

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

IPCOM GMBH & CO. KG,

Plaintiff,

v.

AT&T CORP., AT&T
COMMUNICATIONS, LLC, AT&T
MOBILITY LLC, AT&T MOBILITY II
LLC, AT&T SERVICES INC,

VERIZON COMMUNICATIONS INC,
CELLCO PARTNERSHIP D/B/A
VERIZON WIRELESS, VERIZON
BUSINESS NETWORK SERVICES INC,
VERIZON SERVICES CORP, VERIZON
ENTERPRISE SOLUTIONS, LLC,
VERIZON BUSINESS GLOBAL, LLC,
VERIZON BUSINESS NETWORK
SERVICES, LLC, VERIZON
CORPORATE SERVICES GROUP INC,
VERIZON DATA SERVICES LLC,
VERIZON ONLINE LLC, NOKIA OF
AMERICA CORPORATION,

Defendants,

NOKIA OF AMERICA CORPORATION,
ERICSSON INC.,

Intervenors.

Case No. 2:20-CV-00322-JRG
(LEAD CASE)

Case No. 2:20-CV-00323-JRG
(MEMBER CASE)

CLAIM CONSTRUCTION MEMORANDUM OPINION AND ORDER

Before the Court is the opening claim construction brief of IPCom GmbH & Co. KG (“Plaintiff”) (Dkt. No. 89),¹ the response of AT&T Corp., AT&T Communications LLC, AT&T

¹ 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.

Mobility, AT&T Mobility II LLC, AT&T Services Inc., Ericsson Inc., Verizon Communications Inc., Cellco Partnership D/B/A Verizon Wireless, Verizon Business Network Services LLC, Verizon Services Corp., Verizon Enterprise Solutions LLC, Verizon Business Global LLC, Verizon Corporate Services Group Inc., Verizon Data Services LLC, Verizon Online LLC, Nokia of America Corporation (collectively “Defendants”) (Dkt. No. 99), and Plaintiff’s reply (Dkt. No. 101). The Court held a hearing on the issues of claim construction and claim definiteness on August 24, 2021. Having considered the arguments and evidence presented by the parties at the hearing and in their briefing, the Court issues this Order.

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I. BACKGROUND

Plaintiff alleges infringement of six U.S. Patents: No. 6,813,261 (the “’261 Patent”), No. 6,983,147 (the “’147 Patent”), No. 7,006,463 (the “’463 Patent”), No. 7,333,822 (the “’822 Patent”), No. 7,778,310 (the “’310 Patent”), and No. 10,382,909 (the “’909 Patent”) (collectively, the “Asserted Patents”).

II. LEGAL PRINCIPLES

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 not helpful to a court. *Id.* Extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.* The Supreme Court has 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., 574 U.S. 318, 331–32 (2015).

B. 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).

C. Functional Claiming and 35 U.S.C. § 112, ¶ 6 (pre-AIA) / § 112(f) (AIA)

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) (§ 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 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. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008).

D. 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.*, 572 U.S. 898, 910 (2014). If it does not, the claim fails § 112, ¶ 2 and is therefore invalid as indefinite. *Id.* at 901. 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 911. 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. *BASF Corp. v. Johnson Matthey Inc.*, 875 F.3d 1360, 1365 (Fed. Cir. 2017). “[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). The standard “must provide objective boundaries for those of skill in the art.” *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014).

In the context of a claim governed by 35 U.S.C. § 112, ¶ 6, the claim is invalid as indefinite if the claim fails to disclose adequate corresponding structure to perform the claimed function. *Williamson*, 792 F.3d at 1351–52. The disclosure is inadequate when one of ordinary skill in the

art “would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim.” *Id.* at 1352.

III. CONSTRUCTION OF DISPUTED TERMS

A. U.S. Patent Nos. 7,333,822 and 10,382,909

The '822 and '909 Patents are related through continuation and division applications and each lists an earliest priority claim to a German patent application filed on February 2, 2000. The '822 Patent was the subject of reexamination from which Inter Partes Reexamination Certificate (688th) issued on September 13, 2013.

The abstract of the '822 Patent provides:

A method is provided for transmitting messages, for example, in a telecommunications network, in which a first message service and a second message service are available. Dedicated messages of the first message service are sent using messages of the second message service. An exemplary method may permit an optimized transmission scheme to be maintained for the dedicated messages of the first message service.

Claim 1 of the '822 Patent provides (with terms in dispute emphasized in bold, italics indicates additions during reexamination, brackets indicate deletions during reexamination):

1. A method for transmitting messages in a telecommunications network including a first message service and a second message service, *the first message service having a dedicated, first group of messages*, the method comprising:
sending **a message of the dedicated, first group of messages of the first message service** using [messages] *a short message* of the second message service, the second message service being a short message service, [a] **the short message being provided with a header portion and a [first] data portion**, *the data portion* including an identification of a type of *the* message of the first message service;
wherein the short message includes an identifier in the [first] data portion [of the short message] for indicating a presence of[a]*the* message of the first message service *in the data portion*, and wherein the identifier is distinct from the message of the first message service;
wherein the first message service includes an MMS message service and the second message service includes an SMS message service[,] ; and
wherein the dedicated, first group of messages of the first message service includes at least one of the following messages: dedicated MMS user messages, notification of the presence of a *second message of the first*

message service on the MMS server, [logging on to] an MMS session establishment message, an MMS session establishment receipt [for the logging on], explicit request for a notification from [the] an MMS relay, confirmation of reception of sent [MMs] MMS messages in the MMS relay, confirmation of success in sending [MMs] MMS messages to other users, acknowledgment of success/ failure in delivering [an MM] MMS messages, and a message triggering automatic [MM-download] MMS message-download.

The abstract of the '909 Patent provides:

The present invention provides a method for transmitting messages in a telecommunications network, in which a first message service and a second message service are available. Dedicated messages of the first message service are sent, using messages of the second message service. The method of the present invention has the particular advantage, that an optimized transmission scheme can be maintained for the dedicated messages of the first message service.

Claim 1 of the '909 Patent provides (with terms in dispute emphasized):

A method for transmitting multimedia messages of a multimedia message service using short messages of a short message service in a telecommunications network, the method comprising:
embedding *a multimedia message of a multimedia message service* within a data portion of a short message of a short message service, the data portion following a header portion of the short message;
including in said short message a first identifier indicating that said multimedia message is present in said data portion;
including in the data portion of the short message a second identifier indicating a type of said multimedia message; and
transmitting the short message to a receiver.

A-1. “a message of the dedicated, first group of messages of the first message service” and “a multimedia message of a multimedia message service”

Disputed Term³	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“a message of the dedicated, first group of messages of the first message service” <ul style="list-style-type: none"> • ’822 Patent Claim 1 	a message formatted according to that service or a native message of that service selected from among the dedicated, first group of messages	a message formatted according to the first message service, in other words a “native” message of that service, but not a message containing information about a message of that service
“a multimedia message of a multimedia message service” <ul style="list-style-type: none"> • ’909 Patent Claim 1 	a message formatted for or native to a MMS message service	a multimedia message formatted according to a multimedia message service, in other words a “native” message of that service, but not a message containing information about a message of that service

Because the parties’ arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties’ Positions

Plaintiff submits: During reexamination of the ’822 Patent, the PTAB construed “a message of the dedicated, first group of messages of the first message service” as “a message formatted according to that service, or a ‘native’ message of that service selected from among the dedicated, first group of messages.” This does not exclude messages that contain information about a message of the service, as Defendants propose. In reexamination, the patentee distinguished prior art not on the ground that it contained information about a message of the service, but rather on the ground

³ For all term charts in this order, the claims in which the term is found are listed with the term but: (1) only the highest-level claim in each dependency chain is listed, and (2) only asserted claims identified in the parties’ P.R. 4-5 Joint Claim Construction Chart (Dkt. No. 103) are listed.

that it did not teach a message formatted according to the service or a message native to the service. In other words, the prior art taught a message that merely contained information about a specially formatted or native message without being a specially formatted or native message. Further, the “multimedia message” of the ’909 Patent claims is “not limited to a message that includes multimedia content.” In fact, Claims 7 and 8 of the ’909 Patent recite that the multimedia message may be selected from a group that includes messages without multimedia. Dkt. No. 89 at 6–10, 15–17.

In addition to the claims themselves, Plaintiff cites the following **intrinsic evidence** to support its position: ’822 Patent col.4 ll.44–52, col.5 ll.57–62; ’909 Patent col.1 ll.43–47, col.3 ll.26–30, col.3 ll.60–61, col.3 l.66 – col.4 l.7, col.4 ll.13–19, col.4 ll.34–49, col.5 ll.9–12; ’822 Patent File Wrapper February 9, 2010 Amendment and Response⁴ at 12 (Plaintiff’s Ex. 11, Dkt No. 89-12 at 13), December 17, 2010 Respondent Brief⁵ at 2–3, 9–10 (Plaintiff’s Ex. 9, Dkt. No. 89-10 at 3–4, 10–11), May 16, 2012 Record of Oral Hearing⁶ at 28:18 – 29:1, 34:6 – 35:12, 46:10–16 (Plaintiff’s Ex. 10, Dkt. No. 89-11 at 29–30, 35–36, 47), May 30, 2013 Decision on Appeal⁷ at 10–11, 13 (Plaintiff’s Ex. 8, Dkt. No. 89-9 at 11–12, 14); ’909 Patent File Wrapper April 8, 2014 Application at 8, 10 (Plaintiff’s Ex. 20, Dkt. No. 89-21 at 9, 11), May 23, 2016 Amendment and Response at 6–7, 10 (Plaintiff’s Ex. 18, Dkt. No. 89-19 at 7–8, 11), November 18, 2016 Appeal Brief at 3, 8, 11, & nn.2–3 (Plaintiff’s Ex. 19, Dkt. No. 89-20 at 4, 9, 12).

⁴ Patent Owner’s Amendment and Response to Office Action in Inter Partes Reexamination, Inter Partes Reexamination 95/001,211 (Feb. 9, 2010).

⁵ Respondent Brief, *HTC Corp. v IPCOM GMBH*, Appeal 2012-001645, Inter Partes Reexamination 95/001,211 (P.T.A.B. Dec. 17, 2010).

⁶ Oral Hearing Held May 16, 2012, *HTC Corp. v IPCOM GMBH*, Appeal 2012-001645, Inter Partes Reexamination 95/001,211 (P.T.A.B.).

⁷ Decision on Appeal, *HTC Corp. v IPCOM GMBH*, Appeal 2012-001645, Inter Partes Reexamination 95/001,211 (P.T.A.B. May 30, 2013).

Defendants respond: In reexamination of the '822 Patent, the PTAB set forth a construction in which the phrase “‘native’ message of that service” is used as an equivalent way of articulating “a message formatted according to that service.” In fact, the patentee repeatedly distinguished prior art on the grounds that the art did not teach a “native” message and the PTAB found the prior art lacked a “native” message without reference to any alternative “a message formatted according to that service.” Further, during prosecution of the reexamination of the '822 Patent, the patentee disclaimed messages that contained information about a message of that service. This does not “exclude all notification messages, only those that include ‘information about a message of that service’ rather than the multimedia message itself.” Finally, “multimedia message,” as that term is used in the '909 Patent and in the art, must support various types of media. It is “not the singular media of text only” that Plaintiff proposes. Dkt. No. 99 at 7–14.

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** '909 Patent col.3 ll.7–10; '822 Patent File Wrapper February 9, 2010 Amendment and Response at 10, 19–20 (Defendants' Ex. F, Dkt. No. 99-7 at 11, 20–21), December 17, 2010 Respondent Brief at 2 (Defendants' Ex. E, Dkt. No. 99-6 at 3), May 30, 2013 Decision on Appeal at 10–12, 17 (Defendants' Ex. A, Dkt. No. 99-2 at 12–14, 19); '909 Patent File Wrapper May 23, 2016 Amendment and Response at 11 (Defendants' Ex. C, Dkt. No. 100-1 at 12), November 18, 2016 Appeal Brief at 10–11, 14–15 (Defendants' Ex. D, Dkt. No. 99-5 at 11–12, 15–16), January 18, 2019 Decision on Appeal at 4 (Defendants' Ex. G, Dkt. No. 99-8 at 5). **Extrinsic evidence:** *The American Heritage College Dictionary* at 977 (4th ed. 2004), “or” (Defendants' Ex. B, Dkt. No. 99-3 at 6); *IEEE 100* (7th ed. 2000), “multimedia” (Defendants' Ex. H, Dkt. No. 99-9 at 5); *Oxford Dictionary of Computing* at 343 (5th ed. 2004), “multimedia” (Defendants' Ex. I, Dkt. No. 99-10 at 5); *Newton's Telecom Dictionary* at 456 (17th

ed. 2001), “multi-media” (Defendants’ Ex. J, Dkt. No. 99-11 at 5); *Computer Desktop Encyclopedia* at 642 (9th ed. 2001), “multimedia” (Defendants’ Ex. K, Dkt. No. 99-12 at 5).

Plaintiff replies: During prosecution of the ’822 and ’909 Patents, “the patentee did not distinguish prior art on the ground that the SMS failed to include a multimedia-containing MMS message. Instead, none of the art disclosed that the SMS included any MMS message at all, i.e., a message native to or formatted for an MMS service” (Plaintiff’s emphasis). Further, the patentee did not disclaim any message that contained information about a MMS message. Rather, “the patentee explained that instead of including an actual MMS message as required by the claim, the [prior art] SMS only contained information about an MMS message” (Plaintiff’s emphasis). As used in the ’822 and ’909 Patents and during prosecution, “multimedia message” denotes a message of a Multimedia Messages Service (MMS), not that the message necessarily has multimedia content. Dkt. No. 101 at 4–8.

Plaintiff cites further **intrinsic evidence** to support its position: ’822 Patent col.1 l.16, col.4 ll.44–61; ’822 Patent File Wrapper February 9, 2010 Amendment and Response at 2, 10, 18–20 (Defendants’ Ex. F, Dkt. No. 99-7 at 3, 11, 19–21), May 16, 2012 Record of Oral Hearing at 43:15 – 44:8 (Plaintiff’s Ex. 10, Dkt. No. 89-11 at 44–45), May 30, 2013 Decision on Appeal at 16–17 (Plaintiff’s Ex. 8, Dkt. No. 89-9 at 17–18); ’909 Patent File Wrapper November 18, 2016 Appeal Brief at 8–11, 14 (Plaintiff’s Ex. 19, Dkt. No. 89-20 at 9–12, 15), January 18, 2019 Decision on Appeal at 4 (Defendants’ Ex. G, Dkt. No. 99-8 at 5).

Analysis

There are three issues in dispute. First, whether a “native” message of a message service is equivalent to a message formatted according to the messaging service. It is. Second, whether these terms necessarily exclude all messages that contain information about a message of the messaging

service. They do not. Third, whether a “a multimedia message of a multimedia message service” necessarily includes multimedia content. It does not.

As used by the patent owner and the PTAB, a “native” message of a message service is the same as a message formatted according to the message service. For example, the patent owner explained that the ’822 Patent is directed to embedding “native MMS messages inside SMS messages”:

The ’822 patent addresses a need that existed in the art at the time the underlying application was filed. As the inventors noted in the background section of the ’822 patent, the evolving MMS specifications contemplated the use of the short message service (SMS) protocol pull-push functionality to trigger automatic downloads of MMS messages, but provided no guidance as to how SMS messages could be used for such purposes. Specifically, the ’822 patent notes at col. 3, line 62 - col. 4, line 2 that:

3G TS 23.140, MMS Stage 2, v.1.0.0, 3GPP TSG T WG 2, November 1999, also provides for the triggering of automatic downloading of messages by an SMS (pull-push). The above-described functionality and messages regarding the MM are written in the applications level, but their implementation is open. This functionality and the messages, as well as similar functionality and messages, may be implemented in many different forms.

The ’822 patent provided novel implementations that the prior art MMS specifications lacked.

Rather than converting MMS messages to ASCII text (col. 1, lines 40 - 45) or otherwise adapting the MMS message content for delivery as SMS (or WAP) message content, ***the ’822 patent proposed to embed native MMS messages inside SMS messages and provided a new scheme for identifying the embedded MMS message as such.*** Particularly, the inventors proposed adding new identifiers and other elements to the header portion and/or data portion of an SMS message to identify and define an MMS message included within the data portion of the SMS message. Further, given the size constraints of SMS messages, ***the patent teaches that a dedicated group of MMS messages are transmitted within SMS messages.*** Col. 4, lines 47 - 67. The patent teaches that other (i.e., larger) MMS messages can be transmitted using other transmission schemes, such as “GSM circuit switched data or GPRS general packet radio service or UMTS circuit or packet switched data.” Col. 4, lines 22 - 29.

'822 Patent File Wrapper December 17, 2010 Respondent Brief at 2 (emphasis added), Dkt. No. 99-6 at 3. The patent owner further explained that a message is “native” to the multimedia message service when it is “formatted according to the MMS protocol”:

While MMS Dec. '99 mentions that a “multimedia message notification” (sec. 8.3.2) and a “MMS delivery report” (sec. 8.3.5) may each be realized using WAP Push and SMS as bearer, this does not necessarily mean that ***a native MMS message, i.e., a message formatted according to the MMS protocol***, such as those identified in the '822 patent, must be included in a WAP Push message.

Id. at 3 (emphasis added), Dkt. No. 99-6 at 4. The PTAB likewise understood that a “native” message of a message service is one that is formatted according to that message service:

In addition, each independent claim recites the following step: “sending a message of the dedicated, first group of messages of the first message service.” ***It is clear from the Specification (FF 3) that a message of the first message service is a message formatted according to that message service.*** We determine that one of ordinary skill in the art at the time the application for the '822 Patent was filed would have interpreted “message of the first message service” to be ***messages formatted according to that service so that they would be of that service.*** Information about a message of that service or about that service would not necessarily be of that service. Thus, we determine that “a message of the dedicated, first group of messages of the first message service” to be ***a message formatted according to that service, or a “native” message of that service*** selected from among the dedicated, first group of messages. This interpretation is in line with the examiner's interpretation of claims as well (RAN 4-6).

'822 Patent File Wrapper May 30, 2013 Decision on Appeal at 10–11 (emphasis added), Dkt. No. 89-9 at 11–12. Ultimately, the reexamination record is clear and unequivocal that a “native” message of a message service is one that is formatted according to the message service.

The patent owner did not disclaim all messages that include information about a message of a multimedia message service. During prosecution of the reexamination of the '822 Patent, the patent owner distinguished between the then-pending claims and the prior art in that the prior-art messages were merely messages about a message of a multimedia messaging service rather than being a native message of that service. For example, the patent owner explained:

The Office Action acknowledges at page 16 that the anticipation rejections based on the Sivula reference are premised on a possible interpretation of the original claims of the Laumen patent not requiring the message of the first message service (*i.e.*, the MMS message) to be present within the data portion of the message of the second message service (*i.e.*, the SMS message). As noted above, the present amendments are intended to clarify that issue. ***All independent claims now more clearly require the message of the first message service to be present in the data portion of the short message.*** Accordingly, the anticipation rejections of the pending claims based on the Sivula reference should be withdrawn.

The obviousness rejections based on the Sivula reference are substantially similar to the rejections based on the Nokia reference with respect to Issue 4. Specifically, as acknowledged by the Office Action on page 17, the Sivula reference teaches that an SMS message sent to a mobile station includes text that identifies a multimedia message and an address from which the multimedia message can be retrieved. Thus, ***the identified multimedia message is not present within the SMS message. The Sivula reference is simply not applicable to the pending claims of the Laumen patent, which require an MMS message to be present within the data portion of an SMS message.***

'822 Patent File Wrapper February 9, 2010 Amendment and Response at 19–20 (emphasis added), Dkt No. 89-12 (20–21). Indeed, the PTAB understood the patent owner's argument to be about the distinction between including a multimedia message within a SMS message and simply including information about a multimedia message in a SMS message:

We determine that one of ordinary skill in the art at the time the application for the '822 Patent was filed would have interpreted “message of the first message service” to be messages formatted according to that service so that they would be of that service. ***Information about a message of that service or about that service would not necessarily be of that service.***

'822 Patent File Wrapper May 30, 2013 Decision on Appeal at 10–11 (emphasis added), Dkt. No. 89-9 at 11–12. This is not a clear and unequivocal disclaimer of any “message containing information about a message of that service.”

The “multimedia message” of the '909 Patent refers to a message of a multimedia message service rather than to a message that necessarily includes multimedia content. The claims of the

'909 Patent provide significant context informing the meaning of the term. Specifically, Claims 7 and 8 of the patent provide:

7. The method of claim 1, wherein the multimedia message is selected from a predefined group of MMS messages.

8. The method of claim 7, wherein *the predefined group of MMS messages comprises* MMS notification messages, MMS session establishment messages, MMS session establishment receipt messages, MMS notification-query messages, MMS acknowledgement messages, and MMS pull-push messages.

'909 Patent col.8 ll.40–47 (emphasis added). These claims expressly recite “MMS notification messages, MMS session establishment messages, MMS session establishment receipt messages, MMS notification-query messages, MMS acknowledgement messages, and MMS pull-push messages” as exemplary multimedia messages. These messages do not necessarily contain multimedia content. Indeed, the applicant explained the meaning of “multimedia message” during prosecution of the '909 Patent:

Appellant submits that the proper interpretation of “a multimedia message of a multimedia service,” as recited in claims 1 and 11, is “a message formatted for or native to a MMS message service,” as adopted by the Board in the '822 Patent reexamination.

'909 Patent File Wrapper November 18, 2016 Appeal Brief at 11 (emphasis in original), Dkt. No. 89-20 at 12. In the '822 Patent reexamination proceeding, the patent owner explained that the MMS message need not include multimedia content. *See* '822 Patent File Wrapper December 17, 2010 Respondent Brief at 2 (“Further, given the size constraints of SMS messages, the patent teaches that a dedicated group of MMS messages are transmitted within SMS messages. Col. 4, lines 47 - 67.”), Dkt. No. 99-6 at 3; '822 Patent col.4 ll.47–50 (“In this context, the dedicated, first group of messages of the first message service includes at least one of the following messages: dedicated MMS user messages (e.g. *short text messages*) ...” (emphasis added)). Ultimately, the phrase “multimedia message of a multimedia message service” refers to “a message formatted for or native to a MMS message service” which, as explained above, refers to a message formatted

according to the MMS message service, and which does not necessarily include multimedia content.

Accordingly, the Court construes these terms as follows:

- “a message of the dedicated, first group of messages of the first message service” means “a message formatted according to the first message service, in other words a ‘native’ message of that service, selected from among the dedicated, first group of messages”; and
- “a multimedia message of a multimedia message service” means “a message formatted according to a multimedia message service, in other words a ‘native’ message of that service, selected from among the dedicated, first group of messages.”

A-2. “the MMS server”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“the MMS server” • ’822 Patent Claim 1	Plain and ordinary meaning. For example, “one or more computers that store information or messages for an MMS service.”	Indefinite.

The Parties’ Positions

Plaintiff submits: This term is not indefinite for lack of an antecedent basis. While the “MMS server” is first introduced in the claim as “the MMS server,” the meaning of the claim is still reasonably certain. Dkt. No. 89 at 10–12.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’822 Patent col.1 l.16, col.2 l.66 – col.3 l.63.

Extrinsic evidence: Surati Decl.⁸ ¶¶ 14, 22–44 (Plaintiff’s Ex. 12, Dkt. No. 89-13); U.S. Patent No. 9,800,538 col.2 ll.40–47, col.8 ll.20–25 (Plaintiff’s Ex. 15, Dkt. No. 89-16); U.S. Patent No. 7,590,225 col.1 ll.43–47 (Plaintiff’s Ex. 16, Dkt. No. 89-17); U.S. Patent No. 7,756,979 col.9 ll.38–44 (Plaintiff’s Ex. 17, Dkt. No. 89-18).

Defendants respond: The lack of antecedent basis for “the MMS server” renders this term indefinite. For instance, it is not clear “whether or how it is different from the other claimed structure, the ‘MMS relay.’” And the ’822 Patent provides little guidance as to what an MMS server is and how it is distinct from the MMS relay and other servers, such as email servers. Dkt. No. 99 at 18–20.

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** ’822 Patent col.3 ll.7–11, col.3 ll.27–31. **Extrinsic evidence:** Min Decl. ¶¶ 70–75, 80 (Defendants’ Ex. U, Dkt. No. 99-22); *Draft Report of the TSG-T2 SWG3 MMS Ad Hoc Meeting* at 2 (November 10, 1999) (Defendants’ Ex. M, Dkt. No. 99-14 at 3).

Plaintiff replies: As explained in the ’822 Patent, the “MMS server stores the messages for download” and the purpose of the “MMS relay is to grant mobile users access to messages on a MMS server, e.g., processing credentials or authentication.” There is no confusion between these two and whether they may be combined is not an issue of definiteness. Dkt. No. 101 at 7–8.

Analysis

The issue in dispute is whether the meaning of “the MMS server” is reasonably certain in the context of the surrounding claim language and the description of the invention. It is.

⁸ Declaration of Dr. Rajeev Surati (June 15, 2021).

Claim 1 of the '882 Patent provides significant context that makes the meaning of “the MMS server” reasonably certain. Specifically, the claim provides:

1. A method for transmitting messages in a telecommunications network including a first message service and a second message service, *the first message service having a dedicated, first group of messages*, the method comprising:
 sending a message of the dedicated, first group of messages of the first message service using [messages] *a short message* of the second message service, the second message service being a short message service, [a] *the short message being provided with a header portion and a [first] data portion, the data portion including an identification of a type of the message of the first message service;*
 wherein the short message includes an identifier in the [first] data portion [of the short message] for indicating a presence of[a]*the message of the first message service in the data portion*, and wherein the identifier is distinct from the message of the first message service;
 wherein *the first message service includes an MMS message service* and the second message service includes an SMS message service[,] ; and
 wherein the dedicated, first group of messages of the first message service includes at least one of the following messages: dedicated MMS user messages, notification of the presence of a *second message of the first message service on the MMS server*, [logging on to] an MMS session establishment message, an MMS session establishment receipt [for the logging on], explicit request for a notification from [the] *an MMS relay*, confirmation of reception of sent [MMs] *MMS messages* in the MMS relay, confirmation of success in sending [MMs] *MMS messages* to other users, acknowledgment of success/ failure in delivering [an MM] *MMS messages*, and *a message triggering automatic [MM-download] MMS message-download.*

'822 Patent Inter Partes Reexam. Cert. (688th) col.1 ll.23–56 (italics indicates additions during reexamination, brackets indicate deletions during reexamination, bold-italics emphasis added). The patent describes the invention, and the role of the MMS server in the MMS service, in part by invoking 3G TS 23.140, MMS Stage 2, v.1.0.0. *See, e.g.*, '822 Patent col.3 ll.7–34. This reference in turn defines “MMS server” as the “MMSE element which is responsible for storing messages.” 3G TS 23.140 V1.0.0 at 12 (Dec. 1999), Dkt. No. 89-14 at 13. Here, “MMSE” means “Multimedia Message Service Environment.” *Id.* at 6, Dkt. No. 89-14 at 7. “The MMSE provides all the *necessary* service elements, e.g. delivery, storage and notification functionality” of a Multimedia

Message Service. *Id.* at 8 (emphasis added), Dkt. No. 89-14 at 9. In other words, a MMS server is a necessary element of a MMS message service. Thus, “an MMS message service” recited in the claim inherently includes an MMS server and the subsequent recitation of “the MMS server” reasonably refers to the MMS server of the MMS message service. The antecedent basis is implicit in “an MMS message service.”

There is not any uncertainty regarding whether “the MMS server” is necessarily distinct from or the same as the later recited “an MMS relay.” The patent explains that the MMS relay “may be connected to” the MMS server. ’822 Patent col.3 ll.7–13. This indicates that the MMS server and MMS relay may be distinct components. It was also known in the art that “[i]t should be possible to combine [MMS] Server and [MMS] Relay functionality.” 3G TS 23.140 V1.0.0 at 12 (Dec. 1999), Dkt. No. 89-14 at 13. This indicates that the MMS server and the MMS relay may be implemented in a single component. Thus, the ’822 Patent allows that the MMS server and MMS relay may be distinct components or may be a single component without rendering any claim indefinite.

Accordingly, Defendants fail to prove any claim is indefinite for including the term “the MMS server” and the Court construes the term as follows:

- “the MMS server” means “the MMS server of the MMS message service.”

A-3. “short message being provided with a header portion and a data portion”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“short message being provided with a header portion and a data portion” <ul style="list-style-type: none"> • ’822 Patent Claim 1 	Plain and ordinary meaning.	short message being provided with a header portion and a data portion, and in which the data portion includes a multimedia message

The Parties' Positions

Plaintiff submits: It would be improper to limit this term to require that “the data portion includes a multimedia message,” as Defendants propose (which multimedia message Defendants argue necessarily includes multimedia content). The claim itself defines the information that is in the data portion: it includes a message of the first message service, which in turn includes an MMS message service. Thus, the claim already states that the data portion includes an MMS message. But this message need not include multimedia content. Indeed, Claim 1 of the '822 Patent lists a number of potential first-message-service MMS messages that do not include multimedia content. Dkt. No. 89 at 12–14.

In addition to the claims themselves, Plaintiff cites the following **intrinsic evidence** to support its position: '822 Patent col.3 ll.11–13, col.3 ll.24–26, col.4 ll.44–63; '822 Patent File Wrapper February 9, 2010 Amendment and Response at 9–10 (Plaintiff's Ex. 11, Dkt No. 89-12 at 10–11), February 9, 2010 Bjorndahl Decl.⁹ ¶¶ 36, 39 (Plaintiff's Ex. 11, Dkt. No. 89-12 at 30–38, 36–37), December 17, 2010 Respondent Brief at 2 (Plaintiff's Ex. 9, Dkt. No. 89-10 at 3), May 16, 2012 Record of Oral Hearing at 29:2–7 (Plaintiff's Ex. 10, Dkt. No. 89-11 at 30).

Defendants respond: During the reexamination, the patentee limited the scope of this term to require multimedia content in the data portion of the short message. The multimedia message that is in the data portion, like all multimedia messages, necessarily includes multimedia content. This is true regardless of whatever other messages the claims may require in the data portion. Dkt. No. 99 at 15–17.

⁹ Declaration of Per Bjorndahl Pursuant to 37 C.F.R. § 1.132, Inter Partes Reexamination 95/001,211 (Feb. 9, 2010).

In addition to the claims themselves, Defendants cite the following **intrinsic evidence** to support their position: '822 Patent col.3 ll.2–6, col.4 ll.6–7; '822 Patent File Wrapper February 9, 2010 Amendment and Response at 10, 17–18, 20 (Defendants' Ex. F, Dkt. No. 99-7 at 11, 18–19, 21), May 30, 2013 Decision on Appeal at 17 (Defendants' Ex. A, Dkt. No. 99-2 at 19).

Plaintiff replies: *See* Section IV.A.A-1.

Analysis

The issue in dispute is whether this term is inherently limited to require a multimedia message with multimedia content in the data portion. It is not.

This issue is addressed above in the section on “multimedia message of a multimedia service.” For the reasons given there, the data portion of the short message does not necessarily include multimedia content, even though it includes an MMS message. Notably, Claim 1 of the '822 Patent lists several MMS messages that do not necessarily include media content and that may be present in the data portion of the short message.

Accordingly, the Court rejects Defendants' proposed construction and determines that this term has its plain and ordinary meaning without the need for further construction.

B. U.S. Patent No. 6,983,147

The '147 Patent lists an earliest priority claim to a German patent application filed on August 30, 1999. The abstract of the '147 Patent provides:

A method of transmitting signaling information between a master station and a slave station, a master station, a slave station, and various message elements are used to reduce the power consumption in a mobile slave station. A third message, which contains information regarding whether data to be sent is processed in the master station to increase the reception quality of this data at the slave station, is transmitted with the signaling information from the master station to the slave station.

Claim 1 of the '147 Patent provides (with terms in dispute emphasized):

1. A method of transmitting signaling information between a transmitting station and a receiving station, comprising the step of: transmitting a first message with the signaling information from the transmitting station to the receiving station, the first message including information regarding whether data to be sent is processed in an additional transmitting station, *the additional transmitting station being successively assigned to the receiving station to increase reception* quality of the data to be sent at the receiving station, in accordance with measures relating to a transmission channel between the receiving station and at least one of the transmitting station and the additional transmitting station.

B-1. “the additional transmitting station being successively assigned to the receiving station to increase reception quality”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“the additional transmitting station being successively assigned to the receiving station to increase reception quality” • ’147 Patent Claims 1, 32	Plain and ordinary meaning.	the additional transmitting station being successively assigned to the receiving station instead of the transmitting station to increase reception quality

The Parties’ Positions

Plaintiff submits: This term plainly denotes a successive, “temporal ordering,” of assignment of the transmitting station. It “does not preclude the ‘receiving station’ from being concurrently assigned to both transmitting stations, so long as the act of assigning the ‘additional station’ occurs after the act of assigning the original transmitting station.” Nor does it preclude the receiving station communicating with both transmitting stations at the same time. During prosecution of the ’147 Patent, the applicant explained that the claim required a message that indicated if data was processed in the additional transmitting station instead of the transmitting station. This does not mean, however, that the additional transmitting station instead of the transmitting station is assigned to the receiver. Dkt. No. 89 at 17–21.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** '147 Patent File Wrapper July 25, 2005 Amendment at 2, 9–10 (Plaintiff's Ex. 25, Dkt. No. 89-26 at 4, 11–12). **Extrinsic evidence:** *The Concise Oxford Dictionary of Current English* at 1391 (9th ed. 1995), “successively” (Plaintiff's Ex. 21, Dkt. No. 89-22 at 4); *Webster's Encyclopedic Unabridged Dictionary of the English Language* at 1419 (1996), “successively” (Plaintiff's Ex. 22, Dkt. No. 89-23 at 5); *Merriam-Webster Online*, “successive”¹⁰ (Plaintiff's Ex. 23, Dkt. No. 89-24 at 3); '147 IPR Petition¹¹ at 22–23 (Plaintiff's Ex. 24, Dkt. No. 89-25 at 3–4).

Defendants respond: During prosecution, the applicant amended the claims to distinguish the prior art “regarding both the content of the message and the subsequent claim step that concerns the assignment of the transmitting stations” (Defendants' emphasis). Thus, the claim requires that the original transmitting station handover the receiving station to the additional transmitting station. In other words, the additional transmitting station is assigned to the receiving station instead of the transmitting station being assigned to the receiving station. This comports with the handover embodiment described in the '147 Patent (citing '147 Patent col.19 ll.40–43). Dkt. No. 99 at 20–23.

In addition to the claims themselves, Defendants cite the following **intrinsic evidence** to support their position: '147 Patent col.1 ll.41–61, col.4 l.56 – col.5 l.7, col.19 ll.40–43; '147 Patent File Wrapper July 25, 2005 Amendment at 2, 9–10 (Defendants' Ex. P, Dk. No. 99-17 at 3, 10–11).

¹⁰ <https://www.merriam-webster.com/dictionary/successive>

¹¹ Petition for Inter Partes Review, *Nokia of Am. Corp. et al. v. IPRCom, GmbH & Co. KG*, IPR2021-00533, Paper 3 (P.T.A.B. February 12, 2021).

Plaintiff replies: The amendment and remarks made during prosecution distinguished the prior art on the ground that the claim required a message from a transmitting station regarding whether data will be processed by the additional transmitting station instead of the transmitting station and in the prior art at issue, the mobile (receiving) station decides which base (transmitting) station to use. The prior art base (transmitting) station cannot send the claim-recited message because it is the mobile station that decides which base station handles the processing. Even if Defendants' interpretation of the prosecution history is reasonable, so too is Plaintiff's and with multiple reasonable interpretations there cannot be disclaimer. Dkt. No. 101 at 8–9.

Plaintiff cites further **intrinsic evidence** to support its position: U.S. Patent No. 6,609,003 col.10 ll.8–11 (Plaintiff's Ex. 54, Dkt. No. 101-2).

Analysis

The issue in dispute is whether successive assignment of the additional transmitting station to the receiving station necessarily entails a handoff from the transmitting station to the additional transmitting station. It does not.

The prosecution history does not clearly and unequivocally disclaim a system in which both “the transmitting station” and “the additional transmitting station” are assigned to the receiving station. Defendants' rely upon amendments and arguments made by the applicant during prosecution of the '147 Patent. Specifically, claim 30 was amended during prosecution as follows (with strikethrough denoting a deletion and underline denoting an addition):

30. (Currently Amended) A method of transmitting signaling information between a transmitting station and a receiving station, comprising the step of: transmitting a first message with the signaling information from the transmitting station to the receiving station, the first message including information regarding whether data to be sent is processed in ~~one of the transmitting station and~~ an additional transmitting station, the additional transmitting station being successively assigned to the receiving station to increase reception quality of the data to be sent at the receiving station, in

accordance with measures relating to a transmission channel between the receiving station and at least one of the transmitting station and the additional transmitting station.

'147 Patent File Wrapper July 25, 2005 Amendment at 2 (underline and strikethrough in original), Dkt. No. 99-17 at 3. The claim was amended to recite that the first message includes information “regarding whether data to be sent is processed in an additional transmitting station” and with “the additional transmitting station being successively assigned to the receiving station.” The applicant explained the amendments as follows:

Claim 30 as presented relates to a method of transmitting signaling information between a transmitting station and a receiving station *and has been amended herein without prejudice to clarify that it provides for transmitting from the transmitting station to the receiving station a message* that includes “information regarding whether data to be sent is processed in an additional transmitting station,” *instead of in the transmitting station.*

...

While the “Park et al.” reference may refer to transmitting a handoff confirmation by base stations (BS#A and BS#B) in response to a handoff request by a mobile station (MS), *the confirmation does not disclose or suggest the transmission by a transmitting station of information regarding whether data to be processed will be processed in an additional transmitting station (instead of in or by the transmitting station).* Rather, subsequent to the handoff confirmation, data is transmitted by both the BS#A and the BS#B. *The MS thereafter decides* whether to continue receiving signals from the BS#A or to receive future signals from BS#B. (See col. 2, lines 43 to 52, and col. 10, lines 30 to 39).

Id. at 9–10 (italic emphasis in original, bold-italic emphasis added), Dkt. No. 99-17 at 10–11. The distinction the applicant made between the prior art and the claim at issue was that the message (“the confirmation”) sent by the base stations in the prior art did not include the information required in the “first message” sent by the transmitting station of the claim. The distinction made does not suggest the assignment of the additional transmitting station to the receiving station necessarily excludes assignment of the transmitting station to the receiving station. This is not a clear and unequivocal disclaimer of a method in which the additional transmitting station is

assigned to the receiving station in addition to the transmitting station being assigned to the receiving station.

Accordingly, the Court rejects Defendants' proposed construction and determines that this term has its plain and ordinary meaning without the need for further construction.

C. U.S. Patent No. 7,778,310

The '310 Patent lists an earliest priority claim to a Japanese patent application filed on May 13, 1998. The abstract of the '310 Patent provides:

In a mobile communication system using a code division multiple access (CDMA) method, spreading code detection and frame/slot timing synchronization (cell search) is conducted by using a long code masked symbol. The spreading factor of the long code masked symbol is set to a value lower than spreading factors of other ordinary symbols. As a result, it becomes possible to reduce the circuit scale and power dissipation of the mobile terminal and raise the speed of cell search.

Claim 1 of the '310 Patent provides (with terms in dispute emphasized):

1. A cell search method for a code division multiple access mobile communication system, comprising:
transmitting, from a base station, control signals via first and second *perch channels*, said perch channels being formed such that a long period code assigned to said base station and a first short period code are mapped in a first section of one slot of said first perch channel; and
transmitting, from said base station, a *predetermined short period code* mapped in a second section of said one slot of said second perch channel, said predetermined short period code for use by a mobile terminal for performing cell search by calculating a correlation value for said second section of said one slot,
wherein said predetermined short period code is transmitted plural times within said second section of said one slot,
wherein said second section of said one slot of the first perch channel further includes a *common short code*, and spreading factors of said common short code and of said predetermined short period code are smaller than a spreading factor of said first short period code.

C-1. “perch channel[s]”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“perch channel[s]” ¹² <ul style="list-style-type: none"> • ’310 Patent Claim 1 	one or more control channels for transmitting control signals	control channel[s] for notifying reverse link interference power measured at the base station, and system frame number

The Parties’ Positions

Plaintiff submits: As described in the ’310 Patent, “perch channels means control channels for notifying reverse link interference power measured at the base station, system frame number, and the like” (quoting ’310 Patent col.1 ll.33–42). Specifically, the listed controls channels are exemplary rather than definitional. In other words, perch channels do not necessarily serve the purposes of “notifying reverse link interference power measured at the base station and system frame number” as Defendants contend. As customarily used in the art, a “perch channel” “is not limited to carrying any particular type of control information” (Plaintiff’s emphasis). Further, each perch channel “can include ‘one or more control channels.’” Dkt. No. 89 at 21–24.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’310 Patent col.1 ll.33–42, col.1 ll.48–52; U.S. Patent No. 6,226,315 (Plaintiff’s Ex. 31, Dkt. No. 89-32). **Extrinsic evidence:** European App. No. 0 946 072 A1 at ¶ 43 (Plaintiff’s Ex. 26, Dkt. No. 89-27); European App. No. 0 693 834 B1 at fig.18, col.9 ll.36–38, col.10 ll.5–7, col.19 ll.26–27, col.19 ll.35–36, col.21 ll.32–33 (Plaintiff’s Ex. 27, Dk. No. 89-28); Esa Tirola and Juha Ylitalo, *Performance Evaluation of Fixed-Beam Beamforming in WCDMA Downlink*, VTC2000-Spring, 2000 IEEE 51st Vehicular Technology

¹² In their P.R. 4-5(d) chart, the parties note that Plaintiff is proposing a definition of “perch channel” and Defendants are proposing a definition of “perch channel[s].” Dkt. No. 103 at 14.

Conference Proceedings 700–704, 701 (2000) (Plaintiff’s Ex. 28, Dkt. No. 89-29 at 3); Min Decl.¹³ ¶ 58 (Plaintiff’s Ex. 52, Dkt. No. 89-53); *Specifications for Air-interface for a 3G Mobile System, Volume 3* at Table 3.2-1, § 3.2.1.2.1 (1997) (Plaintiff’s Ex. 29, Dkt. No. 89-30 at 3–4); ’310 IPR Petition¹⁴ at 38–39 (Plaintiff’s Ex. 30, Dkt. 89-31 at 7–8).

Defendants respond: The term “perch channel” is defined in the ’310 Patent at column 1, lines 33–42. Thus, “the perch channels must at a minimum notify reverse link interference power measured at the base station and the system frame number.” Further, Claim 1 of the patent recites two perch channels: “first and second perch channel.” These are necessarily each singular channels rather than a first “one or more control channels” and a second “one or more control channels” as Plaintiff proposes. Dkt. No. 99 at 23–28.

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** ’310 Patent figs.1–6, col.1 ll.33–42, col.2 ll.16–24; ’310 Patent File Wrapper July 27, 2007 Amendment at 3, 6 (Defendants’ Ex. S, Dk. No. 99-20 at 4, 7). **Extrinsic evidence:** Min Decl. ¶¶ 46–67 (Defendants’ Ex. U, Dkt. No. 99-22).

Plaintiff replies: As known in the art, a perch channel is not limited to particular control information and the ’310 Patent does not change that meaning. Further, a “perch channel” comprises one or more control channels, it is not limited to a single channel. In fact, “the claims and specification divide each perch channel into multiple ‘slots’ and ‘sections,’ with different codes mapped to these different sections, thereby showing that each perch channel can comprise multiple logical channels.” Dkt. No. 101 at 9–10.

Plaintiff cites further **intrinsic evidence** to support its position: ’310 Patent fig.1.

¹³ Declaration of Paul Min, Ph.D.

¹⁴ Petition for Inter Partes Review, *Nokia of Am. Corp. et al. v. FIPA Frohwitter Intellectual Property AG*, IPR2021-00548, Paper 3 (P.T.A.B. February 17, 2021).

Analysis

There are two issues in dispute. First, whether a perch channel is necessarily for notifying reverse link interference power measured at the base station and system frame number. It is. Second, whether each claim-recited “perch channel” is a singular channel rather than a group of one or more channels. Each is a singular physical channel.

The '310 Patent defines “perch channels.” Specifically, the patent provides: “The term ‘perch channels’ *means* control channels for notifying reverse link interference power measured at the base station, system frame number, and the like.” ’310 Patent col.1 ll.33–36 (emphasis added). This lexicography governs. Plaintiff’s position distills to a “perch channel” is a control channel, which renders the language “for notifying reverse link interference power measured at the base station, system frame number, and the like” in the patent entirely meaningless. Notably, Plaintiff has not identified any perch channel in the patent that is not for notifying reverse link interference power measured at the base station and system frame number. In this context, the Court rejects that “and the like” in the definition of “perch channels” renders that definition an open-ended list of alternatives that encompasses any and all control channels.

As described in the '310 Patent, each perch channel is a singular physical channel that may be divided into logical subchannels. The claim at issue recites:

1. A cell search method for a code division multiple access mobile communication system, comprising:
transmitting, from a base station, control signals via *first and second perch channels*, said perch channels being formed such that a long period code assigned to said base station and a first short period code are *mapped in a first section of one slot of said first perch channel*; and
transmitting, from said base station, *a predetermined short period code mapped in a second section of said one slot of said second perch channel*, said predetermined short period code for use by a mobile terminal for performing cell search by calculating a correlation value for said second section of said one slot,

wherein *said predetermined short period code is transmitted plural times within said second section of said one slot*,
 wherein *said second section of said one slot of the first perch channel* further includes a common short code, and spreading factors of said common short code and of said predetermined short period code are smaller than a spreading factor of said first short period code.

'310 Patent col.6 ll.36–46 (emphasis added). Under a plain reading, the claim recites two perch channels (a “first” and a “second”). Each of these two channels is defined by the roles it plays in the claimed method. Plaintiff appears to argue that the roles of a particular perch channel can be met by a group of multiple control channels that collectively perform the roles of the particular perch channel, even if no singular channel performs all the roles recited in the claims. Such an interpretation of claim scope is not supported by a plain reading of the claim language or the described embodiments. For example, the role of the first channel must be met by a singular channel (even if subdivided) rather than, e.g., a first channel and an unrecited third channel.

Accordingly, the Court construes “perch channel[s]” as follows:

- “perch channel[s]” means “control channel[s] for notifying reverse link interference power measured at the base station, system frame number, and the like.”

C-2. “predetermined short period code”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“predetermined short period code” • '310 Patent Claim 1	Plain and ordinary meaning.	group code or GISC, short period code provided so as to correspond to the classification of the long code

The Parties’ Positions

Plaintiff submits: During prosecution of the '310 Patent, and in response to examiner’s request, the applicant identified exemplary short period codes as written-description support for

those terms in the claims. The applicant did not, however, define the codes with the examples through lexicography or disclaimer. Under its plain meaning, “predetermined short period code” is broader than the exemplary group code or GISC. In fact, the ’310 Patent’s parent patent, U.S. Patent No. 6,879,571, separately recites “predetermined short period code” and “group identification short code (GISC)” indicating that the terms are not coextensive. Dkt. No. 89 at 24–27.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’310 Patent col.1 ll.45–48, col.1 ll.60–61; ’310 Patent File Wrapper March 7, 2007 Advisory Action at 2 (Plaintiff’s Ex. 35, Dkt. No. 89-36 at 4); March 15, 2007 Preliminary Amendment at 5–6 (Plaintiff’s Ex. 34, Dkt. No. 89-35 at 6–7); U.S. Patent No. 6,879,571¹⁵ (Plaintiff’s Ex. 36, Dkt.No. 89-37); U.S. Patent No. 6,879,571 File Wrapper, March 3, 2000 Application¹⁶ at 15–19 (Plaintiff’s Ex. 37, Dkt. No. 89-38 at 2–6). **Extrinsic evidence:** *Collins English Dictionary* at 1219 (4th ed. 1998), “predetermined” (Plaintiff’s Ex. 32, Dkt. No. 89-33 at 4); *Cambridge International Dictionary of English* at 1111 (1995), “predetermined” (Plaintiff’s Ex. 33, Dkt. No. 89-34 at 4); ’310 IPR Petition at 25–27 (Plaintiff’s Ex. 30, Dkt. 89-31 at 4–6).

Defendants respond: This term is defined in the ’310 Patent at column 1, lines 60–61, which provides: “The GISC is a short period code provided so as to correspond to the classification of the long code.” Further, any broader interpretation was disclaimed during prosecution when the

¹⁵ The ’310 Patent’s application is a continuation of the application that issued as U.S. Patent No. 6,879,571. ’310 Patent, at [63] Related U.S. Application Data.

¹⁶ Plaintiff characterizes this as the original claims of the ’310 Patent application filed on March 3, 2000. The ’310 Patent’s application was filed June 18, 2004. The application for the U.S. Patent No. 6,879,571 was filed March 3, 2000.

applicant presented GISC as synonymous with “predetermined short period code.” Dkt. No. 99 at 28–31.

In addition to the claims themselves, Defendants cite the following **intrinsic evidence** to support their position: ’310 Patent File Wrapper March 7, 2007 Advisory Action at 2 (Defendants’ Ex. T, Dkt. No. 99-21 at 4), March 15, 2007 Preliminary Amendment at 5–6 (Defendants’ Ex. R, Dk. No. 99-19 at 6–7).

Plaintiff replies: Applicant did not disclaim any scope of “predetermined short period code” by identifying written-description support for that term in response to the examiner’s request. Further, the ’310 Patent’s description of GISC is not definitional of “predetermined short period code.” Dkt. No. 101 at 10–11.

Analysis

The issue in dispute is whether “predetermined short period code” is limited to GISC. It is not.

Defendants’ have not identified anything that rises to the exacting standard required to limit “predetermined short period code” to “GISC.” Specifically, the statement that “[t]he GISC is a short period code provided so as to correspond to the classification of the long code” is not definitional of “predetermined short period code.” ’310 Patent col.1 ll.60–61. Similarly, the patent applicant’s identification of the disclosed GISC as written-description support for the claim-recited “predetermined short period code” does not rise to the level of lexicography or disclaimer and it does not transform a statement that the GISC is a short period code to a definition of “predetermined short period code.”

Accordingly, the Court rejects Defendants’ proposed construction and determines that this term has its plain and ordinary meaning without the need for further construction.

C-3. “common short code”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“common short code” <ul style="list-style-type: none"> • ’310 Patent Claim 1 	Plain and ordinary meaning.	a short period spreading code defined uniquely to the mobile communication system

The Parties’ Positions

Plaintiff submits: Under its plain meaning, “common short code” refers to “a short code that is common to base stations in a mobile communication system.” The ’310 Patent states that “[t]he CSC is a short period spreading code defined uniquely to the mobile communication system” (quoting ’310 Patent col.2 ll.2–3). This passage, however, is a description of how common short codes “were implemented in the prior art” and is not definitional. Dkt. No. 89 at 27–28.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’310 Patent col.1 ll.10–22, col.1 ll.44–45, col.2 ll.2–3; ’310 Patent File Wrapper November 15, 2006 Office Action at 4 (Plaintiff’s Ex. 40, Dkt. No. 89-41 at 6); U.S. Patent No. 6,754,251 col.7 ll.57–60 (Plaintiff’s Ex. 53, Dkt. No. 89-54). **Extrinsic evidence:** *Oxford Lexico Online*, “common”¹⁷ (Plaintiff’s Ex. 38, Dkt. No. 89-39); *The American Heritage Dictionary of the English Language* at 381 (3d ed. 1996), “common” (Plaintiff’s Ex. 39, Dkt. No. 89-40 at 4); ’310 IPR Petition at 14, 25–27, 55–56 (Plaintiff’s Ex. 30, Dkt. 89-31 at 3–6, 9–10); U.S. Patent No.

Defendants respond: “The ‘common short code’ is explicitly defined in the patent as ‘a short period spreading code defined uniquely to the mobile communication system’” (quoting ’310 Patent col.2 ll.2–3). Dkt. No. 99 at 31.

¹⁷ <https://www.lexico.com/en/definition/common>

In addition to the claims themselves, Defendants cite the following **intrinsic evidence** to support their position: '310 Patent col.2 ll.2–3.

Plaintiff replies: In the context of the '310 Patent's description of a common short code as a "first search code," the passage Defendants' rely upon is not definitional. Dkt. No. 101 at 11.

Analysis

The issue in dispute is whether "common short code" is defined in the '310 Patent. It is.

This term is defined in the '310 Patent. Specifically, the patent provides:

This cell search method using the long code masked symbol will now be described. ... In a long code masked symbol position (search code position) 101 of a first perch channel 106, *a CSC (Common Short Code). i.e., a first search code* 104 is mapped. ... The short code is a short period spreading code assigned uniquely to each of channels under communication (including the control channel and transmission channel). ... *The CSC is a short period spreading code defined uniquely to the mobile communication system.*

'310 Patent col.1 l.31 – col.2 l.3. The passage explaining that the common short code (CSC) is a "first search code" in a cell search method is not inconsistent with the definition of the CSC as "a short period spreading code defined uniquely to the mobile communication system."

Accordingly, the Court construes "common short code" as follows:

- "common short code" means "a short period spreading code defined uniquely to the mobile communication system."

D. U.S. Patent No. 6,813,261

The '261 Patent lists an earliest priority claim to a Japanese patent application filed on August 7, 1996. The abstract of the '261 Patent provides:

In order to accomplish efficient communication of data between a base station and a plurality of mobile terminals, particular orthogonal codes are transmitted from the mobile stations to the base station as alert signals indicating the presence of data to be transmitted. The base station checks whether particular orthogonal codes are contained in the alert signals, and when the particular orthogonal codes are detected in the alert signals, information representing the detected orthogonal codes and the schedules for transmitting the data from the mobile terminals to the base station are

transmitted from the base station to the mobile terminals as an alert response to the alert signals. When the information representing the orthogonal codes used for the alert signals are contained in the alert response transmitted from the base station to the mobile terminals, the data waiting to be transmitted is transmitted from the mobile terminals to the base station according the data transmission schedules in the alert response.

Claim 34 of the '261 Patent provides (with terms in dispute emphasized):

34. In a base station, a method of communicating with a plurality of mobile terminals comprising the steps of:
 receiving an alert signal from a mobile terminal;
 evaluating the alert signal for the presence of a *particular code* by comparing the alert signal with a plurality of codes; and
 if the particular code is present, transmitting an alert response to the mobile terminal, the alert response containing data corresponding to the particular code.

D-1. “particular code”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“particular code” <ul style="list-style-type: none"> • '261 Patent Claim 34 	Plain and ordinary meaning.	a particular code that is determined in advance for each mobile device

The Parties’ Positions

Plaintiff submits: The meaning of this term is plain without construction. Defendants’ proposed construction is improperly limiting and clarifies nothing. Notably, various '261 Patent claims recite “predetermined code” to specify a code that is determined in advance, and the lack of “predetermined” here indicates that the “particular code” is not necessarily determined in advance. Dkt. No. 89 at 29–31.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** '261 Patent col.3 ll.40–43, col.5 ll.39–42,

col.11 ll.22–27, col.12 ll.33–38. **Extrinsic evidence:** *Oxford Lexico Online*, “particular”¹⁸ (Plaintiff’s Ex. 41, Dkt. No. 89-42); *Webster’s Encyclopedic Unabridged Dictionary of the English Language* at 1052 (1996), “particular” (Plaintiff’s Ex. 22, Dkt. No. 89-23 at 4); *The American Heritage College Dictionary* at 996 (3d ed. 1997), “particular” (Plaintiff’s Ex. 42, Dkt. No. 89-43 at 4).

Defendants respond: As a function of the meaning of “particular,” the “particular code” is a code the belongs to or is associated with a single thing. As described in the ’261 Patent, the “particular code” is a code that is “determined in advance for each of the mobile terminals” (quoting ’261 Patent col.12 ll.33–38). “A code that is associated with more than one mobile device does not meet this limitation.” This is distinct from just a “code selected from a plurality of codes” which is separately recited in the claims. Dkt. No. 99 at 31–33.

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** ’261 Patent fig.7, col.12 ll.33–38. **Extrinsic evidence:** *Webster’s New College Dictionary* at 801 (1995), “particular” (Defendants’ Ex. Q, Dkt. No. 99-18 at 4).

Plaintiff replies: “[T]he ordinary meaning of ‘particular code’ is one of the codes in claim 34’s ‘plurality of codes.’” The code is “particular” in that is singular, it is one of the group of the plurality of codes. Dkt. No. 101 at 11–13.

Plaintiff cites further **intrinsic evidence** to support its position: ’261 Patent fig.7.

Analysis

The issue in dispute is whether the “particular code” is necessarily a predetermined code particular to a mobile device. It is not.

¹⁸ <https://www.lexico.com/en/definition/particular>

In the context of the surrounding claim language, the “particular code” is plainly one of the “plurality of codes” recited in the claim. Specifically, Claim 34 recites: “evaluating the alert signal for the presence of a particular code by comparing the alert signal with a plurality of codes; and if the particular code is present, transmitting an alert response to the mobile terminal.” ’261 Patent col.19 l.12 – col.20 l.2. Under a plain reading, this indicates that the “particular code” is simply one of the “plurality of codes” that indicates an alert condition.

Nothing that Defendants identify rises to the exacting standard required to limit the “particular code” of Claim 34 to the “particular code determined in advance for each of the mobile terminals” described with reference to Figure 7. *Id.* at col.12 ll.15–18. Indeed, the concept of a particular code is used more broadly in the patent. *See, e.g., id.* at col.3 ll.21–24 (“Particular orthogonal codes are transmitted from mobile stations to the base station as alert signals indicating the presence of data to be transmitted. The base station checks whether particular orthogonal codes are contained in the alert signals transmitted from the mobile terminals to the base station.”), col.3 ll.40–43 (“mobile terminals ... select and generate particular orthogonal codes out of a plurality of orthogonal codes”), col.11 ll.19–25 (“The alert channel modulator 412 selects and generates a particular orthogonal code by using the orthogonal code generator 500 The orthogonal code generator 500 selects any orthogonal code out of a plurality of orthogonal codes”). Ultimately, a particular code of a plurality of codes broadly refers to one of the plurality.

Accordingly, the Court rejects Defendants’ proposed construction and determines that this term has its plain and ordinary meaning without the need for further construction.

E. U.S. Patent No. 7,006,463

The ’463 Patent lists an earliest priority claim to a Japanese patent application filed on December 6, 1996. The abstract of the ’463 Patent provides:

An uplink channel transmission power control method is provided for a CDMA mobile communication system performing one way communication. A base station measures the received level of data transmitted from each mobile terminal at each channel, and generates a transmission power control signal of each uplink traffic channel. The generated transmission power control signals are multiplexed, and the multiplexed common transmission power control signal is transmitted to all mobile terminals by using the common channel shared by the mobile terminals. Each mobile terminal derives the transmission power control signal of the uplink traffic channel used by the terminal, from the received common transmission power control signal, and controls the transmission power of a data packet.

Claim 13 of the '463 Patent provides (with terms in dispute emphasized):

13. A transmission power control method for a base station in a CDMA communication system having a base station and a plurality of mobile terminals, wherein a plurality of traffic channels, each of said plurality of traffic channels for communication between said base station and one of said plurality of mobile terminals, and a common CDMA channel shared by said plurality of mobile terminals are formed between said base station and said plurality of mobile terminals, having the steps of:

generating at least two transmission power control signals, each of which is for one of said plurality of mobile terminals;

spreading said transmission power control signals in a spreader;

modulating said spread transmission power control signal in a *transmission radio module*; and

transmitting, from an antenna, said modulated transmission power control signals to said mobile terminal via said common CDMA channel.

E-1. “transmission radio module”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“transmission radio module” <ul style="list-style-type: none"> • ’463 Patent Claim 13 	Plain and ordinary meaning, as this term is not governed by 35 U.S.C. § 112 ¶ 6 and not indefinite. alternatively, should the Court find this term to be governed by § 112 ¶ 6: <ul style="list-style-type: none"> • function: modulating said spread transmission power control signal • structure: transmission radio module, including a modulator,” as described in the ’463 patent, at 6:14-16, 8:47-49, element 49 in Figure 3, and element 49 in Figure 10 	This is a means plus function term under 35 U.S.C. 112 ¶ 6. Indefinite.

The Parties’ Positions

Plaintiff submits: This term is sufficiently structural to maintain the presumption against application of 35 U.S.C. § 112, ¶ 6. As claimed, the transmission radio module is used in the claim to modulate the spread transmission power control signal. The term “transmission radio module” is a name for structure for performing this modulating function. Specifically, a “radio” is known in the art as a “structure for performing telecommunication by ‘modulation.’” The term “radio module” is also used in the art as a name for structure that modulates signals. During prosecution of the ’463 Patent, the patent examiner repeatedly equated the “transmission radio module” with a prior art QPSK modulator, further indicating the structural nature of the transmission radio module. Finally, in their petition for Inter Partes Review of the ’463 Patent, Intervenors here, and their IPR expert, treated the “transmission radio module” as structure without reference to § 112, ¶ 6. Dkt. No. 89 at 31–34.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** '463 Patent figs.3, 10, col.8 ll.47–49, col.6 ll.12–17, col.8 ll.45–50. **Extrinsic evidence:** '463 IPR Petition¹⁹ at 12–13, 56–57 (Plaintiff's Ex. 43, Dkt. No. 89-44 at 3–6); Kotzin IPR Decl.²⁰ ¶¶ 122, 169–71 (Plaintiff's Ex. 44, Dkt. No. 89-45 at 3–6); Williams Decl.²¹ ¶¶ 16–18, 20–41 (Plaintiff's Ex. 14, Dkt. No. 89-15).

Defendants respond: “[N]either ‘transmission’ nor ‘radio’ convey any structural information” to one of ordinary skill in the art and “module” is a well-known nonce term. Thus “transmission radio module” is a means-plus-function limitation. The module is not significantly described in the '463 Patent: it is depicted as a black box and that patent does not provide any details regarding how the module modulates any signal. Thus, this term is indefinite. Dkt. No. 99 at 33–35.

In addition to the claims themselves, Defendants cite the following **extrinsic evidence** to support their position: Min Decl. ¶¶ 27–42 (Defendants' Ex. U, Dkt. No. 99-22).

Plaintiff replies: The term “transmission radio module” is sufficiently structural as the “transmission radio” denotes physical structure. Even if the term is subject to § 112, ¶ 6, the module is linked to the function of modulating. This, “in the claimed context of a ‘CDMA communication system’ necessarily invokes a ‘modulator’ structure e.g., a QPSK modulator.” Dkt. No. 101 at 13.

Plaintiff cites further extrinsic evidence to support its position: Williams Decl. ¶¶ 15, 36–41 (Plaintiff's Ex. 14, Dkt. No. 89-15).

¹⁹ Petition for Inter Partes Review, *Nokia of Am. Corp. et al. v. FIPA Frohwitter Intellectual Property AG*, IPR2021-00507, Paper 3 (P.T.A.B. February 28, 2021).

²⁰ Declaration of Dr. Michael Kotzin, Ph.D., Under 37 C.F.R. § 1.68 in Support of Petition for Inter Partes Review of U.S. Patent No. 7,006,463, *Nokia of Am. Corp. et al. v. FIPA Frohwitter Intellectual Property AG*, IPR2021-00507, Ex. 1003 (P.T.A.B. February 28, 2021)

²¹ Declaration of Dr. Tim A. Williams (June 15, 2021).

Analysis

There are two issues in dispute. First, whether this term is governed by 35 U.S.C. § 112, ¶ 6. Second, if it is governed by § 112, ¶ 6, whether the '463 Patent satisfies the disclosure requirements of the statute. The Court determines “transmission radio module” is not governed by § 112, ¶ 6 and therefore does not address the second issue.

Defendants have not overcome the presumption against applying § 112, ¶ 6. The Court begins with the presumption that § 112, ¶ 6 does not apply because the term does not include the “means” language traditionally used to signal application of the statute. *Williamson*, 792 F.3d at 1347–49 & n.3. This “presumption can be overcome and § 112, para. 6 will apply if the challenger demonstrates that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function.” *Id.* at 1349 (quotations omitted). “[T]he mere fact that the disputed limitations incorporate functional language does not automatically convert the words into means for performing such functions.” *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003, 1008 (Fed. Cir. 2018). “The question whether [a term] invokes section 112, paragraph 6, depends on whether persons skilled in the art would understand the claim language to refer to structure, assessed in light of the presumption that flows from the drafter’s choice not to employ the word ‘means.’” *Samsung Elecs. Am., Inc. v. Prisia Eng’g Corp.*, 948 F.3d 1342, 1354 (Fed. Cir. 2020).

The term “transmission radio module” denotes a class of modulator structures and thus is not governed by § 112, ¶ 6. Claim 13 of the '463 Patent is directed to a “transmission power control method” that includes the step of “modulating said spread transmission power control signal in a transmission radio module.” '463 Patent col.10 l.59 – col.11 ll.10. Based on the evidence of record, the Court finds that “transmission radio module,” when read in the context of the surrounding

claim language and description of the invention, denotes a known class of structures for modulating signals. *See* Williams Decl. ¶¶ 19–24, Dkt. No. 89-15 at 7–9. The presumption against § 112, ¶ 6 stands.

Accordingly, the Court determines that Defendants have failed to establish that “transmission radio module” should be governed by § 112, ¶ 6 or that any claim is indefinite for including the term.

IV. CONCLUSION


The Court adopts the constructions set forth above, as summarized in the following table. The parties are **ORDERED** that they may 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 portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim-construction proceedings is limited to informing the jury of the definitions adopted by the Court.

The parties are hereby **ORDERED** to file a Joint Notice within fourteen (14) days of the issuance of this Memorandum Opinion and Order indicating whether the case should be referred for mediation. If the Parties disagree about whether mediation is appropriate, the Parties should set forth a brief statement of their competing positions in the Joint Notice.

Section	Term	Construction
A-1	“a message of the dedicated, first group of messages of the first message service” <ul style="list-style-type: none"> • ’822 Patent Claim 1 	“a message formatted according to the first message service, in other words a ‘native’ message of that service, selected from among the dedicated, first group of messages”
	“a multimedia message of a multimedia message service” <ul style="list-style-type: none"> • ’909 Patent Claim 1 	“a message formatted according to a multimedia message service, in other words a ‘native’ message of that service, selected from among the dedicated, first group of messages”

Section	Term	Construction
A-2	“the MMS server” <ul style="list-style-type: none"> • ’822 Patent Claim 1 	“the MMS server of the MMS message service”
A-3	“short message being provided with a header portion and a data portion” <ul style="list-style-type: none"> • ’822 Patent Claim 1 	plain and ordinary meaning
B-1	“the additional transmitting station being successively assigned to the receiving station to increase reception quality” <ul style="list-style-type: none"> • ’147 Patent Claims 1, 32 	plain and ordinary meaning
C-1	“perch channel[s]” <ul style="list-style-type: none"> • ’310 Patent Claim 1 	“control channel[s] for notifying reverse link interference power measured at the base station, system frame number, and the like”
C-2	“predetermined short period code” <ul style="list-style-type: none"> • ’310 Patent Claim 1 	plain and ordinary meaning
C-3	“common short code” <ul style="list-style-type: none"> • ’310 Patent Claim 1 	“a short period spreading code defined uniquely to the mobile communication system”
D-1	“particular code” <ul style="list-style-type: none"> • ’261 Patent Claim 34 	plain and ordinary meaning
E-1	“transmission radio module” <ul style="list-style-type: none"> • ’463 Patent Claim 13 	plain and ordinary meaning, not § 112, ¶ 6

So ORDERED and SIGNED this 15th day of September, 2021.



 RODNEY GILSTRAP
 UNITED STATES DISTRICT JUDGE