

3. On information and belief, Defendant Somfy Activités SA (“Somfy Activites”) is a company organized under the laws of France, with its principal place of business located at 50 avenue du Nouveau Monde, 74300 Cluses, France. Somfy SA and Somfy Activites share the same headquarters in France. Moreover, Somfy Activites is a wholly owned and controlled subsidiary of Somfy SA, and Somfy Activites is part of a multi-national group of companies (“the Somfy Group”) of which Somfy SA is the parent and controlling entity.

4. On information and belief, Somfy SA was founded in 1969. *See Annual Financial Report*, p. 112, SOMFY SA, available for download at <https://www.somfy-group.com/en-en/finance/documentation/financial-reports> (last visited May 26, 2021). Today, it operates in 58 countries, including the U.S. *Id.* at p. 8.

5. On information and belief, Somfy SA states that the Group is “the global leader in opening and closing automation for both residential and commercial buildings.” *Id.* at p. 112. Somfy SA further states that it is “a pioneer in the connected home.” *Id.* Somfy SA along with its subsidiaries in the Somfy Group, including Somfy Activites, are engaged in research and development, manufacturing, importation, distribution, sales, and related technical services for motorized shades, blinds, curtains, awnings, screens, pergolas, and rolling shutters for residential and commercial applications. *See Products*, SOMFY, <https://www.somfysystems.com/en-us/products/shades-blinds-curtains/motorized-blinds-shades> (last visited May 26, 2021). Moreover, the Somfy Group provides smart home applications, controls, and automation systems to enhance the consumers use of Somfy’s products. *Id.* Somfy’s products are manufactured outside the U.S. and then imported into the United States, distributed, and sold to end-users via the internet and in brick and mortar stores and/or via dealers and “Somfy experts” in the U.S., in Texas and the Eastern District of Texas.

6. On information and belief, Somfy maintains a corporate presence in the United States, including in Texas and in this District, via at least its wholly owned and controlled U.S.-based subsidiaries, including Somfy Systems Inc. (“Somfy Systems”), which is a Delaware corporation with its principal office located at 121 Herrod Blvd., Dayton, NJ 08810. *See List of Consolidated and Equity-Accounted Entities, Annual Financial Report*, p. 149-151. On behalf and for the benefit of Defendants, Somfy Systems coordinates the importation, distribution, marketing, offers for sale, sale, and use of the Somfy’s products in the U.S. For example, Somfy Systems maintains distribution channels in the U.S. for Somfy products via online stores, distribution partners, retailers, reseller partners, dealers, and other related service providers. *See Where to Buy, SOMFY*, <https://www.somfysystems.com/en-us/where-to-buy> (accessible via menu “Where to Buy” and providing links for “Search Our Dealer Locator,” “Connect With a Local Somfy Dealer,” and “Shop Online for Somfy Controls & Accessories”) (last visited May 26, 2021). Somfy Systems’ registered agent in Delaware is The Prentice-Hall Corporation System, Inc., 251 Little Fallas Drive, Wilmington, DE 19808.

7. On information and belief, Somfy maintains 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 BFT Americas, Inc. (“BFT”), which is a Florida corporation with its principal office located at 1200 SW 35th Avenue, Suite B, Boynton Beach, FL 33426. *See List of Consolidated and Equity-Accounted Entities, Annual Financial Report*, p. 149-151. BFT’s registered agent for service is Gary Goldstein located also at 1200 SW 35th Avenue, Suite B, Boynton Beach, FL 33426. BFT specializes in “gate automation, sliding gates, swing gates, automatic doors, bollards, barriers, and access control.” *See BFT Americas, Inc.*, LINKEDIN, <https://www.linkedin.com/company/bft-u.s.-inc./about/> (last visited May 26, 2021). BFT provides

its products and services as a “brand of Somfy Group,” and has been “a part of the Somfy group” since 2004, allowing it to “create a structured distribution network.” *See Our History*, BFT, https://www.bft-automation.com/en_US/bft/our-history/ (last visited May 26, 2021).

8. On information and belief, Somfy also maintains wholly owned and controlled subsidiary Somfy, LLC (“Somfy LLC”), which is a limited liability company organized under the laws of Delaware. *See List of Consolidated and Equity-Accounted Entities, Annual Financial Report*, p. 149-151. Somfy LLC’s registered agent in Delaware is Corporate Agents, Inc. located at 1209 Orange St., Wilmington, DE 19801.

9. As a result, via at least Somfy’s established distribution channels operated and maintained by at least Somfy’s U.S. based subsidiaries in concert with the Somfy Group, including Defendant Somfy SA and wholly owned and controlled Defendant Somfy Activites, Somfy products are distributed, sold, advertised, and used nationwide, including being sold to consumers via Somfy dealers 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

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

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

Somfy SA

12. On information and belief, Somfy SA 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, Somfy SA is related to, owns, and/or controls subsidiaries (such as Somfy Systems, BFT, and Somfy LLC) and business sectors (such as its Somfy and BFT business) that have a significant business presence in the U.S. and in Texas. Such a presence furthers the development, design, manufacture, importation, distribution, sale, and use (including by inducement) of infringing Somfy products in Texas, including in this District.

13. This Court has personal jurisdiction over Defendant Somfy SA, directly and/or through the activities of Somfy SA's intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including through the activities of Defendant Somfy Activites, other members of the Somfy Group, and U.S. based subsidiaries. Through direction and control of these entities, Somfy SA 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 Somfy SA would not offend traditional notions of fair play and substantial justice.

14. On information and belief, Somfy SA controls or otherwise directs and authorizes all activities of its subsidiaries and related entities, including, but not limited to Defendant Somfy Activites, other members of the Somfy Group, and U.S. based subsidiaries. Directly via its agents in the U.S. and via at least distribution partners, retailers, reseller partners, dealers, professional

installers, and other service providers, Somfy SA has placed and continues to place infringing Somfy products into the U.S. stream of commerce. For example, import records show that Somfy SA's subsidiary and Defendant Somfy Activites supplies Somfy products to Somfy Systems in the U.S. *See, e.g., U.S. Customs Records for Somfy Activites SA*, IMPORT GENIUS, <https://www.importgenius.com/suppliers/somfy-activites-sa> (showing shipments to Somfy Systems totaling "22" in the period from 2006 to 2021). Somfy SA has placed such products into the stream of commerce with the knowledge and understanding that such products are, will be, and continue to be sold, offered for sale, and/or imported into this 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)).

15. Somfy utilizes established distribution channels to distribute, market, offer for sale, sell, service, and warrant infringing products directly to 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. *See Where to Buy*, SOMFY, <https://www.somfysystems.com/en-us/where-to-buy> (accessible via menu "Where to Buy" and providing links for "Search Our Dealer Locator," "Connect With a Local Somfy Dealer," and "Shop Online for Somfy Controls & Accessories") (last visited May 26, 2021). Such Somfy products and services have been sold in both brick and mortar and online retail stores and showrooms within this District and in Texas, including Universal Screens located in Plano, Texas.

See, e.g., Contact Us, Universal Screens (showing that Somfy products are used in Universal Screen products and sold from the showroom located at 1801 10th Street, Suite 100, Plano, TX 75074, i.e., in this District). Somfy also sells to third-party manufacturers, such as Universal Screens, who integrate Somfy products into their own products to add automation features. *See id.* (“Screen/Shade Manufacturing...We have made sure to align ourselves with some of the best vendors in the industry, including Somfy...”). Somfy products are also sold via the national retailer Amazon.com. *See, e.g., Somfy MyLink RTS Smartphone and Tablet Interface/WiFi to Radio Technology Control Blinds with phone!, AMAZON.COM, https://www.amazon.com/Somfy-RTS-Smartphone-Technology-1811403/dp/B00USMNU14/ref=sr_1_5?dchild=1&keywords=somfy&qid=1622135026&sr=8-5* (last visited May 27, 2021). Somfy, via its wholly owned and controlled subsidiaries, also provides application software (“apps”), such as the “myLink” app, for download and use in conjunction with and as a part of the wireless communication network that connects Somfy products and other network devices. *See, e.g., Systems Requirements, SOMFY SYSTEMS, <https://www.somfysystems.com/en-us/products/smart-home-controls/controls/mylink>* (“Download the myLink™ App...The myLink™ app is available on the Apple App Store and Google Play.”) (last visited May 27, 2021). These apps are available via digital distribution platforms operated by Apple Inc. and Google for download by users and execution on smartphone devices. *Id.*

16. Based on Somfy SA’s connections and relationship with manufacturers, dealers, retailers, and digital distribution platforms, Somfy SA knows that Texas is a termination point of the established distribution channel, namely online and brick and mortar stores offering Somfy products and related services and software to third-party manufacturers, distribution partners,

retailers (including national retailers), reseller partners, dealers, service providers, consumers, and other users in Texas. Somfy SA, therefore, has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis. *See Icon Health & Fitness, Inc. v. Horizon Fitness, Inc.*, 2009 WL 1025467, (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”).

17. On information and belief, Somfy SA alone and in concert with other related entities such as Defendant Somfy Activites, and subsidiaries Somfy Systems, BFT, and Somfy LLC, manufactures and purposefully places infringing Somfy products in established distribution channels in the stream of commerce, including in Texas, via third-party manufacturers, distributors, dealers, and reseller partners, such as at least those listed on Somfy Systems’ website. For example, Somfy SA imports to Texas or through a related entity or subsidiary and directly sells and offers for sale infringing Somfy products in Texas to resellers or dealers. Ross Howard Designs, for example, advertises that it services the DFW area including “Addison, Castle Hills, Flower Mound, Fort Worth, Garland, Highland Park, Little Elm, Lakewood, Park Cities, University Park, White Rock Lake, TX and surrounding areas,” which includes areas in this District. *See, e.g., Motorized Blinds, Shades and Draperies, ROSS HOWARD DESIGNS*, <https://rosshoward.com/window-treatment-motorization/>. Other resellers and/or dealers, such as Shade Works of Texas, offer infringing Somfy products for sale on their website. *See, e.g., Motorized Blinds & Shades Powered by Somfy, SHADE WORKS OF TEXAS*, <https://shadeoftexas.wpengine.com/motorized-blinds-shades/> (providing a webpage within its own website devoted to Somfy products offered for sale) (last visited May 27, 2021). These

suppliers, distributors, dealers, and/or resellers import, advertise, offer for sale and sell Somfy 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 Somfy SA's connections and relationship, including supply contracts and other agreements with the U.S. and Texas-based suppliers, distributors, dealers, and/or resellers, such as at least Ross Howard Designs and Shade Works of Texas, Somfy SA knows and has known that Texas is a termination point of the established distribution channels for Somfy products. Somfy SA, alone and in concert with subsidiaries Defendant Somfy Activites, and U.S.-based Somfy Systems, BFT, and Somfy LLC 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).

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

19. Venue is proper in this District pursuant to 28 U.S.C. § 1391. Defendant Somfy SA 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.).

Somfy Activites

20. On information and belief, Defendant Somfy Activites 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, Somfy Activites and parent Defendant Somfy SA and U.S.-based subsidiaries Somfy Systems, BFT, and Somfy LLC manufacture, import, distribute, offer for sale, sell, and induce infringing use of Somfy products to distribution partners, retailers (including national retailers), resellers, dealers, service providers, consumers, and other users.

21. This Court has personal jurisdiction over Somfy Activites, directly and/or indirectly via the activities of Somfy Activites’ intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including parent Defendant Somfy SA and U.S.-based subsidiaries Somfy Systems, BFT, and Somfy LLC. Alone and in concert with or via direction and control of or by at least these entities, Somfy Activites 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, Somfy

Activites operates within a global network of sales and distribution of Somfy products that includes subsidiaries of Somfy, retail stores and showrooms, dealers, resellers, professional installers, and distributors operating in Texas, including this District.

22. As a part of Somfy's global manufacturing and distribution network, Somfy Activites also purposefully places infringing Somfy products in established distribution channels in the stream of commerce, including in Texas, via distribution partners, retailers (including national retailers), resellers, dealers, brand ambassadors, service providers, consumers, and other users. For example, Somfy Activites imports Somfy products directly to subsidiary Somfy Systems Inc. in containers marked "SOMFY USA" in May 2021. *See Search Global Trade Data, SEAIR, EXIM SOLUTION*, <https://www.seair.co.in/us-import/shipments-of-119329082.aspx> (last visited May 27, 2021). Therefore, Somfy Activites, alone and in concert with other members of the Somfy Group, its parent entity Defendant Somfy SA and its U.S. based Somfy subsidiaries, has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis. Through its own conduct and through direction and control of its subsidiaries or control by other Defendant Somfy SA, Somfy Activites 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 Somfy Activites would not offend traditional notions of fair play and substantial justice.

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

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

25. On information and belief, Defendants Somfy SA and Somfy Activites 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

26. 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’ IoT and smart home devices.

27. 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.

28. 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.

29. 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.

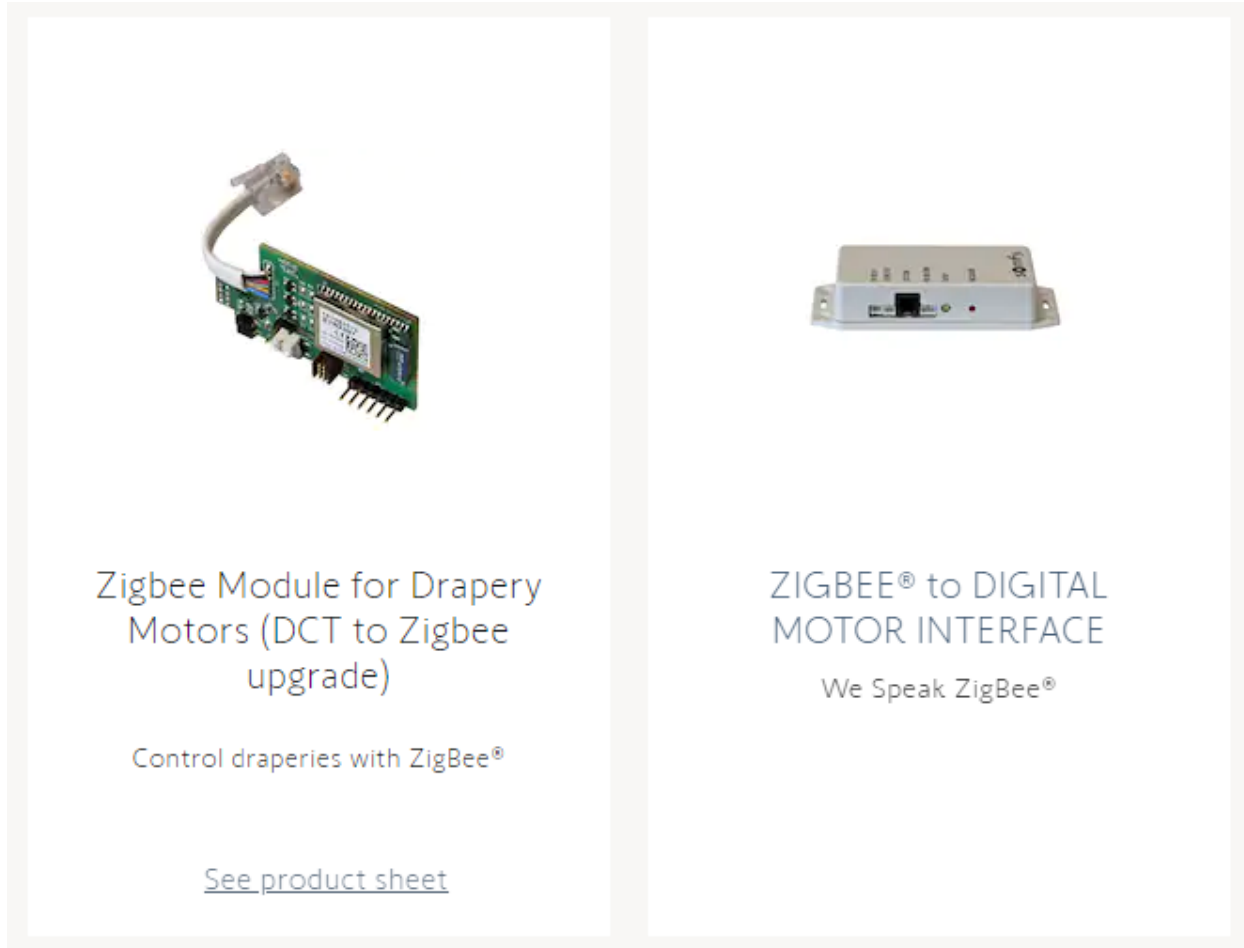
30. The '537 patent describes methods and apparatuses for forming clusters of nodes within a wireless network to improve routing and communication within the network. Wireless networks, especially mobile ad hoc networks, operate more efficiently when the route for relaying message data minimizes the 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.

31. 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, Somfy reported for North America 107 million euros in sales in 2020 (about \$130.5 million U.S. dollars). *See Annual Financial Report*, p. 116.

32. 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, e.g., Smart Home Controls for Motorized Window Coverings*, SOMFY,

<https://www.somfysystems.com/en-us/products/smart-home-controls/smart-home> (last visited May 27, 2021). Somfy also utilizes its own proprietary protocol Radio Technology Somfy (“RTS”) and has products that translate between one protocol (Wi-Fi, Z-Wave, or ZigBee) and RTS so that consumers may control Somfy products via other third-party devices or communication platforms. *See id.* (“Through Somfy myLink™, easily connect your Somfy blinds, shades, awning, and more with handheld smart devices or third-party smart home services like Amazon Alexa and IFTTT.”). Defendants’ infringing Somfy products include, but are not limited to, ZigBee modules and digital motor interfaces, Z-Wave digital motor interface, motor modules, and Z-Wave to RTS Plug-in Wall module, and myLink RTS smartphone and tablet Wi-Fi interfaces, and related accessories and software (all collectively referred to as the “Accused Products”). These Accused Products infringe the Asserted Patents by at least their manufacture, importation, distribution, sale, and use in the U.S.

33. The Asserted Patents cover Accused Products of Somfy 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 Somfy’s ZigBee products include the “Zigbee Module for Drapery Motors,” including (model no. 1870221) which “[r]eceives ZigBee® transmissions and converts them to motor control commands,” and “ZigBee® to Digital Motor Interface,” which “[a]ccepts commands from ZigBee® remotes” are shown below:



See Search results for “Zigbee,” SOMFY, <https://www.somfysystems.com/en-us/search?q=zigbee> (last visited May 27, 2021); see also <https://www.somfysystems.com/en-us/products/1870221/zigbee-module-for-drapery-motors-dct-to-zigbee-upgrade>; <https://www.somfysystems.com/en-us/products/1870220/zigbee-to-digital-motor-interface>.

34. 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).

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

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

IEEE STANDARDS ASSOCIATION

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

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

4. General description

4.1 General

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

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

4.2 Components of the IEEE 802.15.4 WPAN

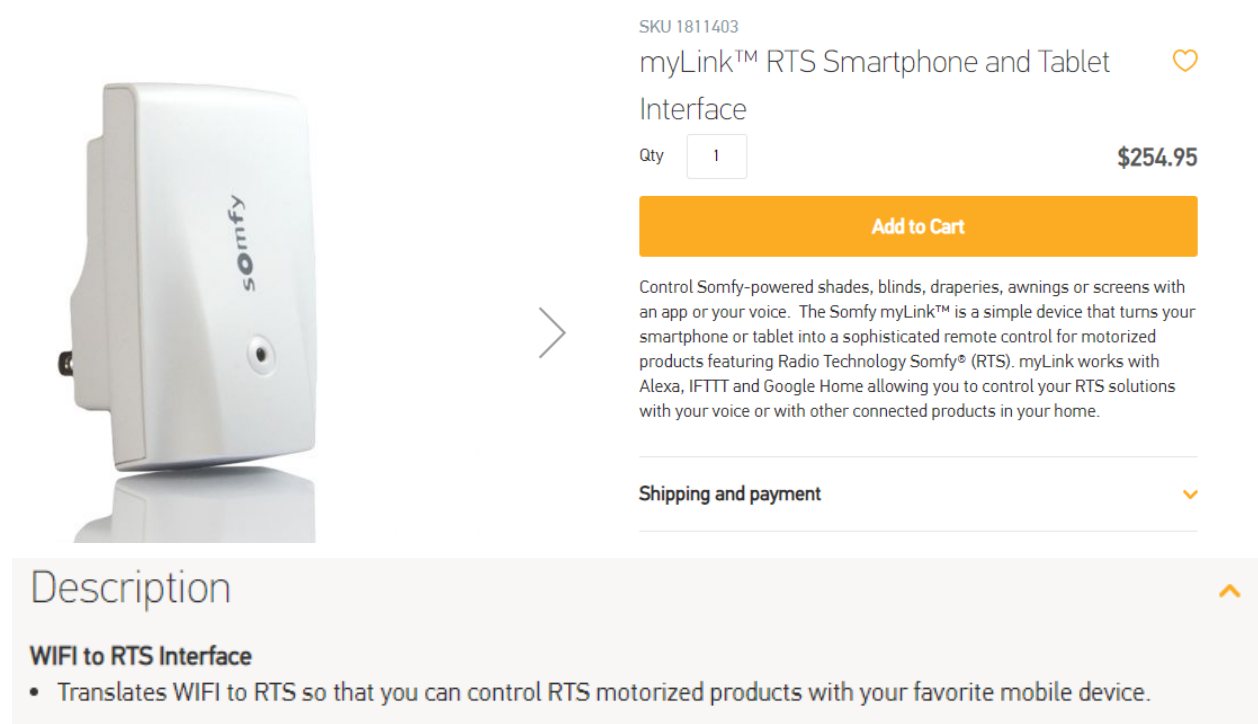
A system conforming to this standard consists of several components. The most basic is the device. Two or more devices communicating on the same physical channel constitute a WPAN. However, this WPAN includes at least one FFD, which operates as the PAN coordinator.

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


36. The Asserted Patents also cover Accused Products of Somfy that utilize the Wi-Fi protocol. Such products include the myLink™ RTS Smartphone and Tablet Interface, which “turns your smartphone or tablet into a sophisticated remote control for motorized products featuring Radio Technology Somfy® (RTS) [and] works with Alexa, IFTTT and Google Home allowing you to control your RTS solutions with your voice or with other connected products in your home.”

See *myLink™ RTS Smartphone and Tablet Interface*, SOMFY, <https://store.somfysystems.com/mylink-rts-smartphone-and-tablet-interface.html> (scroll down

and access “Description”) (last visited May 27, 2021). As shown below, the myLink is Wi-Fi (IEEE 802.11) compliant:



SKU 1811403


myLink™ RTS Smartphone and Tablet 


Interface

Qty \$254.95

[Add to Cart](#)

Control Somfy-powered shades, blinds, draperies, awnings or screens with an app or your voice. The Somfy myLink™ is a simple device that turns your smartphone or tablet into a sophisticated remote control for motorized products featuring Radio Technology Somfy® (RTS). myLink works with Alexa, IFTTT and Google Home allowing you to control your RTS solutions with your voice or with other connected products in your home.

Shipping and payment 


Description 

WIFI to RTS Interface

- Translates WIFI to RTS so that you can control RTS motorized products with your favorite mobile device.

See myLink™ RTS Smartphone and Tablet Interface, SOMFY, <https://store.somfysystems.com/mylink-rts-smartphone-and-tablet-interface.html> (last visited May 27, 2021).

37. 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).



**IEEE Standard for
Information technology—
Telecommunications and information
exchange between systems—
Local and metropolitan area networks—
Specific requirements**

**Part 11: Wireless LAN Medium Access Control (MAC)
and Physical Layer (PHY) Specifications**

IEEE Std 802.11™-2007
(Revision of
IEEE Std 802.11-1999)

1. Overview

1.1 Scope

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

1.2 Purpose

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

Specifically, this standard

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

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

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

38. 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 the Z-Wave protocol.

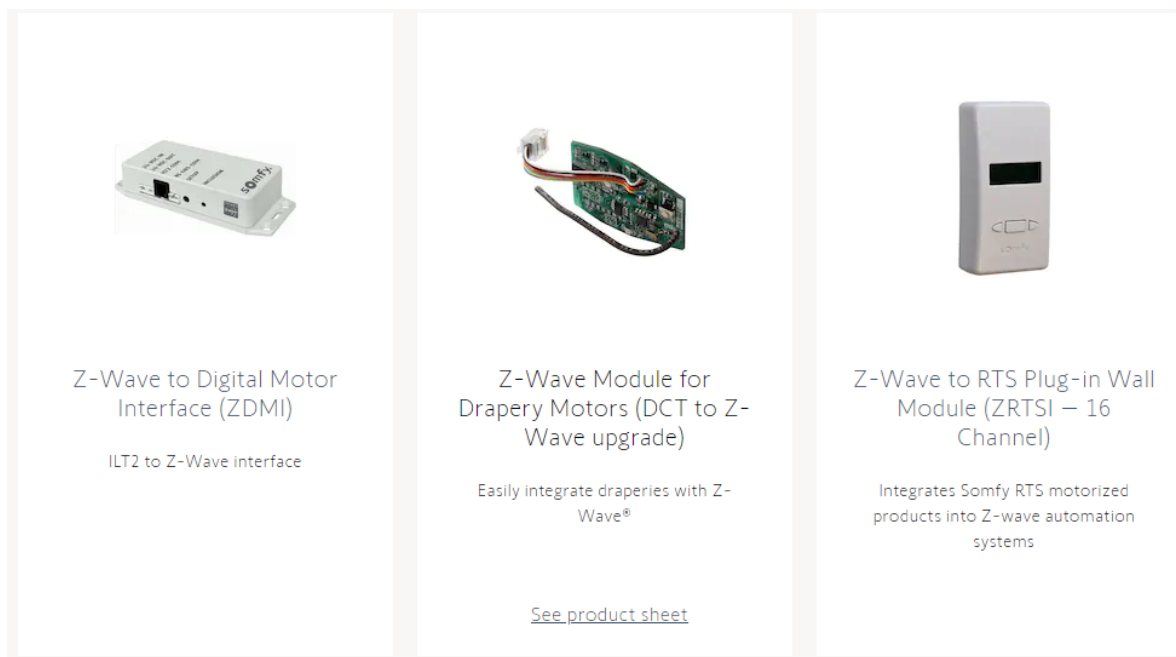
3.4 Z-Wave Routing Principles

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).

39. Accused Products of Somfy that utilize the Z-Wave protocol include Z-Wave digital motor interface, motor modules, and Z-Wave to RTS Plug-in Wall module, as shown below:



See Search results for “Z-Wave” products, SOMFY, <https://www.somfysystems.com/en-us/search?q=Z-Wave> (last visited May 27, 2021).

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

COUNT I

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

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

42. 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.

43. 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.

44. Somfy has and continues 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.

45. On information and belief, Somfy designs, develops, manufactures, imports, distributes, offers to sell, sells, and uses the Accused Products, including via the activities of Somfy and its subsidiaries or related entities, such as Defendant Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC.

46. 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 it does 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)").

47. Furthermore, Defendant Somfy directly infringes the '986 patent through its direct involvement in the activities of its subsidiaries and related entities, including Defendants Somfy SA and Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC, 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, including at least Somfy Systems and BFT, 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. Somfy SA is vicariously liable for the infringing conduct of Defendant Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC (under both the alter ego and agency theories). On information and belief, Defendants Somfy SA and Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC are essentially the same company, comprising some members of the Somfy Group. Moreover, Somfy SA, as the parent company, along with its related 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.

48. For example, Somfy infringes at least claim 25 of the '986 patent via the Accused Products that utilize ZigBee and/or 802.11 (Wi-Fi) protocols, including, but not limited to ZigBee modules and digital motor interfaces and myLink RTS smartphone and tablet Wi-Fi interfaces, and related accessories and software.

49. 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 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, 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.

50. 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.

51. 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 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.

52. 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.

53. 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 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.

54. 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.

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

56. At a minimum, Somfy has known of the ’986 patent at least as early as the filing date of this complaint. In addition, Somfy has known about the ’986 patent since at least its receipt of a letter from North Forty Consulting representing Harris Corporation (“Harris”) dated April 20, 2018, regarding infringement of Harris’ patent portfolio. The letter specifically references the ’986 patent and notifies Somfy of its infringing use of “wireless communication networks, network management/security, as well as innovations pertinent to the IEEE 802 and Zigbee standards,” in

at least the “ZigBee to Digital Motor Interface; ZigBee Module for Curtain Motorization; Glydea; Temperature & Humidity Sensor; Opening Sensor; Motion Detector.”

57. On information and belief, since at least the above-mentioned date when Somfy was on notice of its 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., Service & Support, SOMFY*, <https://www.somfysystems.com/en-us/discover-somfy/contact-us/service-support> (providing consumers with “help with an existing project”); *see also somfysystems, YOUTUBE.COM*, <https://www.youtube.com/user/somfysystems> (providing consumers with Somfy-produced how-

to videos related to Somfy products) (last visited May 27, 2021). Furthermore, Somfy markets myLink RTS smartphone and tablet interface and its application software as “a simple device that turns your smartphone or tablet into a sophisticated remote control for motorized products featuring Radio Technology Somfy® (RTS) [and] works with Alexa, IFTTT and Google Home allowing you to control your RTS solutions with your voice or with other connected products in your home.” See *myLink™ RTS Smartphone and Tablet Interface*, SOMFY, <https://store.somfysystems.com/mylink-rts-smartphone-and-tablet-interface.html> (scroll down and access “Description”) (last visited May 27, 2021). Such compatibility provides convenience and added functionality that induces consumers to use Somfy products, including ZigBee modules and digital motor interfaces and myLink RTS smartphone and tablet Wi-Fi interfaces utilizing ZigBee and/or WiFi protocols in networks with other third-party devices, and thus further infringe the ’986 patent.

58. 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, Somfy has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. Each of 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.

59. Plaintiff Stingray has been damaged as a result of Somfy’s infringing conduct described in this Count. Each Defendant is thus jointly and severally liable to Stingray in an amount that adequately compensates Stingray for Somfy’s infringements, which, by law, cannot

be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT II

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

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

61. 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.

62. 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.

63. Somfy has and continues 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.

64. On information and belief, Somfy designs, develops, manufactures, imports, distributes, offers to sell, sells, and uses the Accused Products, including via the activities of Somfy and its subsidiaries or related entities, such as Defendant Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC.

65. 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, reseller partners, 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 it does 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)”).

66. Furthermore, Defendant Somfy directly infringes the '310 patent through its direct involvement in the activities of its subsidiaries and related entities, including Defendants Somfy SA and Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC, 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, including at least Somfy Systems and BFT, 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. Somfy SA is vicariously liable for the infringing conduct of Defendant Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC (under both the alter ego and agency theories). On information and belief, Defendants Somfy SA and Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC are essentially the same

company, comprising part of the Somfy Group. Moreover, Somfy SA, as the parent company, along with its related entities have the right and ability to control the infringing activities of those entities such that Defendants receive a direct financial benefit from that infringement.

67. For example, Somfy infringes at least claim 13 of the '310 patent via the Accused Products, including, but not limited to, ZigBee modules and digital motor interfaces, Z-Wave digital motor interface, motor modules, and Z-Wave to RTS Plug-in Wall module, which utilize ZigBee and/or Z-Wave protocols.

68. 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*.

69. 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.

70. 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.

71. 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).

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

73. At a minimum, Somfy has known of the '310 patent at least as early as the filing date of this complaint. In addition, Somfy has known about the '310 patent since at least its receipt of a letter from North Forty Consulting representing Harris Corporation ("Harris") dated April 20, 2018, regarding infringement of Harris' patent portfolio. The letter specifically references the '310 patent and notifies Somfy of its infringing use of "wireless communication networks, network management/security, as well as innovations pertinent to the IEEE 802 and Zigbee standards," in at least the "ZigBee to Digital Motor Interface; ZigBee Module for Curtain Motorization; Glydea; Temperature & Humidity Sensor; Opening Sensor; Motion Detector."

74. On information and belief, since at least the above-mentioned date when Somfy was on notice of its 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., Service & Support*, SOMFY, <https://www.somfysystems.com/en-us/discover-somfy/contact-us/service-support> (providing consumers with “help with an existing project”); *see also somfysystems*, YOUTUBE.COM, <https://www.youtube.com/user/somfysystems> (providing consumers with Somfy-produced how-to videos related to Somfy products) (last visited May 27, 2021). Furthermore, Somfy markets myLink RTS smartphone and tablet interface and its application software as “a simple device that turns your smartphone or tablet into a sophisticated remote control for motorized products featuring Radio Technology Somfy® (RTS) [and] works with Alexa, IFTTT and Google Home allowing you to control your RTS solutions with your voice or with other connected products in your home.” *See myLink™ RTS Smartphone and Tablet Interface*, SOMFY,

<https://store.somfysystems.com/mylink-rt-smartphone-and-tablet-interface.html> (scroll down and access “Description”) (last visited May 27, 2021). Such compatibility provides convenience and added functionality that induces consumers to use Somfy products, including ZigBee modules and digital motor interfaces and Z-Wave digital motor interface, motor modules, and Plug-in Wall modules utilizing ZigBee and/or Wi-Fi protocols in networks with other third-party devices, and thus further infringe the ’310 patent.

75. 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, Somfy has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. Each of 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.

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

COUNT III

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

77. Plaintiff incorporates paragraphs 1 through 76 herein by reference.

78. 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.

79. 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.

80. Somfy has and continues 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.

81. On information and belief, Somfy designs, develops, manufactures, imports, distributes, offers to sell, sells, and uses the Accused Products, including via the activities of Somfy and its subsidiaries or related entities, such as Defendant Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC.

82. 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, reseller partners, 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 it does 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)”).

83. Furthermore, Defendant Somfy directly infringes the '426 patent through its direct involvement in the activities of its subsidiaries and related entities, including Defendants Somfy SA and Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC, 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, including at least Somfy Systems and BFT, 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. Somfy SA is vicariously liable for the infringing conduct of Defendant Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC (under both the alter ego and agency theories). On information and belief, Defendants Somfy SA and Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC are essentially the same company, comprising part of the Somfy Group. Moreover, Somfy SA, as the parent company, along with its related entities have the right and ability to control the infringing activities of those entities such that Defendants receive a direct financial benefit from that infringement.

84. For example, Somfy infringes at least claim 8 of the '426 patent via the Accused Products including, but not limited to, ZigBee modules and digital motor interfaces, Z-Wave digital motor interface, motor modules, and Z-Wave to RTS Plug-in Wall module, which utilize ZigBee and/or Z-Wave protocols.

85. 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*.

86. 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.

87. 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.

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

89. At a minimum, Somfy has known of the '426 patent at least as early as the filing date of this complaint. In addition, Somfy has known about the '426 patent since at least its receipt of a letter from North Forty Consulting representing Harris Corporation ("Harris") dated April 20, 2018, regarding infringement of Harris' patent portfolio. The letter specifically references the '426 patent and notifies Somfy of its infringing use of "wireless communication networks, network management/security, as well as innovations pertinent to the IEEE 802 and Zigbee standards," in at least the "ZigBee to Digital Motor Interface; ZigBee Module for Curtain Motorization; Glydea; Temperature & Humidity Sensor; Opening Sensor; Motion Detector."

90. On information and belief, since at least the above-mentioned date when Somfy was on notice of its 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., Service & Support, SOMFY*, <https://www.somfysystems.com/en-us/discover-somfy/contact-us/service-support> (providing consumers with “help with an existing project”); *see also somfysystems, YOUTUBE.COM*, <https://www.youtube.com/user/somfysystems> (providing consumers with Somfy-produced how-to videos related to Somfy products) (last visited May 27, 2021). Furthermore, Somfy markets myLink RTS smartphone and tablet interface and its application software as “a simple device that turns your smartphone or tablet into a sophisticated remote control for motorized products featuring Radio Technology Somfy® (RTS) [and] works with Alexa, IFTTT and Google Home allowing you to control your RTS solutions with your voice or with other connected products in your home.” *See myLink™ RTS Smartphone and Tablet Interface, SOMFY*, <https://store.somfysystems.com/mylink-rt-smartphone-and-tablet-interface.html> (scroll down and access “Description”) (last visited May 27, 2021). Such compatibility provides convenience and added functionality that induces consumers to use Somfy products, including ZigBee modules and digital motor interfaces and Z-Wave digital motor interface, motor modules, and Plug-in Wall modules utilizing ZigBee and/or Wi-Fi protocols in networks with other third-party devices, and thus further infringe the ’426 patent.

91. 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, Somfy has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. Each of 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.

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

COUNT IV

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

93. Plaintiff incorporates paragraphs 1 through 92 herein by reference.

94. 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.

95. 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.

96. Somfy has and continues 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.

97. On information and belief, Somfy designs, develops, manufactures, imports, distributes, offers to sell, sells, and uses the Accused Products, including via the activities of Somfy

and its subsidiaries or related entities, such as Defendant Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC.

98. 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, reseller partners, 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 it does 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)”).

99. Furthermore, Defendant Somfy directly infringes the '537 patent through its direct involvement in the activities of its subsidiaries and related entities, including Defendants Somfy SA and Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC, 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, including at least Somfy Systems and BFT, 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. Somfy SA is vicariously liable for the infringing conduct of Defendant Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC (under both the alter ego and agency theories). On information and belief, Defendants Somfy SA and Somfy Activites and U.S. based subsidiaries Somfy Systems, BFT, and Somfy LLC are essentially the same company, comprising part of the Somfy Group. Moreover, Somfy SA, as the parent company, along with its related entities have the right and ability to control the infringing activities of those entities such that Defendants receive a direct financial benefit from that infringement.

100. For example, Somfy infringes at least claim 16 of the '537 patent via the Accused Products including, but not limited to, Z-Wave digital motor interface, motor modules, and Z-Wave to RTS Plug-in Wall module.

101. 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.*

102. 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.

103. 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).

104. 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).

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

106. At a minimum, Somfy has known of the '537 patent at least as early as the filing date of this complaint. In addition, Somfy has known about the '537 patent since at least its receipt of a letter from North Forty Consulting representing Harris Corporation ("Harris") dated April 20,

2018, regarding infringement of Harris' patent portfolio. The letter specifically references the '537 patent and notifies Somfy of its infringing use of "wireless communication networks, network management/security, as well as innovations pertinent to the IEEE 802 and Zigbee standards," in at least the "ZigBee to Digital Motor Interface; ZigBee Module for Curtain Motorization; Glydea; Temperature & Humidity Sensor; Opening Sensor; Motion Detector."

107. On information and belief, since at least the above-mentioned date when Somfy was on notice of its 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., Service & Support, SOMFY,*

<https://www.somfysystems.com/en-us/discover-somfy/contact-us/service-support> (providing consumers with “help with an existing project”); *see also somfysystems*, YOUTUBE.COM, <https://www.youtube.com/user/somfysystems> (providing consumers with Somfy-produced how-to videos related to Somfy products) (last visited May 27, 2021). Furthermore, Somfy markets myLink RTS smartphone and tablet interface and its application software as “a simple device that turns your smartphone or tablet into a sophisticated remote control for motorized products featuring Radio Technology Somfy® (RTS) [and] works with Alexa, IFTTT and Google Home allowing you to control your RTS solutions with your voice or with other connected products in your home.” *See myLink™ RTS Smartphone and Tablet Interface*, SOMFY, <https://store.somfysystems.com/mylink-rt-smartphone-and-tablet-interface.html> (scroll down and access “Description”) (last visited May 27, 2021). Such compatibility provides convenience and added functionality that induces consumers to use Somfy products, including Z-Wave digital motor interface, motor modules, and Plug-in Wall modules in networks (including those using Z-Wave and/or Wi-Fi) with other third-party devices, and thus further infringe the ’537 patent.

108. 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, Somfy has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. Each of 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.

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

CONCLUSION

110. 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.

111. 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

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

PRAYER FOR RELIEF

113. 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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**ATTORNEYS FOR PLAINTIFF
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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing PLAINTIFF'S FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT was filed electronically in compliance with Local Rule CV-5(a). Therefore, this document was served on all counsel who are deemed to have consented to electronic service on June 4, 2021.

/s/ Jeffrey R. Bragalone