NV’s connections, relationships, supply contracts, and other agreements, with subsidiaries in the Signify group (including, but not limited to Defendants Signify China, Signify HK, Signify Netherlands, and Signify Poland and other subsidiaries Signify NA, Genlyte, WiZ, and Cooper Lighting), U.S.-based national retailers, distributors, and digital distribution platforms, Signify NV knows that Texas, including this District, is a termination point of the established distribution channel, namely online and brick and mortar stores offering Signify products, including under the Philips Hue, WiZ, and Cooper Lighting brands, and software to

consumers in Texas. Signify NV, therefore, has purposefully directed its activities at Texas and this District, 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 a customer in the forum state).

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

25. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391. Defendant Signify NV is a foreign entity and may be sued in any judicial district under 28 U.S.C. § 1391(c).

Defendant Signify China

26. On information and belief, Defendant Signify China 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, including: (A) based on at least part of its own infringing activities or those activities committed vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers alleged herein which purposefully avail the Defendant of the privilege of conducting

those activities in this state and this 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/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, Signify China together with parent Defendant Signify NV, Defendants Signify HK, Signify Netherlands, and Signify Poland and other subsidiaries of the Signify group, including Signify NA, Genlyte, WiZ, and Cooper Lighting manufacture, import, distribute, offer for sale, sell, and induce infringing use of Signify products to distribution partners, retailers (including national retailers), resellers, dealers, service providers, consumers, and other users.

27. This Court has personal jurisdiction over Signify China, directly and/or indirectly via the activities of Signify China's intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including parent Defendant Signify NV, Defendants Signify HK, Signify Netherlands, and Signify Poland and other subsidiaries in the Signify group, including Signify NA, Genlyte, WiZ, and Cooper Lighting. Alone and in concert with or via direction and control of or by at least these entities, Signify China 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, Signify China operates within a global network of companies, affiliates and offices for the manufacture, distribution, importation, and sale of Signify products that includes subsidiaries in the Signify group, distributors, retail stores, dealers, resellers, and professional installers operating in Texas, including this District.

28. As a part of Signify's global manufacturing and distribution network, Signify China also purposefully places infringing Signify products in established distribution channels in the stream of commerce, including in Texas, via distribution partners, retailers (including national retailers), resellers, dealers, service providers, consumers, and other users. For example, Signify China manufactures Signify products and makes applications with the Federal Communications Commission (FCC), as the responsible party, for the use and operations of those products in the U.S. See Declaration of Conformity, FCC ID.IO, <https://fccid.io/2AGBW9290022267AX/Letter/Declaration-of-Conformity-FCC-subpart-15B-5266304> (last visited June 8, 2021) (declaration of conformity showing that Signify China appears as the "manufacturer/importer/entity (located in the USA) [that] is responsible for this declaration"). Furthermore, Signify China is the applicant (Grantee Code 2AGBW) listed on at least 110 Signify products seeking FCC approval for use and sale in the U.S. *See Signify (China) Investment Co., Ltd. FCC Wireless Applications*, FCC ID.IO, <https://fccid.io/2AGBW> (last visited June 8, 2021). Via at least its own activities, Signify China should reasonably know and anticipate that those Signify products will be imported, distributed, offered for sale, sold, and used via Signify's established distribution channels in Texas and in this District. Therefore, Signify China, alone and in concert with, its parent entity Defendant Signify NV, its U.S. based Signify subsidiaries, and other members of the Signify group of consolidated subsidiaries has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis. Through its own conduct and through direction and control of its subsidiaries or control by other Defendants Signify NV, Signify HK, Signify Netherlands, and Signify Poland, Signify China 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 Signify China would not offend traditional notions of fair play and substantial justice.

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

30. Venue is proper in this District pursuant to 28 U.S.C. § 1391 because, among other things, Signify China 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).

Defendant Signify HK

31. On information and belief, Defendant Signify HK 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, including: (A) based on at least part of its own infringing activities or those activities committed vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this 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/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, Signify HK together with parent Defendant Signify NV,

Defendants Signify China, Signify Netherlands, and Signify Poland and other subsidiaries of the Signify group, including Signify NA, Genlyte, WiZ, and Cooper Lighting manufacture, import, distribute, offer for sale, sell, and induce infringing use of Signify products to distribution partners, retailers (including national retailers), resellers, dealers, service providers, consumers, and other users.

32. This Court has personal jurisdiction over Signify HK, directly and/or indirectly via the activities of Signify HK's intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including parent Defendant Signify NV, Defendants Signify China, Signify Netherlands, and Signify Poland and other subsidiaries in the Signify group, including Signify NA, Genlyte, WiZ, and Cooper Lighting. Alone and in concert with or via direction and control of or by at least these entities, Signify HK 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, Signify HK operates within a global network of companies, affiliates and offices for the manufacture, distribution, importation, and sale of Signify products that includes subsidiaries in the Signify group, distributors, retail stores, dealers, resellers, and professional installers operating in Texas, including this District.

33. As a part of Signify's global manufacturing and distribution network, Signify HK also purposefully places infringing Signify products in established distribution channels in the stream of commerce, including in Texas, via distribution partners, retailers (including national retailers), resellers, dealers, service providers, consumers, and other users. For example, Signify HK ships into the United States Signify products directly to subsidiary Signify NA, among other subsidiaries and/or third-party distributors. *See Data Shipments of Importer SIGNIFY NORTH*

AMERICA CORP Export by Signify Hong Kong Limited, US IMPORTS, <https://usimports.info/importer-signify-north-america-corp/data-3.html> (indicating 1348 shipments between Signify North America Corp. and Signify Hong Kong Limited) (last visited June 8, 2021). Via at least its own activities, Signify HK should reasonably know and anticipate that those Signify products will be imported, distributed, offered for sale, sold, and used via Signify's established distribution channels in Texas and in this District. Therefore, Signify HK, alone and in concert with, its parent entity Defendant Signify NV, its U.S. based Signify subsidiaries, and other members of the Signify group of consolidated subsidiaries has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis. Through its own conduct and through direction and control of its subsidiaries or control by other Defendants Signify NV, Signify China, Signify Netherlands, and Signify Poland, Signify HK 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 Signify HK would not offend traditional notions of fair play and substantial justice.

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

35. Venue is proper in this District pursuant to 28 U.S.C. § 1391 because, among other things, Signify HK 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).

Defendant Signify Netherlands

36. On information and belief, Defendant Signify Netherlands 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, including: (A) based on at least part of its own infringing activities or those activities committed vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this 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/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, Signify Netherlands together with parent Defendant Signify NV, Defendants Signify China, Signify HK, and Signify Poland and other subsidiaries of the Signify group, including Signify NA, Genlyte, WiZ, and Cooper Lighting manufacture, import, distribute, offer for sale, sell, and induce infringing use of Signify products to distribution partners, retailers (including national retailers), resellers, dealers, service providers, consumers, and other users.

37. This Court has personal jurisdiction over Signify Netherlands, directly and/or indirectly via the activities of Signify Netherlands's intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including parent Defendant Signify NV, Defendants Signify China, Signify HK, and Signify Poland and other subsidiaries in the Signify group, including Signify NA, Genlyte, WiZ, and Cooper Lighting. Alone and in concert with or via direction and control of or by at least these entities, Signify Netherlands 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, Signify Netherlands operates within a global network of companies, affiliates and offices for the manufacture, distribution, importation, and sale of Signify products that includes subsidiaries in the Signify group, distributors, retail stores, dealers, resellers, and professional installers operating in Texas, including this District.

38. As a part of Signify's global manufacturing and distribution network, Signify Netherlands also purposefully places infringing Signify products in established distribution channels in the stream of commerce, including in Texas, via distribution partners, retailers (including national retailers), resellers, dealers, service providers, consumers, and other users. For example, Signify Netherlands imports into the United States Signify products directly to subsidiary Signify NA, among other subsidiaries and/or third-party distributors. *See Data Shipments of Importer SIGNIFY NORTH AMERICA CORP Export by Signify Netherlands B V High Tech Campus, US IMPORTS*, <https://usimports.info/importer-signify-north-america-corp/exporter-signify-netherlands-b-v-high-tech-campus/data-1.html> (indicating at least 281 shipments between Signify North America Corp. and Signify Netherlands BV) (last visited June 8, 2021). Via at least its own activities, Signify Netherlands should reasonably know and anticipate that those Signify products will be imported, distributed, offered for sale, sold, and used via Signify's established distribution channels in Texas and in this District. Therefore, Signify Netherlands, alone and in concert with, its parent entity Defendant Signify NV, its U.S. based Signify subsidiaries, and other members of the Signify group of consolidated subsidiaries has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis. Through its own conduct and through direction and control of its subsidiaries or control by other Defendants Signify NV, Signify China, Signify HK, and Signify Poland, Signify Netherlands 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 Signify Netherlands would not offend traditional notions of fair play and substantial justice.

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

40. Venue is proper in this District pursuant to 28 U.S.C. § 1391 because, among other things, Signify Netherlands 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).

Defendant Signify Poland

41. On information and belief, Defendant Signify Poland 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, including: (A) based on at least part of its own infringing activities or those activities committed vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this 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/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents vicariously through and/or in

concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, Signify Poland together with parent Defendant Signify NV, Defendants Signify China, Signify HK, and Signify Netherlands and other subsidiaries of the Signify group, including Signify NA, Genlyte, WiZ, and Cooper Lighting manufacture, import, distribute, offer for sale, sell, and induce infringing use of Signify products to distribution partners, retailers (including national retailers), resellers, dealers, service providers, consumers, and other users.

42. This Court has personal jurisdiction over Signify Poland, directly and/or indirectly via the activities of Signify Poland's intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including parent Defendant Signify NV, Defendants Signify China, Signify HK, and Signify Netherlands and other subsidiaries in the Signify group, including Signify NA, Genlyte, WiZ, and Cooper Lighting. Alone and in concert with or via direction and control of or by at least these entities, Signify Poland 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, Signify Poland operates within a global network of companies, affiliates and offices for the manufacture, distribution, importation, and sale of Signify products that includes subsidiaries in the Signify group, distributors, retail stores, dealers, resellers, and professional installers operating in Texas, including this District.

43. As a part of Signify's global manufacturing and distribution network, Signify Poland also purposefully places infringing Signify products in established distribution channels in the stream of commerce, including in Texas, via distribution partners, retailers (including national retailers), resellers, dealers, service providers, consumers, and other users. For example, Signify

Poland manufactures and imports into the United States Signify products directly to subsidiary Signify NA, among other subsidiaries and/or third-party distributors. *See US Consignee Data Shipments of Importer - SIGNIFY NORTH AMERICA CORP, US IMPORTS*, <https://usimports.info/importer-signify-north-america-corp/data-3.html> (indicating at least 650 shipments between Signify North America Corp. and Signify Poland SP Zoo) (last visited June 8, 2021). Via at least its own activities, Signify Poland should reasonably know and anticipate that those Signify products will be imported, distributed, offered for sale, sold, and used via Signify's established distribution channels in Texas and in this District. Therefore, Signify Poland, alone and in concert with, its parent entity Defendant Signify NV, its U.S. based Signify subsidiaries, and other members of the Signify group of consolidated subsidiaries has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis. Through its own conduct and through direction and control of its subsidiaries or control by other Defendants Signify NV, Signify China, Signify HK, and Signify Netherlands, Signify Poland 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 Signify Poland would not offend traditional notions of fair play and substantial justice.

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

45. Venue is proper in this District pursuant to 28 U.S.C. § 1391 because, among other things, Signify Poland 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).

46. On information and belief, Defendants Signify NV, Signify China, Signify HK, Signify Netherlands, and Signify Poland have significant ties to, and presence in, the State of Texas and this District, making venue in this judicial district both proper and convenient for this action.

THE ASSERTED PATENTS AND TECHNOLOGY

47. The Asserted Patents cover various aspects of communication, routing, and organizing network nodes within wireless communications networks. The methods and apparatuses described in each of the Asserted Patents apply to mobile ad hoc networks—dynamic wireless networks without any routing structure, such as the networks created among Defendant’s wireless lighting devices.

48. The ’986 patent involves scheduling time slots for communication links between nodes in a wireless communication network in order to mitigate interference and respond to variations. It discusses using those scheduled time slots and data sent between the nodes to determine metrics and priority levels for establishing additional communication links. The methods claimed in the ’986 patent allow for optimized communication within a wireless network.

49. The ’310 patent provides methods for routing message data between nodes in a wireless communication network. It discusses sending route requests from a source node to determine possible routes to a destination node via different intermediate nodes within the network. By using various metrics that describe the links between the network nodes, the possible routes can then be ranked and the best route from the source node to the destination node can be determined. The ’310 patent describes methods and network structures that provide network routes that are more reliable, timelier, and have less traffic loads than previous solutions.

50. The '426 patent describes a wireless communications network with multiple channels as well as methods for utilizing such a network in a way that efficiently makes use of the multiple channels to optimize routing and transmitting data. With multiple channels available, multiple routing requests can be sent and multiple routes can be made available, allowing for an optimal route to be selected.

51. Upon information and belief, a significant portion of Defendants' operating revenue is derived from the manufacture and sale of smart home and internet of things (IoT), including wirelessly connected lighting devices, which are manufactured in the U.S. and/or abroad, imported into the United States, distributed to resellers, dealers, retailers, and third-party manufacturers, and ultimately sold to and used by U.S. consumers. For example, the Signify Defendants utilize their subsidiaries, including Signify NA, Genlyte, WiZ, and Cooper Lighting, distributors, customers, partners, and retailers to provide smart home and internet of things (IoT), including wirelessly connected lighting devices, to consumers. Signify's revenue for products accused herein of infringing the Asserted Patents is substantially represented by its LED and Home divisions which now reside in Signify's Digital Products division. *See Annual Report 2019*, SIGNIFY, at 25 ("In LED electronics, the aim is to lead the transition to smart lighting"); *Id.* at 27 (Discussing sales and innovation for Philips Hue brand under the "Home" section of the report). Signify reported that, in 2019, its LED division had 1.891 billion euros in sales, accounting for 12.7% of Signify's total sales. *Id.* at 25. Signify also reported that, in 2019, its Home division had 521 million euros in sales, accounting for 3.8% of Signify's total sales. *Id.* at 27. Signify states that its strategy in both divisions is to increase sales of its wireless lighting devices. *See id.* at 25 ("LED will drive growth in LED electronics through the transition to smart lighting"); *id.* at 27 ("The consumer

lighting market is expected to benefit from...the increasing adoption of connected home lighting systems.”).

52. In 2020, worldwide sales, including from the U.S., of Signify’s Digital Products were €2.29 billion EUR (about \$2.79 billion U.S. dollars). *Id.* at 25. 80% of Signify’s sales, worldwide, were LED-based sales. *See id.* at 5. Signify derived 37% of its worldwide sales from the Americas, including the U.S.

53. Signify’s smart home and internet of things (IoT), including wirelessly connected lighting devices, use IEEE 802.11 and ZigBee protocols to enable communication between connected devices. *See, e.g., Smart Wi-Fi LED lighting, PHILIPS*, <https://www.usa.lighting.philips.com/consumer/smart-wifi-led> (last visited Jan. 25, 2021); *How Philips Hue Works, PHILIPS HUE*, <https://www.philips-hue.com/en-us/explore-hue/how-it-works#get-started> (last visited Jan. 25, 2021) (“Adding a Hue Bridge activates the built-in ZigBee network”).


54. The Asserted Patents cover wireless communication methods that are incorporated into IEEE 802.11 and ZigBee protocols and the products that utilize them, such as Signify’s wireless lighting devices sold under at least the Signify, Philips, WiZ, Cooper Lighting brands (and sub-brands), their components, accessories, and processes related to the same (referred to herein as the “Accused Products”). For example, Signify’s Philips Lighting brand products are Wi-Fi compliant, and utilize IEEE 802.11 protocols. *See, e.g., Smart Wi-Fi LED lighting, PHILIPS*. Examples of Wi-Fi connected Phillips Lighting products are shown below:

Product type

- ☐ Reflector (47)
- ☐ Tubular (21)
- ☐ Candle (63)
- ☐ Spot (16)
- ☐ Bulb (120)
- ☐ Mini Reflector (16)
- ☐ Luster (1)
- ☐ Spiral (3)
- ☐ Globe (8)
- ☐ Circular (9)
- ☐ Capsule (24)
- ☐ Linear (31)
- ☐ Specialty (37)
- ☒ Smart Lighting (17)

Smart Lighting


Compare ☐



Smart Wi-Fi LED bulb E26

- 1x smart dimmable bulb E26
- Soft White
- Control via voice or app
- Only works with the WiZ app


Compare ☐



Smart Wi-Fi LED bulb E26


- 1x smart dimmable bulb E26
- Daylight
- Control via voice or app
- Only works with the WiZ app

Compare ☐




Smart Wi-Fi LED floodlight bulb E26

- 1x smart dimmable floodlight bulb E26
- Soft White
- Control via voice or app
- Only works with the WiZ app




Smart Wi-Fi LED globe E26

- 1x smart dimmable globe E26
- Soft White
- Control via voice or app
- Only works with the WiZ app



Smart Wi-Fi LED globe E26


- 1x smart dimmable globe E26
- Amber Light
- Control via voice or app
- Only works with the WiZ app



Smart Wi-Fi LED Edison bulb E26


- 1x smart dimmable Edison bulb E26
- Soft White
- Control via voice or app
- Only works with the WiZ app

Compare ☐




Smart Wi-Fi LED Edison bulb E26

Compare ☐



Smart Wi-Fi LED bulb E26

Compare ☐



Smart Wi-Fi LED floodlight bulb E26

Source: https://www.usa.lighting.philips.com/consumer/choose-a-bulb/products#filters=SMARTLIGHTING_BULB_SU&sliders=&support=&price=&priceBoxes=&page=&layout=

55. Further, products sold by Signify's subsidiaries WiZ and Cooper Lighting are also Wi-Fi compliant and utilize IEEE 802.11 protocols:



Source: <https://www.wizconnected.com/en-US/>

The new Wi-Fi + Bluetooth mesh architecture makes the WiZ platform more flexible and reliable, which is why we call it ROBUST. Tasks can be worked on and upgraded separately without impacting other tasks. This new platform will be rolled out from Q1 2021 onwards. Some of the existing WiZified products will be upgradable to ROBUST via OTA update around then.

<p>CONNECTIVITY</p>	<p>NOTIFICATIONS</p>	<p>LIGHT ENGINE</p>	<p>FIRMWARE</p>	<p>PAIRING</p>	<p>CHIP</p>	<p>SENSING</p>
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Source: <https://www.wizconnected.com/en-US/innovation/>

WiZ is proud to announce that it has been acquired by Signify (formerly Philips Lighting), the world leader in lighting for professionals and consumers, and connected lights. WiZ Connected will continue to operate as an autonomous entity, selling its Wi-Fi-based connected products under its own brand name and licensing its open platform technology to other electrical and lighting vendors via co-labelling.

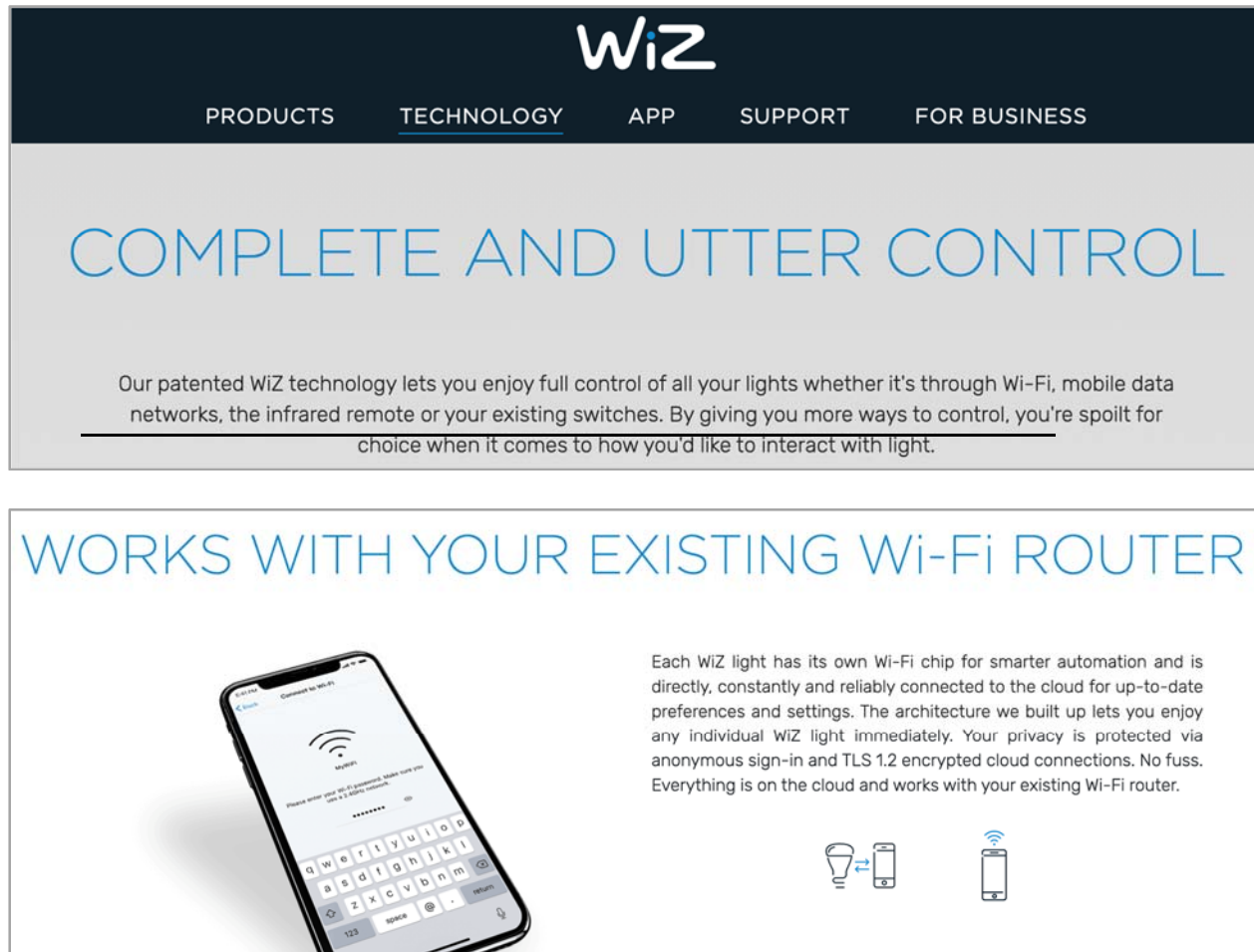
Source: <https://www.wizconnected.com/en-US/about-wiz/>

56. Through subsidiary WiZ, the Signify Defendants manufacture and sell Wi-Fi compliant wireless lighting products that utilize IEEE 802.11 protocols. Examples of Wi-Fi connected WiZ products are shown below:



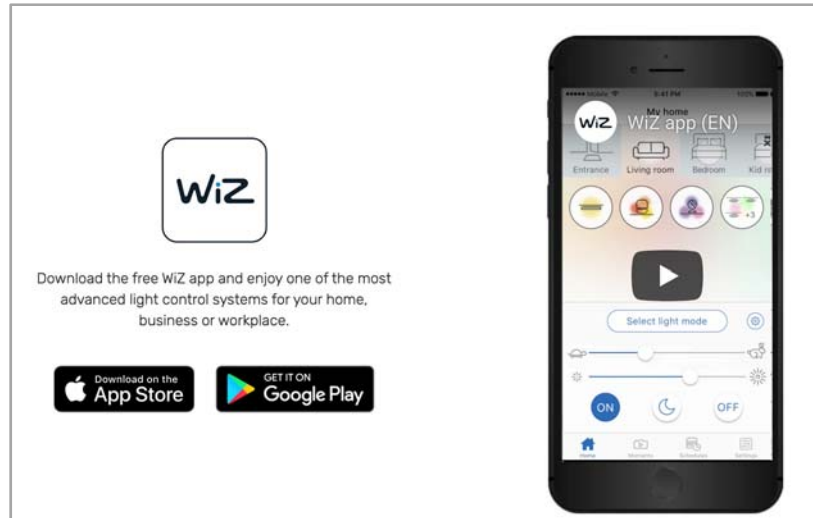
Source: <https://www.wizconnected.com/en-US/consumer/products/>

57. The Signify Defendants offer the WiZ mobile application for controlling Wi-Fi-enabled Signify products. The WiZ application can control Signify's Phillips Lighting brand products as well as Signify's WiZ brand products over Wi-Fi:



The screenshot shows the WiZ website's Technology page. The header is dark blue with the WiZ logo in white. Navigation links include PRODUCTS, TECHNOLOGY (underlined), APP, SUPPORT, and FOR BUSINESS. The main heading is "COMPLETE AND UTTER CONTROL" in large blue letters. Below it, a paragraph states: "Our patented WiZ technology lets you enjoy full control of all your lights whether it's through Wi-Fi, mobile data networks, the infrared remote or your existing switches. By giving you more ways to control, you're spoilt for choice when it comes to how you'd like to interact with light." The second section is titled "WORKS WITH YOUR EXISTING Wi-Fi ROUTER" in large blue letters. It features an image of a smartphone displaying the WiZ app's connection screen. To the right, text explains: "Each WiZ light has its own Wi-Fi chip for smarter automation and is directly, constantly and reliably connected to the cloud for up-to-date preferences and settings. The architecture we built up lets you enjoy any individual WiZ light immediately. Your privacy is protected via anonymous sign-in and TLS 1.2 encrypted cloud connections. No fuss. Everything is on the cloud and works with your existing Wi-Fi router." At the bottom right, there are two icons: a light bulb connected to a smartphone, and a smartphone with a Wi-Fi signal icon.

Source: <https://www.wizconnected.com/en-US/consumer/technology/>.



Source: <https://www.wizconnected.com/en-US/consumer/app/>.



Source: <https://www.usa.lighting.philips.com/consumer/smart-wifi-led>.

58. The Signify Defendants also offer via subsidiary Cooper Lighting in its line of smart home products Wi-Fi compliant products, such as the Internet access bridge product shown below:

HALO Home

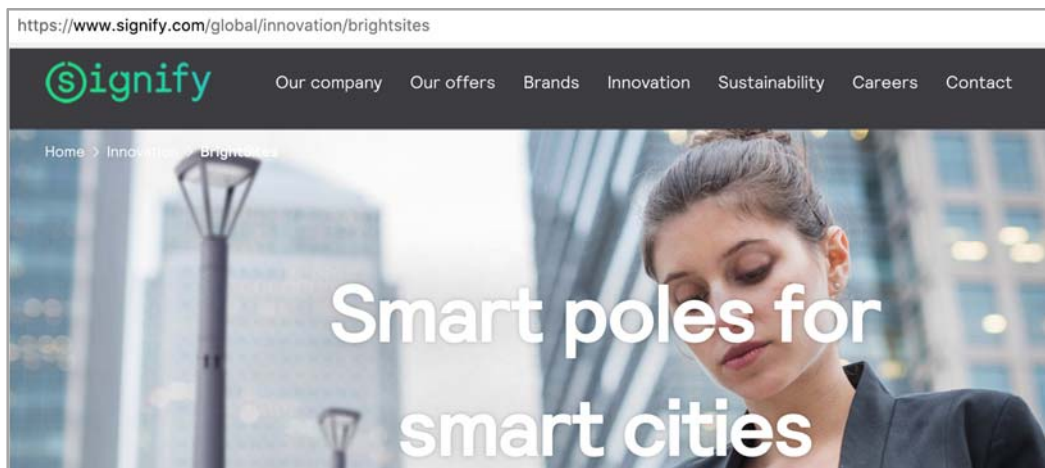
HALO Home Smart Internet Access Bridge - HWB


Brands > HALO Home > HALO Home Smart Internet Access Bridge - HWB



Source: https://www.cooperlighting.com/global/brands/halo-home/939000/halo-home-smart-internet-access-bridge-hwb#What_do_the_LED_indicators_on_the_HALO_Home_Bridge_mean

59. The Signify Defendants also offer BrightSites smart poles—Wi-Fi compliant poles for use in providing Wi-Fi infrastructure and broadband connectivity in cities.





Introducing BrightSites

BrightSites smart poles by Signify turbocharge cities' infrastructure

The digital transformation of public spaces is accelerating rapidly. Yet most components of a city's digital backbone are insufficient to meet the modern connectivity needs of today and tomorrow. The BrightSites smart poles from Signify, offer an all-in-one solution – providing a broadband connectivity, 4G/5G and WiFi infrastructure, as well as platform for number of IoT applications. And all this, while maintaining the aesthetics of the urban environment.

Source: <https://www.signify.com/global/innovation/brightsites>

60. IEEE 802.11 is a wireless communication standard covered by the Asserted Patents and utilized by certain Accused Products. The IEEE 802.11 standard defines a wireless local area network (WLAN) including multiple mobile nodes. Below is an excerpt from the IEEE which discusses a basic overview of the standard, including its use in wireless connectivity.

1. Overview

1.1 Scope

The scope of this standard is to define one medium access control (MAC) and several physical layer (PHY) specifications for wireless connectivity for fixed, portable, and moving stations (STAs) within a local area.

1.2 Purpose

The purpose of this standard is to provide wireless connectivity to automatic machinery, equipment, or STAs that require rapid deployment, which may be portable or hand-held, or which may be mounted on moving vehicles within a local area. This standard also offers regulatory bodies a means of standardizing access to one or more frequency bands for the purpose of local area communication.

Specifically, this standard

- Describes the functions and services required by an IEEE 802.11™-compliant device to operate within ad hoc and infrastructure networks as well as the aspects of STA mobility (transition) within those networks.
- Defines the MAC procedures to support the asynchronous MAC service data unit (MSDU) delivery services.
- Defines several PHY signaling techniques and interface functions that are controlled by the IEEE 802.11 MAC.

- Defines the MAC procedures to support local area network (LAN) applications with quality of service (QoS) requirements, including the transport of voice, audio, and video.

IEEE Std. 802.11TM, 2007 revision at 49-50, IEEE, <https://www.iith.ac.in/~tbr/teaching/docs/802.11-2007.pdf> (June 12, 2007).

61. The IEEE 802.11 standard also includes admission control features for administering policy or regulating bandwidth resources. These features, described in the below excerpt, are utilized by certain Accused Products in order to control channel access within wireless networks.

9.9.3 Admission Control at the HC

An IEEE 802.11 network may use admission control to administer policy or regulate the available bandwidth resources. Admission control is also required when a STA desires guarantee on the amount of time that it can access the channel. The HC, which is in the AP, is used to administer admission control in the network. As the QoS facility supports two access mechanisms, there are two distinct admission control mechanisms: one for contention-based access and another for controlled access.

Admission control, in general, depends on vendors' implementation of the scheduler, available channel capacity, link conditions, retransmission limits, and the scheduling requirements of a given stream. All of these criteria affect the admissibility of a given stream. If the HC has admitted no streams that require polling, it may not find it necessary to perform the scheduler or related HC functions.

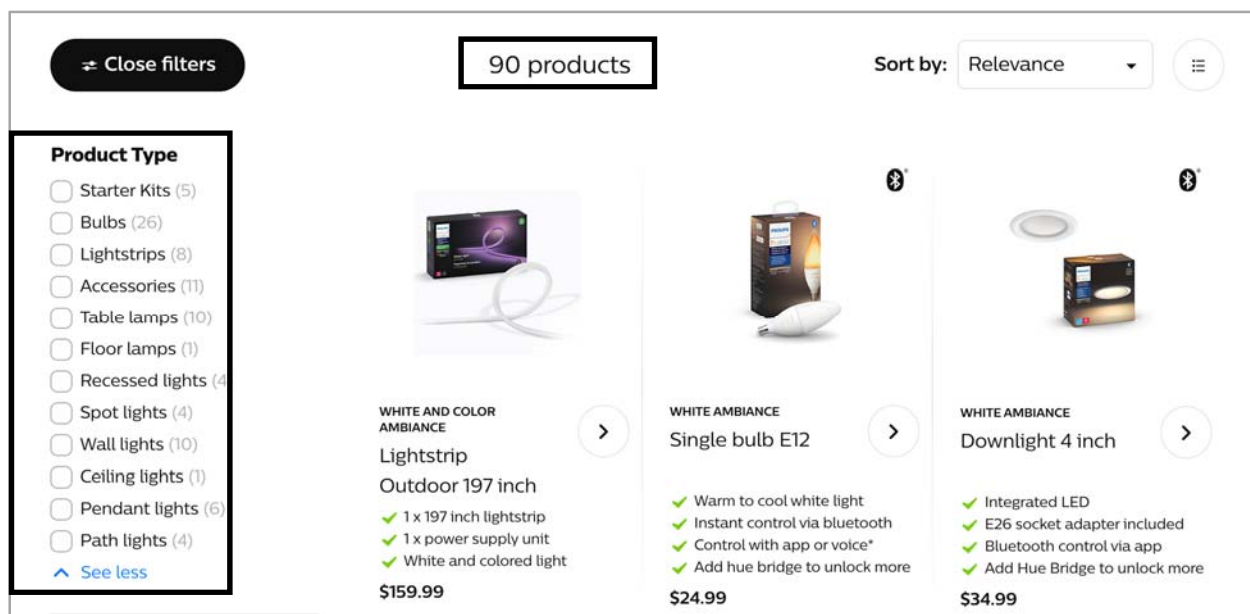
9.9.3.2 Controlled-access admission control

This subclause describes the schedule management of the admitted HCCA streams by the HC. When the HC provides controlled channel access to non-AP STAs, it is responsible for granting or denying polling service to a TS based on the parameters in the associated TSPEC. If the TS is admitted, the HC is responsible for scheduling channel access to this TS based on the negotiated TSPEC parameters. The HC should not initiate a modification of TSPEC parameters of an admitted TS unless requested by the STA. The HC should not tear down a TS unless explicitly requested by the STA or at the expiry of the inactivity timer. The polling service based on admitted TS provides a "guaranteed channel access" from the scheduler in order to have its QoS requirements met. This is an achievable goal when the WM operates free of external interference (such as operation within the channel by other technologies and co-channel overlapping BSS interference). The nature of wireless communications may preclude absolute guarantees to satisfy QoS requirements. However, in a controlled environment (e.g., no interference), the behavior of the scheduler can be observed and verified to be compliant to meet the service schedule.

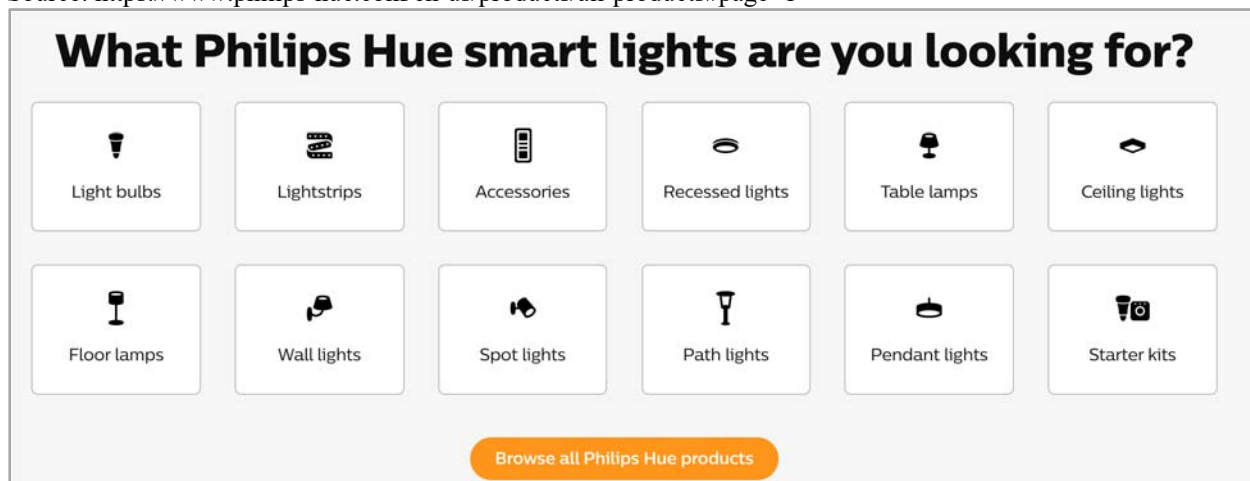
Id. at 346, 348.

62. Further, Signify's Philips Hue products and other wireless lighting products utilize ZigBee protocols. *See, How Philips Hue Works*, PHILIPS HUE, *supra*. The Accused Products

include at least Signify's Philips Hue brand of devices. Examples of Philips Hue devices are shown below:



Source: <https://www.philips-hue.com/en-us/products/all-products#page=1>



Source: <https://www.philips-hue.com/en-us/explore-hue/how-it-works#get-started>


63. Signify's Philips Hue products utilize ZigBee protocols to communicate across a wireless network composed of various Philips Hue products, such as the Philips Hue Bridge and Philips Hue lights. Philips Hue products can be controlled via the Philips Hue mobile application:

Philips Hue with Bridge

Unlock the full experience

Adding a Hue Bridge activates the built-in **Zigbee network** — a more advanced way to control your lights — and unlocks the full suite of smart lighting features: add up to 50 bulbs, set routines, and more.


[Get started with Bridge](#) ✓



Set up a Bridge-controlled system


With any Hue light — including Bluetooth-compatible lights — and the Hue app, you control the lights in your entire home.

1




Install your Hue lights

2



Connect a Hue Bridge

3



[Download the Hue app](#) >










Source: <https://www.philips-hue.com/en-us/explore-hue/how-it-works#get-started>

64. Additionally, Signify's Interact brand of products also utilize ZigBee protocols. Signify's Interact products include various wireless lighting products connected to each other and the Interact Pro gateway product. Signify also offers the Interact Pro mobile app for controlling Interact products.

The Interact Pro software and gateway works seamlessly with Interact Ready LED luminaires, lamps and sensors from Philips to create a connected lighting infrastructure that offers installers a secure transition to connected lighting. Data generated from projects can be used for service contracts based alerts on light failures, optimized energy usage and light schemes.

Source: <https://www.interact-lighting.com/en-in/what-is-possible/interact-pro>.

Whatever you need: **it's Interact Ready**

 <p>CoreLine Downlight</p> <p>View category ›</p>	 <p>CoreLine Panel</p> <p>View category ›</p>	 <p>CoreLine Recessed</p> <p>View category ›</p>	 <p>CoreLine SlimDownlight</p> <p>View category ›</p>
 <p>CoreLine Surface-mounted</p> <p>View category ›</p>	 <p>CoreLine Waterproof</p> <p>View category ›</p>	 <p>MasterConnect LEDtube EM/Mains T8</p> <p>View category ›</p>	 <p>OCC SENSOR IA CM IP42 WH</p> <p>View product ›</p>
 <p>UID8450/10 ZGP Switch Dim 2B</p> <p>View product ›</p>			

Source: <https://www.lighting.philips.com/main/products/interact-ready>.



Interact Pro gateway

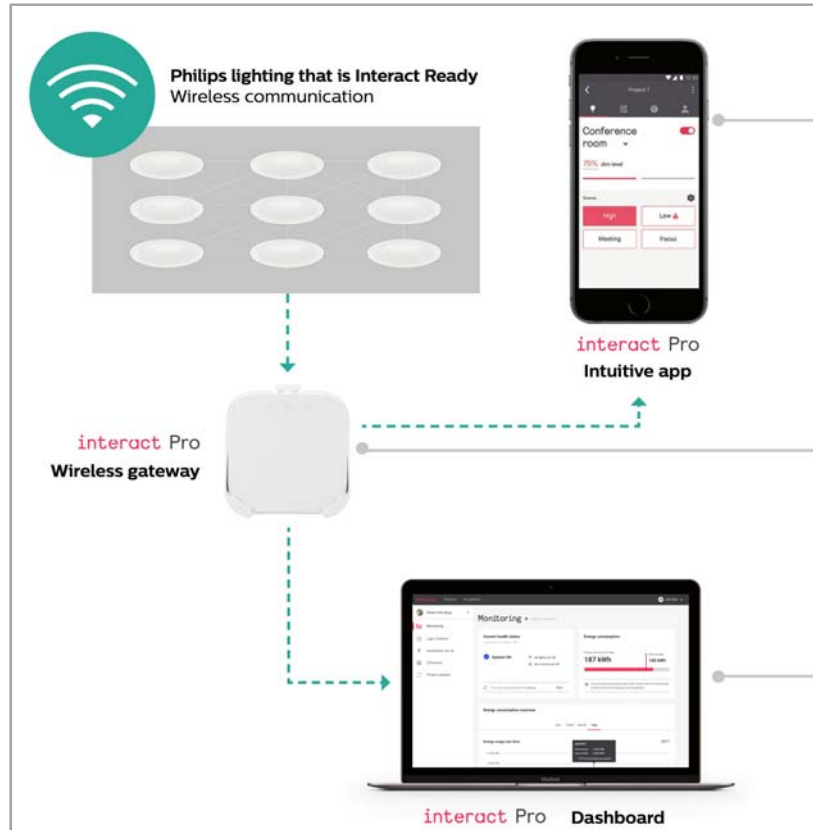
The heart of the connected lighting system

Interact Pro gateway is the heart of the connected lighting system. It connects the system to the cloud via the Internet. It enables the Interact Ready luminaires, lamps and accessories to communicate sending information to the cloud and the system to be accessed via the Interact Pro apps and dashboard. The gateway features an easy commissioning process during the initial installation.

The Interact Pro gateway establishes secure wireless Zigbee connections with up to 200 light points. The wireless connection allows bi-directional control and sensor data to be exchanged between Interact Ready luminaires, lamps, sensors and switches and the Interact Pro system and software.



Source: <https://www.interact-lighting.com/en-in/what-is-possible/interact-pro/gateway>.



Source: https://images.philips.com/is/content/PhilipsConsumer/PDFDownloads/Global/PDFs/ODLI06062018_en_AA_Interact_Ready_RPRQ_brochure_A4.pdf, p. 5

65. ZigBee protocols, which are covered by the Asserted Patents and utilized by certain Accused Products, are based on the IEEE 802.15.4 standard for wireless network communication. Below is an excerpt from the technical specification for ZigBee protocols describing the basic architecture and standards that enable wireless network communication.

1.1 Protocol Description

The ZigBee Alliance has developed a very low-cost, very low-power-consumption, two-way, wireless communications standard. Solutions adopting the ZigBee standard will be embedded in consumer electronics, home and building automation, industrial controls, PC peripherals, medical sensor applications, toys, and games.

1.1.3 Stack Architecture

The ZigBee stack architecture is made up of a set of blocks called layers. Each layer performs a specific set of services for the layer above. A data entity provides a data transmission service and a management entity provides all other services. Each service entity exposes an interface to the upper layer through a service access point (SAP), and each SAP supports a number of service primitives to achieve the required functionality.

The IEEE 802.15.4 standard defines the two lower layers: the physical (PHY) layer and the medium access control (MAC) sub-layer. The ZigBee Alliance builds on this foundation by providing the network (NWK) layer and the framework for the application layer. The application layer framework consists of the application support sub-layer (APS) and the ZigBee device objects (ZDO). Manufacturer-defined application objects use the framework and share APS and security services with the ZDO.

The PHY layer operates in two separate frequency ranges: 868/915 MHz and 2.4 GHz. The lower frequency PHY layer covers both the 868 MHz European band and the 915 MHz band, used in countries such as the United States and Australia. The higher frequency PHY layer is used virtually worldwide. A complete description of the PHY layers can be found in [B1].

ZigBee Specification, revision r21 at 1, THE ZIGBEE ALLIANCE, <https://zigbeealliance.org/wp-content/uploads/2019/11/docs-05-3474-21-0csg-zigbee-specification.pdf> (August 5, 2015).

66. The IEEE 802.15.4 standard based mobile ad-hoc network, utilized by the Accused Products, is a type of Low-Rate Wireless Personal Area Network (LR-WPAN) that allows transmission of data between plurality of network nodes. The types of nodes include an FFD—full-

function device (functioning as a network coordinator node) and an RFD—reduced function device (node that associates itself with the FFD).

IEEE STANDARDS ASSOCIATION

**IEEE Standard for
Local and metropolitan area networks—**

**Part 15.4: Low-Rate Wireless Personal Area
Networks (LR-WPANs)**

4. General description

4.1 General

An LR-WPAN is a simple, low-cost communication network that allows wireless connectivity in applications with limited power and relaxed throughput requirements. The main objectives of an LR-WPAN are ease of installation, reliable data transfer, extremely low cost, and a reasonable battery life, while maintaining a simple and flexible protocol.

Two different device types can participate in an IEEE 802.15.4 network: a full-function device (FFD) and a reduced-function device (RFD). An FFD is a device that is capable of serving as a personal area network (PAN) coordinator or a coordinator. An RFD is a device that is not capable of serving as either a PAN coordinator or a coordinator. An RFD is intended for applications that are extremely simple, such as a light switch or a passive infrared sensor; it does not have the need to send large amounts of data and only associates with a single FFD at a time. Consequently, the RFD can be implemented using minimal resources and memory capacity.

4.2 Components of the IEEE 802.15.4 WPAN

A system conforming to this standard consists of several components. The most basic is the device. Two or more devices communicating on the same physical channel constitute a WPAN. However, this WPAN includes at least one FFD, which operates as the PAN coordinator.

Page 8, http://ecee.colorado.edu/~liue/teaching/comm_standards/2015S_zigbee/802.15.4-2011.pdf

67. By utilizing IEEE 802.11 and/or ZigBee protocols, the Accused Products perform methods for communication, routing, and organizing network nodes within wireless communications networks that are covered by the Asserted Patents. Each respective Count below describes how the Accused Products infringe on specific claims of the Asserted Patents.

COUNT I

(INFRINGEMENT OF U.S. PATENT NO. 6,958,986)

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

69. Plaintiff is the assignee of the '986 patent, entitled "Wireless Communication System with Enhanced Time Slot Allocation and Interference Avoidance/Mitigation Features and Related Methods," with ownership of all substantial rights in the '986 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

70. The '986 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '986 patent issued from U.S. Patent Application No. 10/401,004.

71. The Signify Defendants have and continue to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '986 patent in this judicial district and elsewhere in Texas and the United States.

72. On information and belief, the Signify Defendants design, develop, manufacture, assemble, and markets smart home, IoT connected devices, including wirelessly connected lighting devices configured to utilize IEEE 802.11 and/or ZigBee protocols such as the Accused Products (*see Smart Wi-Fi LED lighting*, PHILIPS, *supra*; *How Philips Hue Works*, PHILIPS HUE, *supra*), including via Signify's subsidiaries, such as Signify NA, Genlyte, WiZ, and Cooper Lighting, partners, distributors, retailers, customers, and consumers.

73. Defendants each directly infringe the '986 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing the Accused Products, their components, and/or products containing the same that incorporate the fundamental technologies covered by the '986 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, on information and belief, each Defendant sells and

makes the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '986 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)”).

74. Furthermore, Defendant Signify NV directly infringes the '986 patent through its direct involvement in the activities of other Defendants Signify China, Signify HK, Signify Netherlands, and Signify Poland and other subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, including by Defendants' selling and offering for sale the Accused Products directly to other subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, and importing the Accused Products into the United States for those entities. On information and belief, subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, conduct activities in the U.S. that constitute direct infringement of the '986 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. Each Defendant is vicariously liable for this infringing conduct of subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting (under both the alter ego and agency theories) because, as an example and on information and belief, parent company Signify NV, Defendants Signify China, Signify HK, Signify Netherlands, and Signify Poland, and other subsidiaries in the Signify Group, including

Signify NA, Genlyte, WiZ, and Cooper Lighting, are essentially the same company, and the Signify Defendants have the right and ability to control the infringing acts of subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, and the Signify Defendants receive a direct financial benefit from the infringement of those subsidiaries.

75. For example, the Signify Defendants infringe claim 25 of the '986 patent via the Accused Products, including, but not limited to, Philips Lighting Smart Wi-Fi LED bulbs, WiZ bulbs (including bulbs, candle bulbs, Reflector & Globe bulbs, and filament bulbs), WiZ Smart Plugs, WiZ LED Strips, WiZ Motion Sensor, WiZmote, WiZ Smart Dimmer, BrightSite smart poles, Philips Hue Bridge, Philips Hue lighting (including bulbs, lightstrips, recessed lights, ceiling lights, spot lights, path lights, and pendant lights), Philips Interact Pro Gateway, Philips CoreLine Downlight, Philips CoreLine Panel, Philips CoreLine Recessed, Philips CoreLine SlimDownlight, Philips CoreLine Surface-mounted, Philips CoreLine Waterproof, Philips MasterConnect LEDtub EM/Mains T8, Philips OCC Sensor IA CM IP42 WH, Philips UID8450/10 ZGP Switch Dim 2B and products of Cooper Lighting, which utilize IEEE 802.11 and/or ZigBee protocols.

76. The Accused Products implement the “communication method for a wireless communication network comprising a plurality of mobile nodes each comprising a data queue” of claim 25. Each of the Accused Products utilizes IEEE 802.11 and/or ZigBee protocols. IEEE 802.11 is a standard for wireless connectivity for fixed, portable, and moving stations (“STAs”) within a mobile area. *See IEEE, supra*. ZigBee protocols are based on the IEEE 802.15.4 standard and involve communication between two or more devices on a wireless channel. *See THE ZIGBEE ALLIANCE, supra*.

77. The Accused Products schedule respective semi-permanent time slots to establish

communication links between respective pairs of mobile nodes for transmitting data stored in the data queues therebetween. For example, by following the IEEE 802.11 standard, each of the Accused Products uses a contention-based channel access method, wherein multiple STAs compete to transmit data in a contention period. Moreover, by utilizing ZigBee protocols, each of the Accused Products includes contention access period (“CAP”) time slots. By default, network nodes use CAP time slots for data and frame transmission.

78. The Accused Products determine link utilization metrics for each communication link based upon a quantity of data previously sent over the communication link during the semi-permanent time slots and the data queues. For example, by following the IEEE 802.11 standard, the Accused Products allocate transmit opportunities (“TXOPs”) based on traffic queues such as pending traffic and queue size (i.e., link utilization metrics). Higher traffic queues lead to higher TXOP duration and higher link utilization. Moreover, by utilizing ZigBee protocols, the Accused Products store queues of pending transactions then transmit the transactions on a first-come-first-served basis to nodes that request them. The transactions are transmitted according to algorithms (i.e., link utilization metrics); the transaction remains in the queue if the algorithm fails.

79. The Accused Products schedule demand assigned time slots for establishing additional communication links between the pairs of mobile nodes for transmitting the data based upon the link utilization metrics. For example, by following the IEEE 802.11 standard, the Accused Products provide QoS supported channel access, where channel access or TXOPs are scheduled based on respective channel requirements. Moreover, by utilizing ZigBee protocols, each of the Accused Products schedule guaranteed time slots (“GTS,” i.e., assigned time slots) for transmission of data. The GTSs are dedicated to nodes or devices that require specific data bandwidth or latency (i.e., link utilization metrics) for transmission.

80. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

81. At a minimum, the Signify Defendants have known of the '986 patent at least as early as the filing date of this complaint. In addition, the Signify Defendants have known about the '986 patent since at least March 12, 2018, when the Defendants (under their previous parent name as Philips Lighting) received a letter regarding infringement of the patent portfolio, including the '986 patent, related to wireless communication network products, which specifically referenced the infringing use of IEEE 802 and ZigBee standards and included a list of Signify's infringing products.

82. On information and belief, since at least the above-mentioned date when the Signify Defendants were on notice of their infringement, the Signify Defendants have actively induced, under U.S.C. § 271(b), their distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '986 patent to directly infringe one or more claims of the '986 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, the Signify Defendants do so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '986 patent. Upon information and belief, the Signify Defendants intend to cause, and have taken affirmative steps to induce, infringement by distributors, importers, customers, subsidiaries, and/or consumers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining 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, testing IEEE 802.11 and/or ZigBee protocol features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to purchasers in the United States. *See, e.g., Smart mood lighting*, PHILIPS HUE, https://www.philips-hue.com/en-us/explore-hue/propositions/personal-mood-lighting?origin=8rOWCaZO&pcrid=438137758935|mckv|s8rOWCaZO_dc|plid||slid||pgrid|86117087888|ptaid|aud-517506575422:kwd-44175898474|product||&gclid=EAiaIQobChMIuajvo7bC7gIVHCmzAB3gxwGZEAAYASAAEgK5yvD_BwE (last visited January 29, 2021) (“Control up to 10 lights in a single room with a Bluetooth-enabled LED bulb and the Hue Bluetooth app”); *Smart Lighting For Your Daily Living*, WiZ, <https://www.wizconnected.com/en-US/consumer/>, (last visited January 29, 2021) (“Take Absolute Control: Get your Wi-Fi lights to do what you want and more”).

83. On information and belief, despite having knowledge of the ’986 patent and knowledge that they are directly and/or indirectly infringing one or more claims of the ’986 patent, the Signify Defendants have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement. The Signify Defendants’ infringing activities relative to the ’986 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.

84. Stingray has been damaged as a result of the Signify Defendants’ infringing conduct described in this Count. The Signify Defendants are thus jointly and severally liable to Stingray in an amount that adequately compensates Stingray for the Signify 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. 6,961,310)

85. Plaintiff incorporates paragraphs 1 through 84 herein by reference.

86. Plaintiff is the assignee of the '310 patent, entitled "Multiple Path Reactive Routing in a Mobile Ad Hoc Network," with ownership of all substantial rights in the '310 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

87. The '310 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '310 patent issued from U.S. Patent Application No. 10/214,997.

88. The Signify Defendants have and continue to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '310 patent in this judicial district and elsewhere in Texas and the United States.

89. On information and belief, the Signify Defendants design, develop, manufacture, assemble, and market wireless lighting devices configured to utilize ZigBee protocols such as the Accused Products (*see How Philips Hue Works*, PHILIPS HUE, *supra*), including via Signify's subsidiaries, such as Signify NA, Genlyte, WiZ, and Cooper Lighting, partners, distributors, retailers, customers, and consumers.

90. Defendants each directly infringe the '310 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing the Accused Products, their components, and/or products containing the same that incorporate the fundamental technologies covered by the '310

patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, on information and belief, each Defendant sells and makes the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '310 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)”).

91. Furthermore, Defendant Signify NV directly infringes the '310 patent through its direct involvement in the activities of other Defendants Signify China, Signify HK, Signify Netherlands, and Signify Poland and other subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, including by Defendants' selling and offering for sale the Accused Products directly to other subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, and importing the Accused Products into the United States for those entities. On information and belief, subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, conduct activities in the U.S. that constitute direct infringement of the '310 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. Each Defendant is vicariously liable for this infringing conduct of subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting (under both the alter ego and agency theories) because, as an example and on

information and belief, parent company Signify NV, Defendants Signify China, Signify HK, Signify Netherlands, and Signify Poland, and other subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, are essentially the same company, and the Signify Defendants have the right and ability to control the infringing acts of subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, and the Signify Defendants receive a direct financial benefit from the infringement of those subsidiaries.

92. For example, the Signify Defendants infringe claim 13 of the '310 patent via the Accused Products such as Philips Hue Bridge, Philips Hue lighting (including bulbs, lightstrips, recessed lights, ceiling lights, spot lights, path lights, and pendant lights), Philips Interact Pro Gateway, Philips CoreLine Downlight, Philips CoreLine Panel, Philips CoreLine Recessed, Philips CoreLine SlimDownlight, Philips CoreLine Surface-mounted, Philips CoreLine Waterproof, Philips MasterConnect LEDtub EM/Mains T8, Philips OCC Sensor IA CM IP42 WH, and Philips UID8450/10 ZGP Switch Dim 2B, which utilize ZigBee protocols.

93. The Accused Products implement the “method for routing message data from a source node to a destination node in a mobile ad hoc network comprising a plurality of intermediate mobile nodes between the source node and the destination node, and a plurality of wireless communication links connecting the nodes together” of claim 13. Each of the Accused Products utilizes ZigBee protocols. ZigBee protocols are based on the IEEE 802.15.4 standard and involve communication between two or more devices on a wireless channel. *See THE ZIGBEE ALLIANCE, supra.*

94. The Accused Products discover, at the source node, routing to the destination node. For example, by utilizing ZigBee protocols, the Accused Products use route request commands, route request identifiers, and route reply commands to discover routing to the destination node.

95. The Accused Products rank, at the source node, discovered routes according to at least one metric. For example, by utilizing ZigBee protocols, the Accused Products use a path cost metric for route comparison (i.e., ranking discovered routes).

96. The Accused Products simultaneously distribute, at the source node, message data to the destination node along a plurality of the discovered routes based upon the ranking. For example, by utilizing ZigBee protocols, the Accused Products distribute message data (e.g., relay messages or deliver packets) to destination nodes.

97. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

98. At a minimum, the Signify Defendants have known of the '310 patent at least as early as the filing date of this complaint. In addition, the Signify Defendants have known about the '310 patent since at least March 12, 2018, when the Signify Defendants (under their previous name as Philips Lighting) received a letter regarding infringement of the patent portfolio, including the '310 patent, related to wireless communication network products, which specifically referenced the infringing use of IEEE 802 and ZigBee standards and included a list of Signify's infringing products.

99. Upon information and belief, since at least the above-mentioned date when the Signify Defendants were on notice of their infringement, the Signify Defendants have actively induced, under U.S.C. § 271(b), their distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '310 patent to directly infringe one or more claims of the '310 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, the Signify Defendants do so with

knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '310 patent. Upon information and belief, the Signify Defendants intend to cause, and have taken affirmative steps to induce, infringement by distributors, importers, customers, subsidiaries, and/or consumers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining 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, testing IEEE 802.11 and/or ZigBee protocol features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to purchasers in the United States. *See, e.g., Smart mood lighting*, PHILIPS HUE, https://www.philips-hue.com/en-us/explore-hue/propositions/personal-mood-lighting?origin=8rOWCaZO&pcrid=438137758935|mckv|s8rOWCaZO_dc|plid||slid||pgrid|86117087888|ptaid|aud-517506575422:kwd-44175898474|product||&gclid=EAIaIQobChMIuajvo7bC7gIVHCmzAB3gxwGZEAAYASAAEgK5yvD_BwE (last visited June 8, 2021) (“Control up to 10 lights in a single room with a Bluetooth-enabled LED bulb and the Hue Bluetooth app”); *Smart Lighting For Your Daily Living*, WiZ, <https://www.wizconnected.com/en-US/consumer/>, (last visited January 29, 2021) (“Take Absolute Control: Get your Wi-Fi lights to do what you want and more”).

100. Upon information and belief, despite having knowledge of the '310 patent and knowledge that they are directly and/or indirectly infringing one or more claims of the '310 patent, the Signify Defendants have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement. The Signify Defendants' infringing activities relative to the '310 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.

101. Stingray has been damaged as a result of the Signify Defendants' infringing conduct described in this Count. The Signify Defendants are thus jointly and severally liable to Stingray in an amount that adequately compensates Stingray for the Signify 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. 7,027,426)

102. Plaintiff incorporates paragraphs 1 through 101 herein by reference.

103. Plaintiff is the assignee of the '426 patent, entitled "Multi-channel Mobile Ad Hoc Network," with ownership of all substantial rights in the '426 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

104. The '426 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '426 patent issued from U.S. Patent Application No. 10/212,594.

105. The Signify Defendants have and continue to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '426 patent in this judicial district and elsewhere in Texas and the United States.

106. On information and belief, the Signify Defendants design, develop, manufacture, assemble, and market wireless lighting devices configured to utilize ZigBee protocols such as the Accused Products (*see How Philips Hue Works*, PHILIPS HUE, *supra*), including via Signify's

subsidiaries, such as Signify NA, Genlyte, WiZ, and Cooper Lighting, partners, distributors, retailers, customers, and consumers.

107. Defendants each directly infringe the 4260 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing the Accused Products, their components, and/or products containing the same that incorporate the fundamental technologies covered by the '426 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, on information and belief, each Defendant sells and makes the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '426 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)”).

108. Furthermore, Defendant Signify NV directly infringes the '426 patent through its direct involvement in the activities of other Defendants Signify China, Signify HK, Signify Netherlands, and Signify Poland and other subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, including by Defendants' selling and offering for sale the Accused Products directly to other subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, and importing the Accused Products into the United States for those entities. On information and belief, subsidiaries in the Signify Group, including Signify

NA, Genlyte, WiZ, and Cooper Lighting, conduct activities in the U.S. that constitute direct infringement of the '426 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. Each Defendant is vicariously liable for this infringing conduct of subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting (under both the alter ego and agency theories) because, as an example and on information and belief, parent company Signify NV, Defendants Signify China, Signify HK, Signify Netherlands, and Signify Poland, and other subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, are essentially the same company, and the Signify Defendants have the right and ability to control the infringing acts of subsidiaries in the Signify Group, including Signify NA, Genlyte, WiZ, and Cooper Lighting, and the Signify Defendants receive a direct financial benefit from the infringement of those subsidiaries.

109. For example, the Signify Defendants infringe claim 8 of the '426 patent via the Accused Products such Philips Hue Bridge, Philips Hue lighting (including bulbs, lightstrips, recessed lights, ceiling lights, spot lights, path lights, and pendant lights), Philips Interact Pro Gateway, Philips CoreLine Downlight, Philips CoreLine Panel, Philips CoreLine Recessed, Philips CoreLine SlimDownlight, Philips CoreLine Surface-mounted, Philips CoreLine Waterproof, Philips MasterConnect LEDtub EM/Mains T8, Philips OCC Sensor IA CM IP42 WH, and Philips UID8450/10 ZGP Switch Dim 2B, which utilize ZigBee protocols.

110. The Accused Products implement the “method for operating a mobile ad hoc network comprising a plurality of wireless mobile nodes and a plurality of wireless communication links connecting the plurality of nodes together over a plurality of electrically separate wireless channels” of claim 8. Each of the Accused Products utilizes ZigBee protocols. ZigBee protocols are based on the IEEE 802.15.4 standard and involve communication between

two or more devices on a wireless channel. *See* THE ZIGBEE ALLIANCE, *supra*.

111. The Accused Products, at a source node, send a route request over each of the plurality of electrically separate channels to discover routing to a destination node. For example, by utilizing ZigBee protocols, the Accused Products use route request commands, route request identifiers, and route reply commands to discover routing to the destination node.

112. The Accused Products, at the source node, select a route to the destination node on at least one of the plurality of electrically separate channels. For example, by utilizing ZigBee protocols, the Accused Products select a route for relayed messages to a destination device by choosing a route with the lowest path cost among multiple routes (i.e., a plurality of electrically separate channels).

113. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

114. At a minimum, the Signify Defendants have known of the '426 patent at least as early as the filing date of this complaint. In addition, the Signify Defendants have known about the '426 patent since at least March 12, 2018, when the Signify Defendants (under their previous name as Philips Lighting) received a letter regarding infringement of the patent portfolio, including the '426 patent, related to wireless communication network products, which specifically referenced the infringing use of IEEE 802 and ZigBee standards and included a list of Signify's infringing products.

115. Upon information and belief, since at least the above-mentioned date when the Signify Defendants were on notice of their infringement, the Signify Defendants have actively induced, under U.S.C. § 271(b), their distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all

of the limitations of one or more claims of the '426 patent to directly infringe one or more claims of the '426 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, the Signify Defendants do so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '426 patent. Upon information and belief, the Signify Defendants intend to cause, and have taken affirmative steps to induce, infringement by distributors, importers, customers, subsidiaries, and/or consumers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining 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, testing IEEE 802.11 and/or ZigBee protocol features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to purchasers in the United States. *See, e.g., Smart mood lighting*, PHILIPS HUE, https://www.philips-hue.com/en-us/explore-hue/propositions/personal-mood-lighting?origin=8rOWCaZO&pcriid=438137758935|mckv|s8rOWCaZO_dc|plid||slid||pgrid|86117087888|ptaid|aud-517506575422:kwd-44175898474|product||&gclid=EAIaIQobChMIuajvo7bC7gIVHCmzAB3gxwGZEAAYASAAEgK5yvD_BwE (last visited June 8, 2021) (“Control up to 10 lights in a single room with a Bluetooth-enabled LED bulb and the Hue Bluetooth app”); *Smart Lighting For Your Daily Living*, WiZ, <https://www.wizconnected.com/en-US/consumer/>, (last visited January 29, 2021) (“Take Absolute Control: Get your Wi-Fi lights to do what you want and more”).

116. Upon information and belief, despite having knowledge of the '426 patent and knowledge that they are directly and/or indirectly infringing one or more claims of the '426 patent,

the Signify Defendants have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement. The Signify Defendants' infringing activities relative to the '426 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.

117. Stingray has been damaged as a result of the Signify Defendants' infringing conduct described in this Count. The Signify Defendants are thus jointly and severally liable to Stingray in an amount that adequately compensates Stingray for the Signify 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

118. Plaintiff 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.

119. 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

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

PRAYER FOR RELIEF

121. Plaintiff 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 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: June 14, 2021

Respectfully submitted,

/s/ Jeffrey R. Bragalone by permission
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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing PLAINTIFF'S FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT was filed electronically in compliance with Local Rule CV-5(a). Therefore, this document was served on all counsel who are deemed to have consented to electronic service on June 14, 2021.

/s/ Wesley Hill