

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

TRIDINETWORKS LTD.,

Plaintiff,

v.

SIGNIFY NORTH AMERICA
CORPORATION and SIGNIFY
NETHERLANDS B.V.,

Defendants.

No. _____

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff TriDiNetworks Ltd. brings this action against the defendants for infringement of U.S. Patent No. 8,437,276 B2 (the “276 Patent”), and alleges as follows:

PARTIES

1. Plaintiff TRIDINETWORKS LTD. (“TDN” or “Plaintiff”) is a corporation organized under the laws of Israel, Israel Corporation Number 513983908, with its principal place of business at 195 Derech Bar Yehuda, Neshet 3688307, Israel. TDN has developed, and markets, a cloud-based platform for wireless M2M (Machine-to-Machine) and IoT (Internet of Things) networks, with applications including without limitation lighting, home automation, smart appliances and wearable devices.

2. Defendant SIGNIFY NORTH AMERICA CORPORATION is a corporation organized under the laws of Delaware with its principal place of business at 200 Franklin Square Drive, Somerset, New Jersey, 08873.

3. Defendant SIGNIFY NETHERLANDS B.V. is a corporation organized under the laws of The Netherlands with its principal place of business at High Tech Campus 48, 5656 AE, Eindhoven, The Netherlands. On information and belief, defendant Signify North America Corporation is a wholly-owned subsidiary of defendant Signify Netherlands B.V.

4. On information and belief, defendant Signify Netherlands B.V. and its direct and indirect subsidiaries, as well as other companies related to defendant Signify Netherlands B.V. throughout the world, operate the multinational and worldwide “Signify” business, under management and direction of defendant Signify Netherlands B.V. The aforementioned defendant entities (and their Philips Lighting-named predecessors) are referred to collectively herein as “Signify.”

5. Signify describes itself as “the world leader in lighting for professionals, consumers and lighting for the Internet of Things.” In achieving its leading market position, Signify has moved its product lines deeply into LED lighting, as well as professional “connected” and “home networked” lighting applications for LEDs, and thus into areas involving the design, installation, and formation of networks of devices connected by wired and wireless links, as addressed by TDN’s ’276 patent. Signify has also increasingly incorporated into its devices the ability to commission those devices onto the interconnecting networks via Near Field Communications (NFC) interfaces, as further disclosed and claimed in the ’276 patent. The ability to commission devices via a simple physical interaction (such as an NFC “tap”), before the devices are connected to power, enables substantial savings in time and personnel qualifications when deploying a substantial network of connected devices. Providing such capabilities has been highly advantageous to Signify’s sales of large-scale professional as well as consumer lighting products, and is responsible for a considerable and growing share of Signify’s revenues. Signify practices

these methods itself and thus directly infringes the '276 Patent, and causes numerous others to do the same, while purchasing large volumes of products designed by Signify to practice this mode of infringement.

JURISDICTION AND VENUE

6. Defendant Signify North America Corporation is generally subject to personal jurisdiction in this Court by reason of its incorporation in Delaware, and further is also specially subject to jurisdiction in this Court by reason of a substantial volume of commercial activity on its part, including activity that gives rise to the claims for patent infringement asserted herein, conducted in and/or purposefully directed at the State of Delaware.

7. Defendant Signify Netherlands B.V., being a foreign corporation, is subject to personal jurisdiction in this Court by reason of a substantial volume of commercial activity on its part, including activity that gives rise to the claims for patent infringement asserted herein, conducted in and/or purposefully directed at the United States as a whole and the State of Delaware in particular.

8. Venue is proper in this district as against defendant Signify North America Corporation under 28 U.S.C. § 1400(b), in that it is incorporated in Delaware.

9. Venue is proper in this district as against defendant Signify Netherlands B.V., in that it is a foreign corporation, as to which venue is proper in any district wherein personal jurisdiction may be found over it, under applicable controlling judicial decisions. Furthermore, to the extent 28 U.S.C. § 1391 may be deemed to apply to foreign corporations accused of patent infringement, all defendants herein reside in this district under the provisions of 28 U.S.C. § 1391(c), thereby alternatively supporting venue as to defendant Signify Netherlands B.V. under 28 U.S.C. § 1391(b).

THE PATENT IN SUIT

10. On May 7, 2013, U.S. Patent No. 8,437,276 B2 (the aforementioned '276 Patent), titled "CONTROL SYSTEMS, COMMISSIONING TOOLS, CONFIGURATION ADAPTERS AND METHOD FOR WIRELESS AND WIRED NETWORKS DESIGN, INSTALLATION AND AUTOMATIC FORMATION" was duly and legally issued by the United States Patent and Trademark Office. Plaintiff TDN is, and at all times from the date of issue as well as the prior date of publication of the '276 Patent has been, the assignee of all rights, title, and interest in the '276 Patent, and it possesses all rights to sue and recover for any current or past infringement of the '276 Patent and/or to license the '276 Patent.

11. The '276 Patent represents a breakthrough development in the practical implementation of the Internet of Things and other systems wherein electronic devices are desired to be deployed over communications networks. In particular, the '276 Patent discloses and claims systems and methods for commissioning devices in such an installation, and doing so with greatly reduced labor and expense. For example, it allows workers with only basic skills to set up arbitrarily complex control networks, without the need for special tools, training and documentation.

12. The technology disclosed and claimed in the '276 Patent confers numerous advantages. For example, the NFC signal employed in accordance with various embodiments of the '276 Patent also transfers power, in addition to the commissioning information. As a result, devices may be commissioned contactlessly by way of a mere "tap" on each such device from a "commissioning tool" – without a wired electrical connection. The commissioning tool can be an ordinary smartphone, so long as the smartphone is NFC-enabled (as most current smartphones are). Indeed, commissioning can be performed in accordance with the '276 Patent while the device

to be commissioned is still in the box in which it was delivered. NFC typically has a short effective range (under 20 cm). The short range of NFC, limiting commissioning to those in physical proximity to the commissioned device, also enhances the security of device configuration.

13. The ease of use of the invention in the '276 Patent represents a great advance over prior methods, which necessitated, for example, commissioning over a live network connection to the device to be commissioned, typically requiring individual attention to each device by a highly-trained engineer, or factory pre-configuration of each device in accordance with a limited (and very limiting) set of options determined by the manufacturer. Such methods were tedious, required highly trained workers to perform, and were vulnerable to third-party attack. The technology embodied in the '276 Patent improves over the stated disadvantages of the prior art in every such respect.

SIGNIFY'S ADOPTION OF THE PATENTED TECHNOLOGY

14. Signify, itself and through its subsidiaries, is engaged in substantial development, manufacturing, marketing, sales, and distribution of Signify and Philips-branded products worldwide. Signify is also the registered owner of the website signify.com and responsible for its contents.

15. A prior course of dealing existed between TDN and Signify, beginning in early 2009. TDN had sought out Signify (then Philips Lighting) as a potential licensee of its technology, noting to Signify its patent applications, at the beginning of the discussions. The Signify representatives involved included corporate officials who have key managerial roles with Signify to this day. Over the course of three in-person meetings in July 2009, TDN demonstrated the patented technology to the Signify representatives, and provided them a detailed white paper.

16. The Signify officials to whom TDN demonstrated its technology went silent after the aforementioned meetings. However, unbeknownst to TDN, Signify proceeded to implement the technology that TDN had demonstrated to it, and thereafter brought to market systems in accordance with TDN's design, completely cutting out TDN from any commercial participation.

17. Signify's unauthorized appropriation of the '276 Patent's technology has grown to wholesale adoption, as reflected by the NFC commissioning capability increasingly being embedded in Signify's current product lines, and aggressively promoted in Signify's trade show demonstrations, product literature, and videos.

18. In the period following the 2013 issuance of the '276 Patent, Signify's promotion of its contactless NFC commissioning solutions through trade shows, documents, and videos have driven considerable sales of Signify components that were designed to implement technology covered by the '276 Patent.

19. Because the officials to whom TDN presented its technology and disclosed its patent applications are still involved for Signify in the field of the '276 Patent, and because of Signify's own patenting activity and familiarity with patents in the field (including official citation of TDN's patent application to Signify), it is reasonable to believe that Signify was aware that the '276 Patent had issued, at or about the time of its issuance, or has been and continues to be willfully blind with respect thereto.

20. On April 6, 2018, TDN, through its counsel, sent Signify a demand letter, formally bringing the issued '276 patent to Signify's attention, accusing Signify of direct and indirect infringement and explaining the basis for these allegations. Signify acknowledged receipt of TDN's letter, but did not meaningfully engage in discussions. TDN's counsel wrote again to Signify on February 4, 2019, with no response.

21. Following said discussions, repeated notices, and correspondence, Signify has continued, and indeed only ramped up, its willful infringement. Signify has paid TDN nothing and refused to discuss a license. These facts, as summarized herein, reflect an egregious case of willful infringement by Signify.

EXAMPLES OF WIDESPREAD INFRINGEMENT BY SIGNIFY

22. Signify provides in the U.S. products adapted to perform each of the following steps in accordance with at least claim 1 of the '276 Patent and to create systems comprising each and every element of at least claim 17 of the '276 Patent, either literally and/or under the doctrine of equivalents (“Accused Products” and “Accused Processes”).

23. As one example, Signify provides NFC-enabled LED drivers, including its Xitanium SR (Sensor Ready) line of LED drivers. These products are designed by Signify for purposes including without limitation interacting with sensors and controlling luminaires.

24. The Xitanium SR LED drivers described in the preceding paragraph, which constitute but one example out of many like Signify components that embody NFC commissioning as promoted by Signify, may be used to infringe in the following manner:

- a. *creating a design for a network comprising parameters and design configuration data of devices designed to be in said network*

See for example “*Xitanium SR Outdoor LED Driver Design-in Guide*” (PAD-1654DG, Feb. 2019) (“Design-In Guide”) at 20, describing and illustrating a network including a luminaire with specific settings.

Design data includes the connected node’s, or luminaire’s, operational settings including default settings, for example, as shown in this MultiOne screen:

The screenshot displays a control interface for a Philips MultiOne system. It includes several adjustable parameters:

- Power on level:** A slider set to 254 (≈100%) with a checkbox for "Do nothing" (unchecked).
- System failure level:** A slider set to 255 (≈100%) with a checkbox for "Do nothing" (checked).
- Min level:** A slider set to 84 (≈1%).
- Max level:** A slider set to 129 (≈3%).
- Fade rate:** A dropdown menu set to 7.
- Fade time:** A dropdown menu set to 1.
- Extended fade time based:** A dropdown menu set to 1.
- Extended fade time multiplier:** A dropdown menu set to 1.
- Operating mode:** A dropdown menu set to 128. A note states: "*Operating mode can either be 0 or between 128 and 255".
- Short address:** A dropdown menu set to 62. A note states: "*Short address can either be 255 or between 0 and 63".

Below these settings are two sections:

- Scenes:** A grid of 16 scene controls (Scene 0 to Scene 15), each with a numeric value of 255 and a small up/down arrow icon.
- Groups:** A grid of 16 checkboxes labeled Group 0 through Group 15. Group 10 is checked, while all other groups are unchecked.

Philips MultiOne User Manual (Ver. 3.11, 2019) (“MultiOne Manual”) at 59.

- b. *and binding information defining bindings to allow connection between devices to run an application*

E.g., the design may include a DALI short address so each individual SR driver can be addressed separately. Design-In Guide at 24 and Fig. 27.

The screenshot displays the 'DALI 102 variables' configuration section. On the left, a sidebar lists categories: Summary, ALO, AOC, CLO, DALI 102 (selected), DALI PSU, Dynamimmer, EOL, LSI, OEM Traceabil..., OWP, and Startup Time. The main area contains several sliders and dropdown menus. The 'Short address' is set to 15. Below this is a 'Scenes' table with 16 rows and 4 columns of values.

| Scene | Value | Scene | Value | Scene | Value | Scene | Value |
|----------|-------|----------|-------|-----------|-------|-----------|-------|
| Scene 0: | 255 | Scene 4: | 255 | Scene 8: | 255 | Scene 12: | 20 |
| Scene 1: | 255 | Scene 5: | 255 | Scene 9: | 255 | Scene 13: | 30 |
| Scene 2: | 255 | Scene 6: | 255 | Scene 10: | 255 | Scene 14: | 255 |
| Scene 3: | 255 | Scene 7: | 255 | Scene 11: | 10 | Scene 15: | 255 |

Figure 27. Programming short address (15) using DALI 102 (variables) section.

- c. *installing the devices according to the created design ... (see below)*
- d. *by accessing the created design by a commissioning tool*

E.g., LCN960, shown below:



See also MultiOne Manual at 13 (illustrating a range of similar NFC programming tools).

- e. *and downloading data from the commissioning tool into a configuration adapter comprised in the devices to be configured, before the devices are initialized*

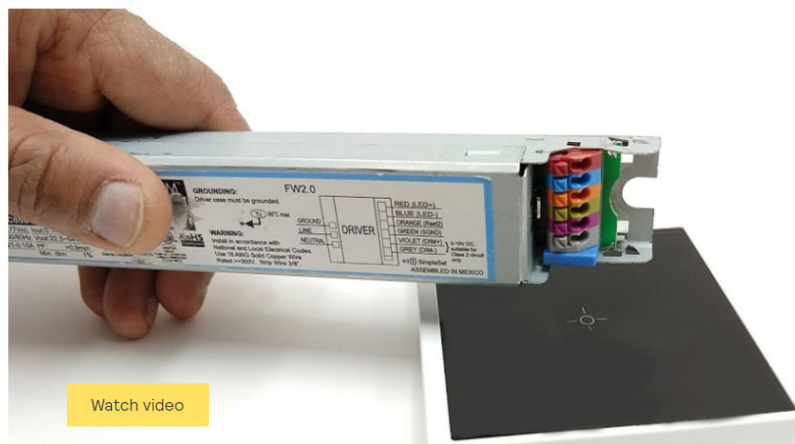
E.g., a “configuration adapter” is, for example, a dual-interface NFC/I2C chip with EEPROM storage, in the device to be configured. In many instances, Signify uses an M24LR04E-R NFC tag, which Signify has sourced from STMicroelectronics, in the configuration adapters it builds into the devices to be configured. The configuration adapters are programmed before the devices are initialized. See Design-In Guide at 5: “SimpleSet is especially useful as it provides a way to program the output current without drivers connected to power, significantly

reducing luminaire assembly time.” *See also id.* at 22: “The data can be stored in the SR driver in either the implemented DALI memory bank 1 or using codes stored as scene settings. MultiOne software using either the DALI interface or SimpleSet (NFC) can be used to program the information in the SR driver”; Web page at <https://www.signify.com/en-us/brands/advance/led-drivers/simpleset>:

A Simple, Flexible Solution. Tapping into Advance Xitanium LED Drivers with SimpleSet is easy. First, you use MultiOne Configuration System to set the desired parameters for the LED drivers. Then, after connecting the programming device to the computer, touch the device to the appropriate place on the driver and the programming device wirelessly programs the driver, and the software provides visual and audio confirmation that the driver was programmed successfully.

SimpleSet Programming Technology

SimpleSet wireless programming technology for LED drivers is designed to help OEMs quickly and easily program LED drivers at any time during the manufacturing, distribution or installation process. As a result, OEMs and their customers can meet orders faster and with greater confidence while reducing costs and inventory.



See also the referenced Signify video, at <https://www.youtube.com/watch?v=-FSOQQMVnPE> (“Philips MultiOne Configuration Tool – Simple and Fast”) (“MultiOne Video”).

- f. *forming the network and bindings according to said created design ... (see below)*
- g. *... by initializing the devices*

Powering up the device will initialize it. Signify and its OEMs also perform this step, for example, during manufacturing and testing. Users perform this step as well.

- h. *... and by reading said downloaded data from the configuration adapter once the devices are initialized*

In Signify’s implementations, design data that has been transferred to the configuration adapter via NFC, and stored its EEPROM (non-volatile memory), is

read from the configuration adapter when the device is initialized and used to form the network.

- i. *wherein the commissioning tool comprises a configuration adapter for a complementary configuration link*

The commissioning tool incorporates a separate and complementary configuration adapter ('276 Patent at 14:53-57). The SimpleSet configuration adapter (see item (d) above) comprises an NFC transceiver.

- j. *wherein of the configuration adapters included in the system, only the configuration adapter of the commissioning tool must be powered-up during data communication*

The NFC Tags of the Signify LED drivers do not need be powered up during commissioning. According to Signify's literature, "SimpleSet is *especially useful* as it provides a way to program the output current without drivers connected to power, significantly reducing luminaire assembly time." Design-In Guide at 5 (emphasis added). *See also* MultiOne Video at 0:45-50.

25. As a further example, Signify provides a family of EasyAir/EasySense "EasyAir" wireless sensors for controlling luminaires that are associated together, for example, over DALI connections, in connected lighting arrangements. The Signify EasyAir sensors are configurable via NFC. One example of a setup containing Xitanium SR LED drivers connected to the SNS200 sensors can be seen below:



26. The Signify sensors in the above example is the EasyAir (EasySense) SNS200 sensor. The SNS200 is but one example out of many like Signify components that embody NFC commissioning as promoted by Signify (for example EasyAir SNO110). The SNS200 may be used to infringe in the following manner:

- a. *creating a design for a network comprising parameters and design configuration data of devices designed to be in said network*

Signify creates a design during manufacturing to load and test default operating parameters and the MAC addresses and device names into the SNS200 sensors via NFC, and on information and belief enables its OEMs to do the same. *See, e.g., EasyAir SNS200 Datasheet (Jan. 2019) at 1: “Preset with most common sensor parameters.”*

- b. *and binding information defining bindings to allow connection between devices to run an application*

The EasyAir NFC Field app (Download: https://play.google.com/store/apps/details?id=com.philips.fieldapps&hl=en_GB; *see EasyAir Philips Field Apps User Manual (Aug. 2018)*), recognizes the out-of-the-box devices’ MAC addresses (ID) as well as the Device name and connects to devices without further information, revealing that the design at manufacture by Signify or its OEM includes binding information defining bindings.

- c. *installing the devices according to the created design ... (see below)*

d. *by accessing the created design by a commissioning tool*

E.g., LCN960 (and other devices as illustrated for example in the MultiOne Manual at 12), as well as NFC-enabled smartphones and tablets, using the Signify EasyAir NFC application:



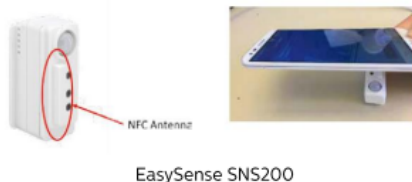
Or



e. *and downloading data from the commissioning tool into a configuration adapter comprised in the devices to be configured, before the devices are initialized*

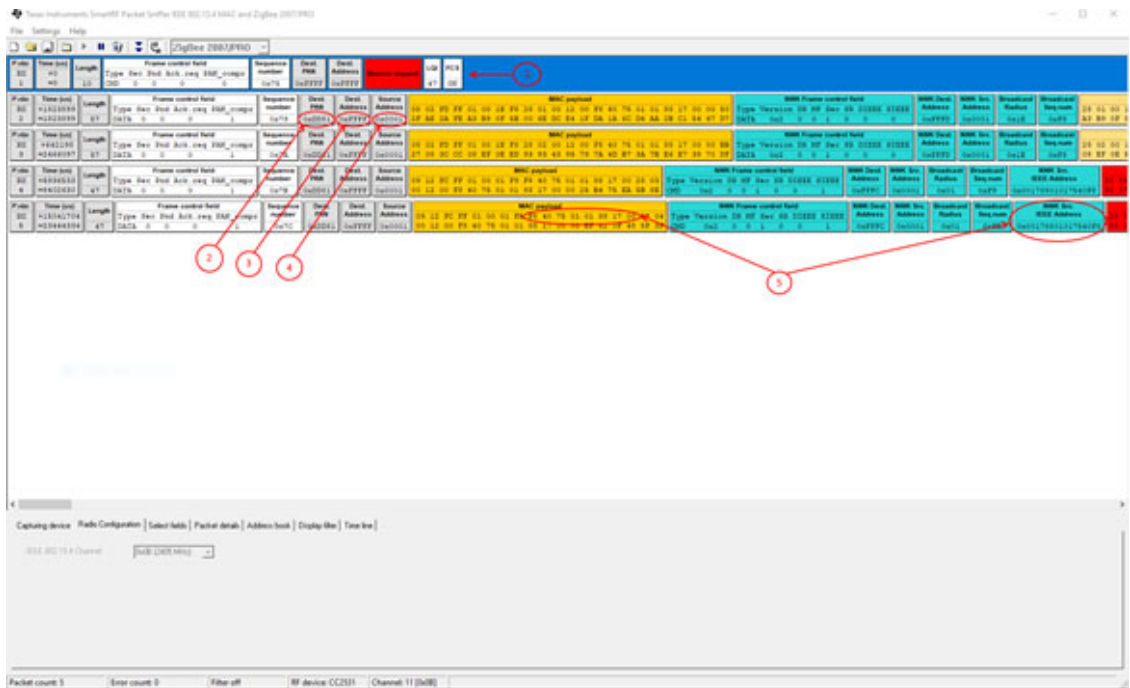
E.g., a “configuration adapter” is, for example, a dual interface NFC/I2C chip with EEPROM storage, in the device to be configured. The SNS200 contains such an adapter. See, e.g., EasyAir NFC Field App Manual, at 10:

Scan device to configure parameters

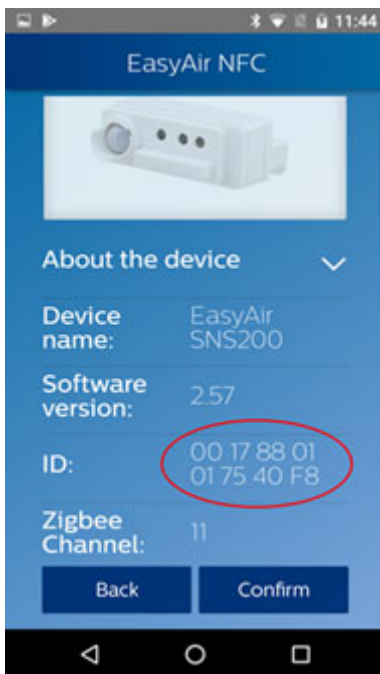


The configuration adapter is programmed before the device is initialized (*see, e.g., Philips Field Apps Video, <https://www.youtube.com/watch?v=XQergdLd-ZI> at 1:40- 1:56, use cases can be “organized prior to the installation using the NFC version of the app even without having power on my EasySense devices.”*). The programming via NFC can be performed in the field or during manufacture.

- f. forming the network and bindings according to said created design ... (see below)
- g. ... by initializing the devices



The first SNS200 powered-up starts to transmit. First, it sends the “Beacon request” to a coordinator (1). Since a coordinator is not present, the SNS200 becomes a “coordinator”. It creates the network, PAN ID, 0xDD81 (2), sets to itself the network address (4), and starts to broadcast messages (3). In the messages the “coordinator” uses the MAC address (ID) loaded in its NFC (5), also used as a device ID. The Signify EasyAir NFC application reading the EasyAir SNS200 internal NFC contents is displayed below:



A second SNS200 sensor powered-up may then be initialized in the group:

An initialization process then follows for the second SNS200 to join the network:

The second SNS200 sends the “Beacon request” (1), but now a “coordinator” exists and it gets the Beacon message with network parameter Extended PAN ID (2). After this, the second SNS200 starts the joining process and sends the “Association request” (3) with its MAC address (ID) (4). The Signify EasyAir NFC app reading the resulting SNS200 internal NFC contents shows the following:



The “coordinator” gets this message and sends an acknowledgement. The added SNS200 sends “Data request” (5) and gets response (6) with its Short network address, 0x0002 (7). The second SNS200 saves the appropriate data and starts to work within network with the appropriate PAN ID, 0xDD81.

| No. | Time (s) | Length | Type | Src | Dest | Seq | Source | Destination | Source Address | Destination Address | Source PAN ID | Destination PAN ID | Source EUI64 | Destination EUI64 | Source LQI | Destination LQI | Source Rssi | Destination Rssi | Source SFD | Destination SFD | Source FCS | Destination FCS | Source Seq Num | Destination Seq Num | Source Status | Destination Status | Source Frame Control | Destination Frame Control | Source Frame Type | Destination Frame Type | Source Frame Length | Destination Frame Length | Source Frame Payload | Destination Frame Payload | | |
|-----|----------|--------|------|-------------------------|-------------------------|-----|-------------------------|-------------------------|-------------------------|-------------------------|---------------|--------------------|-------------------------|-------------------------|------------|-----------------|-------------|------------------|------------|-----------------|------------|-----------------|----------------|---------------------|---------------|--------------------|----------------------|---------------------------|-------------------|------------------------|---------------------|--------------------------|----------------------|---------------------------|--|--|
| 1 | 0.000000 | 12 | ACK | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0x0000 | 0x0000 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 127 | 127 | -75 | -75 | 0x00000000 | 0x00000000 | 0x00000000 | 0x00000000 | 0 | 0 | 00000000 | 00000000 | 00000000 | 00000000 | 0 | 0 | 00000000 | 00000000 | 0 | 0 | | |
| 2 | 0.000000 | 12 | DATA | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0x0000 | 0x0000 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 127 | 127 | -75 | -75 | 0x00000000 | 0x00000000 | 0x00000000 | 0x00000000 | 0 | 0 | 00000000 | 00000000 | 00000000 | 00000000 | 0 | 0 | 00000000 | 00000000 | 0 | 0 | | |
| 3 | 0.000000 | 12 | ACK | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0x0000 | 0x0000 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 127 | 127 | -75 | -75 | 0x00000000 | 0x00000000 | 0x00000000 | 0x00000000 | 0 | 0 | 00000000 | 00000000 | 00000000 | 00000000 | 0 | 0 | 00000000 | 00000000 | 0 | 0 | | |
| 4 | 0.000000 | 12 | DATA | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0x0000 | 0x0000 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 127 | 127 | -75 | -75 | 0x00000000 | 0x00000000 | 0x00000000 | 0x00000000 | 0 | 0 | 00000000 | 00000000 | 00000000 | 00000000 | 0 | 0 | 00000000 | 00000000 | 0 | 0 | | |
| 5 | 0.000000 | 12 | ACK | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0x0000 | 0x0000 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 127 | 127 | -75 | -75 | 0x00000000 | 0x00000000 | 0x00000000 | 0x00000000 | 0 | 0 | 00000000 | 00000000 | 00000000 | 00000000 | 0 | 0 | 00000000 | 00000000 | 0 | 0 | | |
| 6 | 0.000000 | 12 | DATA | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0x0000 | 0x0000 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 127 | 127 | -75 | -75 | 0x00000000 | 0x00000000 | 0x00000000 | 0x00000000 | 0 | 0 | 00000000 | 00000000 | 00000000 | 00000000 | 0 | 0 | 00000000 | 00000000 | 0 | 0 | | |
| 7 | 0.000000 | 12 | ACK | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 0x0000 | 0x0000 | 00:17:88:01:01:75:40:F6 | 00:17:88:01:01:75:40:F6 | 127 | 127 | -75 | -75 | 0x00000000 | 0x00000000 | 0x00000000 | 0x00000000 | 0 | 0 | 00000000 | 00000000 | 00000000 | 00000000 | 0 | 0 | 00000000 | 00000000 | 0 | 0 | | |

- h. ... and by reading said downloaded data from the configuration adapter once the devices are initialized

The sensors' MAC addresses, loaded in their NFC interfaces, are used during the group forming initialization. In the above example, the first SNS200 reads its MAC address from the NFC and broadcasts it as an identifier. The second (joining) SNS200 reads its MAC address from NFC and transmits it as an ID to the coordinator, as part of its association request.

- i. wherein the commissioning tool comprises a configuration adapter for a complementary configuration link

The SimpleSet configuration tool comprises an NFC transceiver.

- j. wherein of the configuration adapters included in the system, only the configuration adapter of the commissioning tool must be powered-up during data communication

During the node configuration step, only the configuration adapter of the commissioning tool must be powered up. *See, e.g., Philips Field Apps Video*, at 1:40-1:56.

COUNT I - DIRECT INFRINGEMENT - 271(a)

27. Plaintiff repeats and realleges paragraphs 1- 26 as if fully set forth at length herein.

28. Signify's acts as aforesaid (including without limitation each of defendants Signify Netherlands B.V. and Signify North America Corporation), in which Signify itself makes, uses, demonstrates and deploys, as well as sells and offers for sale, the Accused Products and Processes in the manner alleged above, in the United States, during the period from issuance of the '276 Patent to the present and continuing, constitutes direct infringement of the '276 Patent under 35 U.S.C. § 271(a), either literally and/or under the doctrine of equivalents.

29. TDN has suffered and continues to suffer damages including lost profits by reason of the direct infringement of Signify and is entitled to recover the same or in any case not less than a reasonable royalty with respect thereto.

30. TDN has been and continues to be irreparably harmed by said infringement, in a manner not fully compensable by monetary damages, with the balance of hardships tipping strongly in TDN's favor such that TDN is entitled to injunctive relief.

31. Signify has willfully infringed, and continues to willfully infringe, the '276 Patent despite having knowledge of the '276 Patent and of the manner in which it infringes the same.

COUNT II - INDUCED INFRINGEMENT - U.S. - 271(b)

32. Plaintiff repeats and realleges paragraphs 1 - 31 as if fully set forth at length herein.

33. U.S. law establishes a separate cause of action for the act of inducing another to infringe a patent. In this regard, 35 U.S.C. §271(b) provides that “[w]hoever actively induces infringement of a patent shall be liable as an infringer.”

34. Signify has induced and continues to induce direct infringement by others of the '276 Patent in the U.S., literally and/or under the doctrine of equivalents.

35. TDN hereby identifies numerous direct infringers of the '276 Patent, induced to infringe the same in the United States by Signify. For example, persons who practice the NFC commissioning steps prescribed in the Signify publications referenced in Count I, and/or use design systems and Signify products described therein, and/or integrate Signify components into their own products, perform each and every step of at least claim 1 of the '276 Patent, literally and/or under the doctrine of equivalents, and use each and every component of at least claims 17, 20, and/or 25 of the '276 Patent, literally and/or under the doctrine of equivalents, and thereby directly infringe the '276 Patent directly and/or under the doctrine of equivalents.

36. On information and belief, there are a substantial number of such direct infringers who purchase Signify products and/or systems that and practice the claimed methods and use

and/or resell the claimed systems in accordance with directions supplied by Signify, such as those referenced above.

37. Signify actively, knowingly, and intentionally induced, and continues to actively, knowingly, and intentionally induce, infringement of the '276 Patent by said direct infringers, by providing the above-referenced demonstrations, publications, and videos on NFC commissioning of connected devices, thereby teaching said direct infringers how to infringe the '276 Patent, and encouraging them to do so, and by profiting therefrom by selling such direct infringers, directly and/or indirectly through distributors, large volumes of Signify components to implement what Signify has thus taught, including without limitation design software, configuration adapters, and commissioning tools, which said direct infringers use to directly infringe, literally and/or under the doctrine of equivalents.

38. At least by reason of TDN's demand letters as aforesaid, Signify does the foregoing with knowledge of the '276 Patent and its claims; with knowledge that said direct infringers will use, market, sell, and offer to sell such infringing methods and systems, and with the knowledge and intent to encourage and facilitate infringing sales and uses thereof through the creation and dissemination of promotional and marketing materials, instructional materials and videos, product manuals, software and technical materials related thereto, including but not limited to those examples of such materials, videos, manuals, and software hereinabove described. Such creation and dissemination are carried out by Signify through its personnel and the signify.com website, which Signify owns and controls.

39. Accordingly, Signify is liable for inducing infringement under 35 U.S.C. Sec. 271(b).

40. TDN has suffered and continues to suffer damages including lost profits by reason of such induced infringement by Signify and is entitled to recover the same or in any case not less than a reasonable royalty with respect thereto. The damages for this and related forms of indirect infringement as alleged herein extends not only to the particular products and systems such as those named herein, but to every instance in which downstream purchasers from Signify have infringed and provided products that infringe or are readily used to infringe the '276 Patent by using or integrating Signify products and components and other conveyed items in combinations and procedures as taught by the aforementioned Signify printed materials, demonstrations, and videos.

41. TDN has been and continues to be irreparably harmed by said induced infringement, in a manner not fully compensable by monetary damages, with the balance of hardships tipping strongly in TDN's favor such that TDN is entitled to an injunction.

42. Signify's induced infringement of the '276 Patent has been and continues to be willful.

COUNT III - INDUCED INFRINGEMENT - 271(f)(1)

43. Plaintiff repeats and realleges paragraphs 1 - 42 as if fully set forth at length herein.

44. U.S. law further provides a cause of action for shipping the components of a patented combination abroad, and inducing their foreign assembly in a manner that would be infringing if done in the U.S.

45. As previously alleged, Signify is a global business. On information and belief, among their global activities, Signify causes to be supplied in or from the U.S., to purchasers outside the U.S., the components of and used in the claims of the '276 patent as aforesaid, and, by means including without limitation the same Signify demos, publications, and videos referenced

in Counts I and II, induce the combination of such components by said purchasers outside the U.S., in a manner that would infringe the '276 patent if such combination occurred in the U.S.

46. Thus, Signify has, without authority, supplied or caused to be supplied in or from the United States all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States.

47. Accordingly, Signify is liable for infringement under 35 U.S.C. § 271(f)(1).

48. TDN has suffered and continues to suffer damages including lost profits by reason of such induced infringement by Signify and is entitled to recover the same or in any case not less than a reasonable royalty with respect thereto.

49. TDN has been and continues to be irreparably harmed by said induced infringement, in a manner not fully compensable by monetary damages, with the balance of hardships tipping strongly in TDN's favor such that TDN is entitled to an injunction.

50. Signify's induced infringement of the '276 Patent under 35 U.S.C. § 271(f)(1) has been and continues to be willful.

COUNT IV - CONTRIBUTORY INFRINGEMENT - 271(c)

51. Plaintiff repeats and realleges paragraphs 1- 50 as if fully set forth at length herein.

52. U.S. law further makes it actionable to knowingly supply to another a material part of a patented invention, where the part provided has no substantial use other than to infringe.

53. Signify's Xitanium SR drivers, for example, and SNS sensors, as another example, constitute components used in practicing the system and method claims of the '276 Patent, which Signify offers to sell within the United States and/or import into the United States, constituting

material parts of the invention, which Signify knows, at least by reason of TDN's demand letters as aforesaid, to be especially made or especially adapted for use in infringing the '276 Patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use. Direct infringers include, for example, those persons identified in par. 35.

54. Accordingly, Signify is liable for contributory infringement under 35 U.S.C. Sec. 271(c).

55. TDN has suffered and continues to suffer damages including lost profits by reason of the contributory infringement of Signify and is entitled to recover the same or in any case not less than a reasonable royalty with respect thereto.

56. TDN has been and continues to be irreparably harmed by said contributory infringement, in a manner not fully compensable by monetary damages, with the balance of hardships tipping strongly in TDN's favor such that TDN is entitled to an injunction.

57. Signify's contributory infringement of the '276 Patent has been and continues to be willful.

COUNT V - CONTRIBUTORY INFRINGEMENT - 271(f)(2)

58. Plaintiff repeats and realleges paragraphs 1 - 57 as if fully set forth at length herein.

59. U.S. law further makes it actionable to knowingly supply a material part of a patented invention to another outside the U.S., where the part provided has no substantial use other than to infringe, knowing that it will be combined outside the U.S. in a manner that would infringe if so combined within the U.S.

60. As previously alleged, Signify is a global business. On information and belief, among their global activities Signify causes to be supplied in or from the U.S., to purchasers outside the U.S., the components of and used in the claims of the '276 patent as aforesaid, including

components with no substantial noninfringing use such as the Xitanium SR drivers and similar devices, which are not staple articles or commodities of commerce, and by the same Signify demos, publications, and videos referenced in Counts I-IV, induce the combination of such component by said purchasers outside the U.S., with other components, knowing that such component is so made or adapted and intending that such component will be so combined outside of the United States, in a manner that would infringe the '276 patent if such combination occurred in the U.S.

61. Accordingly, Signify is liable for infringement under 35 U.S.C. Sec. 271(f)(2).

62. TDN has suffered and continues to suffer damages including lost profits by reason of such contributory infringement by Signify, and is entitled to recover the same or in any case not less than a reasonable royalty with respect thereto.

63. TDN has been and continues to be irreparably harmed by said contributory infringement, in a manner not fully compensable by monetary damages, with the balance of hardships tipping strongly in TDN's favor and TDN is entitled to an injunction.

64. Signify's acts of infringement of the '276 Patent under 35 U.S.C. § 271(f)(2) have been and continue to be willful.

PRAYER FOR RELIEF

WHEREFORE, TDN respectfully requests that this Court enter judgment against defendants as follows:

- a. adjudging that the defendants have each infringed, induced infringement of, and/or contributorily infringed, literally or under the doctrine of equivalents, U.S. Patent No. 8,437,276 B2;
- b. adjudging that defendants are liable as infringers of the '276 Patent under 35 U.S.C. § 271(f)(1) and (f)(2).
- c. adjudging that each of said defendants' infringement has been willful;

- d. awarding TDN the damages to which it is entitled under 35 U.S.C. § 284 for defendants' past infringement and any continuing or future infringement up until the date defendants are finally and permanently enjoined from further infringement, including both compensatory damages and enhanced/treble damages for willful infringement, and ordering a full accounting of same;
- e. awarding TDN temporary, preliminary, and permanent injunctive relief;
- f. finding that this case is exceptional and awarding TDN its reasonable attorneys' fees under 35 U.S.C. § 285;
- g. awarding TDN pre-judgment and post-judgment interest on its damages; and awarding TDN such other and further relief in law or equity that the Court deems just and proper.

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