

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA
MIAMI DIVISION**

CASE NO. 14-21006-CIV-ALTONAGA/O'Sullivan

ATLAS IP, LLC,

Plaintiff,

vs.

**ST. JUDE MEDICAL, INC., and
ST. JUDE MEDICAL S.C., INC.,**

Defendants.

ORDER ON CLAIM CONSTRUCTION

THIS CAUSE came before the Court for claim construction. The Court has carefully considered the extensive briefing by the parties, pertinent portions of the record and authorities, and heard argument and received evidence at a Markman¹ hearing held on July 2, 2014 [ECF No. 67].

I. BACKGROUND

A. Procedural Background

Plaintiff, Atlas IP, LLC (“Atlas”), is the owner by assignment of United States Patent Number 5,371,734, titled “Medium access control protocol for wireless network” (the “’734 Patent”) [ECF No. 32-1]. (See Amended Complaint . . . (“Amended Complaint”) ¶ 2 [ECF No. 32]). Atlas alleges one count of infringement of the ’734 Patent. (See generally *id.*). On June 3, 2014, St. Jude filed an Answer and Affirmative Defenses . . . (“Answer”) [ECF No. 43], denying infringement and raising several affirmative defenses, including the doctrines of estoppel and

¹ Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed. Cir. 1995) (en banc).

laches, as well as the invalidity of the '734 Patent for failure to satisfy one or more of the requirements of 35 U.S.C. sections 102, 103, and 112. (See Answer 7–9).

The parties have identified multiple terms and phrases from the '734 Patent that are disputed and require claim construction. On June 9, 2014, Atlas filed a Claim Construction Brief (“Opening Brief”) [ECF No. 53]. On June 23, 2014, St. Jude filed a Responsive Claim Construction Brief (“Response”) [ECF No. 55]. On June 27, 2014, Atlas filed a Claim Construction Reply Brief (“Reply”) [ECF No. 64]. The parties conferred and on July 1, 2014, filed a Joint Claim Construction Chart (“Joint Chart”) [ECF No. 66] identifying the terms, phrases, and clauses requiring construction, and the parties’ proposed constructions.

B. Factual Background

The '734 Patent was issued on December 6, 1994, and relates to an application filed on January 29, 1993. (See '734 Patent 1; Opening Br. 3). Michael A. Fischer (“Fischer”) is the sole named inventor of the '734 Patent. (See '734 Patent). The '734 Patent expired prior to the filing of this action. (See Resp. 1).

The claimed invention of the '734 Patent relates to a “medium access control (MAC) protocol for wireless, preferably radio frequency (RF), LAN-type network communications among a plurality of resources, such a[s] battery powered portable computers.” ('734 Patent, col. 5, ll. 10–14 (alteration added)). Within such a network, “[o]ne of the communicators functions as a hub and the remaining communicators function as remotes.” (Id. at Abstract (alteration added)). “The hub establishes repeating communication cycles, each of which has intervals during which the hub and the remotes transmit and receive frames,” or information. (Id. at col. 5, ll. 44–47). “The hub transmits control information to the remotes to establish the communication cycle and to establish a plurality of predeterminable intervals during each

communication cycle.” (Id. at col. 5, ll. 47–50). “The intervals allow the hub and the remotes to anticipate transmitting and receiving frames, thereby allowing the remotes to power off their receivers and transmitters to achieve a considerable savings in power consumption without degrading communications.” (Id. at Abstract). As the Summary of the Invention of the ’734 Patent explains, the invention “obtains significant reductions in battery power drain by permitting the receivers as well as the transmitters of the communicator stations to be powered off during a majority of the time, but selectively and predictably powered on to send or receive relevant communications.” (Id. at col. 5, ll. 28–33).

In this suit, Atlas asserts claims 6, 11, 14, 21, and 44 (the “Asserted Claims”) of the ’734 Patent. (See Opening Br. 3). These claims are independent but share the following limitations:

A communicator for wirelessly transmitting frames to and receiving frames from at least one additional communicator in accordance with a predetermined medium access control protocol, the communicators which transmit and receive the frames constituting a Group, each communicator including a transmitter and a receiver for transmitting and receiving the frames respectively, the medium access control protocol controlling each communicator of the Group to effect pre-determined functions comprising:

designating one of the communicators of the Group as a hub and the remaining the [sic] communicators of the Group as remotes;

the hub establishing repeating communication cycles, each of which has intervals during which the hub and the remotes transmit and receive frames;

the hub transmitting information to the remotes to establish the communication cycle and a plurality of predeterminable intervals during each communication cycle, the intervals being ones when the hub is allowed to transmit frames to the remotes, when the remotes are allowed to transmit frames to the hub, and when each remote is expected to receive a frame from the hub;

the remotes powering off their transmitters during times other than those intervals when the remote is allowed to transmit frames to the hub, by using the information transmitted from the hub;

the remotes powering off their receivers during times other than those

intervals when the remote is expected to receive a frame from the hub, by using the information transmitted from the hub

(Id. 3–4 (quoting ’734 Patent, claim 6)). The Asserted Claims “are largely identical to each other, as they share in common the same preamble and first six claim paragraphs” (Resp. 5).

II. LEGAL FRAMEWORK

A. General Principles of Claim Construction

The construction of a patent is a matter of law to be determined by the Court. See *Markman*, 52 F.3d at 970–71. “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.” *Aventis Pharm. Inc. v. Amino Chems. Ltd.*, 715 F.3d 1363, 1373 (Fed. Cir. 2013) (citation and internal quotation marks omitted). “[I]n interpreting an asserted claim, the [C]ourt should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) (alterations added; citation omitted). “Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language.” *Id.*

In construing patent claims, the Court first looks to the claim language because “the claims themselves provide substantial guidance as to the meaning of particular claim terms.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc). “[W]ords of a claim are generally given their ordinary and customary meaning,” that is, “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1312–13 (alteration added; citations and internal quotation marks omitted). The presumption that words have their ordinary and customary meaning when used in a patent claim is rebutted when the patentee, acting as his or

her own “lexicographer,” has “clearly stated in the patent specification or file history” a definition different than the term’s ordinary and customary meaning. *Vitronics Corp.*, 90 F.3d at 1582 (citations omitted); see also *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002) (“[A]n inventor may choose to be his own lexicographer if he defines the specific terms used to describe the invention with reasonable clarity, deliberateness, and precision.” (alteration added; citation and internal quotation marks omitted)). A patentee may otherwise demonstrate an intent to deviate from the ordinary and accustomed meaning of a claim term, in the specification or prosecution history, by using expressions of “manifest exclusion or restriction, representing a clear disavowal of claim scope.” *Teleflex, Inc.*, 299 F.3d at 1325 (citation omitted).

In addition to the claims themselves, the Court should consider “the appropriate context in which the claim term is used.” *Aventis Pharm. Inc.*, 715 F.3d at 1373 (citation omitted). So, for example, the “written description and other parts of the specification . . . may shed contextual light on the plain and ordinary meaning,” but context cannot be used to “deviate from the plain and ordinary meaning unless the inventor acted as his own lexicographer or intentionally disclaimed or disavowed claim scope.” *Id.* (alteration added; citation omitted). The specification is considered “the single best guide to the meaning of a disputed term,” and “[u]sually, it is dispositive.” *Vitronics Corp.*, 90 F.3d at 1582 (alteration added). Nevertheless, the Federal Circuit has repeatedly warned against importing limitations from the specifications into the claims. See, e.g., *Phillips*, 415 F.3d at 1323 (“[A]lthough the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments. . . . [W]e 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.” (alterations added; internal citations omitted)). “That claims are interpreted in light of the specification does not mean that everything expressed in the specification must be read into all the claims.” *Teleflex, Inc.*, 299 F.3d at 1326 (citation and internal quotation marks omitted).

If presented, another piece of intrinsic evidence a court may consider in claim construction is the patent’s prosecution history, a record of the proceedings before the Patent and Trademark Office (“PTO”), including the prior art cited during examination of the patent. See *Phillips*, 415 F.3d at 1317. The “prosecution history provides evidence of how the PTO and the inventor understood the patent”; but because it “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.” *Id.* (citations omitted).

A court engaging in claim construction is also authorized to rely on evidence external to the patent, including dictionaries, learned treatises, and expert and inventor testimony. See *id.* Such extrinsic evidence “can shed useful light on the relevant art” but is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Id.* (citations and internal quotation marks omitted). “In most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term. In such circumstances, it is improper to rely on extrinsic evidence.” *Vitronics Corp.*, 90 F.3d at 1583 (citations omitted).

B. Indefiniteness

The specification of a patent must “conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor

regards as the invention.” 35 U.S.C. § 112(b).² A “patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). The “definiteness inquiry trains on the understanding of a skilled artisan at the time of the patent application, not that of a court viewing matters post hoc.” *Id.* at 2130. Whether a claim is definite or indefinite is a matter of law. See *Young v. Lumenis, Inc.*, 492 F.3d 1336, 1344 (Fed. Cir. 2007). A party challenging the definiteness of a claim bears the burden to show it is invalid by clear and convincing evidence. See *id.* at 1345.

III. CLAIM CONSTRUCTION

The parties dispute the following terms and phrases in the '734 Patent: (1) “communicator”; (2) “the hub establishing repeating communication cycles”; (3) “the hub transmitting information to the remotes to establish the communication cycle”; (4) “the hub transmitting information to the remotes to establish . . . a plurality of predeterminable intervals during each communication cycle”; (4) “the information transmitted from the hub”; (5) “the hub allocating a number of transmission opportunities during at least one communication cycle which is at least one less in number than the number of remotes in the Group”; (6) “length”; and (7) “the remotes transmitting a transfer unit having a header having at least one field containing information describing at least one frame of a previous transmission unit which was not successfully received by the hub; and the hub responding to the field information describing the frame which was successfully received by transmitting in another subsequent transfer unit those

² Cases filed before September 16, 2012, refer to 35 U.S.C. section 112(b) as 35 U.S.C. section 112, paragraph 2. Paragraph two of 35 U.S.C. section 112 was replaced with newly designated section 112(b) when section 4(c) of the Leahy-Smith America Invents Act, Pub. L. No. 112-29, took effect. See *In re Packard*, 751 F.3d 1307, 1309 n.1 (Fed. Cir. 2014) (per curiam).

remaining frames of the previous transfer unit which were not successfully received.” (Joint Chart 6–9). The Court addresses each of these terms and phrases below.

A. “Communicator”

The parties dispute the construction of the term “communicator” in all of the Asserted Claims. (See Joint Chart 6). Atlas proposes to construe communicator as “a device capable of communication.” (Opening Br. 4 (internal quotation marks omitted)). Atlas asserts this construction is the “plain and ordinary meaning” of the word and is “consistent with the specification’s teachings.” (Id.). “St. Jude agrees with Atlas that a ‘communicator’ must be a ‘device capable of communication.’” (Resp. 18). St. Jude does not contest Atlas’s formulation of the “plain and ordinary meaning” of “communicator.” (See generally id.). However, St. Jude argues Atlas’s construction is “overly broad and unhelpful to the jury” because “a jury might be led to believe that a device incapable of assuming the function of either hub or remote (under the control of the MAC protocol) can be a ‘communicator.’” (Id. 19–20 (emphasis in original)). St. Jude proposes to construe communicator as a “wireless network node that the medium access control protocol can assign as either hub or remote.” (Joint Chart 6).

The words of a patent claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history. See Phillips, 415 F.3d at 1314. A “patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee explicitly redefines the term or disavows its full scope.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1367 (Fed. Cir. 2012). To redefine a term, a patentee must “clearly set forth a definition of the disputed claim term” other than its plain and ordinary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (citations omitted). “It is

not enough for a patentee to simply disclose a single embodiment or use a word in the same manner in all embodiments[;] the patentee must clearly express an intent to redefine the term.” Thorner, 669 F.3d at 1365 (alteration added; citations and internal quotation marks omitted). A patentee may also limit the scope of a term’s meaning by disavowal. See *id.* “Where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent” *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed. Cir. 2001). However, “claims will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.” *Innova/Pure Water, Inc., v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1117 (Fed. Cir. 2004) (citations and internal quotation marks omitted).

Atlas argues because the “specification of the ’734 [P]atent contains no specialized definition of this term,” communicator’s ordinary and plain meaning should prevail. (Opening Br. 4 (alteration added)). The ’734 Patent does specify that the remotes and the hub belong to the same Group and share certain characteristics. For example, the ’734 Patent states “[e]ach communicator includes a transmitter and a receiver.” (’734 Patent, col. 5, ll. 38–39 (alteration added)). The ’734 Patent specifies the “communication occurs among members of a Group of communicators. One of the communicators of the Group is designated as a ‘hub’ and the remaining communicators are designated as ‘remotes.’” (Id. at col. 5, ll. 39–44). These specifications do not, however, amount to a redefinition of communicator or a disavowal of the full scope of communicator’s meaning, as St. Jude contends (see Resp. 18–20), because the patent does not use “words or expressions of manifest exclusion or restriction,” *Innova/Pure Water, Inc.*, 381 F.3d at 1117, to limit “communicator” to a wireless network node capable of

assuming the role of either a hub or remote. (See generally '734 Patent).

St. Jude contends Atlas's construction is "unhelpful to the jury." (Resp. 18). St. Jude, however, cites no authority to support the assertion that a particular construction should defeat the ordinary and customary meaning of a term simply because of its helpfulness to the jury. (See generally *id.*). The '734 Patent's specification does not "clearly express intent to redefine" communicator or make clear the term does not include devices that are incapable of assuming the function of either hub or remote. *Thorner*, 669 F.3d at 1365; see also *SciMed Life Sys., Inc.*, 242 F.3d at 1341. Thus, communicator's customary and ordinary meaning controls, and the Court construes "communicator" to mean "a device capable of communication."

B. "The Hub Establishing Repeating Communication Cycles"

Atlas proposes the construction of this limitation as "the hub [as defined] initiating more than one communication cycle [as defined]." (Opening Br. 8 (alterations in original)).³ Atlas contends the specification imparts no special meaning on "establishing," and thus the word should follow its plain meaning, which Atlas asserts is initiating. (*Id.*). Atlas further maintains, "Nothing in these limitations requires that the hub define anything about a communication cycle." (Reply 2 (emphasis in original)).

St. Jude proposes to construe this limitation as "the hub defining in advance the starting time and duration for each repeating communication cycle." (Joint Chart 6). According to St. Jude, "the hub must not merely initiate the communication cycle, as Atlas contends, but rather must define the start time and duration of the cycle" (Resp. 8 (emphasis in original)). St. Jude argues this construction is more faithful to the '734 Patent's description of the "present

³ Although the definition of "hub" was initially disputed (see Resp. 20), the parties now agree the proper construction is "communicator that has been designated by the medium access control protocol to control communication to and from the remotes" (Joint Chart 6). Likewise, the parties agree "communication cycle" should be construed as "a series of intervals for outbound and inbound communications." (*Id.*).

invention” and accords with other “critical parts of the specification.” (Id. 9).

Claims must “be read in view of the specification, of which they are a part.” Phillips, 415 F.3d at 1315 (citation and internal quotation marks omitted). The “descriptive part of the specification aids in ascertaining the scope and meaning of the claims inasmuch as the words of the claims must be based on the description. The specification is, thus, the primary basis for construing the claims.” Id. (citation and internal quotation marks omitted). The “patent specification” is the portion of the patent in which the “applicant describes the invention.” *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1360 (Fed. Cir. 2004). In this patent, the specification is contained in part in the “Summary of the Invention,” which states, “The hub establishes repeating communication cycles, each of which has intervals during which the hub and the remotes transmit frames.” (’734 Patent, col. 5, ll. 44–47). The Summary of the Invention continues, “Due to the defined intervals of the communication cycle and the information conveyed by the hub, the remotes are able to power off their transmitters during times other than those intervals when the remote is allowed to transmit frames to the hub.” (Id. at col. 5, ll. 54–58 (emphasis added)).

The specification explains a hub does more than just initiate the intervals. The hub must also convey information about the starting time and duration of each repeating communication cycle — must, that is, “define[] intervals of the communication cycle.” (Id. at col. 5, ll. 54–55 (alteration added)). In order for remotes to power down at appropriate times — a key innovation of the ’734 Patent — they must have received defined intervals in advance from the hub. Furthermore, the ’734 Patent specifies the hub designates the start and end times of the communication intervals: “All intervals of the communication cycle **70** take place within the limits of predesignated assigned times established by the hub.” (Id. at col. 13, ll. 12–14). Atlas’s

proposed construction of “establishing” as “initiating” is therefore under-inclusive, because “predesignated assigned times” cannot be “initiated by the hub.” Atlas’s construction would not account for this later use of the phrase “established by the hub.”

Atlas argues the limitations do not require the hub to define anything about a communication cycle, but the MAC protocol controls “each communicator of the Group to effect predetermined functions” (Reply 2 (citation omitted)), meaning “the MAC protocol (rather than the hub) constrains the communications between a hub and remotes, and the hub merely transmits the communication information to the remotes” (id. 3). However, the excerpts Atlas cites in its Reply do not indicate a “MAC protocol” is defining the communication cycle. For instance, the ’734 Patent indicates “the hub **64** controls the communications to and from the remotes, using a MAC protocol The foundation for this MAC protocol is allocation of media access for transmission” (’734 Patent, col. 11, ll. 28–32 (alterations added)). This merely indicates the hub itself uses a MAC protocol as a component of its overarching function, not that the MAC protocol is, independently, defining anything about a communication cycle.

St. Jude’s proposed construction more consistently interprets the meaning of “establishing” in “the appropriate context in which the claim term is used.” *Aventis Pharm. Inc.*, 715 F.3d at 1373 (citation omitted). The Court construes “the hub establishing repeating communication cycles” to mean “the hub defining in advance the starting time and duration for each repeating communication cycle.”

C. “The Hub Transmitting Information to the Remotes to Establish the Communication Cycle”

Atlas proposes to construe this term as “[t]he hub [as defined] transmitting information to the remotes to initiate the communication cycle.” (Joint Chart 6 (first alteration added)). St. Jude’s proposed construction is “the hub transmitting to the remotes information necessary to

know in advance the starting time and duration of the communication cycle.” (Id.). St. Jude argues transmitting only information necessary to initiate the communication cycle “would not provide the remotes with enough knowledge to be able to power off their transmitters and receivers when the appropriate communication periods end” (Resp. 12).

Consistent with the Court’s construction in Part 3.B, *supra*, the hub, by “establishing repeating communication cycles,” defines in advance the starting time and duration for each repeating communication cycle. As a result, the hub must transmit to the remotes the information necessary to know these starting times and durations. Furthermore, the ’734 Patent explicitly states, “Due to the defined intervals of the communication cycle and the information conveyed by the hub, the remotes are able to power off their transmitters during times other than those intervals when the remote is allowed to transmit frames to the hub.” (’734 Patent, col. 5, ll. 54–58). The “information” the hub conveys must provide remotes the ability to know in advance when the communication cycle starts and its duration. Accordingly, the Court construes “the hub transmitting information to the remotes to establish the communication cycle” to mean “the hub transmitting to the remotes information necessary to know in advance the starting time and duration of the communication cycle.”

D. “The Hub Transmitting Information to the Remotes to Establish . . . a Plurality of Predeterminable Intervals During Each Communication Cycle”

Atlas argues this limitation is incomplete and should be construed together with the term in Part 3.C, *supra*. (See Joint Chart 7). Atlas claims the limitation to be construed is “the hub transmitting information to the remotes to establish the communication cycle and a plurality of predeterminable intervals” and proposes the Court construe this limitation to mean “the hub transmitting information to the remotes to initiate the communication cycle, such cycle including a plurality of predeterminable [as defined] intervals.” (Id. (alteration in original)). St. Jude

proposes to construe this limitation as “the hub transmitting to the remotes information necessary to know in advance the starting time and duration of . . . two or more predeterminable intervals during each communication cycle.” (Id. (alteration in original)).

Pursuant to the Court’s constructions in Parts 3.B and 3.C, *supra*, the hub defines in advance the starting time and duration for each repeating communication and transmits to the remotes the information necessary to know these starting times and durations. Each communication cycle has “intervals during which the hub and the remotes transmit and receive frames.” (’734 Patent, col. 46 ll. 30–31; see also *id.* at Figure 3). Both parties agree such a communication cycle contains multiple intervals. (See Opening Br. 9 (“such cycle including a plurality of predeterminable intervals”); Resp. 11 (“two or more predeterminable intervals during each communication cycle”)). Accordingly, the Court construes “the hub transmitting information to the remotes to establish . . . a plurality of predeterminable intervals during each communication cycle” to mean “the hub transmitting to the remotes information necessary to know in advance the starting time and duration of each of . . . two or more predeterminable intervals during each communication cycle.”

E. “The Information Transmitted from the Hub”

This phrase appears in later paragraphs of claim 6 of the patent. (See ’734 Patent, col. 46, ll. 41–49). Atlas asserts this limitation needs no construction. (Joint Chart 7). It contends the words “information” and “transmitted” “are plain English terms that require no separate construction.” (Opening Br. 10). St. Jude argues this “term is a reference back to the ‘information’ recited in an earlier limitation,” specifically the constructions of “the hub transmitting information to the remotes to establish the communication cycle” and “the hub transmitting information to the remotes to establish . . . a plurality of predeterminable intervals

during each communication cycle.” (Joint Chart 7). St. Jude asserts “the remotes must use the information transmitted by the hub to the remotes . . . to power down the remotes’ wireless transmitters and receivers” (Resp. 16). St. Jude contends its proposed construction is correct because the word “the” before “information” indicates “information” refers back to a previous use of the same word and because the named inventor agrees “information” refers back to the use of the word in the previous use. (See *id.* 16–17).

St. Jude maintains using “the” before “information” triggers a requirement that “information” refer back to an antecedent use of the same word. (Resp. 16). An antecedent basis must be reasonably ascertainable by those skilled in the art. See *Energizer Holdings, Inc. v. Int’l Trade Comm’n*, 435 F.3d 1366, 1370 (Fed. Cir. 2006) (holding “anode gel” provided by implication the antecedent basis for “zinc anode”). While an “antecedent basis” argument is typically made when a party argues a claim is indefinite, see, e.g., *Konami Corp. v. Roxor Games, Inc.*, 445 F. Supp. 2d 725, 737 (E.D. Tex. 2006), it is uncontroversial that a term may reference a previously used instance of the same term. St. Jude also asserts its construction “is consistent with the claimed invention as described in the specification” (Resp. 16).

In the Asserted Claims, the only earlier instance of the word “information” occurs in the phrase “the hub transmitting information to the remotes to establish the communication cycle and a plurality of predeterminable intervals.” (Joint Chart 2–5). In Claim 6, this phrase is the first reference to “information,” which appears without the word “the” before it. (See ’734 Patent, col. 46, ll. 16–58). Logically, “the information” refers to this first use of “information,” which the Court has construed to be “information necessary to know in advance the starting time and duration of the communication cycle” in Part 3.C, *supra*. St. Jude’s construction harmonizes the patent applicant’s decision to initially write “information” and only later write “the

information” in claim 6.

This conclusion is buttressed by extrinsic evidence. A court engaging in claim construction may rely on evidence external to the patent, such as inventor testimony. See Phillips, 415 F.3d at 1317. Admittedly, in situations where analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term, “it is improper to rely on extrinsic evidence.” Vitronics Corp., 90 F.3d at 1583 (citations omitted). Inventor testimony cannot “contradict claim meaning that is unambiguous in light of the intrinsic evidence.” Phillips, 415 F.3d at 1324 (citations omitted). But this is a case where the Court may consider extrinsic evidence because it is not beyond dispute “the information” necessarily refers back to “information” in a previous portion of the claim and the testimony does not contradict the specification.

Testimony of the sole inventor, Fischer, corroborates St. Jude’s proposed construction. The relevant claim paragraphs read, “the remotes powering off their transmitters during times other than those intervals when the remote is allowed to transmit frames to the hub, by using the information transmitted from the hub” and “the remotes powering off their receivers during times other than those intervals when the remote is expected to receive a frame from the hub, by using the information transmitted from the hub.” (’734 Patent, col. 46, ll. 41–49). The following exchange took place during Fischer’s deposition:

Q. And because of the information that is sent by the hub to the remotes in advance, the remotes also know when their receivers need to be powered on so that they can be ready to have a communications exchange with the hub?

A: Well, certainly so that they can receive something. I don’t know about — exchange implies a turn around to transmit. I don’t know that it implies exchange, but certainly it implies the ability to receive. That portion I would agree with.

Q. Yes. And that’s actually the subject of the next sentence in your Summary of

the Invention, right, at column 5, lines 58, and I'll read that into the record.

A. Yes.

Q. "In addition, and very significantly, the remotes are able to power off their receivers during times other than those intervals when the remote is expected to receive frames from a hub."

A. Yes.

(Videotaped Deposition of Michael Fischer, June 4, 2014 60:3–23 [ECF No. 55-1]).

Fischer's testimony adds further support to St. Jude's proposed construction, as Fischer confirms that the information transmitted "by the hub" in advance is the information the "receivers need to be powered on." (Id.) This is the same information the Court has construed in prior limitations, *supra*. Accordingly, the Court construes "the information transmitted from the hub" as a reference back to the "information" recited in the earlier constructions of "the hub transmitting information to the remotes to establish the communication cycle," and "the hub transmitting information to the remotes to establish . . . a plurality of predeterminable intervals during each communication cycle."

F. "The Hub Allocating a Number of Transmission Opportunities During at Least One Communication Cycle Which Is at Least One Less in Number than the Number of Remotes in the Group"

Atlas's proposed construction is "[t]he hub allocating a number M of transmission opportunities during one or more communication cycles with $M \geq (N-1)$, where N is the number of remotes in the group." (Joint Chart 8 (alteration added)). Atlas asserts this construction is the only proposed construction that accounts for a situation in which there is only one remote. (See Opening Br. 11 ("[I]f the subject language means 'one remote less or greater,' then, in the case of a single remote in the Group, the transmission opportunities would be zero or more, e.g., one" (alteration added))). Atlas argues St. Jude's proposed construction is "nonsensical" and

cannot be correct because in the case of one remote, the number of transmission opportunities would be at least one less than one, that is, zero or fewer. (Id. 10).

According to St. Jude, this term is indefinite. (See Joint Chart 8). St. Jude contends it is unclear whether “at least” modifies the word “less” or “at least” modifies the entire phrase “one less in number.” (See Resp. 22). St. Jude also proposes an alternative construction, should the Court find the term is not indefinite: that this term be construed as “the hub allocating a number of transmission opportunities during at least one communication cycle that is fewer than the number of remotes in the Group.” (Joint Chart 8). St. Jude asserts this alternate construction better accords with the '734 Patent's goal to avoid collisions by allowing the hub to “allocate transmission opportunities in response to requests from the remotes themselves” because “during a communication cycle, one or more remotes may not be allocated a transmission opportunity.” (Resp. 23 (citations omitted)).

A patent's claims, “viewed in light of the specification and prosecution history,” must “inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc.*, 134 S. Ct. at 2129. “The definiteness requirement, so understood, mandates clarity, while recognizing that absolute precision is unattainable.” *Id.* Clear and convincing evidence, therefore, is required to establish indefiniteness. See *Florida Atl. Univ. Research Corp. v. Acer, Inc.*, Nos. 12–80694–CIV, 12–80697–CIV, 12–80701–CIV, 2014 WL 2960968, at *5 (S.D. Fla. June 30, 2014).

If “at least” modifies the word “less,” “the phrase contemplates values that are ‘at least one less than,’ or fewer than, some number.” (Resp. 22). For example (assuming ten remotes), where “at least” modifies “less,” “at least one less than ten remotes” means “ten minus a number that is one or greater,” and yields nine or fewer transmission opportunities. In contrast, if “at

least” modifies the entire phrase “one less in number,” “the phrase contemplates values that are ‘at least,’ or greater than or equal to, some number.” (Id.). For example, where “at least” modifies “one less than ten,” “at least one less than ten remotes” means “a number greater than or equal to ten minus one,” and yields nine or greater transmission opportunities. The uncertainty in whether “at least” modifies the word “one” or the entire phrase “one less in number” is unreasonable because it leads to two conflicting interpretations. This constitutes clear and convincing evidence the term is not “precise enough to afford clear notice of what is claimed” and is, thus, invalid for indefiniteness. *Nautilus, Inc.* 134 S. Ct. at 2129 (citations omitted).

Neither Atlas’s nor St. Jude’s proposed constructions can control the term’s construction because neither is more or less faithful to the language of the ’734 Patent than the other. See *Phillips*, 415 F.3d at 1314 (holding the language of the patent is the primary guide for the construction of its terms). Atlas asserts its proposed construction is superior because it provides for the situation in which there is only one remote. (See Opening Br. 11). Assuming this assertion is true, the ’734 Patent never explicitly discusses such a situation. (See generally ’734 Patent). St. Jude claims its proposed alternative construction allows for a situation in which one or more remotes do not receive a transmission opportunity. (See Resp. 23). The ’734 Patent does not require each remote to receive a transmission opportunity nor does it require “at least one” remote not to receive a transmission opportunity. (See generally ’734 Patent). Because the language of the ’734 Patent does not mandate either interpretation, the term is indefinite.

Accordingly, the Court does not construe the term “the hub allocating a number of transmission opportunities during at least one communication cycle which is at least one less in number than the number of remotes in the Group” because it is indefinite.

G. “Length”

Atlas proposes to construe “length” as “[t]he distance or duration from one point to another.” (Joint Chart 8 (alteration added)). Atlas contends its definition better fits the “common definition” of length and better accords with the specification of the ’734 Patent, which “provides a variety of examples of ‘length,’” not limited to time. (Opening Br. 11; see also Reply 6–7).

St. Jude proposes to construe “length” as “time duration.” (Joint Chart 8). St. Jude agrees the plain meaning of length includes a measure of distance but argues this meaning is too broad in light of the “technical context of the word as it is used in the ’734 [P]atent’s claims and specification.” (Resp. 21 (alteration added)). St. Jude asserts claim 14, “the only asserted claim in which the term ‘length’ appears,” only refers to length in the context of the communication cycle and “the patent expressly and exclusively measures the communication cycle in time” (Id. 21–22 (emphasis in original)). St. Jude says it is conceivable a message measured in data bytes can have a “length” but argues “it would be nonsense to think of such a message as being measured ‘the distance . . . from one point to another’ as Atlas proposes.” (Id. 22 n.6 (alteration in original)).

A patentee using a broad term “obtain[s] the full scope of its plain and ordinary meaning unless the patentee explicitly redefines the term or disavows its full scope.” *Thorner*, 669 F.3d at 1367 (alteration added). A patentee may disavow the full scope of a term’s plain and ordinary meaning “[w]here the specification makes clear that the invention does not include a particular feature . . . even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question.” *SciMed Life Sys., Inc.*, 242 F.3d at 1341 (alterations added). Furthermore, claims must “be read in view of the

specification, of which they are a part” because the “specification is always highly relevant to the claim construction analysis.” Phillips, 415 F.3d at 1315 (citations and internal quotation marks omitted).

Neither party disputes claim 14 of the '734 Patent uses length in reference to time duration. (See Opening Br. 11; Reply 6–7; Resp. 21). The '734 Patent itself also refers to the communication cycles and intervals as durations of time: “The [transmission opportunity] is an amount of time” ('734 Patent, col. 12, ll. 21–22 (alteration added)). “All intervals of the communication cycle **70** take place within the limits of predesignated assigned times Each interval is measured in terms of a number of basic time increments” (Id. at col. 13, ll. 12–15 (alteration added)).

St. Jude asserts because claim 14 only refers to length in the context of a communication cycle and the patent only measures the communication cycle in time, length can only refer to time. (See Resp. 21–22). It is true the length of the communication cycles' intervals are measured in units of time. (See '734 Patent, col. 13, ll. 12–15). The specification, however, refers several times to other interpretations of length. For instance, the specification notes a preamble can have a “length” (id. at col. 19 ll. 54–55), and the preamble is “a predetermined sequence of binary values which are used by receiving communicators **60** to acquire and synchronize to the incoming transmission” (id. at col. 19, ll. 43–46). The specification notes the existence of the “length of the body field,” and “the maximum body length is defined by the maximum number of bytes” (Id. at col. 24, ll. 33–48 (alterations added)). These examples indicate “length” includes values more properly measured as distances from one point to another, as Atlas contends. St. Jude incorrectly narrows its analysis to claim 14 language alone. Claims “must be read in view of the specification, of which they are a part.” Phillips, 415 F.3d at 1315

(citation and internal quotation marks omitted). Because the specification refers to time in terms of duration and distance, Atlas's construction is more faithful to the language of the '734 Patent. Accordingly, the Court construes "length" to mean "the distance or duration from one point to another."

H. "The Remotes Transmitting a Transfer Unit Having a Header Having at Least One Field Containing Information Describing at Least One Frame of a Previous Transmission Unit Which Was Not Successfully Received by the Hub; and the Hub Responding to the Field Information Describing the Frame Which Was Successfully Received by Transmitting in Another Subsequent Transfer Unit Those Remaining Frames of the Previous Transfer Unit Which Were Not Successfully Received"

Atlas proposes to construe this term as "[t]he remotes transmitting a message to the hub [as defined] with a part of the message having information describing one or more frames transmitted by the hub that the remotes had not successfully received, and the hub [as defined] responding to such information by retransmitting the described frames that the remotes had not successfully received." (Joint Chart 9 (first alteration added)). Atlas asserts the language in the claim "received by the hub" is "an obvious typographical error" and the "claim should read 'received by the remotes.'" (Id.). As written, the claim requires the remotes to transmit a transfer unit describing a previous unit the hub did not successfully receive, which Atlas points out would have "the remotes being aware of which frames had been received by the hub." (Opening Br. 12).

St. Jude argues this term is indefinite (see Joint Chart 9) and is "wholly nonsensical" (Resp. 24). St. Jude further argues the correction Atlas seeks of what it terms a typographical error is, in fact, a "radical redrafting" in an attempt to avoid invalidity for indefiniteness. (Id. 25). St. Jude claims Atlas is attempting "to re-draft the limitation to the exact opposite of what is written" and Atlas's proposed construction is inconsistent with the rest of the specification. (Id.

24 (emphasis in original)).


The Federal Circuit “repeatedly and consistently has recognized that courts may not redraft claims, whether to make them operable or to sustain their validity.” *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1339 (Fed. Cir. 2011) (citations and internal quotation marks omitted). Yet “[w]hen a harmless error in a patent is not subject to reasonable debate, it can be corrected by the court, as for other legal documents.” *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1331 (Fed. Cir. 2005) (alteration added; citation omitted). Correcting clerical error due to oversight is not “a re-making of the claim[] but is merely giving to it the meaning which was intended by the applicant and understood by the examiner.” *I.T.S. Rubber Co. v. Essex Rubber Co.*, 272 U.S. 429, 442 (1926).

Both parties agree this term as written contains errors which render the term incongruent with the rest of the '734 Patent. (See Opening Br. 12; Resp. 24). The parties disagree whether these errors are harmless and not subject to reasonable debate, or are instead significant and eliminating them would amount to a redrafting of the '734 Patent. (See Opening Br. 12; Resp. 24). Here, changing “received by the hub” to “received by the remotes” changes the direction of the flow of information from inbound to outbound communication, fundamentally altering the meaning of the phrase. Atlas’s proposed change is not the correction of an “obvious typographical error” because the “correction” substantially impacts the understanding of the claim. Even assuming this change would save the term from indefiniteness, the Court cannot grant a change merely to sustain its validity. See *Rembrandt Data Techs., LP*, 641 F.3d at 1339. Accordingly, because the term is invalid for indefiniteness, the Court does not construe it.

IV. CONCLUSION

It is **ORDERED AND ADJUDGED** that the claims, terms, and phrases of the patent at issue are construed as set forth above.

DONE AND ORDERED in Chambers at Miami, Florida, this 30th day of July, 2014.



CECILIA M. ALTONAGA
UNITED STATES DISTRICT JUDGE

cc: counsel of record