UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

THL Holding Company, LLC, Plaintiff, **v.** **Apple, Inc.** Defendant.	**Case No. 1:23-cv-548-OLG** *JURY TRIAL DEMANDED*

PLAINTIFF THL HOLDING COMPANY, LLC'S OPENING CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

Tree House Labs, LLC ("THL") is a small start-up company from Austin, Texas that changed forever the way people locate their luggage, keys (and even children) using a mobile phone. THL invented a product called the BIKN®, which it advertised as "The New Lost & Found." The BIKN was released as an "app" for the iPhone and included a hardware component that connected to the bottom of the iPhone. The BIKN also came with several "tags" that a person could place in his or her luggage, attach to keys, or place in the pocket of a child. The BIKN was an immediate success and the Winner of "Best New Product" at the 2012 Consumer Electronics Show in Las Vegas, Nevada. Below is an image of a BIKN product in its box and one of its advertisements.

Sales of the BIKN dwindled because THL could not keep up with Apple's repeated changes to its hardware, including changes to the iPhone connector through which the BIKN connected to the phone. As the iPhone connector evolved, sales of the BIKN dropped. But Apple began offering the BIKN functionality in its iPhone and other products. Apple copied the innovation THL had pioneered a decade earlier to effectively and efficiently track valued items.

This case concerns Apple's infringement of three patents held by plaintiff THL Holding Company, LLC. The asserted patents are U.S. Patent No. 11,350,246 ("the '246 Patent"), U.S.

Patent No. 11,265,680 ("the '680 Patent"), and U.S. Patent No. 8,768,381 ("the '381 Patent). These three patents are collectively referred to as the Patents-in-Suit and relate to THL's BIKN invention.

Apple seeks construction of five terms, four of which are from THL's newest patent, the '246 patent. Apple proposes constructions, as most defendants do, that rewrite the claims or improperly limit them to examples in specification – contrary to the plain wording of the claims themselves. Apple's proposed constructions are against long-standing claim construction law and should be rejected.

II. CLAIM CONSTRUCTION LAW

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (citations omitted). Claim terms should be "given their ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art" as informed by the specification. *Id*. at 1312-13 (citations omitted). Claim construction is a question of law that "begins and ends in all cases with the actual words of the claim." *Homeland Housewares, LLC v. Whirlpool Corp.*, 865 F.3d 1372, 1374-75 (Fed. Cir. 2017) (citations omitted); see also *Phillips*, 415 F.3d at 1314 ("the claims themselves provide substantial guidance as to the meaning of particular claim terms").

The law creates a "heavy presumption" that claims are given their "ordinary and customary meaning." *Smarthome GmbH v. AT&T Mobility, LLC*, 743 F.3d 849, 857 (Fed. Cir. 2014); *Phillips*, 415 F.3d at 1312-14. Only two narrow exceptions depart from this presumption: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Thorner v. Sony*

Computer Enter. Am. LLC, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1580 (Fed. Cir. 1996)). "To act as its own lexicographer, a patentee must 'clearly set forth a definition of the disputed claim term' other than its plain and ordinary meaning." *Id.* (quoting *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)). "The standard for disavowal of claim scope is similarly exacting." *Id.* at 1366. "Absent a clear disavowal or contrary definition in the specification or the prosecution history, the patentee is entitled to the full scope of its claim language." *Home Diagnostics, Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1358 (Fed. Cir. 2004). Neither of these exceptions applies in this case.

Claims also must "be read in view of the specification, of which they are part." *Phillips*, 415 F.3d at 1315 (citations omitted). However, when a patentee does not expressly and clearly use the specification to assign unique definitions to claim terms, limitations from the written description should not be imported into the claims. *See id.* at 1315-16, 1320, 1323; *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1345 (Fed. Cir. 2008). "[O]ne of the cardinal sins of patent law [is] reading a limitation from the written description into the claims." *Phillips*, 415 F.3d at 1320 (citation omitted). "When a claim term has an accepted scientific meaning, that meaning is generally not subject to restriction to the specific examples in the specification." *Glaxo Wellcome, Inc. v. Andrx Pharms., Inc.*, 344 F.3d 1226, 1233 (Fed. Cir. 2003) (citations omitted). Indeed, "as a general rule[,] claims of a patent are not limited to the preferred embodiment … or to the examples listed within the patent specification." *Id.* (citation omitted); *Phillips*, 415 F.3d at 1313, 1323 ("we have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment"). Conversely, "[a] claim construction that does not encompass a disclosed embodiment is … 'rarely,

if ever, correct and would require highly persuasive evidentiary support.'" *Johns Hopkins Univ. v. CellPro, Inc.*, 152 F.3d 1342, 1355 (Fed. Cir. 1998) (citation omitted).

A patent's "prosecution history" may also be considered during the claim construction process. *Phillips*, 415 F.3d at 1317. The prosecution history refers to the historical record of the proceedings in the United States Patent and Trademark Office ("PTO") that led to the patent. *Id*. "Yet because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes." *Data Engine Techs. LLC v. Google LLC*, 10 F.4th 1375, 1382 (Fed. Cir. 2021). Any disavowal of claim scope during prosecution must be clear and unmistakable. *See 3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315 (Fed. Cir. 2013).

The patent's claims, specification and prosecution history are considered the patent's "intrinsic" record. *Phillips*, 415 F.3d at 1313, 1317. Although extrinsic evidence, such as an expert opinion, is "less significant than the intrinsic record in determining 'the legally operative meaning of claim language,'" it can help illuminate how a POSITA would have understood the intrinsic record, including the disputed claim terms, at the time of the patented invention. *Id*. at 1317 (citations omitted).

III. ARGUMENT

There is a "heavy presumption" that the disputed claim terms of the Patents-in-Suit carry "their ordinary and customary meaning." *Aventis Pharms. Inc. v. Amino Chems. Ltd.*, 715 F.3d 1363, 1373 (Fed. Cir. 2013). Apple is not entitled to narrow claim constructions that "deviate from the plain and ordinary meaning unless the inventor acted as his own lexicographer or intentionally disclaimed or disavowed claim scope." *Id.* (citations omitted). As explained below, nothing in the

patents' intrinsic record "overcome[s] the heavy presumption that the claims mean what they say." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004) (citation omitted).

A. U.S. Patent No. 11,350,246

THL asserts claims 1-8 and 11-27 of the '246 Patent. The parties dispute the construction of four claim terms. Two of those terms are present in claim 1 of the '246 Patent, which is reproduced below with the disputed items for construction in italics.

> 1. A mobile communication device comprising:
>
> a plurality of wireless transceivers including a Bluetooth transceiver, a long-range transceiver configured to send and receive telephone calls via a telephony network and to communicate Internet data, and one or more ultra-wideband transceivers coupled to two or more antennas;
>
> a memory that stores operational instructions;
>
> a touch screen; and
>
> a processor coupled to the plurality of wireless transceivers, the memory, and the touch screen, wherein the processor is configured to execute the operational instructions, which upon execution, cause the processor to:
>
> present a graphical user interface via the touch screen;
>
> in response to a pair request from a user received at the graphical user interface, pair the mobile communication device with at least one remote device;
>
> in response to an audio alert request from the user received at the graphical user interface, transmit an audio alert request signal to the at least one remote device via the Bluetooth transceiver;
>
> estimate a distance between the mobile communication device and the at least one remote device based on ultra-wideband communication between the one or more ultra-wideband transceivers and the at least one remote device and ***time of flight calculations***;
>
> determine a direction to the at least one remote device based on ***signal delay*** of ultra-wideband communications between the two or more antennas and the at least one remote device; and

> output to the graphical user interface the estimated distance to the at least one remote device and an arrow pointing in the direction of the at least one remote device.

(ECF No. 1-4 at 37:54-38:22.)

The remaining disputed terms appear in claim 20 of the '246 Patent; the portions of claim 20 including the disputed terms are set forth below.

> generate ***pairing signals*** in response to indications from a user via the graphical user interface to pair the mobile communication device to each of a plurality of remote devices, wherein the Bluetooth transceiver responds to the pairing signals by communicating RF signals to pair the mobile communication device to each of the plurality of remote devices, wherein a unique device identifier associated with each of the plurality of remote devices is shared with the mobile communication device during pairing;
>
> * * *
>
> determine whether the selected remote device is in range of the Bluetooth transceiver, wherein the selected remote device is determined to be in range of the Bluetooth transceiver based on reception, via the Bluetooth transceiver, of a ***beacon*** from the selected remote device;

(ECF No. 1-4 at 40:35-44; 40:53-58.)

Each of the disputed phrases will be addressed in turn.

1. "time of flight calculations"

Claim Term	**THL's Construction**	**Apple's Construction**
time of flight calculations (Claims 1, 11, 30)	Determining the amount of time between when a signal is transmitted and when a reply signal is received	Summation of (1) flight time of a signal sent to the remote device (2) flight time of a signal received from the remote device and, optionally, (3) the remote device's processing time

The Court should adopt THL's plain and ordinary construction of "time of flight calculations." The term is used in claims 1 and 11 of the '246 Patent and appears in the following limitation regarding estimating a distance to a remote device:

> estimate a distance between the mobile communication device and the at least one remote device based on ultra-wideband communication between the one or more ultra-wideband transceivers and the at least one remote device and ***time of flight calculations***;

(ECF No. 1-4 at 38:9-14; 39:28-32.)

There is no requirement as to ***how*** the calculations are performed in the claim and it should not be improperly added under the guise of claim construction.

As explained above, there is a "heavy presumption" that "time of flight calculations" carries its "ordinary and customary meaning." *Aventis Pharms.*, 715 F.3d at 1373 (citation omitted). In the Joint Claim Construction Chart, Apple selectively uses a single example from the specification to attempt to limit the plain and ordinary meaning of "time of flight calculations." However, courts may use the specification to "depart from the plain and ordinary meaning of claim terms … in only two instances: lexicography and disavowal." *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014). Apple fails to meet the "exacting" standard for finding either lexicography or disavowal. *See id*. The specification does not limit ***how*** the calculations must be performed. The '246 specification reads:

> In an embodiment of the present invention, a time of flight can be used instead of or in addition to signal strength to determine the distance to a remote device. In particular, ***the time can be measured from the transmission of the paging signal to the reception of the location signal***. This time delay (round trip flight time) can indicate the distance to the remote device. The time delay, Td, can be represented as follows:
>
> $$T_d = T_{f1} + T_{f2} + T_p$$
>
> where, ***T_p represents the processing time to generate the location signal in response to the paging signal and to recognize the location signal, T_{f1} represents the flight time for the paging signal to travel to the remote device and T_{f2}***

> ***represents the flight time for the location signal to travel from the remote device to the adjunct device***.

(ECF No. 1-4 at 34:34-49, emphasis added.)

Rather than limiting ***how*** "time of flight calculations" are performed, the specification affirmatively teaches multiple different ways for doing so. Apple relies on an example that describes time of flight using addition, *i.e.*, the sum of "processing time," "flight time for the paging signal to the remote device," and "flight time for the location signal … from the remote device to the adjunct device." (ECF No. 1-4 at 34:34-49.) But the very same section of the specification that Apple cites also describes time of flight using subtraction, *i.e.*, "the time can be measured from the transmission of the paging signal to the reception of the location signal." (ECF No. 1-4 at 34:36-38.) Apple's proposed insertion of the term "summation" into the claim thus improperly attempts to incorporate one specification example into the claim. Even worse, Apple's proposed introduction of "summation" [addition] excludes the specification's difference in time [subtraction] disclosure. "A claim construction that does not encompass a disclosed embodiment is … 'rarely, if ever, correct.'" *Johns Hopkins*, 152 F.3d at 1355.[1]

Where, as here, the specification "reinforces the plain-meaning construction," *Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1333 (Fed. Cir. 2014), there is "no reason to depart from the plain and ordinary meaning." *Hill-Rom*, 755 F.3d at 1382. For these reasons, the Court should adopt THL's proposed construction of "time of flight calculations" as "determining the amount of time between when a signal is transmitted and when a reply signal is received."

[1] Claim 30 of the '246 Patent recites that "the time of flight calculations are based on a time difference between sending [a signal] and receiving [another signal]." (ECF No. 1-4 at 42:40-42.) Thus, when wanting to limit the claims to the "subtraction" manner of how time of flight is calculated, the patentee did so. Nothing in the claims nor specification limits claim 1 and 10 to the "addition" manner as proposed by Apple.

2. "signal delay"

Claim Term	THL's Construction	Apple's Construction
signal delay (Claims 1, 11, 30)	Plain and ordinary meaning; OR Difference in time between when a signal is received at two or more antennas	The difference in [time of flight calculations]

The term "signal delay" appears in claims 1 and 11:

> [claim 1] determine a direction to the at least one remote device based on ***signal delay*** of ultra-wideband communications between the two or more antennas and the at least one remote device.
>
> [claim 11] determine a direction to the at least one remote device based on ***signal delay*** of ultra-wideband communications between the two or more antennas and the at least one remote device and on rotation of the mobile communication device detected by the orientation sensor"

(ECF No. 1-4 at 38:15-18, 39:33-38.) Unlike the "time of flight" limitation, which the claims recite to determine "a ***distance***" to the remote device, the "signal delay" limitation is recited to "determine a ***direction***" to the remote device.

The claim plainly states that the signal delay is "between the two or more antennas." Because the claim language is clear and unambiguous, construction of "signal delay" is unnecessary. *Aventis Pharms.*, 715 F.3d at 1373 (citation omitted). Accordingly, THL proposes that signal delay be given its plain and ordinary meaning. To the extent the Court determines that construction is necessary, the appropriate construction is "the difference in time between when a signal is received at two or more antennas." This construction is consistent with the claim language: "signal delay . . . between the two or more antennas and the at least one remote device."

Apple's proposed construction conflicts with and rewrites the claim language. Apple's proposed construction for "signal delay" is "the difference in time of flight calculations." But the

claims recite "time of flight calculations" to estimate "a ***distance***" to the remote device. (ECF No. 1-4 at 38:9-14, 39:28-32, 42:29-42.) In contrast, the claims recite "signal delay" to "determine ***a direction***" to the remote device. The "distance" and "direction" limitations are distinct as written, but Apple's proposed construction improperly blurs and confuses them. There is no basis for Apple's rewrite. Claim construction "begins and ends in all cases with the actual words of the claim," *Homeland Housewares*, 865 F.3d at 1374-75, and the '246 claims do not state that time of flight calculations are required for determining *direction*.

Like the '246 claims, the '246 specification undermines Apple's proposed construction and supports THL's construction. Nowhere does the '246 patent state that the *direction* to the remote device must be determined with the time-of-flight calculations Apple proposes. Instead, the '246 patent describes time of flight for determining *distance* to the remote device – which is addressed in a separate claim limitation as discussed above. Apple cites no passage from the '246 specification requiring its time-of-flight construction for the claimed direction determination because there is none.

The '246 specification provides an example in which direction is determined using beam or null steering, which results in a signal delay between the two antennas as claimed. (ECF No. 1-4 at 11:16-17 and 61-64; 13:45-47.) The specification teaches use of multiple antennas and "steering the null" with such a "programmable antenna." (ECF No. 1-4 at 14:34-38.) This null in the antenna pattern can be accomplished in one embodiment by "antenna configurations that are aligned in position and phase to have a directional pattern that includes a single null." (ECF No. 1-4 at 11:16-17.) As Dr. Feuerstein explained, a person of ordinary skill understands that "signal delay" is a difference in time commonly measured in terms of phase, often called a phase angle, phase delay or phase shift, which is always a relative measurement of time difference between

when the signal is received at the two or more claimed antennas. (Ex. A, Feuerstein Rebuttal Report at 5-6.) Dr. Feuerstein rejects Apple's view that the '246 specification (or claims) require time of flight calculations for the claimed direction determination based on signal delay. (*Id.*, at 7.)

Apple's proposed construction conflates different elements of the claims and rewrites the claims to improperly *exclude* an embodiment from the specification for determining direction with signal delay between two or more antennas. For these reasons, signal delay should be given its plain and ordinary meaning or alternatively a construction of: "the difference in time between when a signal is received at two or more antennas" as that term is used in the claims of the '246 patent.

3. "beacon"

Claim Term	**THL's Construction**	**Apple's Construction**
beacon (Claims 20, 27, 30)	Signal	Periodic location signal

The claims use the term "beacon" as denoting a signal from the remote device. The use and purpose of the signal is recited in claim 20 of the '246 Patent.

> determine whether the selected remote device is in range of the Bluetooth transceiver, wherein the selected remote device is determined to be in range of the Bluetooth transceiver based on reception, via the Bluetooth transceiver, of a ***beacon*** from the selected remote device
>
> * * *
>
> determine an estimated distance to the selected remote device, based on the reception, via the Bluetooth transceiver, of the ***beacon*** from the selected remote device

(ECF No. 1-4 at 40:53-58 – 41:1-4.)

The "beacon" is thus a signal that is used by the processor – as claimed – to determine whether a remote device is in range and to determine an estimated distance to a remote device. (ECF No. 1-4 at 40:52-58, 41:1-4, 41:29-32, 42:16-20.)

Apple seeks to inject the words "periodic" and "location" modify the term "beacon" which lacks those additional limitations. There is no basis in the claims nor specification for Apple's new words. With respect to the term "periodic," the '246 specification uses the term "beacon" both with and without the modifier "periodic," confirming that a beacon signal is not inherently periodic. (Compare 10:44 ("beacon signal") with 32:64 ("periodic beacons").) And when the term "periodic beacons" is used, it is in the context of an open-ended example of a signal type: "Wireless device 325 ***can be*** programmed to send signals ***such as*** periodic beacons or polling signals to determine if all other wireless devices 325 are present in the network." (ECF No. 1-4 at 32:63-65, emphasis added.) There is nothing about this example that meets the "exacting" standard required for lexicography or disavowal, *Hill-Rom*, 755 F.3d at 1371-72, yet Apple seeks to limit the construction of "beacon" to a signal that is *always* "periodic." Contrary to Apple's assertion, there is nothing in the claims nor specification that requires *all* beacons must be *periodic* beacons.

Apple seeks to inject the term "location" to further narrow the claimed "beacon." But the claims confirm the beacon is ***not*** limited to a location signal. First, the claims expressly recite the two functions the beacon supports: determining whether the remote device is in range, and estimating the distance to the remote device. Determining "location" is not a claimed function the beacon signal supports. Second, "determining a location of the selected remote device" is a *different* limitation of independent claims 20 and 30. This undermines Apple's contention that the "beacon" term is limited to a "location" signal. Similar to Apple's improper "periodic" modifier,

nothing in the '246 specification (nor claims) requires that the beacon signal be a "location" signal and should be rejected. *Hill-Rom*, 755 F.3d at 1371-72.

In sum, nothing in the intrinsic record demonstrates that THL was acting as its own lexicographer or clearly disavowing the ordinary meaning proposed by THL. *See Home Diagnostics*, 381 F.3d at 1358 ("Absent a clear disavowal or contrary definition in the specification or the prosecution history, the patentee is entitled to the full scope of its claim language.") Thus, the Court should construe "beacon" as "signal."

4. "pairing signals"

Claim Term	**THL's Construction**	**Apple's Construction**
pairing signals (Claims 20, 30)	Processor signals to initiate a Bluetooth pairing sequence	Signals sent between devices to initiate a Bluetooth pairing sequence

The term "pairing signals" appears in claim 20. The full phrase in the claim is reproduced below:

> a processor coupled to the memory and to the touch screen, wherein the processor is configured to execute the operational instructions, which upon execution, cause the processor to: … generate ***pairing signals*** in response to indications from a user via the graphical user interface to pair the mobile communication device to each of a plurality of remote devices, wherein the Bluetooth transceiver responds to the pairing signals by communicating RF signals to pair the mobile communication device to each of the plurality of remote devices.

(ECF No. 1-4 at 40:30-42.)

Based on the claim language, the term "pairing signals" should be construed as "processor signals to initiate a Bluetooth pairing sequence." First, the claim expressly states that the "processor … generate[s] pairing signals" and that "the Bluetooth transceiver responds to the pairing signals" generated by the processor. (ECF No. 1-4 at 40:35-44, 41:56-42:6.) Second, the claims expressly state that the Bluetooth transceiver (like the processor) is part of the mobile

communication device, i.e.: "mobile communication device comprising … a Bluetooth transceiver." (ECF No. 1-4 at 40:21-27, 41:41-47.) Because the processor and Bluetooth transceiver are both part of the mobile communications device, and they respectively generate and respond to the claimed "pairing signals," the pairing signals are ***internal*** to the mobile communication device and located between the processor and the Bluetooth transceiver. Finally, the claim expressly states that the Bluetooth transceiver responds to the processor's pairing signals "by communicating RF signals to pair the mobile communication device to each of the plurality of remote devices." (ECF No. 1-4 at 40:35-44, 41:56-42:6.) Thus, the claim language itself shows that "pairing signals" are "processor signals to initiate a Bluetooth pairing sequence."

Apple seeks to construe pairing signals as ***external*** signals sent ***between devices*** despite the fact that the claims expressly state otherwise. For that reason alone, Apple's construction should be rejected. The '246 specification uses the term "pairing signals" with reference to both internal signals within a single device and external signals between two or more devices, but that is not a basis for rewriting the claims to change the claimed pairing signals from internal to external. The specification discloses that "one or both devices 70 and 72 initiate the pairing procedure" and, "[f]or example, a user interface, such as user interface 132 or 142 generates a pairing signal." (ECF No. 1-4 at 15:61-67.) This corresponds to internal processor signals. Additionally, it discloses "[a] short-range wireless transceiver, such as short-range wireless transceiver 130 or 140, communicates RF signals, such as pairing signals 116 to pair the devices," which corresponds to external signals. (ECF No. 1-4 at 15:61-67.) This broad disclosure is of no moment as claim construction "begins and ends in all cases with the actual words of the claim." *Homeland Housewares, LLC v. Whirlpool Corp.*, 865 F.3d 1372, 1374-75 (Fed. Cir. 2017)

(citations omitted); *see also Phillips*, 415 F.3d at 1314 ("the claims themselves provide substantial guidance as to the meaning of particular claim terms").

Apple's proposed construction would render the claim nonsensical. The claim recites that the "processor [] generates ***pairing signals***" that are sent to the Bluetooth transceiver, and "the Bluetooth transceiver [then] responds to the ***pairing signals*** by communicating ***RF signals*** to pair the mobile communication device to each of the plurality of remote devices." Apple's "between devices" proposal converts the claimed internal microprocessor "pairing signals" to the claimed external transceiver "RF signals" to pair the mobile and remote devices. The fact that the claims use these *different* terms to refer to *different* signals further supports THL's construction and directly undermines Apple's construction. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc) *citing ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 (Fed. Cir. 2003) ("the context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms").

The Court should thus construe "pairing signals" as "processor signals to initiate a Bluetooth pairing sequence."

B. U.S. Patent Nos. 11,265,680 and 8,768,381

THL asserts claims 1, 3-8, 10, 15, and 17-18 of the '680 Patent and claims 1 and 7-9 of the '381 Patent. In these patents, the construction of "a pairing signal" is again disputed. Like the claims of the '246 Patent discussed above, the claims of the '680 Patent and the '381 Patent use "pairing signals in the internal context, and Apple's proposed external construction is therefore incorrect.

1. "a pairing signal"

Claim Term	THL's Construction	Apple's Construction

a pairing signal (‘381 claim 1, ‘680 claim 1)	Processor signal to initiate a wireless device pairing sequence	A signal sent between devices to initiate a pairing sequence

Like the ‘246 Patent claims, the ‘680 Patent claims use this term in the internal (processor and graphical user interface) context. Claim 1 states: “the processor [of the mobile communication device] operates in association with the graphical user interface to generate a pairing signal” in response to an indication from a user, “wherein the at least one of the plurality of wireless transceivers [of the mobile communication device], responds to the pairing signal generated by the graphical user interface.” (Ex. C, ‘680 Patent, 37:62-38:2.) The ‘381 Patent claim likewise uses the term in the internal (graphical user interface) context: “a graphical user interface [of a wireless device] that generates a pairing signal” in response to an indication from a user and “a short-range wireless transceiver [of the same wireless device], coupled to the graphical user interface, responds to the pairing signal generated by the graphical user interface by communicating RF signals to pair the wireless device to the at least one remote device.” (Ex. D, ‘381 Patent, 36:24-39.) Thus, the patent claims clearly express that “a pairing signal” is an ***internal*** signal within a single device that initiates a pairing sequence.

Again, Apple’s proposed “between devices” construction is not supported by intrinsic evidence because it is contrary to the “highly instructive” context of the claims, *Phillips*, 415 F.3d at 1314, and because the written description does not contain exacting language to justify limiting the term to ***external*** signals. *Hill-Rom*, 755 F.3d at 1371-72. The Court should adopt THL’s proposed construction and construe “a pairing signal” as “processor signal to initiate a wireless device pairing sequence.”

IV. CONCLUSION

For the reasons set forth above, THL requests that this Court adopt THL's proposed construction and reject Apple's attempts to improperly limit the claims to examples in the specification.

DATED: September 14, 2023

Respectfully submitted,

By: /s/ John S. LeRoy

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing instrument was served or delivered electronically to all counsel of record, on September 14, 2023, via the Court's CM/ECF system.

/s/ John S. LeRoy