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The proximity service unit 2920 can be any device which provides a predetermined service upon activation. For example, the proximity service unit 2920 can be a house key system, a garage key system, a subway gate system, a taxi meter system, a parking lot gate system, a parking meter system, an ATM system, a vending machine system, a gas pump system, a store checkout system, a toll booth system, a vehicle control system, or the public communication unit 50 described herein before with reference to FIG. 1.

Id. at 32:15–23. The specification further discloses that “[s]ome of the Proximity Service Units 2920 are capable of receiving information via a first signal and some of the proximity service units 2920 are capable of receiving information via a second signal.” Id. at 31:36–40. Regarding the proximity authorization unit 2910, the specification states the following:

The proximity authorization unit 2910 is provided with a portable housing 2911, a computer unit 3000, and a transmitter/receiver unit 3070. The computer unit 3000 is supported by the portable housing 2911 and has at least one and preferably a plurality of request authorization codes stored therein. Each of the request authorization codes uniquely identify the proximity authorization unit 2910. The transmitter/receiver unit 3070 is supported by the portable housing 2911. The computer unit 3000 retrieves the request authorization code and the transmitter/receiver unit 3070 outputs the request authorization code on the first signal for communication to the proximity service units 2920 capable of receiving the first signal, and the transmitter/receiver unit 3070 outputs the request authorization code via the second signal to the proximity service units 2920 capable of receiving the second signal.

Id. at 31:44–59. The specification further discloses that “the proximity service unit 2920 communicates with the proximity authorization unit 2910 via either a wireless link 2912 or in some cases a physical link 2917.” Id. at 32:24–27. The specification indicates that “[t]he wireless link 2912 is preferably a low power wireless link which does not typically communicate farther than about 300 feet.” Id. at 32:28–30.

Claim 90 of the ’443 Patent recite the following elements (disputed term in italics):

90. A proximity authorization unit for use with proximity service units, some of the proximity service units being capable of receiving information via a first signal and some of the proximity service units being capable of receiving information via a second signal, the second signal being different from the first signal, and each of the proximity

- service units providing a predetermined service when activated in response to receiving a request authorization code, the proximity authorization unit comprising:
- a portable housing;
 - a computer unit supported by the housing and having the request authorization code stored therein; and
 - a communication unit supported by the housing, the computer unit retrieving the request authorization code and the communication unit outputting the request authorization code on the first signal for communication to the proximity service units capable of receiving the first signal, and the communication unit outputting the request authorization code via the second signal to the proximity service units capable of receiving the second signal.

Shortly before the start of the March 12, 2019 hearing, the Court provided the parties with preliminary constructions with the aim of focusing the parties' arguments and facilitating discussion. Those preliminary constructions are noted below within the discussion for each term.

II. APPLICABLE LAW

A. Claim Construction

“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) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *Id.* at 1313; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. The general rule—subject to certain specific exceptions discussed *infra*—is that each claim term is construed according to its ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent. *Phillips*, 415 F.3d

at 1312–13; *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) (“There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.”) (vacated on other grounds).

“The claim construction inquiry . . . begins and ends in all cases with the actual words of the claim.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998). “[I]n all aspects of claim construction, ‘the name of the game is the claim.’” *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) (quoting *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998)). First, a term’s context in the asserted claim can be instructive. *Phillips*, 415 F.3d at 1314. Other asserted or unasserted claims can also aid in determining the claim’s meaning, because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term’s meaning. *Id.* For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id.* at 1314–15.

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-*

Devices, Inc., 848 F.2d 1560, 1571 (Fed. Cir. 1988)); see also Phillips, 415 F.3d at 1323. “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The prosecution history is another tool to supply the proper context for claim construction because, like the specification, the prosecution history provides evidence of how the U.S. Patent and Trademark Office (“PTO”) and the inventor understood the patent. Phillips, 415 F.3d at 1317. However, “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.” *Id.* at 1318; see also *Athletic Alternatives, Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (ambiguous prosecution history may be “unhelpful as an interpretive resource”).

Although extrinsic evidence can also be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” Phillips, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition are entirely unhelpful to a court. *Id.* Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read

claim terms.” Id. The Supreme Court recently explained the role of extrinsic evidence in claim construction:

In some cases, however, the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period. See, e.g., *Seymour v. Osborne*, 11 Wall. 516, 546 (1871) (a patent may be “so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning”). In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the “evidentiary underpinnings” of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.

Teva Pharm. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 841 (2015).

B. 35 U.S.C. § 112(6) (pre-AIA) / § 112(f) (AIA)¹

A patent claim may be expressed using functional language. See 35 U.S.C. § 112, ¶ 6; *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1347–49 & n.3 (Fed. Cir. 2015) (en banc in relevant portion). Section 112, Paragraph 6, provides that a structure may be claimed as a “means . . . for performing a specified function” and that an act may be claimed as a “step for performing a specified function.” *Masco Corp. v. United States*, 303 F.3d 1316, 1326 (Fed. Cir. 2002).

But § 112, ¶ 6 does not apply to all functional claim language. There is a rebuttable presumption that § 112, ¶ 6 applies when the claim language includes “means” or “step for” terms, and that it does not apply in the absence of those terms. *Masco Corp.*, 303 F.3d at 1326; *Williamson*, 792 F.3d at 1348. The presumption stands or falls according to whether one of ordinary skill in the art would understand the claim with the functional language, in the context of the entire specification, to denote sufficiently definite structure or acts for performing the function. See *Media Rights Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1372 (Fed. Cir. 2015) (§

¹ Because the application resulting in the ’443 Patent was filed before September 16, 2012, the effective date of the America Invents Act (“AIA”), the Court refers to the pre-AIA version of § 112.

112, ¶ 6 does not apply when “the claim language, read in light of the specification, recites sufficiently definite structure” (quotation marks omitted) (citing *Williamson*, 792 F.3d at 1349; *Robert Bosch, LLC v. Snap-On Inc.*, 769 F.3d 1094, 1099 (Fed. Cir. 2014)); *Williamson*, 792 F.3d at 1349 (§ 112, ¶ 6 does not apply when “the words of the claim are understood by persons of ordinary skill in the art to have sufficiently definite meaning as the name for structure”); *Masco Corp.*, 303 F.3d at 1326 (§ 112, ¶ 6 does not apply when the claim includes an “act” corresponding to “how the function is performed”); *Personalized Media Communications, L.L.C. v. International Trade Commission*, 161 F.3d 696, 704 (Fed. Cir. 1998) (§ 112, ¶ 6 does not apply when the claim includes “sufficient structure, material, or acts within the claim itself to perform entirely the recited function . . . even if the claim uses the term ‘means.’”) (quotation marks and citation omitted).

When it applies, § 112, ¶ 6 limits the scope of the functional term “to only the structure, materials, or acts described in the specification as corresponding to the claimed function and equivalents thereof.” *Williamson*, 792 F.3d at 1347. Construing a means-plus-function limitation involves multiple steps. “The first step . . . is a determination of the function of the means-plus-function limitation.” *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). “[T]he next step is to determine the corresponding structure disclosed in the specification and equivalents thereof.” *Id.* A “structure disclosed in the specification is ‘corresponding’ structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.” *Id.* The focus of the “corresponding structure” inquiry is not merely whether a structure is capable of performing the recited function, but rather whether the corresponding structure is “clearly linked or associated with the [recited] function.” *Id.* The corresponding structure “must include all structure that actually performs the recited function.” *Default Proof Credit Card Sys. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1298 (Fed.

Cir. 2005). However, § 112, ¶ 6 does not permit “incorporation of structure from the written description beyond that necessary to perform the claimed function.” *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999).

For § 112, ¶ 6 limitations implemented by a programmed general purpose computer or microprocessor, the corresponding structure described in the patent specification must include an algorithm for performing the function. *WMS Gaming Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999). The corresponding structure is not a general purpose computer but rather the special purpose computer programmed to perform the disclosed algorithm. *Aristocrat Techs. Austral. Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008).

C. Definiteness Under 35 U.S.C. § 112, ¶ 2 (pre-AIA) / § 112(b) (AIA)

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112, ¶ 2. A claim, when viewed in light of the intrinsic evidence, must “inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). If it does not, the claim fails § 112, ¶ 2 and is therefore invalid as indefinite. *Id.* at 2124. Whether a claim is indefinite is determined from the perspective of one of ordinary skill in the art as of the time the application for the patent was filed. *Id.* at 2130. As it is a challenge to the validity of a patent, the failure of any claim in suit to comply with § 112 must be shown by clear and convincing evidence. *Id.* at 2130 n.10. “[I]ndefiniteness is a question of law and in effect part of claim construction.” *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 517 (Fed. Cir. 2012).

When a term of degree is used in a claim, “the court must determine whether the patent provides some standard for measuring that degree.” *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1378 (Fed. Cir. 2015) (quotation marks omitted). Likewise, when a subjective term is used in a claim, “the court must determine whether the patent’s specification supplies some

standard for measuring the scope of the [term].” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1351 (Fed. Cir. 2005); accord *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (citing *Datamize*, 417 F.3d at 1351).

D. Departing from the Ordinary Meaning of a Claim Term

There are “only two exceptions to [the] general rule” that claim terms are construed according to their plain and ordinary meaning: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution.”² *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2014) (quoting *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)); see also *GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) (“[T]he specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal.”). The standards for finding lexicography or disavowal are “exacting.” *GE Lighting Solutions*, 750 F.3d at 1309.

To act as his own lexicographer, the patentee must “clearly set forth a definition of the disputed claim term,” and “clearly express an intent to define the term.” *Id.* (quoting *Thorner*, 669 F.3d at 1365); see also *Renishaw*, 158 F.3d at 1249. The patentee’s lexicography must appear “with reasonable clarity, deliberateness, and precision.” *Renishaw*, 158 F.3d at 1249.

To disavow or disclaim the full scope of a claim term, the patentee’s statements in the specification or prosecution history must amount to a “clear and unmistakable” surrender. *Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009); see also *Thorner*, 669 F.3d at 1366 (“The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning

² Some cases have characterized other principles of claim construction as “exceptions” to the general rule, such as the statutory requirement that a means-plus-function term is construed to cover the corresponding structure disclosed in the specification. See, e.g., *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1367 (Fed. Cir. 2002).

of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.”) “Where an applicant’s statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable.” 3M Innovative Props. Co. v. Tredegar Corp., 725 F.3d 1315, 1326 (Fed. Cir. 2013); see also Avid Tech., Inc. v. Harmonic, Inc., 812 F.3d 1040, 1045 (Fed. Cir. 2016) (“When the prosecution history is used solely to support a conclusion of patentee disclaimer, the standard for justifying the conclusion is a high one.”).

Although a statement of lexicography or disavowal must be exacting and clear, it need not be “explicit.” See Trs. of Columbia Univ. v. Symantec Corp., 811 F.3d 1359, 1364 (Fed. Cir. 2016) (“a patent applicant need not expressly state ‘my invention does not include X’ to indicate his exclusion of X from the scope of his patent”). Lexicography or disavowal can be implied where, e.g., the patentee makes clear statements characterizing the scope and purpose of the invention. See On Demand Mach. Corp. v. Ingram Indus., Inc., 442 F.3d 1331, 1340 (Fed. Cir. 2006) (“[W]hen the scope of the invention is clearly stated in the specification, and is described as the advantage and distinction of the invention, it is not necessary to disavow explicitly a different scope.”). Nonetheless, the plain meaning governs “[a]bsent implied or explicit lexicography or disavowal.” Trs. of Columbia Univ., 811 F.3d at 1364 n.2.

III. CONSTRUCTION OF AGREED TERMS

The parties agreed to the constructions of the following terms/phrases:

Claim Term/Phrase	Agreed Construction
Preamble of Claim 90	The preamble of Claim 90 is limiting.
“proximity service units” (Claim 90)	“devices that provide a predetermined service upon activation within a proximity”

(Dkt. No. 58 at 1).³ In view of the parties’ agreement on the proper construction of the identified terms, the Court hereby **ADOPTS** the parties’ agreed constructions.

During the claim construction hearing, the parties agreed to the preliminary construction of the following terms/phrases:

Claim Term/Phrase	Agreed Construction
“second signal being different from the first signal” (Claim 90)	No construction necessary. (not limited to a different frequency band or protocol than the first signal).
“low power communication unit” (Claim 91)	“communication unit having a power for transmission of up to a maximum of several hundred feet”
“means for recording the messages and data” (Claim 106)	Function: recording the messages and data Structure: computer unit 3000 or equivalents thereof.

Regarding the phrase “**second signal being different from the first signal,**” the Court finds that the phrase does not require construction. The phrase is unambiguous, and is easily understandable by a jury, and should be given its plain and ordinary meaning. Plaintiffs originally argued that their construction is consistent with the district court’s prior claim construction order in the *Freeny v. Apple Inc.*, No. 2:13-cv-00361-WCB, (E.D. Tex. Aug. 28, 2014). In *Freeny v. Apple*, the disputed claim term was the phrase “different types of . . . communication signals,” which was recited in claim 18 of the U.S. Patent No. 7,110,744 (“the ‘744 Patent”) (emphasis added).⁴ Unlike the disputed phrase in the case, the term construed in *Freeny v. Apple* explicitly referred to the signals as being of different “types” of signals, not just different signals.

³ Citations to the parties’ filings are to the filing’s number in the docket (Dkt. No.) and pin cites are to the page numbers assigned through ECF.

⁴ Plaintiffs contend that the ’443 Patent is related to the ’744 Patent, and that the two patents share the same specification. (Dkt. No. 50 at 12).

The Court finds that including “types” in the ’744 Patent is significant because it denotes a classification system, which the court in *Freeny v. Apple* reflected in its construction. Here, the disputed phrase in the ’443 Patent does not include the requirement of a different “type” of signal. Thus, the differences between the signals need not be restricted to “types,” such as frequencies or protocols. Indeed, the specification discloses other differences in signals, such as differences in a first and second “signal strength.” ’443 Patent at 34:1–2 (“This can be accomplished by incorporating a signal strength detector in the wireless adapter element 3180”), 13:24–29 (“The multiple channel wireless transceiver 740 is programmed to detect a first signal strength from the wireless device 710a and a second signal strength from the wireless device 710a.”).

Furthermore, the specification repeatedly discuss “frequencies” and “protocols” in the context of signal types. See, e.g., *id.* at 34:31–33 (“In addition the proximity authorization unit 2910 can either automatically sense and determine the required signal type and/or protocol”) (emphasis added), 35:13–16 (“The computer unit 3000 controls the functions of a signal selector unit 3030 via the computer control and command bus lines 3005 that selects the type of signal and or protocol that is sent to the service signaling unit 3050 via line 3044.”) (emphasis added), 38:20–24 (“A preferred embodiment of the receiver unit 3410 and the transmit unit 3420 operate in the 900 Mhz region, the IR spectrum and 2.4 to 2.5 Ghz frequency ranges which are globally accepted low power signaling types for home and business.”) (emphasis added); 11:36–39 (“The AWAU 719 is provided with a multiple channel wireless transceiver 740 capable of receiving at least two signal types, i.e. different frequency signal types or protocols.”) (emphasis added).

By not including “types” in the claim language, the intrinsic evidence indicates that the patentee drafted the claims in the ’443 Patent more broadly than in the ’744 Patent. See *Nystrom v. TREX Co.*, 424 F.3d 1136, 1143 (Fed. Cir. 2005) (“When different words or phrases are used in

separate claims, a difference in meaning is presumed.”). Accordingly, the Court rejects Plaintiffs’ original construction, and agrees with the parties that the phrase **“second signal being different from the first signal”** should be given its **plain and ordinary meaning**.

Regarding the phrase **“low power communication unit,”** the Court presented to the parties a construction that is similar to the one adopted in *Freeny v. Apple Inc.*, No. 2:13-cv-00361-WCB, (E.D. Tex. Aug. 28, 2014). In that case, the court construed the term “low power communication signals” in Claim 18 of the ’744 Patent as “communication signals having a power for transmission of up to a maximum of several hundred feet.” *Freeny v. Apple Inc.*, No. 2:13-CV-00361-WCB, 2014 U.S. Dist. LEXIS 120446, at *17-19 (E.D. Tex. Aug. 28, 2014) (emphasis added). Applying that construction here, the Court finds that the term “low power communication unit” should be construed to mean “communication unit having a power for transmission of up to a maximum of several hundred feet.”

Consistent with the court’s findings in *Freeny v. Apple*, the specification on several occasions refers to low power signals as those that do not communicate farther than a few hundred feet. See, e.g., ’443 Patent at 32:29–31 (“low power wireless link . . . does not typically communicate farther than about 300 feet”), 35:50–51 (detection range of “say several hundred feet”), 36:31–38 (wireless connection ranges “will vary from several hundred feet to only several feet”), 39:14–16 (transmissions possible “within several hundred feet” of a communication unit), 7:6–9 (transceiver capable of communicating “up to at least a predetermined proximity distance such as a hundred feet”), 13:54–55 (different signal strengths designed for detection at 500 feet and 20 feet), 16:49–51 (authorization distance set at 500 feet and 20 feet). Accordingly, the Court agrees with the parties that the term **“low power communication unit”** should be construed to mean **“communication unit having a power for transmission of up to a maximum of several**

Id. at 34:59–35:4 (emphasis added). Regarding the proximity authorization unit shown in Figure 32, the specification states that “[w]hen F4 is pressed then the audio unit 3260 is connected to the computer unit 3000 memory unit and the audio being spoken or received is stored.” Id. at 37:7–9. Thus, the specification identifies the computer unit 3000 in Figure 30 as the structure for recording messages and data. The specification further recites specific types of computer units 3000, which include “Motorola 68000 series or T1 DSP 6000 series unit or a modified Ericsson Bluetooth Baseband Processor.” Id. at 34:59–63. Plaintiffs’ expert, Dr. Dean Sirovica, opines that a person of ordinary skill in the art at the time of the invention would have understood from the specification that the corresponding structure for the function of “recording messages and data” is a computer memory unit. (Dkt. No. 50-2 at ¶ 59). Thus, the specification clearly associates the computer unit 3000 with the function of recording messages and data.

Defendant originally argued that Plaintiffs’ proposed structure inflates the scope of the term to coincide with the performance of the function on any structure. (Dkt. No. 52 at 22) (citing *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1211 (Fed. Cir. 2003)). The Court disagrees. In *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286 (Fed. Cir. 2014), the Federal Circuit stated that when “a patentee has invoked computer-implemented means-plus-function claiming, the corresponding structure in the specification for the computer implemented function must be an algorithm unless a general purpose computer is sufficient for performing the function.” Id. at 1298. For example, in *re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303 (Fed. Cir. 2011), the Federal Circuit found that “it was not necessary to disclose more structure than the general purpose processor that performs those functions . . . , because the functions of ‘processing,’ ‘receiving,’ and ‘storing’ are coextensive with the structure disclosed, i.e., a general purpose processor.” Id. at 1316. Similar to the Federal Circuit’s findings in *In re Katz*, the recited function

of “recording” is coextensive with the disclosed structure, and does not run afoul of the rule against purely functional claiming.

Accordingly, the Court agrees with the parties that the phrase “**means for recording the messages and data**” in Claim 106 of the ’443 Patent is governed by 35 U.S.C. § 112, ¶ 6, and will be construed as follows:

Function: Recording the messages and data.

Corresponding Structure: Computer unit 3000 or equivalents thereof.

In view of the parties’ agreement on the proper construction of the identified terms, the Court hereby **ADOPTS** the parties’ agreed constructions.

IV. CONSTRUCTION OF DISPUTED TERMS

The parties’ dispute focuses on the meaning and scope of six terms of the ’443 Patent.

1. “request authorization code”

<u>Disputed Term</u>	<u>Plaintiffs’ Proposal</u>	<u>Defendant’s Proposal</u>
“request authorization code”	“a code that authorizes access to a predetermined service”	“a code that activates a predetermined service upon receipt”

Shortly before the start of the March 12, 2019 hearing, the Court provided the parties with the following preliminary construction: “code used in an authorization process, which process activates a predetermined service.”

a) The Parties’ Positions

The parties dispute whether the “request authorization code” is only required to “authorize” access to a predetermined service, as Plaintiffs propose, or if it must also “activate” a predetermined service “upon receipt,” as Defendant proposes. Plaintiffs argue that authorizing access to a service is not the same as activating a service. (Dkt. No. 50 at 9) (citing Dkt. No. 50-2

at ¶ 19). According to Plaintiffs, the former refers to the act of confirming that the user should be allowed to gain access to a particular service, whereas the latter refers to actually implementing the service for the user. *Id.* (citing Dkt. No. 50-2 at ¶ 19). Plaintiffs contend that the specification refers to “request authorization codes” as being involved with the former process, and not the latter. *Id.* (citing ’443 Patent at 33:33–57). Plaintiffs argue that the specification makes a distinction between the request authorization code authorizing access to a proximity service unit and the proximity service unit actually being activated to provide services. (*Id.* at 10) (citing Dkt. No. 50-2 at ¶ 20).

Plaintiffs further argue that the specification also describes a similar multi-step authorization and activation process in connection with a gas pump embodiment of the invention. *Id.* (citing ’443 Patent at 33:58–34:2). Plaintiffs contend that in this example the specification again distinguishes between the request authorization code authorizing access to a proximity service unit as opposed to the services on the unit (pumping gas) actually being activated. *Id.* (citing Dkt. No. 50-2 at ¶ 21). Plaintiffs further argue that the specification describes the function of the request authorization code in another embodiment. (*Id.* at 11) (citing ’443 Patent at 7:66–8:7). Plaintiffs contend that the “request authorization code” is the code that verifies whether the sender is authorized to access the predetermined service, and does not simply activate the predetermined service. *Id.* (citing Dkt. No. 50-2 at ¶ 22).

Regarding Defendant’s construction, Plaintiffs argue that it incorrectly conflates the concepts of “authorizing” a user to access a service and actually “activating” that service. *Id.* Plaintiffs contend that the specification makes the distinction that the “request authorization code” provides access to a proximity service unit, but does not necessarily activate the services on that unit. *Id.* According to Plaintiffs, activation of the services occurs through subsequent

communications between the proximity authorization unit and the proximity service unit. *Id.* (citing Dkt. No. 50-2 at ¶23). Plaintiffs argue that their construction is more consistent with the specification’s description of the function of the code. *Id.*

Defendant responds that Plaintiffs’ construction is unhelpful because it essentially restates the term by offering that the “authorization code” is “a code that authorizes.” (Dkt. No. 52 at 9). Defendant argues that the claim language is consistent with the description focusing on the request/activation procedure, and not authorization. (*Id.* at 10) (citing ’443 Patent at 31:40–42). Defendant contends that its construction follows directly from the intrinsic evidence, and provides clarification that receipt of the request authorization code results in activation of a service. *Id.*

Defendant further contends that Plaintiffs’ argument that “authorization” and “activation” are two separate steps is a distinction without consequence, because the request must cause activation of the service. *Id.* Defendant argues that the claimed request authorization code to a service unit necessarily includes a request for activation. *Id.* (citing Dkt. No. 52-1 at 17:6–19). Defendant contends that the patentee focused only on the step of the code activating a service, not merely authorizing a service, because activation necessarily implies that authorization has occurred. (*Id.* at 11). Defendant argues that the authorization may be automatic, or it may be more complicated depending upon the proximity service unit embodiment. (*Id.*) (citing ’443 Patent at 14:13–19, 22:4–11; Dkt. No. 52-1 at 73:19–74:1). Defendant further argues that Plaintiffs’ construction limits the term to only the first step of authorization, and omits that the request authorization code activates a service. *Id.*

Plaintiffs reply that the intrinsic evidence supports their construction. (Dkt. No. 53 at 4). Plaintiffs argue that the testimony quoted by Defendant shows that Dr. Sirovica was answering a question about a particular example. (*Id.*) (citing Dkt. No. 52-1 at 17:6-19). Plaintiffs further argue

that the other testimony quoted by Defendant shows that code validation and service activation are separate processes. (Id.) (citing Dkt. No. 52-1 at 73:19-74:1).

For the following reasons, the Court finds that the term **“request authorization code”** should be construed to mean **“code used in an authorization process, which process activates a predetermined service.”**

b) Analysis

The term “request authorization code” appears in asserted Claim 90 of the ’443 Patent. The parties agree that the preamble of Claim 90 is limiting. The preamble recites that “each of the proximity service units providing a predetermined service when activated in response to receiving a request authorization code.” Thus, the claim language indicates that the recited “request authorization code” is used in a process that ultimately activates a predetermined service, because the predetermined service is activated “in response to receiving a request authorization code.” Indeed, the specification describes the method for activating a proximity service unit as follows:

The invention also relates to a unique method for activating proximity service units 2920 wherein each proximity service unit 2920 provides a predetermined service in response to receiving a request authorization code. A plurality of the proximity authorization units 2910 are provided. Each proximity authorization unit 2910 is capable of storing the request authorization code and a preamble code, and outputting the request authorization code and the preamble code. The preamble code includes a request for application program code. The preamble code is output by one of the proximity authorization units 2910. The preamble code outputted by one of the proximity authorization units 2910 is received by at least one of the proximity service units 2920. The proximity service unit 2920, which received the preamble code, outputs the application program code stored by the proximity service unit 2920 in response to receiving the preamble code. The application program code is received by the proximity authorization unit 2910 outputting the preamble code. The proximity authorization unit 2910 then outputs the request authorization code using the application program code received by the proximity authorization unit 2910.

’443 Patent at 31:60–32:14 (emphasis added). As indicated, the last step disclosed in the “unique method for activating proximity service unit” is the proximity authorization unit outputting the

request authorization code. This is consistent with the claim language of “the communication unit outputting the request authorization code.” The specification further refers to an “authorization process,” and states that this process can be activated by using “the authorization request codes transmitted to the wireless adapter element 3180 of the proximity service unit 2920 from the proximity authorization unit 2910.” *Id.* at 32:8–13. Accordingly, the intrinsic evidence indicates that the “request authorization code” is “code used in an authorization process, which process activates a predetermined service.”

Plaintiffs contend that the specification “makes a distinction between the request authorization code authorizing access to a proximity service unit and the proximity service unit actually being activated to provide services.” (Dkt. No. 50 at 10) (citing ’443 Patent at 33:33–57). The Court disagrees that the specification makes a clear distinction between “authorization” and “activation.” The portion of the specification cited by Plaintiffs refers to an ATM system or vending machine system, with the “predetermined service” requiring “a physical connection between the proximity authorization unit 2910 and the physical adapter element” to activate the menu services.” ’433 Patent at 33:56–57. Other embodiments do not require a “physical connection.” For example, the specification indicates that the proximity service unit “can be activated either automatically or manually by the proximity authorization unit 2910 when the person is within a predetermined proximity distance” *Id.* at 33:16–17, 33:36–39, 34:4–6.

Moreover, even in the ATM system embodiment, the specification states that “the request authorization code can be transmitted to the wireless adapter element 3180 to begin the authorization process.” *Id.* at 33:52–54 (emphasis added). The specification does not further define the “authorization process,” nor does it differentiate it from an “activation process.” Finally, to support their arguments, Plaintiffs cite to a portion of the specification that discloses a

“proximity unit validation assembly 214.” The Court notes that the “proximity unit validation assembly 214” is not recited in Claim 90. More importantly, the “proximity unit validation assembly 214” is not in the portion of the specification that discloses the recited “proximity authorization unit.”

Turning to Defendant’s construction, the Court does not adopt it because Defendant’s construction requires the code to activate the predetermined service “upon receipt.” As discussed above, the specification does not further define the “authorization process,” nor does it differentiate it from an “activation process.” Thus, the temporal limitation of “upon receipt” is unwarranted. The claim language only requires that the predetermined service is activated “in response to receiving a request authorization code.” In other words, the “request authorization code” is code used in an authorization process, which process activates a predetermined service. This activation may be upon receipt or later in the process. Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the parties, and given it its proper weight in light of the intrinsic evidence.

c) Court’s Construction

The Court construes the term “**request authorization code**” to mean “**code used in an authorization process, which process activates a predetermined service.**”

2. “the [request authorization code]”

<u>Disputed Term</u>	<u>Plaintiffs’ Proposal</u>	<u>Defendant’s Proposal</u>
“the [request authorization code]”	No construction necessary, other than the proposed construction for “request authorization code”	“the same [request authorization code]”

Shortly before the start of the March 12, 2019 hearing, the Court provided the parties with the following preliminary construction: “No construction necessary (Rejecting “the same” limitation).”

a) The Parties’ Positions

The parties dispute whether “a request authorization code” should be limited to “the same” request authorization code when recited later in the claim. Plaintiffs argue that Defendant improperly seeks to add into Claim 90 a requirement for the claimed device that is unsupported by the specification, and would improperly exclude a preferred embodiment from the scope of the claim. (Dkt. No. 50 at 14). Plaintiffs contend that Defendant’s construction requires that the proximity authorization unit have only a single request authorization code (i.e., the “same” request authorization code) that is transmitted over multiple signals to different proximity service units. (Id. at 15). Plaintiffs argue that the recited “a request authorization code” means “one or more request authorization codes” since Claim 90 is an open-ended “comprising” claim. Id. Plaintiffs contend that all later references in Claim 90 to “the request authorization code” necessarily relates back to the recited “a request authorization code.” Id. Plaintiffs further contend that two different codes can each be “a request authorization code,” each for its own proximity service unit. (Id. at 16) (citing Dkt. No. 50-2 at ¶ 36).

Plaintiffs also argue that the patentee did not evince any clear intent to limit the term “a request authorization code” to only one request authorization code outputted on multiple signals. Id. According to Plaintiffs, the claim is intended to cover embodiments where multiple request authorization codes are used to communicate with different proximity service units over different signals. (Id.) (citing Dkt. No. 50-2 at ¶¶ 37-39). Plaintiffs argue that the specification does not limit the invention to a system in which all proximity service units are activated in response to

“the same” request authorization code. (Id.) (citing ’443 Patent at 31:33–43). Plaintiffs further contend that the specification imposes no limit on how many request authorization codes can be on the proximity authorization unit. (Id. at 17) (citing ’443 Patent at 31:44–59). Plaintiffs argue that the specification refers and recommends having “a plurality” of such codes on the device. (Id.) (citing ’443 Patent at 34:67–35:4; 33:23–28; 34:23–31).

Plaintiffs next argue that Defendant’s construction would improperly exclude embodiments where different request authorization codes are used to communicate with different proximity service units. (Id. at 18). Plaintiffs contend that Defendant’s construction requiring the use of a single request authorization code to activate all proximity service units also does not make sense in light of the specification’s description. (Id.) (citing ’443 Patent at 2:21–47). Plaintiffs argue that there is nothing in the specification to suggest any benefit to having a proximity authorization unit that is limited to using a single request authorization code to communicate with all proximity service units. (Id.) (citing Dkt. No. 50-2 at ¶¶ 40, 41). According to Plaintiffs, the specification emphasizes that the proximity authorization unit stores “preferably a plurality of request authorization codes” to facilitate communications with different types of proximity service units. Id. Plaintiffs argue that Claim 90 is not limited to a proximity authorization unit that uses “the same request authorization code” when communicating with all proximity service units. (Id. at 19).

Defendant responds that the plain language of the claim simply requires the same one or more request authorization code(s) that are transmitted on a first signal are also transmitted on a second signal. (Dkt. No. 52 at 14). According to Defendant, there may be several request authorization codes on the claimed device, but the device must have at least one code that it is capable of being transmitted on two different signals. (Id. at 14-15). Defendant contends that the

term “the request authorization code” must therefore refer to the same “code” upon which it relies for antecedent basis, whether that “code” is one code or several. (Id. at 15). Defendant argues that if it does not, then the claim is fatally indefinite under 35 U.S.C. § 112 ¶ 2. Id. (citing Dkt. No. 52-1 at 35:3–36:2).

Defendant also argues that its position is fully supported by the specification. (Id. at 16) (citing ’443 Patent at 31:44–50). Defendant contends that Plaintiffs’ expert agreed that using the same one or more codes on both signals would be compatible with the purpose of the claimed invention. (Id.) (citing Dkt. No. 52-1 at 42:14–43:6). Defendant argues that its construction does not turn on whether the code or codes are immaterially modified as they are transmitted on each signal. (Id. at 18). Defendant further contends that a person of ordinary skill in the art would be able to understand whether two “request authorization codes” are the same. Id. According to Defendant, there is no support for “the [request authorization code]” to be read as anything other than “the same [request authorization code].” (Id. at 18-19).

Plaintiffs reply that Defendant now argues that if the claimed device includes multiple authorization codes, all of those codes must be transmitted on both the first and second signals. (Dkt. No. 53 at 6). Plaintiffs contend that the specification discloses a range of example proximity service units receiving the codes, including an ATM and a vehicle control system. (Id.) (citing ’443 Patent at 32:15–23). Plaintiffs argue that Defendant’s construction would require that the claimed invention needlessly send the same codes to an ATM machine and a vehicle, even though an ATM code would have no use in a vehicle control system, and vice versa. Id. Plaintiffs contend that the goal of the invention is to have a single device that can replace the functions of multiple authorization devices to communicate with a variety of disparate systems. Id. (citing Dkt. No. 50-2 at ¶ 40).

Plaintiffs also argue that there is no ambiguity because Claim 90 does not matter which code is sent on which signal, and only requires at least one code sent on each signal. (Id. at 7). Plaintiffs contend that Dr. Sirovica did not agree that Claim 90 is entirely subjective. Id. Plaintiffs argue that Dr. Sirovica testified that the technical specification for the system would provide the needed information. Id. (citing Dkt. No. 52-1 at 35:13-19; 20:2-19). Finally, Plaintiffs contend that Defendant’s reliance on *TiVo, Inc. v. EchoStar Commc’ns Corp.*, 516 F.3d 1290 (Fed. Cir. 2008) is misplaced, and that *In re Varma*, 816 F.3d 1352 (Fed. Cir. 2016) and *Plano Encryption Techs., LLC v. Alkami, Inc.*, 2:16-cv-01032, Dkt. 168 (E.D. Tex. Aug. 23, 2017) are distinguishable. (Id. at 7-8).

For the following reasons, the Court finds that the term “**the [request authorization code]**” does not require construction, and is not limited to “the same [request authorization code],” as Defendant proposes.

b) Analysis

The term “the [request authorization code]” appears in asserted Claim 90 of the ’443 Patent. The parties’ dispute revolves around the following language in Claim 90:

90. A proximity authorization unit for use with proximity service units, . . . each of the proximity service units providing a predetermined service when activated in response to receiving a request authorization code, the proximity authorization unit comprising: . . .

a computer unit . . . having the request authorization code stored therein;

and . . . the computer unit retrieving the request authorization code and the communication unit outputting the request authorization code on the first signal for communication to the proximity service units capable of receiving the first signal, and the communication unit outputting the request authorization code via the second signal to the proximity service units capable of receiving the second signal.

’443 Patent at 49:36–56 (emphasis added). Defendant argues that the language referencing “the request authorization code” in Claim 90 requires the same one or more request authorization

code(s) that are transmitted on a first signal, are also transmitted on a second signal. (Dkt. No. 52 at 14).

As indicated above, the term “request authorization code” first appears in the preamble of Claim 90, where it is referred to as “a request authorization code.” The indefinite article “a” in patent parlance “carries the meaning of ‘one or more’ in open-ended claims containing the transitional phrase ‘comprising.’” *KJC Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed. Cir. 2000). “That ‘a’ or ‘an’ can mean ‘one or more’ is best described as a rule, rather than merely as a presumption or even a convention.” *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008). “The exceptions to this rule are extremely limited: a patentee must evince a clear intent to limit ‘a’ or ‘an’ to ‘one.’” *Id.* (internal quotations omitted).

Given that Claim 90 is an open-ended “comprising” claim, the rule of “a” meaning “one or more” applies, and the recited “a request authorization code” means “one or more request authorization codes.” Moreover, all later references in Claim 90 to “the request authorization code” necessarily relate back to the recited “a request authorization code.” See *Baldwin*, 512 F.3d at 1342 (“The subsequent use of definite articles ‘the’ or ‘said’ in a claim to refer back to the same claim term does not change the general plural rule, but simply reinvokes that non-singular meaning.”). Thus, when the claim refers to outputting “the request authorization code” on a first signal, and outputting “the request authorization code” on a second signal, that language means that any of the “one or more request authorization codes” can be outputted on the first and second signals to satisfy the claim. In other words, two different codes can each be “a request authorization code,” each for its own proximity service unit (i.e., “the request authorization code” for the first unit and “the request authorization code” for the second unit), and the same code does not need to be outputted on both signals.

The specification also indicates that Claim 90 is intended to cover embodiments where multiple request authorization codes are used to communicate with different proximity service units over different signals. The specification states the following:

The Master proximity authorization system 2900 is provided with a proximity authorization unit 2910 . . . for activating a plurality of proximity service units 2920 Some of the Proximity Service Units 2920 are capable of receiving information via a first signal and some of the proximity service units 2920 are capable of receiving information via 40 a second signal. Each of the proximity service units 2920 provide a predetermined service when activated in response to receiving a request authorization code.

'443 Patent at 31:33–43 (emphasis added). Importantly, the specification does not limit the invention to a system in which all proximity service units are activated in response to “the same” request authorization code. Rather, the specification refers to each proximity service unit being activated in response to “a” request authorization code, which does not necessarily have to be the same code for each service unit. The specification further states:

The proximity authorization unit 2910 is provided with a portable housing 2911, a computer unit 3000, and a transmitter/receiver unit 3070. The computer unit 3000 is supported by the portable housing 2911 and has at least one and preferably a plurality of request authorization codes stored therein. . . . The computer unit 3000 retrieves the request authorization code and the transmitter/receiver unit 3070 outputs the request authorization code on the first signal for communication to the proximity service units 2920 capable of receiving the first signal, and the transmitter/receiver unit 3070 outputs the request authorization code via the second signal to the proximity service units 2920 capable of receiving the second signal.

Id. at 31:44–59 (emphasis added). Thus, the specification indicates that “a plurality” of request authorization codes are stored on the device. Similarly, other parts of the specification refer to multiple request authorization codes stored on the proximity authorization unit. See, e.g., '443 Patent at 34:67–35:4 (“the computer unit 3000 program memory and stored request authorization codes and phone directories for example are maintained even when the proximity authorization unit 2910 is turned off by a control panel 3010 via line 3013.”) (emphasis added), 33:23–28 (“the authorization process using the request authorization codes, such as owner codes delivered to the

toll booth system from the proximity authorization unit 2910”) (emphasis added), 34:23–31 (“In all of the above descriptions the authorization information that can be stored in the proximity authorization unit 2910 for delivery to the proximity service units 2920 can include credit card numbers plus PIN or special local authorization numbers”) (emphasis added).

Finally, Defendant’s requirement that the same one or more request authorization code(s) transmitted on a first signal must also be transmitted on a second signal does not make sense in light of the specification’s description of the goal of the invention. The specification discloses a range of example proximity service units receiving the codes, including an ATM and a vehicle control system. See, e.g., ’443 Patent at 32:15–23. Defendant’s construction would require sending the same codes to an ATM machine and a vehicle, even though an ATM code would not be used in a vehicle control system. Defendant does not point to anything in the specification to support the “same one or more” signal requirement. There is no reason for the proximity authorization unit to send a request authorization code to a system that is not designed to utilize it.

Defendant first argues that under Plaintiffs’ construction there is indefiniteness because “the patent provides no guidance to know which of the several codes are sent on the first signal, and which of the several codes are sent on the second signal, in order for infringement to occur.” (Dkt. No. 52 at 15). Contrary to Defendant’s contention, there is no ambiguity because there is not a requirement for a specific code to be sent on either signal. Instead, Claim 90 simply requires at least one code sent on each signal. The Court agrees that the specification discloses an embodiment where computer unit 3000 has “at least one . . . request authorization code,” as Defendant contends. (Dkt. No. 52 at 16) (citing ’443 Patent at 31:44–50). However, this is only one embodiment, and more importantly, even this embodiment states that computer unit 3000 “has at least one and preferably a plurality of request authorization codes stored therein.” *Id.* at 31:47–49. (emphasis

added).

Turning to the cases cited by the parties, the Court finds that Defendant's reliance on *TiVo, Inc. v. EchoStar Commc 'ns Corp.*, 516 F.3d 1290 (Fed. Cir. 2008) is misplaced. In *TiVo*, the court construed "assembl[ing] said video and audio components into an MPEG stream" to mean assembling those components into only one stream because the patent specification required it. See *id.* at 1303-04. Here, there is nothing in the specification requiring the proximity authorization unit to use the same request authorization codes on all signals. Indeed, Claim 90 recites a plurality of "proximity service units" and that "each of the proximity service units providing a predetermined service when activated in response to receiving a request authorization code." Claim 90 further recites that the communication unit outputs "the request authorization code on the first signal for communication to the proximity service units capable of receiving the first signal," and outputs "the request authorization code via the second signal to the proximity service units capable of receiving the second signal." Accordingly, unlike the claim in *TiVo*, the claim language does not indicate a departure from the general rule that "a" or "an" means more than one. *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1343 (Fed. Cir. 2008) ("[T]he initial indefinite article ('a') carries either a singular or plural meaning, any later reference to that same claim element merely reflects the same potential plurality."). Likewise, *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1342 (Fed. Cir. 2016), involved a situation where the specification clearly limited the invention to the use of a single logical table, and thus, is inapposite for the same reason.

In *re Varma*, 816 F.3d 1352 (Fed. Cir. 2016), is also distinguishable. There, the court held that the claim limitation "a statistical analysis request corresponding to two or more selected investments" could not be met by two separate requests where each request has just one selected investment. See *id.* at 1362-63. This is the plain reading of the "corresponding to" language in the

claim. See *id.* No such language exists in Claim 90. Finally, *Plano Encryption Techs., LLC v. Alkami, Inc.*, 2:16-cv-01032, Dkt. 168 (E.D. Tex. Aug. 23, 2017), is inapposite for the same reason. In *Plano*, the Court construed “a storage medium having stored therein a plurality of programming instructions” to mean just one storage medium storing the instructions. See *id.* at 18-22. Again, this is a plain reading of “having stored therein.” No such limiting language exists in Claim 90. Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the parties, and given it its proper weight in light of the intrinsic evidence.

c) Court’s Construction

The term “**the [request authorization code]**” does not require construction, and is not limited to “the same [request authorization code].”

3. “means for communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing”

<u>Disputed Term</u>	<u>Plaintiffs’ Proposal</u>	<u>Defendant’s Proposal</u>
“means for communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing”	This phrase should be construed under 35 U.S.C. § 112(f). Function: Communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing Structure: Visual and audio outputs such as those found on pagers, cell phones, and PDAs	Subject to 35 U.S.C. § 112(f). Function: Communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing Structure: Indefinite

Shortly before the start of the March 12, 2019 hearing, the Court provided the parties with the following preliminary construction:

Function: Communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing.

Corresponding Structure: Visual output 3250 and audio output 3260 such as those found on pagers, cell phones, and PDAs or equivalents thereof.

a) The Parties' Positions

The parties agree that the phrase “means for communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing” should be construed as a means-plus-function limitation. The parties also agree that the recited function is “communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing.” The parties dispute whether the phrase is indefinite for failing to disclose the corresponding structure for this limitation.

Plaintiffs argue that the specification discloses specific structures for this limitation. (Dkt. No. 50 at 20-21) (citing '443 Patent at 4:8–10, 36:61–65, Figure 32). According to Plaintiffs, the specification specifically identifies the video and data display unit 3250 and the audio unit 3260 depicted in Figure 32 as the structure for communicating audio and video information to the user from the proximity authorization unit. (Id. at 21). Plaintiffs argue that the specification further recites specific types of cell phones and PDAs that were available to the public at the time. Id. (citing '443 Patent at 9:38-45). Plaintiffs contend that the specification provides specific examples of structures that can be used as the “means for communicating audio and video information.” (Id. at 22) (citing Dkt. No. 50-2 at 37, 42, ¶¶ 49, 50).

Plaintiffs further argue that Defendant incorrectly argues that the '443 Patent is indefinite as to the corresponding structure for this limitation. Id. Plaintiffs contend that the specification explicitly states that visual and audio “outputs such as found on many pagers, cell phones and PDA's” can be used to perform the function of communicating audio and visual information to the user from the proximity authorization unit. (Id. at 22-23). Plaintiffs further contend that the specification also identifies specific models of cell phones and PDAs that have exemplary audio and video display structures. (Id. at 23). According to Plaintiffs, this disclosure is sufficient to inform those of ordinary skill in the art that the display screens and speakers available in such

devices are the structures for this means-plus-function limitation. *Id.* (citing Dkt. No. 50-2 at ¶ 51).

Defendant responds that the recited function includes a wide range of devices, and the specification has no guidance that gives reasonable certainty for what is about their structure that the patentee intended to claim. (Dkt. No. 52 at 19-20). Defendant contends that Plaintiffs presented no evidence of any pagers at the time that supported video. (*Id.* at 20). According to Defendant, Plaintiffs cannot demonstrate that a person of ordinary skill in the art would understand with reasonable certainty what the patentee meant when he identified that pagers had the requisite structure to perform the claimed function. *Id.*

Defendant further contends that the example in the specification “are from a section of the specification far removed from the relevant discussion of the claimed proximity authorization unit.” *Id.* Defendant argues that this “distant” disclosure of specific devices cannot support the claimed function because “structure disclosed in the specification is corresponding structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.” *Id.* (citing *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1210 (Fed. Cir. 2003)). Defendant also contends that the fact that the specification discloses the suitability of a structure for one function does not create a basis for that structure to support any function. (*Id.* at 21). Finally, Defendant argues that the relevant inquiry is whether a person of ordinary skill “would understand the specification itself to disclose the structure, not simply whether that person would be capable of implementing that structure.” *Id.* (citing *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1212 (Fed. Cir. 2003)). Defendant contends that the reader should not be required to make their own inventive step in order to divine the meets and bounds of the invention. *Id.*

Plaintiffs reply that their expert identified specific examples in the specification of

corresponding structures for communicating audio and video information. (Dkt. No. 53 at 8) (citing Dkt. No. 50-2 at ¶¶ 46-51). Plaintiffs argue that the fact that there may have been a variety of PDAs, cell phones, and pagers at the time of the invention with different functionality is irrelevant. *Id.* According to Plaintiffs, the issue is whether one of ordinary skill would understand what the '443 Patent means when it refers to visual and audio display outputs such as those found on these devices. (*Id.* at 9). Plaintiffs argue that their expert confirmed that one of ordinary skill would have this understanding. *Id.* (citing Dkt. No. 53-2 at 52:7–15, 48:15–49:5).

Plaintiffs further contend that the specification discloses the LCD display screens and speakers of the Palm Pilot VII and Nokia 9000 as corresponding structures. *Id.* Plaintiffs also argue that their expert opined that there was sufficient linkage that the Palm Pilot VII and Nokia 9000 devices as the corresponding structure. *Id.* (citing Dkt. No. 50-2 at ¶¶ 45-51). Plaintiffs further argue that the specification specifically refers to the video and audio functions of the Palm Pilot VII and Nokia 9000. *Id.* (citing '443 Patent at 9:38–45). Plaintiffs contend that this passage relates to Figure 6, which shows a device that is virtually identical to the proximity authorization unit shown in Figure 32. (*Id.* at 9-10). According to Plaintiffs, the specification clearly associates the video and audio structures of the Palm Pilot VII and Nokia 9000 with the function of communicating video and audio information to the user. (*Id.* at 10).

For the following reasons, the Court finds that the phrase “**means for communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing**” is governed by 35 U.S.C. § 112, ¶ 6, and is not indefinite.

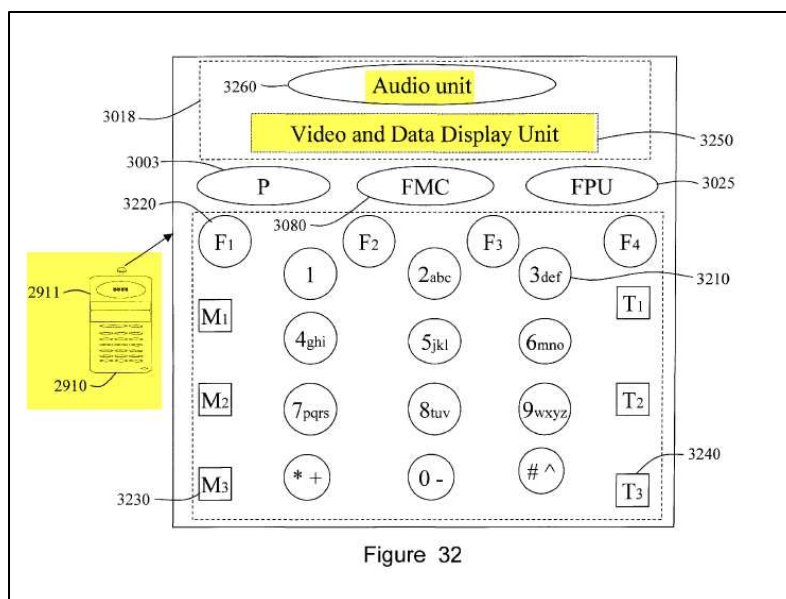
b) Analysis

The phrase “means for communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing” appears in asserted Claims 94 and 110

of the '443 Patent. The Court finds that the phrase is used consistently in the claims and is intended to have the same general meaning in each claim. The Court further finds that the disputed phrase uses the words “means” and specifies a function, thus the Court presumes that the patentees intended to invoke the statutory mandates for means-plus-function clauses. *York Prods. v. Central Tractor Farm & Family Ctr.*, 99 F.3d 1568, 1574 (Fed. Cir. 1996) (“In determining whether to apply the statutory procedures of section 112, ¶ 6, the use of the word ‘means’ triggers a presumption that the inventor used this term advisedly to invoke the statutory mandates for means-plus-function clauses.”). Furthermore, the parties agree that the term is subject to 35 U.S.C. § 112, ¶ 6. Accordingly, the Court finds that the phrase is governed by 35 U.S.C. § 112, ¶ 6.

“The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation.” *Medtronic, Inc. v. Advanced Cardiovascular Sys.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). The Court finds, and the parties agree, that the recited function is “communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing.” Having determined the limitation’s function, “the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof.” *Medtronic*, 248 F.3d at 1311.

The specification clearly identifies the corresponding structure for this limitation. Specifically, Figure 32 depicts a user interface for the proximity authorization unit. '443 Patent at 4:8–11 (“FIG. 32 is a block diagram showing a control unit allowing the owner to operate the various functions offered by the proximity authorization unit.”).



Id. at Figure 32 (highlight added). The specification states the following in its description of Figure 32:

The preferred physical embodiment of the proximity authorization unit 2910 input and output functions is shown in FIG. 32. The audio and display elements 3018 have both visual output 3250 and audible output 3260 outputs such as found on many pagers, cell phones and PDA's.

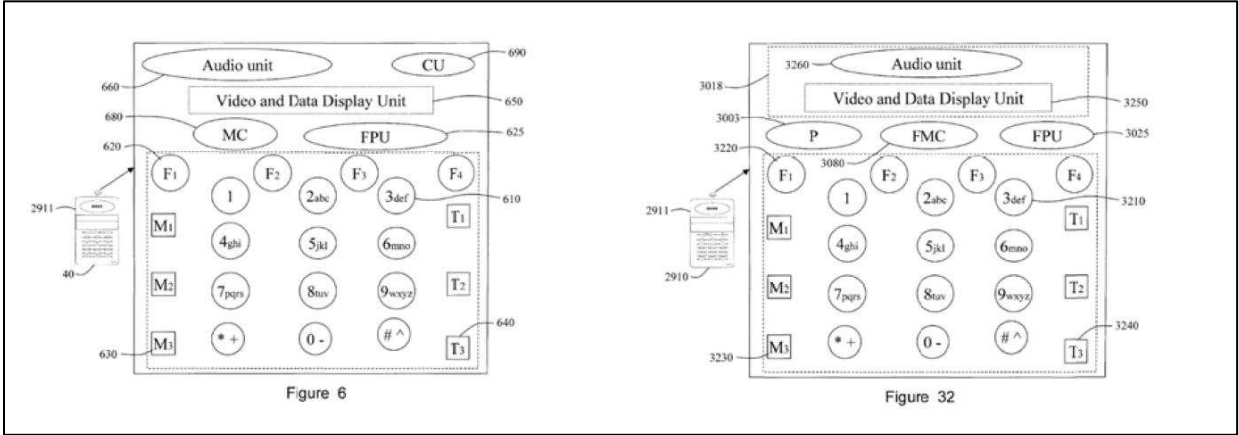
Id. at 36:61–65. Thus, the specification identifies the video and data display unit 3250 and the audio unit 3260 depicted in Figure 32 as the structure for communicating audio and video information to the user from the proximity authorization unit. Moreover, the specification describes these components as “outputs such as found on many pagers, cell phones and PDA’s.”

Id. at 36:64–65.

The specification further recites specific types of cell phones and PDAs that were available to the public at the time. For example, the specification refers to a “Palm Pilot VII wireless note book computer or Nokia 9000 series digital phones.” Id. at 9:38–42. Plaintiffs’ expert, Dr. Dean Sirovica, states that these devices had LCD display screen for displaying information the user and speakers for playing audio information to the user. Id. (citing Dkt. No. 50-2 at ¶¶ 49-50). Thus,

the specification clearly associates the video and audio structures of the Palm Pilot VII and Nokia 9000 with the function of communicating video and audio information to the user.

Defendant argues that these “examples are from a section of the specification far removed from the relevant discussion of the claimed proximity authorization unit.” (Dkt. No. 52 at 20). Defendant contends that the section that discusses the “Master Proximity Authorization System” begins 22 columns later and never mentions these devices. *Id.* The Court disagrees that the specification fails to clearly identify Figure 6 as corresponding structure. In fact, this portion of the specification shows a device that is virtually identical to the proximity authorization unit shown in Figure 32.



Thus, the specification clearly identifies the video and audio structure of the Palm Pilot VII and Nokia 9000 with the function of communicating video and audio information to the user. Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the parties, and given it its proper weight in light of the intrinsic evidence.

c) Court’s Construction

In light of the evidence, the Court finds that the phrase “**means for communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing**” in Claims 94 and 110 of the ’443 Patent is governed by 35 U.S.C. § 112, ¶ 6,

and construes the phrase as follows:

Function: Communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing.

Corresponding Structure: Visual output 3250 and audio output 3260 such as those found on pagers, cell phones, and PDAs or equivalents thereof.

4. “means for playing back the messages and data”

<u>Disputed Term</u>	<u>Plaintiffs’ Proposal</u>	<u>Defendant’s Proposal</u>
“means for playing back the messages and data”	This phrase should be construed under 35 U.S.C. § 112(f). Function: Playing back messages and data Structure: Visual and audio outputs such as those found on pagers, cell phones, and PDAs	Subject to 35 U.S.C. § 112(f). Function: Playing back the messages and data Structure: Indefinite

Shortly before the start of the March 12, 2019 hearing, the Court provided the parties with the following preliminary construction:

Function: Playing back messages and data.

Corresponding Structure: Visual output 3250 and audio output 3260 such as those found on pagers, cell phones, and PDAs or equivalents thereof.

a) The Parties’ Positions

The parties agree that the phrase “means for playing back the messages and data” should be construed as a means-plus-function limitation. The parties also agree that the recited function is “playing back messages and data.” The parties dispute whether the phrase is indefinite for failing to disclose the corresponding structure for this limitation.

Plaintiffs argue that the ’443 Patent makes clear that the audio and visual display components shown in Figure 32, and described in the specification, are the structures for the “means for playing back the messages and data.” (Dkt. No. 50 at 26). Plaintiffs contend that Figure

32 depicts an example proximity authorization unit with various componentry, including audio and visual display components that the specification describes as “outputs such as found on many pagers, cell phones and PDA’s.” Id. (citing ’443 Patent at 36:61–65). Plaintiffs further contend that the specification also identifies example cell phones and PDAs, including the Palm VII and Nokia 9000 devices. Id. (citing ’443 Patent at 9:38–45). According to Plaintiffs, those of ordinary skill in the art reading the specification would understand that the speakers and display screens such as those commonly found in the pagers, cell phones, and PDAs are the corresponding structure for the “means for playing back the messages and data” in Claim 106. Id. (citing Dkt. No. 50-2 at ¶¶ 61-65).

Defendant responds that Plaintiffs offer the same structure and same arguments for this term as they did for the term “means for communicating audio and video information in a format perceivable by an individual located adjacent to the portable housing.” (Dkt. No. 52 at 23). Defendant contends that this term is also indefinite as explained in Section E of its brief. Id.

For the following reasons, the Court finds that the phrase “**means for playing back the messages and data**” is governed by 35 U.S.C. § 112, ¶ 6, and is not indefinite.

b) Analysis

The phrase “means for playing back the messages and data” appears in asserted Claim 106 of the ’443 Patent. The Court finds that the disputed phrase uses the words “means” and specifies a function, thus the Court presumes that the patentees intended to invoke the statutory mandates for means-plus-function clauses. *York Prods. v. Central Tractor Farm & Family Ctr.*, 99 F.3d 1568, 1574 (Fed. Cir. 1996) (“In determining whether to apply the statutory procedures of section 112, ¶ 6, the use of the word ‘means’ triggers a presumption that the inventor used this term advisedly to invoke the statutory mandates for means-plus-function clauses.”). Furthermore, the

parties agree that the term is subject to 35 U.S.C. § 112, ¶ 6. Accordingly, the Court finds that the phrase is governed by 35 U.S.C. § 112, ¶ 6.

“The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation.” *Medtronic*, 248 F.3d at 1311. The Court finds, and the parties agree, that the recited function is “playing back the messages and data.” Having determined the limitation’s function, “the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof.” *Medtronic*, 248 F.3d at 1311.

As recited in Claim 106, the “means for playing back the messages and data” serves to play back to the user the “at least one of messages and data” that is received by the communication unit. The specification makes clear that the audio and visual display components shown in Figure 32, and described in the specification, are the structures for the “means for playing back the messages and data.” As discussed above, Figure 32 depicts an example proximity authorization unit with various components, including audio and visual display components that the specification describes as “outputs such as found on many pagers, cell phones and PDA’s.” ’443 Patent at 36:61–65. Thus, the specification identifies the video and data display unit 3250 and the audio unit 3260 depicted in Figure 32 as the structure for playing back messages and data.

Furthermore, the specification also identifies example cell phones and PDAs, including the Palm VII and Nokia 9000 devices. *Id.* at 9:38–45. Plaintiffs’ expert, Dr. Dean Sirovica, opines that a person of ordinary skill in the art would understand that the speakers and display screens such as those commonly found in the pagers, cell phones, and PDAs available at the time of the invention are the corresponding structure for the “means for playing back the messages and data” in Claim 106. (Dkt. No. 50-2 at ¶¶ 61-65). Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the parties, and given it its proper weight in light

of the intrinsic evidence.

c) Court’s Construction

In light of the evidence, the Court finds that the phrase “**means for playing back the messages and data**” in Claim 106 of the ’443 Patent is governed by 35 U.S.C. § 112, ¶ 6, and construes the phrase as follows:

Function: Playing back messages and data.

Corresponding Structure: Visual output 3250 and audio output 3260 such as those found on pagers, cell phones, and PDAs or equivalents thereof.

5. Claim 90 (as a whole)

<u>Disputed Term</u>	<u>Plaintiffs’ Proposal</u>	<u>Defendant’s Proposal</u>
Claim 90 (as a whole)	Claim 90 as a whole is not indefinite because it is not directed to both an apparatus and a method.	Claim 90 as a whole is indefinite because it is directed to both an apparatus and a method. See IPXL Holdings, L.L.C. v. Amazon.com, Inc., 430 F.3d 1377 (Fed. Cir. 2005).

Shortly before the start of the March 12, 2019 hearing, the Court provided the parties with the following preliminary construction: “Claim 90 as a whole is not indefinite because it is not directed to both an apparatus and a method.”

a) The Parties’ Positions

The parties dispute whether Claim 90 as a whole is indefinite for claiming an apparatus that is defined by the performance of steps related to activation and/or authorization of a service. Plaintiffs argue that Claim 90 is a straightforward apparatus claim, and does not cover any method of use. (Dkt. No. 50 at 27). Plaintiffs contend that the preamble of Claim 90 plainly states that the invention is directed to a “proximity authorization unit,” and the body of the claim recites various

components of the unit and their functions. *Id.* Plaintiffs argue that there is no language in the claim requiring a “user” to engage in any actions. *Id.*

Plaintiffs further contend that Defendant incorrectly argues that Claim 90 is directed to both an apparatus and a method and therefore indefinite under *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377 (Fed. Cir. 2005). *Id.* Plaintiffs argue that the court in *IPXL* held indefinite a claim to a “system” that included a limitation that “the user uses the input means” in a particular way. *Id.* Plaintiffs argue that Defendant incorrectly contend that phrases in Claim 90 that describe certain claim element using active functional language transform Claim 90 into a method claim. *Id.* Plaintiffs contend that the phrases describe the functional capabilities of the recited “computer unit” and “communication unit,” rather than any particular step that must be performed by the user. (*Id.* at 28). Plaintiffs argue that this language therefore does not render the claim indefinite. (*Id.* at 28-29) (citing *UltimatePointer, L.L.C. v. Nintendo Co.*, 816 F.3d 816, 827 (Fed. Cir. 2016); *Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367 (Fed. Cir. 2008); *HTC Corp. v. ICom GmbH & Co., KG*, 667 F.3d 1270 (Fed. Cir. 2012)). According to Plaintiffs, the use of active verbs in Claim 90 to describe the functions of the “computer unit” and “communication unit” does not create any indefiniteness problems. *Id.*

Plaintiffs further argue that the language in Claim 90’s preamble of “each of the proximity service units providing a predetermined service when activated in response to receiving a request authorization code” simply describes the network environment in which the claimed device is intended to operate. (*Id.* at 29) (citing *Dkt. No. 50-2 at ¶ 67*). Plaintiffs contend that such a description does not create an *IPXL* issue. (*Id.* at 29) (citing *HTC*, 667 F.3d at 1277; *Huawei Techs. Co. v. T-Mobile US, Inc.*, No. 2:16-cv-00055-JRG-RSP, 2017 WL 2190103 (E.D. Tex. May 17, 2017)). Plaintiffs argue that the claim language of the proximity service units “providing a

predetermined service” defines the network environment in which the proximity authorization unit is intended to operate, and does not render the claim indefinite. (Id. at 30).

Defendant responds that Claim 90 as a whole is indefinite because it claims an apparatus that is defined by the performance of steps related to activation and/or authorization of a service. (Dkt. No. 52 at 23). Defendant argues that infringement would turn upon the user using the claimed device in a particular environment in a certain way, rather than the intrinsic capabilities of the claimed device alone. Id. According to Defendant, Claim 90 is indefinite because it claims both an apparatus and a method of use. (Id. at 24) (citing *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005)).

Specifically, Defendant contends that Claim 90 requires a step of unclaimed device (i.e., the proximity service units) providing a predetermined service when activated in response to receiving a request authorization code from the claimed device. Id. Defendant further argues that the claim requires its proximity authorization unit to perform at least one step of retrieving and two steps of outputting request authorization codes. Id. According to Defendant, Claim 90 is indefinite under IPXL for claiming an apparatus and method steps. Id.

Responding to Plaintiffs’ argument, Defendant first contends that the Federal Circuit has never held it necessary that a claim employ the word “user” before it may be ruled invalid for mixing claim types. (Id. at 25). Defendant argues that the Federal Circuit has previously found indefiniteness for claim type mixing without requiring a “user.” Id. (citing *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1339 (Fed. Cir. 2011)). Defendant next argues that the disputed limitations are not mere capabilities, and that the patentee knew when to use the phrase “capable of.” (Id. at 25-26).

Finally, Defendant argues that the method steps in the claim do not reflect merely the

environment in which the apparatus is intended to be used. (Id. at 26). Defendant contends that the patentee defined the claimed apparatus by it being used in a multi-step, multi-device process of sending a request, receiving the request, authorizing the request, and activating a service in response. Id. Defendant argues that the claim for a device has a limitation that requires something else (i.e., proximity service units) to perform a step of “providing a predetermined service when activated in response to receiving a request authorization code” in order for there to be infringement. Id.

Defendant next contends that the parties’ arguments over “request authorization code” highlight that the claim requires a performance of a step by the proximity service unit. Id. Defendant argues that the parties agree that it is a code that “authorizes” or that “activates” “a predetermined service upon receipt” by a proximity service unit. Id. According to Defendant, it depends on how the code is used by the proximity service unit upon receipt that determines whether it is a request authorization code. Id. Defendant argues that it would not know if it made a device that infringed unless it was used in an environment in which it and other devices performed the steps recited in the claims. Id. Defendant further argues that Plaintiffs’ expert admitted that the code itself is not defined by what it is within the claimed device, but rather how it is used within in a broader communications system. (Id. at 26-28) (citing Dkt. No. 52-1 at 21:14–20; 20:2–19, 22, 27–29; 28:25–29:10). Defendant contends that Plaintiffs expert’s testimony demonstrates that Claim 90 is not a mere apparatus claim, but is one directed to a process with multiple steps taking place within a system of several components. (Id. at 28) (citing Dkt. No. 52-1 at 13:3–18, 12:17–22).

Defendant also contends that Plaintiffs’ reliance on HTC and Huawei is distinguishable. (Id. at 29). Defendant argues that unlike those cases, the parties agree here that limitations of the

claim are defined by the performance of method steps, namely the “request authorization code” activating (or authorizing) a service by proximity service units. *Id.* According to Defendant, infringement would only become apparent if it were used in an environment in which the device transmitted the code and we learned whether or not the code was a “request authorization code” because it activated a service. *Id.*

Plaintiffs reply that the plain language of Claim 90 states that the claim is directed to “[a] proximity authorization unit.” (Dkt. No. 53 at 11). Plaintiffs contend that “each of the proximity service units providing a predetermined service” describes a property of the proximity service units, which are different devices in the network that Claim 90 does not cover. *Id.* (citing *Huawei Techs. Co. v. T-Mobile US, Inc.*, No. 2:16-cv-00055-JRG-RSP, 2017 WL 2190103 (E.D. Tex. May 17, 2017)).

Plaintiffs further argue that the fact that Claim 90 does not refer to any actions by a “user” is not a red herring, but rather highly relevant. *Id.* Plaintiffs also contend that *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331 (Fed. Cir. 2011), is inapposite because the claim recited a “data transmitting device” comprised of four structural elements and a final method element of “transmitting the trellis encoded frames.” (*Id.* at 12) (citing *Rembrandt* at 1339). Plaintiffs argue that Claim 90 does not have any separate method element. *Id.* According to Plaintiffs, each verb in the claim is tied to a structure (i.e., the proximity service units, the computer unit, and the communication unit). *Id.* Plaintiffs further argue that this Court’s *Traxcell* decision and the Federal Circuit decisions in *MasterMine*, *UltimatePointer*, and *Microprocessor Enhancement* all support that the active functional language in Claim 90 of “providing,” “retrieving,” and “outputting” does not create any IPXL indefiniteness issues. *Id.*

Plaintiffs next contend that Defendant incorrectly argues the patentee must have meant to

refer to method steps whenever a verb appears without the corresponding language “capable of.” Id. Plaintiffs contend that this argument fails in light of the cited cases such as Huawei, MasterMine, UltimatePointer, and Microprocessor Enhancement where the use of active verbs without any “capable of” language was held to be not indefinite under IPXL. Id. Plaintiffs argue that the patentee used the “capable of” language in Claim 90 simply to distinguish between two different sets of proximity service units—those that are “capable of” receiving a first signal, and those that are “capable of” receiving a second signal. (Id. at 13).

Plaintiffs also contend that Defendant incorrectly argues that it cannot know if a device infringes Claim 90 unless it is used in an environment in which it and other devices perform certain steps. Id. Plaintiffs argue that their expert, Dr. Sirovica, testified that one can determine whether a device infringes Claim 90 by reviewing its technical specification. Id. (citing Dkt. No. 52-1 at 20:2-21:13, 22:2-11, 23:5-15). Finally, Plaintiffs contend that Defendant mischaracterizes Dr. Sirovica’s testimony when it asserts that he understood Claim 90 to be a method claim. Id. According to Plaintiffs, Defendant’s counsel was asking Dr. Sirovica to describe the “steps” of the authorization process, not whether the claim was directed to a method. Id. Plaintiffs contend that Dr. Sirovica believes that Claim 90 is an apparatus claim only. Id. (citing Dkt. No. 52-1 at 12:14-16).

For the following reasons, the Court finds that Claim 90 of the ’443 Patent is not indefinite under IPXL, and that the disputed clauses should be given their plain and ordinary meaning.

b) Analysis

Claim 90 is reproduced below:

90. A proximity authorization unit for use with proximity service units, some of the proximity service units being capable of receiving information via a first signal and some of the proximity service units being capable of receiving information via a second signal, the second signal being different from the first signal, and each of

the proximity service units providing a predetermined service when activated in response to receiving a request authorization code, the proximity authorization unit comprising:

- a portable housing;
- a computer unit supported by the housing and having the request authorization code stored therein; and
- a communication unit supported by the housing, the computer unit retrieving the request authorization code and the communication unit outputting the request authorization code on the first signal for communication to the proximity service units capable of receiving the first signal, and the communication unit outputting the request authorization code via the second signal to the proximity service units capable of receiving the second signal.

²443 Patent at 49:36–56. As indicated, Claim 90 recites the apparatus of “a proximity authorization unit.” The claim further recites that “the proximity authorization unit” includes (1) a portable housing, (2) a computer unit, and (3) a communication unit. The claim also recites functional language such as “receiving,” “providing,” “retrieving,” and “outputting.” Under Federal Circuit precedent, it is clear that Claim 90 recites an apparatus using functional language to denote structure of the apparatus rather than actual operation of the apparatus.

Contrary to Defendant’s contention, active functional language is properly used in apparatus claims to denote capability of the apparatus. As the Federal Circuit explained in *Mastermine Software, Inc. v. Microsoft Corp.*, functional language may properly be used to denote structure of the recited apparatus: “[active] verbs represent permissible functional language used to describe capabilities of the [apparatus].” 874 F.3d 1307, 1315–16 (Fed. Cir. 2017). The claim at issue in *Mastermine* included “a reporting module” that “presents a set of user-selectable database fields,” “receives from the user a selection of one or more user-selectable database fields,” and “generates a database query.” *Id.* at 1315 (emphasis in original). The Federal Circuit explained that while the claim recited active verbs—presents, receives, generates—these “merely claim that the system possesses the recited structure which is capable of performing the recited functions.” *Id.* at 1316 (quotation and modification marks

omitted).

According to Mastermine, Federal Circuit precedent has consistently approved using functional language to denote machine structure by denoting capability. As examples of such approval, Mastermine cites *Microprocessor Enhancement Corp. v. Tex. Instruments Inc.*, 520 F.3d 1367 (Fed. Cir. 2008); *HTC Corp. v. IPCom GmbH & Co., KG*, 667 F.3d 1270 (Fed. Cir. 2012); and *UltimatePointer, L.L.C. v. Nintendo Co.*, 816 F.3d 816 (Fed. Cir. 2016). Mastermine, 874 F.3d at 1313–16. In *Microprocessor Enhancement*, claim recitation of a “logic pipeline stage . . . performing a boolean algebraic evaluation . . . and producing an enable-write” was deemed “clearly limited to a pipeline processor possessing the recited structure and capable of performing the recited functions, and is thus not indefinite under *IPXL Holdings*.” Mastermine, 874 F.3d at 1315 (emphasis in original, quotation marks omitted).

In *HTC Corp.*, claim recitation of a “mobile station for use with a network . . . that achieves a handover by: storing link data . . . holding in reserve for the link resources . . . maintaining a storage of the link data . . . causing the resources . . . to remain held in reserve . . . deleting the link data . . . and freeing up the resources” was deemed to “merely establish those functions as the underlying network environment in which the mobile station operates.” Mastermine, 874 F.3d at 1314–15 (emphasis in original, quotation marks and modifications omitted). In *Ultimate Pointer*, claim recitation of “an image sensor . . . generating data” was deemed to be “clear that the ‘generating data’ limitation reflects the capability of that structure rather than the activities of the user, and do not reflect an attempt to claim both an apparatus and a method, but instead claim an apparatus with particular capabilities.” Mastermine, 874 F.3d at 1315 (emphasis in original, quotation marks omitted).

The Court finds that the functional language in Claim 90 of the ’443 Patent, including

“receiving,” “providing,” “retrieving,” and “outputting” is used in the same manner as the functional language in *Microprocessor Enhancement*, *HTC Corp., Ultimate Pointer*, and *Mastermine*. That is, the language denotes the structure of the apparatus, not actual use of the apparatus. Moreover, the functional language in Claim 90 does not indicate that the claim is directed to both an apparatus and a method. Rather, Claim 90 is directed to an apparatus with particular capabilities. Those capabilities, defined by functional language, denote structure. Finally, as the Federal Circuit concluded in *Mastermine*:

These claims are also distinguishable from those at issue in *IPXL Holdings* and *Katz*, as the claims here do not claim activities performed by the user. . . . [Theses claims] claim the system’s capability to receive and respond to user selection. The limitations at issue here (“receiv[ing] from the user a selection” and “generat[ing] a database query as a function of the user selected database fields”) focus on the capabilities of the system, whereas the claims in *IPXL Holdings* (“the user uses the input means”) and *Katz* (“said individual callers digitally enter data”) focus on specific actions performed by the user. Moreover, unlike the claims in *Rembrandt*, the functional language here does not appear in isolation, but rather, is specifically tied to structure: the reporting module installed within the CRM software application.

Mastermine, 874 F.3d at 1316. Here, unlike *IPXL* and *Katz*, the phrases describe the functional capabilities of the recited “computer unit” and “communication unit,” rather than any particular step that must be performed by the user. Similarly, unlike *Rembrandt*, each verb in Claim 90 is tied to a structure (i.e., the proximity service units, the computer unit, and the communication unit). Accordingly, the Court finds that Defendant has not proven that Claim 90 of the ’443 Patent is indefinite. Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the parties, and given it its proper weight in light of the intrinsic evidence.

c) Court’s Construction

The Court finds that Claim 90 of the ’443 Patent is not indefinite under *IPXL*, and the disputed clauses will be given their plain and ordinary meaning.

6. “controlled from a central control center”

<u>Disputed Term</u>	<u>Plaintiffs’ Proposal</u>	<u>Defendant’s Proposal</u>
“The proximity authorization unit of claim 90, wherein the communication unit is a low power communication unit not two way connected to a wireless communication network controlled from a central control center.”	Not indefinite. The term “low power communication unit” has a definite construction, set forth above. Also, the phrase “. . . not two way connected to a wireless communication network controlled from a central control center” has a definite meaning that the communication unit is not communicating over a cell phone network.	Indefinite.

Shortly before the start of the March 12, 2019 hearing, the Court provided the parties with the following preliminary construction: “Plain and ordinary meaning (Rejecting Plaintiffs’ construction that “wireless communication network controlled from a central control center” should be limited to a “cell phone network”).”

a) The Parties’ Positions

The parties dispute whether the phrase “controlled from a central control center,” recited in Claim 91, is ambiguous and renders the claim indefinite. Plaintiffs argue that the claim language is not indefinite. (Dkt. No. 50 at 30). According to Plaintiffs, one of ordinary skill in the art would understand this to mean that the communication unit is not using a cellular network to transmit and receive data. *Id.* Plaintiffs argue that cell phone networks were commonly known as wireless communication networks controlled from a central control center, with the “central control center” being the operational hub of the network provider. (*Id.* at 31) (citing Dkt. No. 50-2 at ¶72). Plaintiffs further argue that one of ordinary skill in the art would therefore understand that the claim language stating that the communication unit is “not two way connected to a wireless

communication network controlled from a central control center” means that the communication unit is not communicating over a cell phone network. Id.

Plaintiffs further contend that the specification describes one advantage of the invention is to allow the proximity authorization device to access services without the need for communications over a cellular network or other centrally-controlled network that requires usage fees. Id. (citing ’443 Patent at 2:23–28). Plaintiffs also contend that the specification describes the proximity authorization unit as a device that “can serve as an inexpensive communication device without the wireless service provider costs attached.” Id. (citing ’443 Patent at 2:39–44). Plaintiffs further argue that this emphasizes that the invention saves the user money because it enables wireless communications where “a commercial communication service provider, such as Air Touch Communications, Sprint or the like, is not activated and the user or customer is not charged air time.” Id. (citing ’443 Patent at 4:41–53, 39:25–28). According to Plaintiffs, the specification supports that “not two way connected to a wireless communication network controlled from a central control center” means that the communication unit is not communicating over a cell phone network. Id. (citing Dkt. No. 50-2 at ¶¶73-74).

Defendant responds that Claim 91 is indefinite because it is unclear what is “controlled from a central control center.” (Dkt. No. 52 at 30). Defendant argues that one possible interpretation is that it is the “wireless communication network” that is “controlled from a central control center.” Id. Defendant further argues that a second possible interpretation is that it may be the “communication unit” that is “controlled from a central control center” while also being “not two way connected to a wireless communication network.” Id. According to Defendant, each reading is grammatically possible, and the specification provides no further clarity as to which was intended. Id.

Defendant further argues that Plaintiffs do not show where the specification expressly explains or requires the “wireless communication network” that is “controlled from a central control center.” (Id. at 31). Defendant contends that Plaintiffs leap right to the conclusion that “two way connected to a wireless communication network controlled from a central control center” must mean only a cell phone network. Id. Defendant argues that this express connection between a cell phone network, “two way,” and a “central control center” is not found in the specification, because the patent never mentions a “central control center” at all. Id.

Defendant further argues that the only discussion of a “control center” is aligned with the alternative meaning that it is the claimed device, and its communications with the proximity service unit that is controlled by the central control. Id. According to Defendant, the patent discloses various examples of one-way automatic wireless service activation, which it distinguishes from various examples involving a more complicated two-way wireless activation procedure. Id. Defendant argues that “two-way” appears in the specifications most prominently at 14:11–12. Id. Defendant also argues that the specification emphasizes a preferred embodiment of proximity authorization units that can activate a service by one-way transmission only, simply by coming into range with a proximity service unit. (Id. at 32) (citing ’443 Patent at 14:13–15). Defendant next argues that the specification also describes “more expensive” two-way wireless communication models and two-way activation procedures. Id. (citing ’443 Patent at 21:62, 22:4–7, 32:31–34, 40:19–38, 40:28–33, 20:24–25, 20:30, 20:35–36, 20:39–40).

Defendant further contends that the specification’s description of one-way automatic service activation (as opposed to two-way wireless service activation) is at odds with Plaintiffs’ argument that the claim refers to the “central control center” being the “operational hub of the network provider.” (Id. at 33). Defendant argues that both are grammatically correct interpretations

of the claim. *Id.* According to Defendant, the '443 Patent provides no guidance requiring either interpretation to give it meaning with reasonable certainty to a person of ordinary skill in the art, so this term is indefinite. *Id.*

Plaintiffs reply that Defendant incorrectly argues that there are two equally reasonable readings of Claim 91. (Dkt. No. 53 at 13). Plaintiffs contend that “controlled from a central control center” is a participial phrase that appears immediately after the term “wireless communication network.” *Id.* According to Plaintiffs, the most natural read is that it is the wireless communication network that is “controlled from a central control center,” not the communication unit. *Id.* Plaintiffs further argue that Defendant’s references to the specification’s discussion of one-way and two-way systems do not support its position. *Id.* According to Plaintiffs, Defendant fails to show that these disclosures have anything to do with a “central control center.” *Id.*

For the following reasons, the Court finds that the phrase “[t]he proximity authorization unit of Claim 90, wherein the communication unit is a low power communication unit not two way connected to a wireless communication network controlled from a central control center” is not indefinite, and should be given its plain and ordinary meaning.

b) Analysis

The Court finds that the language of Claim 91, when read in light of the specification and the prosecution history, informs, 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 Court further finds that a person of ordinary skill in the art would understand the phrase “not two way connected to a wireless communication network controlled from a central control center” means that the communication unit is not using a cellular network to transmit and receive data. Plaintiffs’ expert, Dr. Dean Sirovica, opines that cell phone networks were commonly known as wireless

communication networks controlled from a central control center, where the “central control center” is the operational hub of the network provider. Dkt. No. 50-2 at ¶ 72. Thus, the Court is persuaded that a person of ordinary skill would understand that the claim language of “not two way connected to a wireless communication network controlled from a central control center” means that the communication unit is not communicating over a cell phone network.

This extrinsic evidence is consistent with the specification, which states that one of the advantages of the invention is allowing the proximity authorization device to access services without the need for communications over a cellular network or other centrally-controlled network that requires usage fees. For example, the Summary of the Invention section states that the proximity authorization unit (also referred to in the patent as the “MPSU”) as “an alternative to having to pay for high power wireless communication devices and/or services, such as a cell phone or pager or hand held computer with wireless communication features” ’443 Patent at 2:23–28. The specification also describes the proximity authorization unit as a device that “can serve as an inexpensive communication device without the wireless service provider costs attached.” *Id.* at 2:39–44.

The specification further emphasizes that the invention saves the user money because it enables wireless communications where “a commercial communication service provider, such as Air Touch Communications, Sprint or the like, is not activated and the user or customer is not charged air time.” *Id.* at 4:41–53; see also *id.* at 39:25–28 (“Thus multiple customers can have the convenience of using their proximity authorization units 2910 without having to pay for air time when in the vicinity of the public communication unit 50.”). Thus, the intrinsic evidence indicates that “not two way connected to a wireless communication network controlled from a central control center” means that the communication unit is not communicating over a cell phone

network.

Defendant argues that the claim is indefinite because it is unclear what is “controlled from a central control center.” (Dkt. No. 52 at 30). Defendant also argues that one possible interpretation is that it is the “wireless communication network” that is “controlled from a central control center.” *Id.* Defendant further contends that an alternative interpretation is that it may be the “communication unit” that is “controlled from a central control center” while also being “not two way connected to a wireless communication network.” *Id.* According to Defendant, “[e]ach reading is grammatically possible,” and this ambiguity renders the claim indefinite. *Id.*

In order to meet the “exacting standard” to prove indefiniteness, an accused infringer must demonstrate by clear and convincing evidence that the claims, read in light of the specification and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention. *Nautilus*, 134 S. Ct. at 2124. Here, as discussed above, the phrase “not two way connected to a wireless communication network controlled from a central control center,” satisfies the *Nautilus* standard because, the claim language, in view of the specification and prosecution history, inform a person of ordinary skill about the scope of the invention.

Regarding Plaintiffs’ construction for the phrase “not two way connected to a wireless communication network controlled from a central control center,” the Court agrees that one possible “wireless communication network controlled from a central control center” would be “a cell phone network.” However, this is not necessarily the only wireless communication network that may be controlled from a central control center.” Accordingly, Plaintiffs’ construction would improperly restrict the meaning of “wireless communication network” to cell phone networks. Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the parties, and given it its proper weight in light of the intrinsic evidence.

c) Court's Construction

The phrase “[t]he proximity authorization unit of Claim 90, wherein the communication unit is a low power communication unit not two way connected to a wireless communication network controlled from a central control center” is not indefinite, and will be given its plain and ordinary meaning.

V. CONCLUSION

The Court adopts the above constructions. The parties are ordered to not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any part of this opinion, other than the definitions adopted by the Court, in the presence of the jury. However, the parties are reminded that the testimony of any witness is bound by the Court's reasoning in this order but any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

SIGNED this 10th day of May, 2019.


ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE