

330-332, available at <https://www.legrandgroup.com/en/investors-and-shareholders/annual-report-and-registration-document/2020> (last visited June 1, 2021).

3. On information and belief, Defendant Legrand France (referred to herein as “Legrand France”) is a *société anonyme* (public limited company) incorporated in France. *See id.* Its principal and registered office is located at 128 avenue du Maréchal de Lattre de Tassigny, 87000 Limoges, France. *Id.* Legrand France’s main activity is “designing and manufacturing products and systems for electrical installations and their components.” *Id.*

4. On information and belief, Bticino SpA (referred to herein as “Bticino”) is a public limited company incorporated in Italy, with its principal and registered office at Viale Borri 231, 21100 Varese, Italy. *Id.* Bticino is wholly owned by Legrand France. *Id.* Bticino’s main activity is “designing and manufacturing products and systems for electrical installations and their components.” *Id.*

5. On information and belief, Defendant Legrand SNC (referred to herein as “Legrand SNC”) is a *société en nom collectif* organized under the laws of France, with its principal place of business located at 128, avenue du Maréchal de Lattre de Tassigny – 87000 Limoges (France). According to import records, Legrand SNC imports Legrand products into the U.S. on behalf of Legrand and its subsidiaries.

6. On information and belief, Defendants Legrand, Legrand France, and Legrand SNC share the same headquarters in France. *See 2020 Universal Registration Document, LEGRAND*, pp. 330-332. Moreover, Defendants operate within a group of 212 subsidiaries (the “Legrand Group”) operating in 90 countries. *See id.* at 13.

7. On information and belief, Defendants and other members of the Legrand Group are controlled by the parent company Legrand. *See id.* at 330-333. Legrand provides “general

management and financial services to manage the Group’s operations.” *Id.* Together with their wholly owned and controlled subsidiaries, Legrand and the Legrand Group are a “global specialist in electrical and digital building infrastructures.” *Id.* The Legrand Group sells its products in 180 countries. *See id.* at p. 13.

8. This Action alleges infringement of the Asserted Patents by Legrand products. On information and belief, Legrand’s products include infringing connected devices, such as Internet-of-Things (“IoT”) and smart home devices. In 2015, Legrand launched its “Eliot” program which aimed to increase connected devices, e.g., IoT devices, within the Legrand Group’s offering. *See id.* at pp. 28-29. From 2014 to 2018, sales of connected products increased “at an average annual rate of +28% total.” *Id.* In 2018, Legrand acquired Netatmo, a “French leading player in connected objects for smart homes,” and used this acquisition to further develop residential solutions. *Id.* In 2020, sales from connected products amounted to €801 million, and accounted for more than 13% of the Legrand Group’s total sales in 2020. *Id.* There are now more than 40 connected products families and are intended for residential and non-residential applications. *See id.*

9. On information and belief, Legrand’s design and development of products includes “collaborations, strategic partnerships” such as with “Apple, Google, Microsoft, and Amazon.” *Id.* Legrand is also involved with “various technology alliances” such as “Open Connectivity Foundation, ZigBee Alliance, Thread Group and the Wireless Power Consortium.” *Id.* Such alliances “ensure the interoperability of its range with those of other companies and to take part in defining the standards of tomorrow,” and “are especially important since building management systems often use different protocols.” *Id.* Legrand’s collaborations and alliances also advance the Works with Legrand program. *See Works With Legrand: Interoperability In Action*, LEGRAND, <https://www.legrandgroup.com/en/group/eliot-legrands-connected-objects-program/works->

legrand-interopability-action (“For Legrand, interoperability is essential to the success of the IoT.”) (last visited June 2, 2021).

10. On information and belief, Defendants’ Legrand products are designed and manufactured on a global basis, including outside of the United States, and then imported into the U.S., distributed, marketed, installed, and sold, under their various brands, to distributors, installers and/or end-users via pre-existing relationships with distributors and other product specifiers, via the internet and in brick and mortar stores in the U.S., in Texas and this District. The Legrand Group organizes its operation “based on two district roles”: The “Front Office,” which is organized by country, is responsible for “sales and operational marketing activities,” and the “Back Office,” which is organized on a global basis,” is responsible for “activities connected to strategy, operations (innovations, R&D, manufacturing, purchasing, and logistics) and general administration.” *See id.* at pp. 42-46. On information and belief, Legrand’s Front Office operations includes “accessing a market consisting a wide variety of users,” i.e., “distributors, electrical installers, product specifiers and end-users.” *Id.* Defendants’ distribution chain is organized such that manufacturers, such as those in the Legrand Group’s Back Office sell their products to distributors who in turn sell to electrical installers. *Id.* These installers install Legrand products in buildings, both residential and non-residential for use by end-users, e.g., homeowners. *Id.*

11. On information and belief, Defendants, via the Legrand Group, maintain a corporate presence in the United States, including in Texas and in this District, via at least their wholly owned and controlled U.S.-based subsidiaries. *See id.* at pp. 274 (“List of main consolidated companies” which are “100% owned”). Defendants’ U.S. subsidiaries include Legrand AV Inc. (“Legrand AV”), which is a Delaware corporation with its principal office located at 6436 City West Parkway, Eden Prairie, MN 55344. Legrand AV’s registered agent is The Corporation Trust

Company located at Corporation Trust Center, 1209 Orange St., Wilmington, DE 19801. As one example of its operations in the U.S., Legrand AV maintains a “Sales Directory” in the U.S. where installers, service providers, and end users may search and contact sales representatives of Legrand. *See, e.g., Sales Directory, LEGRAND AV, https://www.legrandav.com/contact_us/sales_directory* (“They are experts in the field and will be sure to have a solution that will best fit your next project. Find your Residential AV representative to help you, below.”) (last visited June 2, 2021).

12. On information and belief, Defendants maintain a corporate presence in the United States, including in Texas and in this District, also via at least its wholly owned and controlled U.S.-based subsidiary Legrand North America, LLC (“Legrand NA”), which is a Delaware corporation with its principal office located at 60 Woodlawn Street, West Hartford, CT 06110. Legrand NA’s registered agent is The Corporation Trust Company located at Corporation Trust Center, 1209 Orange St., Wilmington, DE 19801.

13. On information and belief, Defendants maintain a corporate presence in the United States, including in Texas and in this District, also via at least their wholly owned and controlled U.S.-based subsidiary The Watt Stopper, Inc. (“Watt Stopper”), which is a California corporation with its principal place of business at 2700 Zander Rd., Suite 168, San Jose, CA 95134. Watt Stopper’s agent for service is C T Corporation System. Watt Stopper describes itself as a “Distribution Company. Watt Stopper also is registered to do business in Texas and operates an office at 2240 Campbell Creek Blvd., Suite 110, Richardson Texas 75082. *See Our North America Presence, Legrand's Office Locations, LEGRAND NORTH AND CENTRAL AMERICA, <https://www.legrand.us/about-us/locations>* (last visited June 2, 2021).

14. On information and belief, Defendants maintain other subsidiary offices in Texas. *See id.* For example, Defendants' subsidiary "Connectrac" is located at 8707 Chancellor Row, Dallas, TX 75247. *Id.* Defendants' subsidiary "Ortronics/Techma" is located at 2000 E. Wyoming Ave. Suite C, El Paso TX 79903.

15. On information and belief, at least the above-identified U.S. subsidiaries operate within the Legrand Group's "North and Central American division" which is "the largest component of Legrand worldwide with over 6,700 employees and product categories that span across residential and non-residential business markets." *See About Us*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/about-us> (last visited June 2, 2021). On behalf and for the benefit of the Legrand Group, including Defendants, Defendants' U.S. subsidiaries perform Front Office and Back Office functions, within the North and Central American division, by coordinating the design, manufacture, importation, distribution, marketing, offers for sale, sale, installation, and use of the Legrand's' products in the U.S., under various brands. *See, e.g., Our Brands*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/brands> (last visited June 2, 2021). For example, Legrand NA maintains distribution channels in the U.S. for Legrand products via online stores, distribution partners, retailers, resellers, dealers, sales representatives, and other related service providers. *See Where to Buy*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/where-to-buy> (providing links for "Shop Online," "Shop Local or Find a Sales Rep") (last visited June 2, 2021).

16. As a result, via at least Defendants' established distribution channels operated and maintained by at least Defendants' U.S. based subsidiaries in concert with the Legrand Group, Defendants' products are at least designed, imported, distributed, sold, advertised, installed, and used nationwide, including being sold to distributors, resellers, dealers, and installers operating in

Texas and this District. Thus, Defendants do business in the U.S., the state of Texas, and in this District.

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).

Legrand

19. On information and belief, Legrand is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this State and District, including: (A) at least part of its infringing activities alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this District and, thus, submits itself to the jurisdiction of this court; and (B) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this District, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents and residents of this District vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, Legrand is the parent company of the Legrand Group and owns and/or controls subsidiaries (such as other Defendants Legrand France, Bticino, and Legrand SNC) and business sectors (such as its Legrand North and Central America division, and its involved U.S. based subsidiaries) that have a significant business presence in the U.S. and in Texas. Such a presence furthers the development, design, manufacture, importation, distribution, marketing, sale, and use (including by inducement) of infringing Legrand products in Texas, including in this District.

20. This Court has personal jurisdiction over Defendant Legrand, directly and/or through the activities of Legrand’s intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including through the activities of Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division. Through direction and control of these entities, Legrand 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 Legrand would not offend traditional notions of fair play and substantial justice.

21. On information and belief, Legrand, as the parent of the Legrand Group, controls or otherwise directs and authorizes all activities of its subsidiaries and related entities, including, but not limited to Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division. Directly via its agents in the U.S. and via at least distribution partners, retailers, resellers, dealers, professional installers, and other service providers, Legrand has placed and continues to place infringing Legrand products into the U.S. stream of commerce. For example, import records show that Legrand’s subsidiary and Defendant Legrand SNC supplies Legrand products to entities in the U.S. *See, e.g., Supply Chain Intelligence about: Legrand S.N.C., PANJIVA, <https://panjiva.com/Legrand-S-N-C/28362607>* (showing shipments to entities in the U.S., e.g., the port of New York City totaling “199” since 2007). Legrand has further utilized its “ongoing innovation efforts along with 18 acquisitions in the last 10 years” to achieve 38% of its 2020 sales from the U.S. market—its largest sales proportion compared to other Legrand geographic markets. *See 2020 Universal Registration Document*, p. 28. Legrand has placed such products into the U.S.

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 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)).

22. Legrand utilizes established distribution channels to distribute, market, offer for sale, sell, service, and warrant infringing products directly to distributors, consumers, and other users, including providing links via its own website to online stores, retailers, detailers, resellers, distributors, and dealers offering such products and related services for sale. For example, Legrand states that “[t]oday, e-commerce sales take place mainly through generalist distributors and home improvement retailers, which remain the Group’s main distribution channel.” *See 2020 Universal Registration Document*, p. 31. Such Legrand products and services have been sold in both brick and mortar and online retail stores and via sales representatives interacting with product specifiers, such as architects, interior designers, lighting designers, and engineers within this District and in Texas, including Hossley Lighting and Power Solutions (HLPS) located in Dallas, Texas. *See., e.g., Legrand Appoints Two New Reps to Handle Wattstopper Line*, ELECTRICAL WHOLESALING, <https://www.ewweb.com/news/rep-news/article/21149216/legrand-appoints-two-new-reps-to-handle-wattstopper-line> (announcing “HLPS is now the agency of record for Wattstopper products in Texas across the Austin, Dallas, San Antonio markets, Arkansas and northern Louisiana”) (last visited June 2, 2021). Legrand products are also sold via the national retailers Lumens, Build.com,

Lowes, Lighting & Locks, Menards, The Home Depot, and Amazon.com. *See, e.g., Shop Online Retailers*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/where-to-buy/shop-online> (last visited June 3, 2021). Legrand, via its wholly owned and controlled subsidiaries, also provides application software (“apps”), the “Legrand Home” app for download and use in conjunction with and as a part of the wireless communication network that connects Legrand products and other network devices. *See, e.g., Switches and Dimmers for use with Apple HomeKit*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/solutions/smart-lighting/homekit> (“Set scenes, automate lights to your schedule, and group services with any iOS device, using the Apple Home or Legrand Home apps.”) (last visited June 2, 2021). These apps are available via digital distribution platforms operated by at least Apple Inc. for download by users and execution on smartphone devices. *Id.*

23. Based on Legrand’s connections and relationship with manufacturers, dealers, distributors, sales representatives, retailers, and digital distribution platforms, Legrand knows that Texas is a termination point of the established distribution channel, namely online and brick and mortar stores offering Legrand products and related services and software to third-party manufacturers, distribution partners, retailers (including national retailers), reseller partners, dealers, sales representatives, service providers, consumers, and other users in Texas. For example, in 2017, Legrand Building Control Systems (“Legrand BCS”), a division of Legrand’s North American operation, opened a “42,000 square-foot facility at 2240 Campbell Creek Blvd. (Campbell Creek Pavilion) in Richardson,” Texas, which provides “critical operational support to the division’s nationwide operations, business partners, and customers.” *See Legrand Building Control Systems Relocates to Richardson, Creates National Service Center of Excellence to Support Rapid Growth*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/about->

us/newsroom/press/legrand-bcs-relocates, (last visited June 2, 2021). Legrand, therefore, has purposefully directed its activities at Texas, including via its subsidiaries operating in Texas, and should reasonably anticipate being brought in this Court, at least on this basis. *See Icon Health & Fitness, Inc. v. Horizon Fitness, Inc.*, 2009 WL 1025467, (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”).

24. On information and belief, Legrand alone and in concert with other related entities such as Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division, manufactures and purposefully places infringing Legrand products in established distribution channels in the stream of commerce, including in Texas, via third-party manufacturers, distributors, dealers, sales representatives, and resellers, such as at least those accessible via the legrand.us and legrandav.com websites. For example, Legrand imports to Texas or through a related entity or subsidiary and directly sells and offers for sale infringing Legrand products in Texas to distributors, resellers, dealers, sales representative, or retailers. Hossley Lighting and Power Solutions (HLPS) is the manufacturer representative agency for Legrand in Texas, including this District—with a location at 16735 Gresham Circle, Suite 1 Flint, TX 75762. *See, e.g., About, HOSSLEY LIGHTING AND POWER SOLUTIONS*, <https://hossleylps.com/about/> (providing links to Legrand catalogs and serving as an access point for distributors seeking to purchase Legrand products, see “Distributor Login” link) (last visited June 2, 2021). These suppliers, distributors, dealers, sales representatives, and/or resellers import, advertise, offer for sale and sell Legrand products and related services, such as consultation and installation, via their own websites

to U.S. consumers, including to consumers in Texas and this District. Based on Legrand's connections and relationship, including supply contracts, sales representative agreements, and other agreements with the U.S. and Texas-based suppliers, distributors, dealers, sales representatives, and/or resellers, such as at least Hossley Lighting & Power Solutions, Legrand knows and has known that Texas is a termination point of the established distribution channels for Legrand products. Legrand, alone and in concert with other related entities such as Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division, has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this additional basis. *See Ultravision Technologies, LLC v. Holophane Europe Limited*, 2020 WL 3493626, at *5 (E.D. Tex. 2020) (finding sufficient to make a *prima facie* showing of personal jurisdiction allegations that "Defendants either import the products to Texas themselves or through a related entity"); *see also Bench Walk Lighting LLC v. LG Innotek Co., Ltd et al.*, Civil Action No. 20-51-RGA, 2021 WL 65071, at *7-8 (D. Del., Jan. 7, 2021) (denying motion to dismiss for lack of personal jurisdiction based on the foreign defendant entering into supply contract with U.S. distributor and the distributor sold and shipped defendant's products from the U.S. to the a customer in the forum state).

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

26. Venue is proper in this District pursuant to 28 U.S.C. § 1391. Defendant Legrand is a foreign entity and may be sued in any district under 28 U.S.C. § 1391(c). *See also In re HTC*

Corporation, 889 F.3d 1349, 1357 (Fed. Cir. 2018) (“The Court’s recent decision in *TC Heartland* does not alter” the alien-venue rule.).

Legrand France

27. On information and belief, Defendant Legrand France is subject to this Court’s specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this State and this District, including: (A) at least part of its infringing activities alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this District and, thus, submits itself to the jurisdiction of this court; and (B) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this District, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents and residents of this District vicariously through and/or in concert with its partners, alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, Legrand France and other Defendants Legrand, Bticino, Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division design, develop, manufacture, import, distribute, offer for sale, sell, install, and induce infringing use of Legrand products to distribution partners, sales representatives, product specifiers, retailers (including national retailers), resellers, dealers, service providers, installers, consumers, and other users.

28. This Court has personal jurisdiction over Legrand France, directly and/or indirectly via the activities of Legrand France’s intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including other Defendants Legrand, Bticino, Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division. Alone and in concert with or via direction and

control of or by at least these entities, Legrand France 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, Legrand France operates within a global network of sales and distribution of Legrand products, at least as a designer and manufacturer of such Legrand products and systems for electrical installations and their components, that includes subsidiaries of Defendants in the Legrand Group, retail stores and showrooms, dealers, resellers, sales representatives, professional installers, and distributors operating in Texas, including this District. Legrand France further holds equity interests and participates in the control of other Legrand Group subsidiaries, including, Defendant Bticino SpA and Legrand Holding Inc. (a Delaware corporation), which in turn holds 100% equity interests in subsidiaries “located in the North and Central American zone.” *See* “Simplified Organizational Chart,” located in *2020 Universal Registration Document*, p. 331. Therefore, Legrand France, alone and in concert with other members of the Legrand Group, its parent entity Defendant Legrand and its U.S. based Legrand subsidiaries has purposefully directed its activities at Texas by manufacturing infringing Legrand products and purposefully placing infringing Legrand products in established distribution channels in the stream of commerce, including in Texas, via third-party manufacturers, distributors, dealers, sales representatives, and resellers, such as those accessible via the legrand.us and legrandav.com websites. Legrand France should reasonably anticipate being brought in this Court, at least on this basis. Further, through its own conduct and through direction and control of its subsidiaries or control by its parent Defendant Legrand and other Defendants or subsidiaries of the Legrand Group, Legrand France 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 Legrand France would not offend traditional notions of fair play and substantial justice.

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

Bticino

31. On information and belief, Defendant Bticino is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this State and this District, including: (A) at least part of its infringing activities alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this District and, thus, submits itself to the jurisdiction of this court; and (B) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this District, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents and residents of this District vicariously through and/or in concert with its partners, alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, Bticino and other Defendants Legrand, Legrand France, Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division design, develop, manufacture, import, distribute, offer for sale, sell, install, and induce

infringing use of Legrand products to distribution partners, sales representatives, product specifiers, retailers (including national retailers), resellers, dealers, service providers, installers, consumers, and other users.

32. This Court has personal jurisdiction over Bticino, directly and/or indirectly via the activities of Bticino's intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including other Defendants Legrand, Legrand France, Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division. Alone and in concert with or via direction and control of or by at least these entities, Bticino 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, Bticino operates within a global network of sales and distribution of Legrand products, at least as a designer and manufacturer of such Legrand products and systems for electrical installations and their components, that includes subsidiaries of Defendants in the Legrand Group, retail stores and showrooms, dealers, resellers, sales representatives, professional installers, and distributors operating in Texas, including this District. Bticino further holds equity interests and participates in the control of other Legrand Group subsidiaries, including, equity interests in subsidiaries "located in the North and Central American zone." See "Simplified Organizational Chart," located in *2020 Universal Registration Document*, p. 331. Therefore, Bticino, alone and in concert with other members of the Legrand Group, its parent entity Defendant Legrand and its U.S. based Legrand subsidiaries has purposefully directed its activities at Texas by manufacturing infringing Legrand products and purposefully placing infringing Legrand products in established distribution channels in the stream of commerce, including in Texas, via third-party manufacturers, distributors, dealers, sales representatives, and

resellers, such as those accessible via the legrand.us and legrandav.com websites. Bticino should reasonably anticipate being brought in this Court, at least on this basis. Further, through its own conduct and through direction and control of its subsidiaries or control by its parent Defendant Legrand and other Defendants or subsidiaries of the Legrand Group, Bticino 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 Bticino would not offend traditional notions of fair play and substantial justice.

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

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

Legrand SNC

35. On information and belief, Defendant Legrand SNC is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this State and this District, including: (A) at least part of its infringing activities alleged herein which purposefully avail the Defendant of the privilege of conducting those activities in this state and this District and, thus, submits itself to the jurisdiction of this court; and (B) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this District, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents and residents of this District vicariously through and/or in concert with its partners, alter egos,

intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, Legrand SNC and other Defendants Legrand, Legrand France, Bticino, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division design, develop, manufacture, import, distribute, offer for sale, sell, install, and induce infringing use of Legrand products to distribution partners, sales representatives, product specifiers, retailers (including national retailers), resellers, dealers, service providers, installers, consumers, and other users.

36. This Court has personal jurisdiction over Legrand SNC, directly and/or indirectly via the activities of Legrand SNC's intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including other Defendants Legrand, Legrand France, Bticino, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division. Alone and in concert with or via direction and control of or by at least these entities, Legrand SNC 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, Legrand SNC operates within a global network of sales and distribution of Legrand products, at least as an importer of Legrand products, that includes subsidiaries of Defendants in the Legrand Group, retail stores and showrooms, dealers, resellers, sales representatives, professional installers, and distributors operating in Texas, including this District. Defendant Legrand SNC supplies Legrand products to entities in the U.S. *See, e.g., Supply Chain Intelligence about: Legrand S.N.C., PANJIVA, <https://panjiva.com/Legrand-S-N-C/28362607>* (showing shipments to entities in the U.S., e.g., the port of New York City totaling "199" since 2007). Therefore, Legrand SNC, alone and in concert with other members of the Legrand Group, its parent entity Defendant Legrand and its U.S. based

Legrand subsidiaries has purposefully directed its activities at Texas by manufacturing infringing Legrand products and purposefully placing infringing Legrand products in established distribution channels in the stream of commerce, including in Texas, via third-party manufacturers, distributors, dealers, sales representatives, and resellers, such as those accessible via the legrand.us and legrandav.com websites. Legrand SNC should reasonably anticipate being brought in this Court, at least on this basis. Further, through its own conduct and through direction and control of its subsidiaries or control by its parent Defendant Legrand and other Defendants or subsidiaries of the Legrand Group, Legrand SNC 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 Legrand SNC would not offend traditional notions of fair play and substantial justice.

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

38. Venue is proper in this District pursuant to 28 U.S.C. § 1391 because, among other things, Legrand SNC 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).

39. On information and belief, Defendants Legrand, Legrand France, Legrand SNC, and Bticino each have significant ties to, and presence in, the State of Texas and this District, making venue in this District both proper and convenient for this action.

THE ASSERTED PATENTS AND TECHNOLOGY

40. 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 between Defendants’ connected devices, including IoT and smart home devices.

41. 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.

42. 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.

43. 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.

44. The '537 patent describes methods and apparatuses for forming clusters of nodes within a wireless network to improve routing and communication within the network. Wireless networks, especially mobile ad hoc networks, operate more efficiently when the route for relaying message data minimizes the number of steps from node to node (or “hops”) within the network. The '537 patent discusses analyzing the nodes communicating within a network as well as isolated nodes that are not communicating, changing the connectivity between nodes in the network, and adjusting designations among the nodes in order to produce optimal routing for communication between nodes.

45. On information and belief, a significant portion of the operating revenue of Defendants is derived from the manufacture, distribution, sale, and use of home and business networking, IoT, and smart home products and components, which are imported into the United States, distributed to resellers, dealers, and third-party manufacturers, and ultimately sold to and used by U.S. consumers. For example, Legrand reported for North and Central America 2.49 billion euros in sales in 2020 (about \$3.04 billion U.S. dollars). *See 2020 Universal Registration Document*, p. 165. The sales in the United States comprised 37.8% of Legrand Group total sales. *Id.*

46. The Asserted Patents cover Defendants' home and business IoT and smart home products and components, software, services, and processes related to same that generally connect to other devices in a network or other networks using a wireless protocol, such as Z-Wave, ZigBee, and Wi-Fi. *See Universal Registration Document*, p. 29 (Legrand involved in various technology alliances, e.g., ZigBee Alliance, recognizing that “[t]hese alliances are especially important since building management systems often use different protocols”). Defendants also utilize the 6LoWPAN protocol and has products that translate between at least one protocol (e.g., Wi-Fi) and

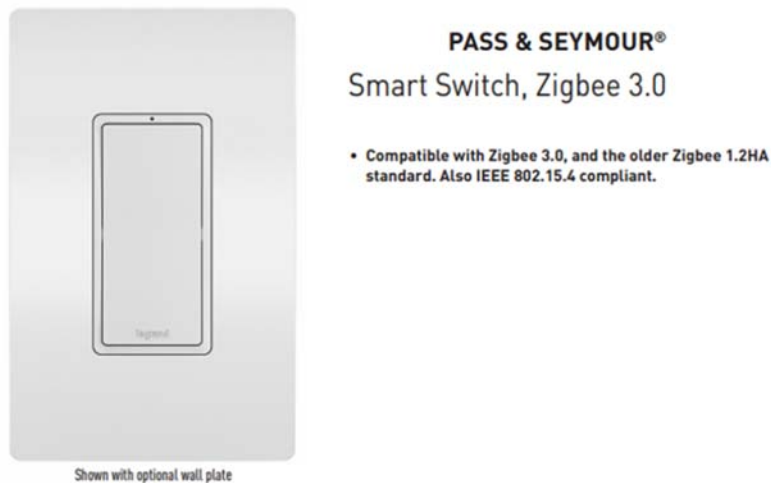
another (e.g., 6LoWPAN) so that consumers may control Legrand products via other third-party devices or communication platforms. *See, e.g., M2M Platform, Indoor, 6LoWPAN WiFi, CDMA 1000 Pt.*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/lighting-controls-and-systems/exterior-lighting-controls/wireless-controls//p/225cws> (last visited June 2, 2021) (A Wattstopper product). Defendants' infringing Legrand products include, but are not limited to, the following, which are marketed and sold under at least Defendants' Legrand, On-Q, Qmotion, adorne, Wattstopper, Luxol, radiant, Netatmo, Pass & Seymour brands:

- Smart Wi-Fi-enabled lighting and electrical products, including smart switches (Wi-Fi and ZigBee), outlets, plug-in switches, plug-in lamp adapter, plug-in dimmers, lighting remote controls, RGBW LED strip kits, Wi-Fi lighting starter kits, scene controllers, and whole house lighting controllers;
- Smart audio/visual products, including speaker systems;
- Networking devices, including M2M Platforms (6LoWPAN), Wireless 6LoWPAN Bridge w/BLE, Wireless 6LoWPAN Border Router w/LMPB-100, Infinity Kit with Z-Wave and RFLC Bridge, Infinity Kit with Z-Wave Bridge, QzHub3 ZigBee Hub, RZ2 Range Extender (ZigBee), Cord Range Extender (ZigBee); QMotion Range Extender;
- Smart home products, including window and door sensors (WiFi), motion sensors (WiFi), ZigBee HA 1.2 QdR2 Remote, QIS ZigBee Hardwired Shades, Qadvanced Roller Shades (ZigBee), Wi-Fi Access Points, Wireless Controller Systems, wireless routers, and mesh nodes.

47. Legrand products that infringe the Asserted Patents, including those exemplary products listed above, are referred to herein as the "Accused Products." The Accused Products

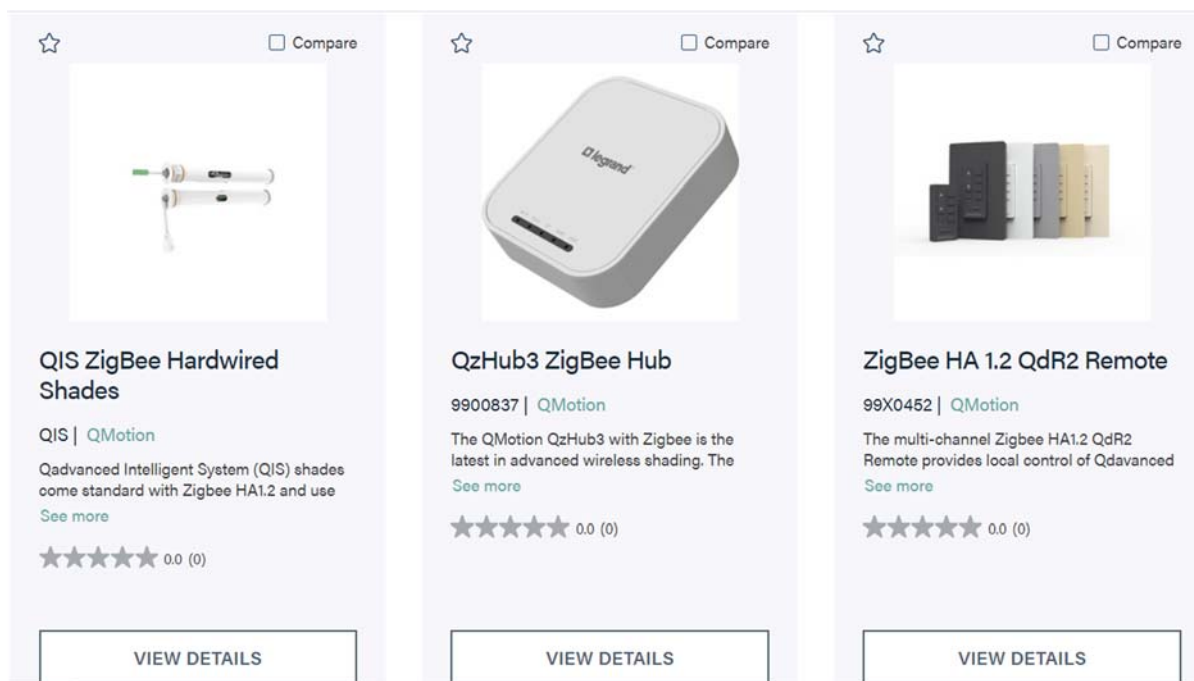
infringe the Asserted Patents by at least their manufacture, importation, distribution, sale, and use in the U.S.

48. The Asserted Patents cover Accused Products of Defendants that use the ZigBee protocol to communicate with other devices on a communication network, including those of third-party manufacturers. ZigBee protocol is based on the IEEE 802.15.4 standard. Examples of the Legrand's ZigBee products include smart lighting products, such as switches, dimmers, and outlets. Shown below is a Pass & Seymour branded Smart Plug-in Switch, which is ZigBee compatible:



See Search results for “Zigbee,” LEGRAND, NORTH & CENTRAL AMERICA, file:///C:/Users/mbenavides/Downloads/EWS-PS-CS-ZigbeeSwitch-CS3074-1120.pdf (last visited June 2, 2021).

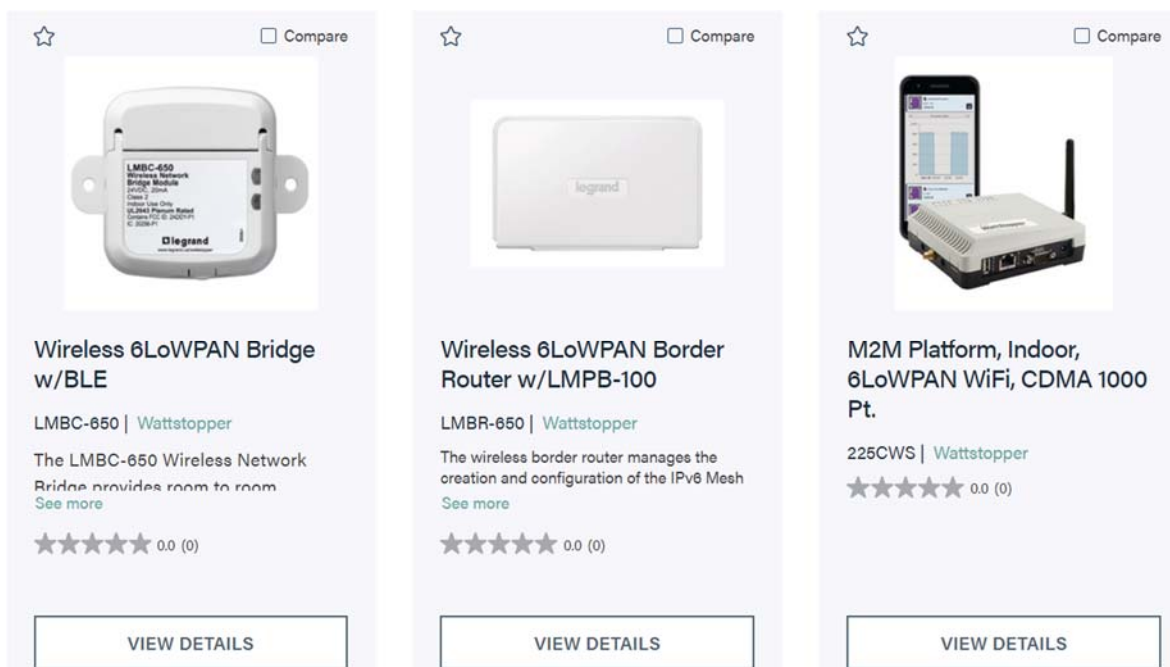
49. Other products of the Legrand Defendants that utilize the Zigbee protocol include the following:



See *Browse 31 results for "zigbee", LEGRAND, NORTH & CENTRAL AMERICA*, <https://www.legrand.us/search/?text=zigbee> (last visited June 3, 2021).

50. The Asserted Patents cover Accused Products of Defendants that use the 6LoWPAN protocol to communicate with other devices on a communication network, including those of third-party manufacturers. The 6LoWPAN protocol is based on the IEEE 802.15.4 standard. Examples of the Legrand's 6LoWPAN Wattstopper branded products that utilize the 6LoWPAN protocol include smart lighting products, such as DLM wireless room controller, PIR ceiling mount sensors,

DLM wireless open loop photosensors, DLM routers, wireless bridges, switches, dimmers, and outlets. Shown below are examples of Legrand's 6LoWPAN-enabled products:



See *Browse 6 results for "6Lowpan"*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/search/?text=6Lowpan> (last visited June 3, 2021); see also *Wireless Digital Lighting Management Solutions*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/solutions/wireless-digital-lighting-management> (last visited June 3, 2021).

51. 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).

52. The 6LoWPAN 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 6LoWPAN protocols describing the basic architecture and standards that enable wireless network communication.

A Review of 6LoWPAN Routing Protocols

August 2010 · *Proceedings of the Asia-Pacific Advanced Network 30*
DOI: [10.7125/APAN.30.11](https://doi.org/10.7125/APAN.30.11)

Figure 2 describes the reference model of 6LoWPAN protocol stack. It adopts IEEE 802.15.4 standard PHY and MAC layers which are specified in [2], [3] as its bottom layers while chooses IPv6 in its network layer. Basically, IEEE 802.15.4 standard specifies PHY and MAC layers for low-rate wireless personal area network (LR-WPAN). The PHY layer specification dictates how the IEEE 802.15.4 devices may communicate with each other over a wireless channel. There are total of 27 channels defined in the PHY layer. These channels are allocated into different frequency bands with varying data rates as showed in Table 1. At MAC layer, it specifies when the devices may access the channel for communication. The basic tasks provided by the MAC layer are beacon generation and synchronization, supporting PAN association and disassociation, managing channel access via Carriers Sense Multiple Access with Collision Avoidance (CSMA/CA) mechanism, and etc.

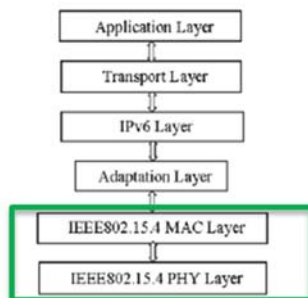


Figure 2. The reference model of 6LoWPAN protocol stack.

https://www.researchgate.net/publication/266064775_A_Review_of_6LoWPAN_Routing_Protocols

53. The IEEE 802.15.4 standard based mobile ad-hoc network, utilized by certain 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.

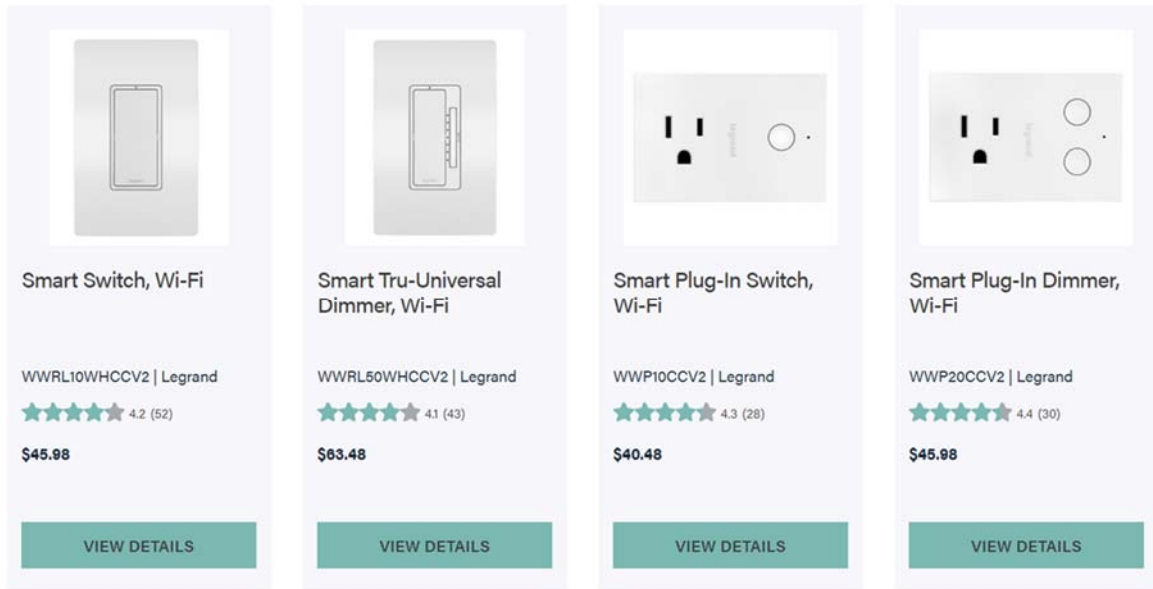
4.2 Components of the IEEE 802.15.4 WPAN

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

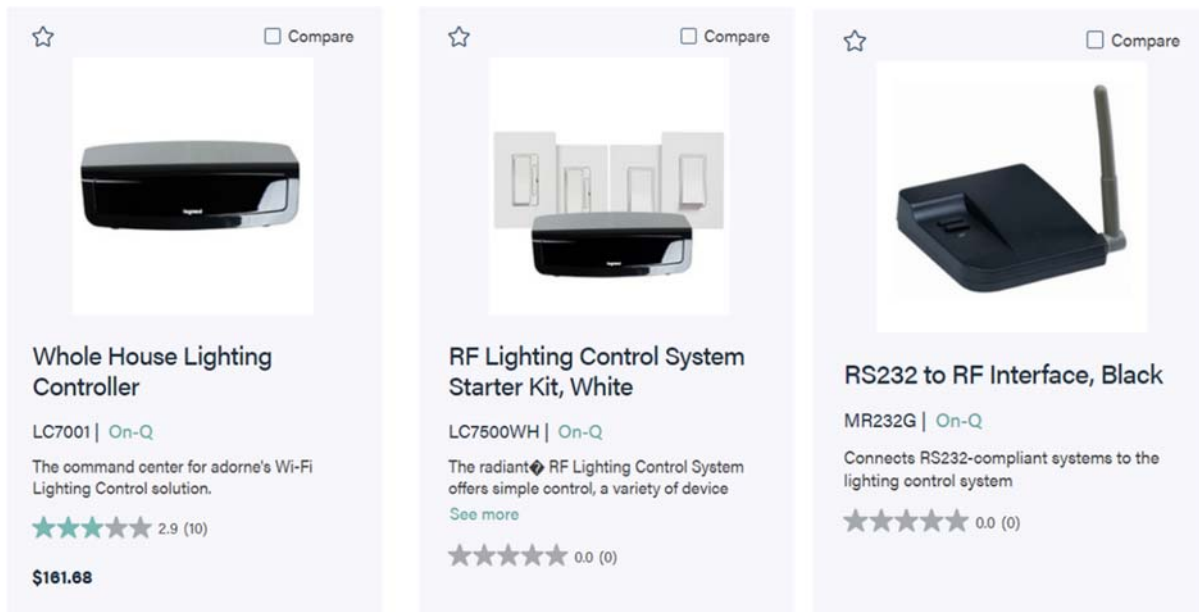
54. The Asserted Patents also cover Accused Products of the Legrand Defendants' that utilize the Wi-Fi protocol. Such products include, but are not limited to, radiant branded smart

lighting products such as switches, dimmers, plug-in switches, and plug-in dimmers, as shown below:



See *Smart Lighting from The radiant® Collection*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/radiant/smart-lighting> (last visited June 2, 2021).


55. Other Legrand Accused Products that utilize the Wi-Fi protocol include, but are not limited, to the following lighting controllers, hubs, and interfaces:



See *Browse 48 results for "Wifi", LEGRAND, NORTH & CENTRAL AMERICA*, <https://www.legrand.us/search/?text=Wifi> (last visited June 3, 2021).

56. The IEEE 802.11 standard defines a wireless local area network (WLAN) including multiple mobile nodes (portable/hand-held, moving stations (STAs)). As discussed in the overview

of the protocol below, the IEEE 802.11 WLAN supports quality of service (QoS) requirements originating from network devices/stations (STAs).

 <p>IEEE Standard for Information technology— Telecommunications and information exchange between systems— Local and metropolitan area networks— Specific requirements</p> <p>Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications</p>	<p>IEEE Std 802.11™-2007 (Revision of IEEE Std 802.11-1999)</p>
<p>1. Overview</p> <p>1.1 Scope</p> <p><u>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.</u></p> <p>1.2 Purpose</p> <p><u>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.</u> This standard also offers regulatory bodies a means of standardizing access to one or more frequency bands for the purpose of local area communication.</p> <p><u>Specifically, this standard</u></p> <ul style="list-style-type: none"> — 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. <p>— <u>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.</u></p>	

IEEE Std 802.11-2007, IEEE COMPUTER SOCIETY, June 12, 2007, p. 49, 50, *accessible at* <https://www.iith.ac.in/~tbr/teaching/docs/802.11-2007.pdf>

57. Z-Wave protocol, which is covered by the Asserted Patents and utilized by certain Accused Products, is another wireless network communication protocol. Z-Wave uses source routing to determine communication paths between connected devices in a wireless network.

Below is an excerpt from a programming guide describing the network routing principles used in Z-Wave protocol.

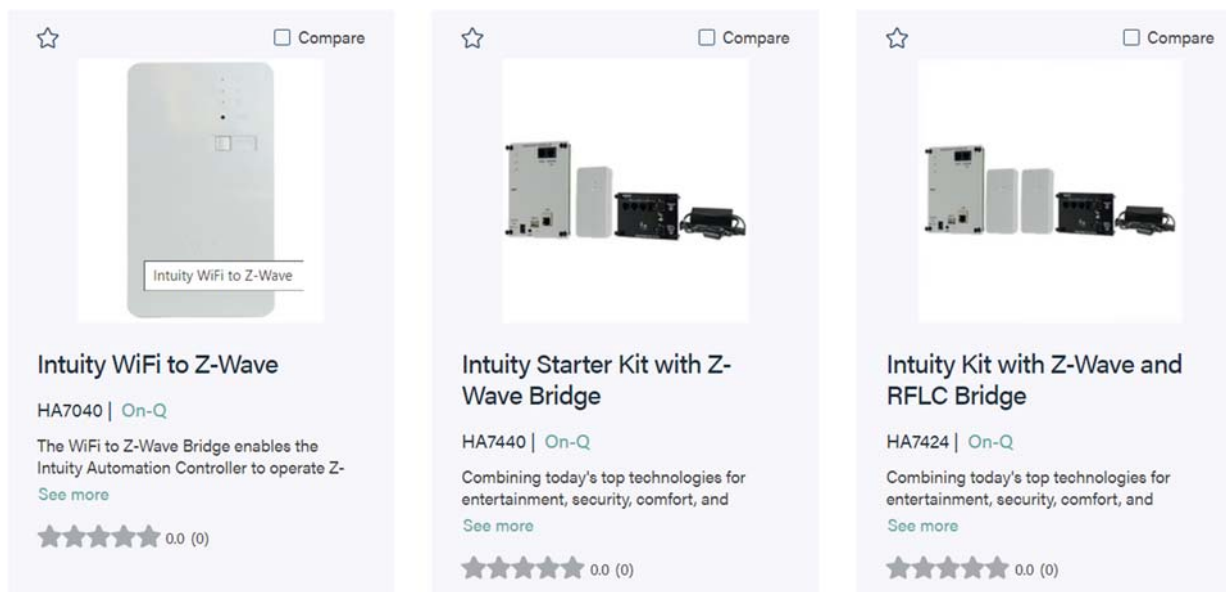
3.4 Z-Wave Routing Principles

The Z-Wave protocol use source routing, which is a technique whereby the sender of a frame specifies the exact route the frame must take to reach the destination node. Source routing assumes that the sender knows the topology of the network, and can therefore determine a route having a minimum number of hops. The Z-Wave protocol supports up to four repeaters between sender and destination node. Routing can also be used to reach FLIRS destination nodes. Source routing allows implementation of a leightweight protocol by avoiding distributed topologies in all repeaters. Nodes containing the topology can also assign routes to a topology-less node enabling it to communicate with a number of destination nodes using routes.

In case sender fails to reach destination node using routes an explorer mechanism can be launched on demand to discover a working route to the destination node in question. The explorer mechanism builds

Z-Wave 500 Series Appl. Programmers Guide v.6.81.0x at 5, SILICON LABS, https://www.silabs.com/documents/public/user-guides/INS13954-Instruction-Z-Wave-500-Series-Appl-Programmers-Guide-v6_81_0x.pdf (June 14, 2018).

58. Accused Products of Legrand that utilize the Z-Wave protocol include, but are not limited to, Intuity (an On-Q brand) Z-Wave bridges, as shown below:



See *Browse 6 results for "Z-Wave"*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/search/?text=Z-Wave> (last visited June 3, 2021).

59. By utilizing Wi-Fi (802.11), Z-Wave, ZigBee and/or 6LoWPAN 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)

60. Plaintiff incorporates paragraphs 1 through 59 herein by reference.

61. 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.

62. 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.

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

64. On information and belief, Defendants design, develop, manufacture, import, distribute, offer to sell, sell, and use the Accused Products, including via the activities of Legrand and Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division.

65. Defendants each directly infringes 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, related entities, distributors, dealers, importers, customers, subsidiaries, and/or consumers. Furthermore, on information and belief, Defendants make and sell the Accused Products outside of the United States, deliver those products to related entities, subsidiaries, online stores, distribution partners, retailers, showrooms, resellers, dealers, customers and other related service providers in the United States, or in the case that they deliver the Accused Products outside of the United States they do so intending and/or knowing that those products are destined for the United States and/or designing those products for sale and use 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)”).

66. Furthermore, Defendant Legrand directly infringes the '986 patent through its direct involvement in the activities of its subsidiaries and related entities, including Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division, including by selling and offering for sale the Accused Products directly to its related entities and importing the Accused Products into the United States for its related entities. On information and belief, U.S. based subsidiaries in the Legrand North and Central America division, including at least Legrand AV, Legrand NA, and Watt Stopper, conduct activities that constitute direct infringement of the '986 patent under 35 U.S.C. § 271(a) by importing, offering for sale, selling, and/or using those Accused Products in the U.S. on behalf of and for the benefit of Defendants. Defendant Legrand is vicariously liable

for the infringing conduct of Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division (under both the alter ego and agency theories). On information and belief, Defendants Legrand, Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division are essentially the same company. Moreover, Legrand, as the parent company, along with its related entities that exercise control over subsidiary entities, has the right and ability to control the infringing activities of those subsidiary entities such that Defendants receive a direct financial benefit from that infringement.

67. For example, the Legrand Defendants infringe at least claim 25 of the '986 patent via the Accused Products that utilize the ZigBee, 6LoWPAN, and/or 802.11 (Wi-Fi) protocols, including, but not limited to, 1) ZigBee-enabled switches, dimmers, plugs, shades, and hubs, 2) 6LoWPAN-enabled DLM wireless room controllers, PIR ceiling mount sensors, DLM wireless open loop photosensors, DLM routers, wireless bridges, switches, dimmers, and outlets, and 3) Wi-Fi-enabled switches, dimmers, plug-in switches, plug-in dimmers, lighting controllers, hubs, interfaces, speaker systems, routers, access points, and mesh nodes, and related accessories and software, and related accessories and software.

68. 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 ZigBee, 6LoWPAN, and/or WiFi protocols, which are based on the IEEE 802.15.4 standard or IEEE 802.11 standard and involve communication between two or more devices on a wireless channel. *See* THE ZIGBEE ALLIANCE, *supra*; *IEEE Std 802.11-2007, supra*. 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 utilizing ZigBee or 6LoWPAN, each of the Accused Products include contention access period (“CAP”) time slots. By default, network nodes use CAP time slots for data and frame transmission.

69. By utilizing WiFi, multiple QoS-supported STAs in the Accused Products utilize a contention-based access mechanism (EDCA) to compete to transmit data, i.e., via transmit opportunities (TXOPs), in a contention period (“CP”). These time slots in the CP are semi-permanent.

70. 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 utilizing ZigBee or 6LoWPAN 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.

71. By utilizing WiFi, the Low-Rate Wireless Personal Area Network (LR-WPAN) of the Accused Products has a coordinator that stores pending transactions in a queue. If there are multiple pending transactions in the queue, they are transmitted on a first-come-first-serve basis to the nodes/devices that request them, i.e., transmitted according to “link utilization metrics.” The more the number of requests and corresponding responses for transmitting the queued pending data, the more utilized will be the CAP.

72. 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 utilizing ZigBee or 6LoWPAN 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., based on link utilization metrics) for transmission.

73. By utilizing Wi-Fi, the LR-WPAN coordinator schedules demand assigned to GTSs, which are dedicated nodes or devices that require specific data bandwidth or low-latency transmission. The GTSs are scheduled in addition to the CAP defined in a superframe, and are allocated to such devices or nodes, given there is sufficient capacity in the superframe, i.e., the GTSs are scheduled based upon the link utilization metrics.

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

75. At a minimum, the Legrand Defendants have known of the ’986 patent at least as early as the filing date of this complaint. In addition, the Legrand Defendants have known about the ’986 patent since at least their receipt of a letter from North Forty Consulting representing Harris Corporation (“Harris”) dated April 15, 2019, regarding infringement of Harris’ patent portfolio. The letter specifically references the ’986 patent and notifies Defendants of their infringing use of “wireless communication networks, network management/security, as well as innovations pertinent to the IEEE 802, Zigbee, Z-wave...,” in at least the “MyHOME Arteor Wireless radio switches/dimmers, Adorne WiFi Lighting products, Radiant Smart Lighting switches/plugs, and all Zigbee/802.15.4/6LoWPAN compliant products (WattStopper Wireless DLM).” On July 9, 2020, Plaintiff, after acquiring Harris’ patent portfolio, followed up North Forty’s letter by providing additional notification of the infringement and inviting Defendants to discuss licensing of the portfolio.

76. On information and belief, since at least the above-mentioned date when Defendants were on notice of their infringement, Defendants have each actively induced, under U.S.C. § 271(b), importers, online stores, distribution partners, retailers, reseller partners, dealers, consumers, and other related service providers that import, distribute, purchase, offer for sale, sell, or use 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, Defendants each do so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '986 patent. On information and belief, Defendants each intend to cause, and have taken affirmative steps to induce, infringement by importers, online stores, distribution partners, retailers, reseller partners, dealers, consumers, and other related service providers 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 wireless networking 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., Legrand Customer and Technical Support*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/contact-and-support> (providing consumers with “help with an existing project”). Furthermore, the Legrand Defendants offer “a family of lighting control products for your home, fully enabled to interface with Apple HomeKit. HomeKit provides an easy, secure way to control lights, outlets, thermostats, and more, all from your iPhone or iPad.” *See Switches and Dimmers for use with Apple HomeKit*,

LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/solutions/smart-lighting/homekit> (scroll down and access “Description”) (last visited June 3, 2021). The Legrand Defendants also offer their own Legrand Home App which “provides easy setup of Amazon Alexa and Google Assistant voice as well as ability to set scenes, group devices by room and automate lights to work on your schedule.” *Id.* Such compatibility provides convenience and added functionality that induces consumers to use Legrand networked products, including products utilizing ZigBee, 6LoWPAN, Wi-Fi, and/or Z-Wave in networks with other third-party devices, and thus further infringe the ’986 patent.

77. On information and belief, despite having knowledge of the ’986 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’986 patent, the Legrand Defendants have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement. Each of the 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.

78. Plaintiff Stingray has been damaged as a result of the Legrand Defendants’ infringing conduct described in this Count. Each Defendant is thus jointly and severally liable to Stingray in an amount that adequately compensates Stingray for Defendants’ infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT II

(INFRINGEMENT OF U.S. PATENT NO. 6,961,310)

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

80. 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.

81. 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.

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

83. On information and belief, Defendants design, develop, manufacture, import, distribute, offer to sell, sell, and use the Accused Products, including via the activities of Legrand and Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division.

84. Defendants each directly infringes 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, related entities, distributors, dealers, importers, customers, subsidiaries, and/or consumers. Furthermore, on information and belief, Defendants make and sell the Accused Products outside of the United States, deliver those products

to related entities, subsidiaries, online stores, distribution partners, retailers, showrooms, resellers, dealers, customers and other related service providers in the United States, or in the case that they deliver the Accused Products outside of the United States they do so intending and/or knowing that those products are destined for the United States and/or designing those products for sale and use 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)”).

85. Furthermore, Defendant Legrand directly infringes the '310 patent through its direct involvement in the activities of its subsidiaries and related entities, including Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division, including by selling and offering for sale the Accused Products directly to its related entities and importing the Accused Products into the United States for its related entities. On information and belief, U.S. based subsidiaries in the Legrand North and Central America division, including at least Legrand AV, Legrand NA, and Watt Stopper, conduct activities that constitute direct infringement of the '310 patent under 35 U.S.C. § 271(a) by importing, offering for sale, selling, and/or using those Accused Products in the U.S. on behalf of and for the benefit of Defendants. Defendant Legrand is vicariously liable for the infringing conduct of Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division (under both the alter ego and agency theories). On information and belief, Defendants Legrand, Legrand France, Bticino, and Legrand SNC, other members of the Legrand

Group, and U.S. based subsidiaries in the Legrand North and Central America division are essentially the same company. Moreover, Legrand, as the parent company, along with its related entities that exercise control over subsidiary entities, has the right and ability to control the infringing activities of those subsidiary entities such that Defendants receive a direct financial benefit from that infringement.

86. For example, the Legrand Defendants infringe at least claim 13 of the '310 patent via the Accused Products, including, but not limited to 1) ZigBee-enabled switches, dimmers, plugs, shades, and hubs, and 2) Intuity (an On-Q brand) Z-Wave bridges and related accessories and software.

87. 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 and/or Z-Wave 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*. Z-Wave protocol is a low bandwidth half duplex protocol, the main purpose of which is to communicate short control messages between nodes in a network. *See* SILICON LABS, *supra*.

88. 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. Moreover, by utilizing Z-Wave protocol, the Accused Products use Ad-Hoc On-demand Distance Vector (“AODV”) routing, which discovers routes from source to destination nodes.

89. 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). Moreover, by utilizing Z-Wave protocol, the Accused Products rank routes discovered by AODV based on at least one metric (e.g., from shortest to longest path) based on link-state information of nodes in the network.

90. 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. Moreover, by utilizing Z-Wave protocol, the Accused Products distribute message data by making a selection among multiple alternative routes (i.e., a plurality of the discovered routes).

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

92. At a minimum, the Legrand Defendants have known of the '310 patent at least as early as the filing date of this complaint. In addition, the Legrand Defendants have known about the '310 patent since at least their receipt of a letter from North Forty Consulting representing Harris Corporation ("Harris") dated April 15, 2019, regarding infringement of Harris' patent portfolio. The letter specifically references the '310 patent and notifies Defendants of their infringing use of "wireless communication networks, network management/security, as well as innovations pertinent to the IEEE 802, Zigbee, Z-wave..." in at least the "MyHOME Arteor Wireless radio switches/dimmers, Adorne WiFi Lighting products, Radiant Smart Lighting switches/plugs, and all Zigbee/802.15.4/6LoWPAN compliant products (WattStopper Wireless DLM)." On July 9, 2020, Plaintiff, after acquiring Harris' patent portfolio, followed up North

Forty's letter by providing additional notification of the infringement and inviting Defendants to discuss licensing of the portfolio.

93. On information and belief, since at least the above-mentioned date when Defendants were on notice of their infringement, Defendants have each actively induced, under U.S.C. § 271(b), importers, online stores, distribution partners, retailers, reseller partners, dealers, consumers, and other related service providers that import, distribute, purchase, offer for sale, sell, or use 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, Defendants each do so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '310 patent. On information and belief, Defendants each intend to cause, and have taken affirmative steps to induce, infringement by importers, online stores, distribution partners, retailers, reseller partners, dealers, consumers, and other related service providers 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 wireless networking 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., Legrand Customer and Technical Support*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/contact-and-support> (providing consumers with "help with an existing project"). Furthermore, the Legrand Defendants offer "a family of lighting control products for your home, fully enabled to interface

with Apple HomeKit. HomeKit provides an easy, secure way to control lights, outlets, thermostats, and more, all from your iPhone or iPad.” *See Switches and Dimmers for use with Apple HomeKit*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/solutions/smart-lighting/homekit> (scroll down and access “Description”) (last visited June 3, 2021). The Legrand Defendants also offer their own Legrand Home App which “provides easy setup of Amazon Alexa and Google Assistant voice as well as ability to set scenes, group devices by room and automate lights to work on your schedule.” *Id.* Such compatibility provides convenience and added functionality that induces consumers to use Legrand networked products, including products utilizing ZigBee, 6LoWPAN, Wi-Fi, and/or Z-Wave in networks with other third-party devices, and thus further infringe the ’310 patent.

94. On information and belief, despite having knowledge of the ’310 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’310 patent, the Legrand Defendants have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement. Each of the 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.

95. Plaintiff Stingray has been damaged as a result of the Legrand Defendants’ infringing conduct described in this Count. Each Defendant is thus jointly and severally liable to Stingray in an amount that adequately compensates Stingray for Defendants’ infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT III

(INFRINGEMENT OF U.S. PATENT NO. 7,027,426)

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

97. 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.

98. 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.

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

100. On information and belief, Defendants design, develop, manufacture, import, distribute, offer to sell, sell, and use the Accused Products, including via the activities of Legrand and Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division.

101. Defendants each directly infringes the '426 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, related entities, distributors, dealers, importers, customers, subsidiaries, and/or consumers. Furthermore, on information and belief, Defendants make and sell the Accused Products outside of the United States, deliver those products to related entities, subsidiaries, online stores, distribution partners, retailers, showrooms, resellers,

dealers, customers and other related service providers in the United States, or in the case that they deliver the Accused Products outside of the United States they do so intending and/or knowing that those products are destined for the United States and/or designing those products for sale and use 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)”).

102. Furthermore, Defendant Legrand directly infringes the '426 patent through its direct involvement in the activities of its subsidiaries and related entities, including Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division, including by selling and offering for sale the Accused Products directly to its related entities and importing the Accused Products into the United States for its related entities. On information and belief, U.S. based subsidiaries in the Legrand North and Central America division, including at least Legrand AV, Legrand NA, and Watt Stopper, conduct activities that constitute direct infringement of the '426 patent under 35 U.S.C. § 271(a) by importing, offering for sale, selling, and/or using those Accused Products in the U.S. on behalf of and for the benefit of Defendants. Defendant Legrand is vicariously liable for the infringing conduct of Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division (under both the alter ego and agency theories). On information and belief, Defendants Legrand, Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division are

essentially the same company. Moreover, Legrand, as the parent company, along with its related entities that exercise control over subsidiary entities, has the right and ability to control the infringing activities of those subsidiary entities such that Defendants receive a direct financial benefit from that infringement.

103. For example, the Legrand Defendants infringe at least claim 8 of the '426 patent via the Accused Products including, but not limited to, 1) ZigBee-enabled switches, dimmers, plugs, shades, and hubs, and 2) Intuity (an On-Q brand) Z-Wave bridges, and related accessories and software..

104. 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 and/or Z-Wave 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*. Z-Wave protocol is a low bandwidth half duplex protocol, the main purpose of which is to communicate short control messages between nodes in a network. *See* SILICON LABS, *supra*.

105. 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. Moreover, by utilizing Z-Wave protocol, the Accused Products use Ad-Hoc On-demand Distance Vector (“AODV”) routing, which discovers routes from source to destination nodes.

106. 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). Moreover, by utilizing Z-Wave protocol, the Accused Products choose a route between a sender and destination node based on a Last Working Route list, which contains a plurality of routes (i.e., electrically separate channels) between nodes.

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

108. At a minimum, the Legrand Defendants have known of the '426 patent at least as early as the filing date of this complaint. In addition, the Legrand Defendants have known about the '426 patent since at least their receipt of a letter from North Forty Consulting representing Harris Corporation ("Harris") dated April 15, 2019, regarding infringement of Harris' patent portfolio. The letter specifically references the '426 patent and notifies Defendants of their infringing use of "wireless communication networks, network management/security, as well as innovations pertinent to the IEEE 802, Zigbee, Z-wave..." in at least the "MyHOME Arteor Wireless radio switches/dimmers, Adorne WiFi Lighting products, Radiant Smart Lighting switches/plugs, and all Zigbee/802.15.4/6LoWPAN compliant products (WattStopper Wireless DLM)." On July 9, 2020, Plaintiff, after acquiring Harris' patent portfolio, followed up North Forty's letter by providing additional notification of the infringement and inviting Defendants to discuss licensing of the portfolio.

109. On information and belief, since at least the above-mentioned date when Defendants were on notice of their infringement, Defendants have each actively induced, under U.S.C. §

271(b), importers, online stores, distribution partners, retailers, reseller partners, dealers, consumers, and other related service providers that import, distribute, purchase, offer for sale, sell, or use 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, Defendants each do so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '426 patent. On information and belief, Defendants each intend to cause, and have taken affirmative steps to induce, infringement by importers, online stores, distribution partners, retailers, reseller partners, dealers, consumers, and other related service providers 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 wireless networking 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., Legrand Customer and Technical Support*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/contact-and-support> (providing consumers with “help with an existing project”). Furthermore, the Legrand Defendants offer “a family of lighting control products for your home, fully enabled to interface with Apple HomeKit. HomeKit provides an easy, secure way to control lights, outlets, thermostats, and more, all from your iPhone or iPad.” *See Switches and Dimmers for use with Apple HomeKit*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/solutions/smart-lighting/homekit> (scroll down and access “Description”) (last visited June 3, 2021). The Legrand

Defendants also offer their own Legrand Home App which “provides easy setup of Amazon Alexa and Google Assistant voice as well as ability to set scenes, group devices by room and automate lights to work on your schedule.” *Id.* Such compatibility provides convenience and added functionality that induces consumers to use Legrand networked products, including products utilizing ZigBee, 6LoWPAN, Wi-Fi, and/or Z-Wave in networks with other third-party devices, and thus further infringe the ’426 patent.

110. On information and belief, despite having knowledge of the ’426 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’426 patent, the Legrand Defendants have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement. Each of the 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.

111. Plaintiff Stingray has been damaged as a result of the Legrand Defendants’ infringing conduct described in this Count. Each Defendant is thus jointly and severally liable to Stingray in an amount that adequately compensates Stingray for Defendants’ infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT IV

(INFRINGEMENT OF U.S. PATENT NO. 6,980,537)

112. Plaintiff incorporates paragraphs 1 through 111 herein by reference.

113. Plaintiff is the assignee of the ’537 patent, entitled “Method and Apparatus for Communication Network Cluster Formation and Transmission of Node Link Status Messages with

Reduced Protocol Overhead Traffic,” with ownership of all substantial rights in the ’537 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

114. The ’537 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The ’537 patent issued from U.S. Patent Application No. 09/709,502.

115. The Legrand Defendants have and continue to directly and/or indirectly infringe (by inducing infringement) one or more claims of the ’537 patent in this District and elsewhere in Texas and the United States.

116. On information and belief, Defendants design, develop, manufacture, import, distribute, offer to sell, sell, and use the Accused Products, including via the activities of Legrand and Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division.

117. Defendants each directly infringes the ’537 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 ’537 patent to, for example, its alter egos, agents, intermediaries, related entities, distributors, dealers, importers, customers, subsidiaries, and/or consumers. Furthermore, on information and belief, Defendants make and sell the Accused Products outside of the United States, deliver those products to related entities, subsidiaries, online stores, distribution partners, retailers, showrooms, resellers, dealers, customers and other related service providers in the United States, or in the case that they deliver the Accused Products outside of the United States they do so intending and/or knowing that those products are destined for the United States and/or designing those products for sale and

use in the United States, thereby directly infringing the '537 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)”).

118. Furthermore, Defendant Legrand directly infringes the '537 patent through its direct involvement in the activities of its subsidiaries and related entities, including Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division, including by selling and offering for sale the Accused Products directly to its related entities and importing the Accused Products into the United States for its related entities. On information and belief, U.S. based subsidiaries in the Legrand North and Central America division, including at least Legrand AV, Legrand NA, and Watt Stopper, conduct activities that constitute direct infringement of the '537 patent under 35 U.S.C. § 271(a) by importing, offering for sale, selling, and/or using those Accused Products in the U.S. on behalf of and for the benefit of Defendants. Defendant Legrand is vicariously liable for the infringing conduct of Defendants Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division (under both the alter ego and agency theories). On information and belief, Defendants Legrand, Legrand France, Bticino, and Legrand SNC, other members of the Legrand Group, and U.S. based subsidiaries in the Legrand North and Central America division are essentially the same company. Moreover, Legrand, as the parent company, along with its related entities that exercise control over subsidiary entities, has the right and ability to control the

infringing activities of those subsidiary entities such that Defendants receive a direct financial benefit from that infringement.

119. For example, the Legrand Defendants infringe at least claim 16 of the '537 patent via the Accused Products including, but not limited to, Intuity (an On-Q brand) Z-Wave bridges, and related accessories and software.

120. The Accused Products implement the “method of configuring a network communication unit to transmit and receive messages” within “a communications network including a plurality of communication units, wherein at least one of those units is designated as a member unit for transmitting and receiving messages and at least one of those units is designated as a routing unit for routing said messages from said member units” of claim 16. Each of the Accused Products utilizes Z-Wave protocol. Z-Wave protocol is a low bandwidth half duplex protocol, the main purpose of which is to communicate short control messages between nodes in a network. *See SILICON LABS, supra.*

121. The Accused Products examine network connectivity information relating to said communication unit and corresponding neighboring units stored in a storage unit of said communication unit and identifying neighboring units that are isolated from communications with remaining neighboring units of said communication unit. For example, by utilizing Z-Wave protocol, the Accused Products get information about the state of each node in a network (i.e., examine network connectivity information) including the number of neighboring units a node has registered. Further, Z-Wave protocol isolates a new node from joining a network of neighboring nodes until a primary controller is designated.

122. The Accused Products designate said communication unit as said routing unit in response to determining that said communication unit communicates with at least one neighboring

unit that is isolated from communications with remaining neighboring units of said communication unit, wherein said communication unit designation as said routing unit is fixed for routing subsequent network messages. For example, by utilizing Z-Wave protocol, the Accused Products can set themselves to a SUC ID server, enabling them to include or exclude other nodes (i.e., communicated with neighboring isolated units). Further, Z-Wave protocol allows controllers such as the Accused Products to pass on routes to other units in order to enable them to transmit routed signals (i.e., fix routing unit for routing subsequent network messages).

123. The Accused Products re-evaluate said communication unit designation in response to connectivity changes in said network. For example, by utilizing Z-Wave protocol, the Accused Products can add controllers (i.e., a connectivity change) to the network and then give a new controller the primary controller role (i.e., re-evaluate unit designation).

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

125. At a minimum, the Legrand Defendants have known of the '537 patent at least as early as the filing date of this complaint. In addition, the Legrand Defendants have known about the '537 patent since at least their receipt of a letter from North Forty Consulting representing Harris Corporation ("Harris") dated April 15, 2019, regarding infringement of Harris' patent portfolio. The letter specifically references the '537 patent and notifies Defendants of their infringing use of "wireless communication networks, network management/security, as well as innovations pertinent to the IEEE 802, Zigbee, Z-wave..." in at least the "MyHOME Arteor Wireless radio switches/dimmers, Adorne WiFi Lighting products, Radiant Smart Lighting switches/plugs, and all Zigbee/802.15.4/6LoWPAN compliant products (WattStopper Wireless DLM)." On July 9, 2020, Plaintiff, after acquiring Harris' patent portfolio, followed up North

Forty's letter by providing additional notification of the infringement and inviting Defendants to discuss licensing of the portfolio.

126. On information and belief, since at least the above-mentioned date when Defendants were on notice of their infringement, Defendants have each actively induced, under U.S.C. § 271(b), importers, online stores, distribution partners, retailers, reseller partners, dealers, consumers, and other related service providers that import, distribute, purchase, offer for sale, sell, or use the Accused Products that include or are made using all of the limitations of one or more claims of the '537 patent to directly infringe one or more claims of the '537 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, Defendants each do so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '537 patent. On information and belief, Defendants each intend to cause, and have taken affirmative steps to induce, infringement by importers, online stores, distribution partners, retailers, reseller partners, dealers, consumers, and other related service providers 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 wireless networking 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., Legrand Customer and Technical Support*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/contact-and-support> (providing consumers with “help with an existing project”). Furthermore, the Legrand Defendants offer “a family of lighting control products for your home, fully enabled to interface

with Apple HomeKit. HomeKit provides an easy, secure way to control lights, outlets, thermostats, and more, all from your iPhone or iPad.” *See Switches and Dimmers for use with Apple HomeKit*, LEGRAND, NORTH & CENTRAL AMERICA, <https://www.legrand.us/solutions/smart-lighting/homekit> (scroll down and access “Description”) (last visited June 3, 2021). The Legrand Defendants also offer their own Legrand Home App which “provides easy setup of Amazon Alexa and Google Assistant voice as well as ability to set scenes, group devices by room and automate lights to work on your schedule.” *Id.* Such compatibility provides convenience and added functionality that induces consumers to use Legrand networked products, including products utilizing ZigBee, 6LoWPAN, Wi-Fi, and/or Z-Wave in networks with other third-party devices, and thus further infringe the ’537 patent.

127. On information and belief, despite having knowledge of the ’537 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’537 patent, the Legrand Defendants have nevertheless continued their infringing conduct and disregarded an objectively high likelihood of infringement. Each of the Defendants’ infringing activities relative to the ’537 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.

128. Plaintiff Stingray has been damaged as a result of the Legrand Defendants’ infringing conduct described in this Count. Each Defendant is thus jointly and severally liable to Stingray in an amount that adequately compensates Stingray for Defendants’ infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

CONCLUSION

129. 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.

130. 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

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

PRAYER FOR RELIEF

132. 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 4, 2021

Respectfully submitted,

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