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

ADVANCED CODING TECHNOLOGIES LLC,	§	
	§	
Plaintiff,	§	
	§	CASE NO. 2:24-CV-353-JRG
v.	§	
	§	
GOOGLE LLC,	§	
	§	
Defendant.	§	

CLAIM CONSTRUCTION
MEMORANDUM AND ORDER

Before the Court is the Opening Claim Construction Brief (Dkt. No. 68) filed by Plaintiff Advanced Coding Technologies LLC ("Plaintiff" or "ACT"). Also before the Court are the response (Dkt. No. 69) filed by Defendant Google LLC ("Defendant" or "Google") and Plaintiff's reply (Dkt. No. 74). The Court held a hearing on October 2, 2025.

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I. BACKGROUND

Plaintiff asserts United States Patents No. 7,804,891 ("the '891 Patent"), 8,090,025 ("the '025 Patent"), 8,230,101 ("the '101 Patent"), and 9,986,303 ("the '303 Patent"). (Dkt. No. 68, Exs. A–D.) Plaintiff submits that "[t]he '025 and '303 Patents claim inventions for encoding and decoding of data," and "[t]he '101 and '891 Patents claim inventions related to media servers and wireless communications." (Dkt. No. 68 at 1.)

The '891 Patent, titled "Device and Method for Judging Communication Quality and Program Used for the Judgment," issued on September 28, 2010, and bears an earliest filing date of March 31, 2004. The Abstract of the '891 Patent states:

> A device and method for effectively judging a communication quality in a communication system and a program used for the judgment. A communication device generates a four-value FSK symbol by adding a redundant bit to a bit of the most important part of encoded audio data. The symbol containing the redundant bit is set so that the symbol value is the maximum value of the minimum value of the four values which may be obtained. A reception device R receives the FSK modulation wave, restores the symbol, counts the number of redundant bits contained in the restored symbol and having incorrect values, decides whether to perform a bad frame masking process and what kind of bad frame masking process is to be performed, and executes the decided process. Thus, it is possible to accurately or rapidly judge the communication quality with a simple configuration.

The '025 Patent, titled "Moving-Picture Coding Apparatus, Method and Program, and Moving-Picture Decoding Apparatus, Method and Program," issued on January 3, 2012, and bears an earliest priority date of March 30, 2007. The Abstract of the '025 Patent states:

> A residual picture is produced and encoded that is a residual picture that is a residual signal between a picture to be coded that is an input moving-picture video signal to be subjected to coding and a predictive picture produced from a reference picture that is a local decoded video signal for each of a plurality of rectangular zones, each composed of a specific number of pixels, into which a video area of the moving-picture video signal is divided. A boundary condition of each of a plurality of borders is obtained between the rectangular zones and

> another plurality of rectangular zones adjacent to the rectangular zones, and a border, of the reference picture, having a boundary condition that matches the boundary condition, is found by motion-vector search in the reference picture, and border motion-vector data is generated that is data on a motion vector from a border of the rectangular zone in the picture to be coded to the border of the reference picture thus found. A boundary condition of a border that corresponds to the border motion vector data is defined from the reference picture based on the border motion-vector data, and an estimated video signal is generated in each rectangular zone in the picture to be coded, that satisfies Poisson's Equation, thus producing a first predictive picture. The residual picture is then produced with the first predictive picture as the predictive picture and encodes the residual picture.

The '101 Patent, titled "Server Device for Media, Method for Controlling Server for Media, and Program," issued on July 24, 2012, and bears a filing date of March 2, 2007. The Abstract of the '101 Patent states:

> Transfer control means (41) transfers part of held digital contents in an internal storage device (51) to a network storage device (57). List information presentation means (42) returns list information which makes the digital contents stored in the internal storage device (51) and the network storage device (57) as the held digital contents in response to a list presentation request for the held digital contents. Upon reception of a data transmission request, search means (43) searches where the held digital contents are currently stored. If the result of the search shows the network storage device (57), content data transmission processing means (44) allows the stream-delivery of the data from the network storage device (57) to a network player (56). There is provided a server device for media (40) capable of maintaining the convenience of playback in a network player, while properly dealing with the large total size of held digital contents.

The '303 Patent, titled "Video Image Coding Data Transmitter, Video Image Coding Data Transmission Method, Video Image Coding Data Receiver, and Video Image Coding Data Transmission and Reception System," issued on May 29, 2018, and bears an earliest priority date of March 31, 2004. The Abstract of the '303 Patent states:

> A transmission rate acquisition unit acquires the transmission rate of a network. A predictive transmission structure setting unit sets a transmission structure including a basic hierarchy and a supplementary hierarchy. A first transmission unit transmits basic video image coding data of the basic hierarchy. A memory unit stores supplementary video image coding data of the supplementary hierarchy. A second transmission unit transmits the supplementary video image

coding data stored in the memory unit. A transmission control unit controls the second transmission unit according to the transmission rate.

The Court previously construed disputed terms in the '025 Patent (as well as other patents that are not at issue in the present claim construction proceedings) in *Advanced Coding Technologies LLC v. LG Electronics Inc., et al.*, No. 2:22-CV-501, Dkt. No. 155, 2024 WL 3794780 (E.D. Tex. July 21, 2024) (Payne, J.) ("*LG*").

II. LEGAL PRINCIPLES

It is understood that "[a] claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention." *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999). Claim construction is clearly an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970–71 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996).

"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." *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015) (citation omitted). "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." *Id.* (citing 517 U.S. 370).

To ascertain the meaning of claims, courts look to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. The specification must contain a written description of the invention that enables one of ordinary skill in the art to make

and use the invention. *Id.* A patent's claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* "One purpose for examining the specification is to determine if the patentee has limited the scope of the claims." *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee's invention. Otherwise, there would be no need for claims. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). Although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

This Court's claim construction analysis is substantially guided by the Federal Circuit's decision in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that "the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Id.* at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* The ordinary and customary meaning of a claim term "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date

of the patent application." *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention and that patents are addressed to, and intended to be read by, others skilled in the particular art. *Id.*

Despite the importance of claim terms, *Phillips* made clear that "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of "a fully integrated written instrument." *Id.* at 1315 (quoting *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at 1314–17. As the Supreme Court stated long ago, "in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims." *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

> Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.

Phillips, 415 F.3d at 1316. Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. Like the specification, the prosecution history helps to demonstrate how the inventor and the

United States Patent and Trademark Office ("PTO") understood the patent. *Id.* at 1317. Because the file history, however, "represents an ongoing negotiation between the PTO and the applicant," it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence that is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. *Id.*; *see Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (noting that "a patentee's statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation").

Phillips rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Phillips*, 415 F.3d at 1319–24. According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of "focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent." *Id.* at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.*

Phillips does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers

disputed claim language. *Id.* at 1323–25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant.

The Supreme Court of the United States has "read [35 U.S.C.] § 112, ¶ 2 to require that a patent's claims, viewed in light of the specification and prosecution history, 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, 134 S. Ct. 2120, 2129 (2014). "A determination of claim indefiniteness is a legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), *abrogated on other grounds by Nautilus*, 572 U.S. 898. "Indefiniteness must be proven by clear and convincing evidence." *Sonix Tech. Co. v. Publ'ns Int'l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017).

"[P]rior orders in related cases do not bar the Court from conducting additional construction in order to refine earlier claim constructions." *TQP Dev., LLC v. Intuit Inc.*, No. 2:12-CV-180-WCB, 2014 WL 2810016, at *6 (E.D. Tex. June 20, 2014) (Bryson, J., sitting by designation).

In general, however, prior claim construction proceedings involving the same patents-in-suit are "entitled to reasoned deference under the broad principals of *stare decisis* and the goals articulated by the Supreme Court in *Markman*, even though *stare decisis* may not be applicable *per se*." *Maurice Mitchell Innovations, LP v. Intel Corp.*, No. 2:04-CV-450, 2006 WL 1751779, at *4 (E.D. Tex. June 21, 2006) (Davis, J.); *see TQP*, 2014 WL 2810016, at *6 ("[P]revious claim constructions in cases involving the same patent are entitled to substantial weight, and the Court has determined that it will not depart from those constructions absent a strong reason for

doing so."); *see also Teva*, 135 S. Ct. at 839–40 ("prior cases will sometimes be binding because of issue preclusion and sometimes will serve as persuasive authority") (citation omitted); *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1329 (Fed. Cir. 2008) (noting "the importance of uniformity in the treatment of a given patent") (quoting *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996)).

III. AGREED TERMS

In their June 24, 2025 P.R. 4-3 Joint Claim Construction and Prehearing Statement, the parties submitted the following agreed-upon constructions (Dkt. No. 63 at 1–2; Dkt. No. 78 at 1, 23, 89–90, 101, 106, 120–21, 151 & 162–64):

Term	Agreed Construction
"border motion-vector data" / "border motion vector data" ('025 Patent, Claims 1, 3, 4, 6–7, 9–10)	"data representing the difference in spatial position between a border of the block to be predicted in the picture to be coded and the best-matched border in the reference picture"
"boundary condition" ('025 Patent, Claims 1, 4, 6–7, 9–10)	"gradient data pertaining to the pixels at the boundary of a block"
"the input signal being obtained by multiplexing a coded bitstream obtained by predictive coding, border motion-vector data and post-quantization data obtained by quantization in the predictive coding" ('025 Patent, Claims 6–7, 10)	"the input signal being obtained by multiplexing a coded bitstream, obtained by predictive coding, comprising (1) border motion-vector data and (2) post-quantization data obtained by quantization in the predictive coding"
"basic video image coding data" ('303 Patent, Claims 1–2)	"overview video image coding data"
"supplementary video image coding data" ('303 Patent, Claims 1–2)	"extension of the basic video image coding data"

"standard resolution" ('995 Patent, Claims 1–3, 8–9; '448 Patent, Claims 1–3)	"the spatial resolution of a picture input into an encoding system as an encoding target"
"decoding with an extension of the standard resolution" ('995 Patent, Claims 2–4)	"decoding with an enhancement layer based on standard resolution reference picture(s)"
"A moving picture encoding system that makes an encoding of a sequence of moving pictures with a resolution higher than a standard resolution using moving pictures contents which include a sequence of moving pictures with the standard resolution and do not include a sequence of moving pictures with a resolution higher than the standard resolution, the moving picture encoding system comprising" ('448 Patent, Claims 1–3)	Preamble is limiting.

IV. DISPUTED TERMS

1. "an estimated video signal"

"an estimated video signal" ('025 Patent, Claims 1, 4, 6–7, 9–10)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
Plain and ordinary meaning	"a predictive signal generated based on boundary conditions"

(Dkt. No. 63 at 4; Dkt. No. 78 at 67.)

(a) The Parties' Positions

Plaintiff argues that Defendant's proposed construction creates redundancy, and Plaintiff argues that Defendant's requirement that the estimated signal be "based on" boundary conditions "would only serve to add confusion about claim scope, rather than resolve it." (Dkt. No. 68

at 3.) Plaintiff argues that "Defendant's proposed construction incorrectly reads a preferred embodiment into the claim limitation and should be rejected." (*Id.* at 4.)

Defendant responds that its proposed construction is consistent with disclosure in the specification regarding how the claimed invention purportedly achieves its objective, and "the specification expressly distinguishes between the estimated video signals of the invention that are generated by zone-border motion estimation and compensation and the predictive signals known in the art that are generated by 'ordinary' motion estimation and compensation." (Dkt. No. 69 at 3; *see id.* at 2–3.) Defendant argues that "Google's proposed construction is consistent with the specification and not redundant because it explains that while the specification describes more than one type of predictive signal, the estimated video signal of the invention is a specific type of predictive signal that is generated *based on boundary conditions*." (*Id.* at 4 (citations omitted).)

Plaintiff replies that "[m]erely because each embodiment describes that the estimated signal based on the boundary conditions does not mean that the claims are so limited." (Dkt. No. 74 at 1 (citation omitted).) Plaintiff argues that "[t]he claims of the '025 Patent already delineate how the boundary conditions are used . . .," and "[t]he inputs that lead to the 'estimated video signal' in the claims are already defined by the claims themselves, and therefore Defendant's proposed construction is improper and unnecessary." (*Id.*)

<u>(b) Analysis</u>

Defendants cite testimony of Plaintiff's expert generally agreeing that, in all disclosed embodiments, the zone-border motion compensator uses boundary conditions to generate an estimated signal. (Dkt. No. 68, Ex. J, July 16, 2025 Saber dep. at 172:24–173:4 ("Q. . . . [F]or every coder or coding apparatus embodiment that's described in the '025 patent, the zone-border

motion compensator uses boundary conditions to generate an estimated signal, correct? A. Generally speaking, yeah.”).)

Also, the specification refers to “a predictive signal (an estimated signal)” and “predictive signal (estimated signal).” ’025 Patent at 14:47–53.

Defendant does not, however, demonstrate that “predictive” and “estimated” are interchangeable or that any reference to “boundary condition” is necessary apart from what the claims already recite. (*See* Dkt. No. 68, Ex. G, June 24, 2005 [*sic*] Karam Decl. ¶ 61.) Claim 1 of the ’025 Patent, for example, recites:

> 1. A moving-picture coding apparatus comprising:
>
> a predictive encoder to produce and encode a residual picture that is a residual signal between a picture to be coded that is an input moving-picture video signal to be subjected to coding and a predictive picture produced from a reference picture that is a local decoded video signal for each of a plurality of rectangular zones, each composed of a specific number of pixels, into which a video area of the moving-picture video signal is divided;
>
> a zone-border motion estimator to *obtain a boundary condition* of each of a plurality of borders between the rectangular zones and another plurality of rectangular zones adjacent to the rectangular zones, *find a border, of the reference picture*, having a boundary condition that matches the boundary condition, by motion-vector search in the reference picture, and *generate border motion-vector data* that is data on a motion vector from a border of the rectangular zone in the picture to be coded to the border of the reference picture thus found; and
>
> a zone-border motion compensator to *define a boundary condition of a border that corresponds to the border motion vector data, from the reference picture based on the border motion-vector data, and generate an estimated video signal* in each rectangular zone in the picture to be coded, that satisfies Poisson’s Equation, thus *producing a first predictive picture*,
>
> wherein the predictive encoder produces the residual picture with the first predictive picture as the predictive picture and encodes the residual picture;
>
> said predictive encoder including a first subtractor to produce a first residual picture from a difference between the picture to be coded and the first predictive picture;
>
> an orthogonal transformer to perform orthogonal transform to the first residual picture, thus generating orthogonal-transform coefficients data;
>
> a quantizer to perform quantization to the orthogonal-transform coefficients data based on a specific quantization parameter, thus generating post-quantization data;

> an inverse-quantizer to perform inverse-quantization to the post-quantization data based on a specific quantization parameter, thus generating post-inverse-quantization data; and
>
> an inverse-orthogonal transformer to perform inverse-orthogonal transform to the post-inverse-quantization data, thus producing a decoded residual picture.

In light of the above-emphasized portions of Claim 1 of the '025 Patent, Plaintiff persuasively argues that the claim separately recites "estimated" and "predictive" and recites how the boundary conditions are used with reference to obtaining a boundary condition, matching a boundary condition, generating border motion-vector data, and generating an estimated video signal, "thus producing a first predictive picture."

Further, the claim recites that generating the estimated video signal involves boundary conditions, but to the extent Defendant is proposing that the estimated video signal is based directly on boundary conditions, Defendant's proposed construction lacks sufficient support. Further, the claim already recites a relationship between "an estimated video signal" and "a first predictive picture," and Defendant's proposed construction would conflate those terms. Also, Plaintiff's expert, Dr. Saber, opines that "[b]ecause motion must be estimated in order to compensate motion between subsequent video frames, the predicted frame with compensated motion is necessarily an estimated video signal, since there will be some error from its non-compressed version," and "a POSITA would not understand there to be any requirement that the boundary condition is used to *generate* the estimated video signal, but only to solve Poisson's Equation as part of determining that the "estimated video signal [. . .] satisfies Poisson's Equation." (Dkt. No. 68, Ex. E, June 24, 2025 Saber Decl. pp. 18 & 21, ¶¶ 42 & 46.)

The other claims here at issue are similar in this regard. *See* '025 Patent, Cls. 4, 6–7, & 9–10.

This understanding is consistent with the specification, which discloses:

> [A]ccording to the first embodiment, the *estimated signal 1706* such as shown in (b) of FIG. 17 is generated by the zone-border motion compensator 119 through PHLCT [(Polyharmonic Cosine Transform)] as a *predictive signal* on a block border of each block. This *predictive signal* is generated based on boundary conditions around a block to be coded in a picture to be coded, determined by the zone-border motion estimator 118 as the closest to the gradient of a video signal.

'025 Patent at 13:32–47 (emphasis added).

> Accordingly, in the moving-picture coding apparatus and method of the first embodiment, the motion estimator 502 and the motion compensator 503 perform ordinary motion estimation and motion compensation to generate a *predictive signal* and obtain a residual signal (a residual picture) between the predictive signal and the input signal 101, and in addition, the zone-border motion estimator 118 and the zone-border motion compensator 119 perform the zone-border motion estimation and zone-border motion compensation, discussed above, like the first embodiment, to generate an *estimated signal* based on a boundary condition on a block border and obtain a residual signal (a residual picture) between the estimated signal and the input signal 101, followed by the residual determiner 504 to compare the data amount of the residual signal from the first subtractor 120 and that of the second subtractor 120 and select the residual signal (residual picture) of smaller data amount. Thus, according to the apparatus and method in the second embodiment, *when the data amount obtained by means of an estimated signal based on a boundary condition on a block border is larger than the data amount of a predictive signal obtained by ordinary motion estimation and motion compensation,* the residual signal (the residual picture) selected is the one obtained by taking a difference between predictive signal obtained by ordinary motion estimation and motion compensation and a picture to be coded, thus overall code amount becomes smaller for a higher quality coded videos and higher coding efficiency.

'025 Patent at 25:21–48 (emphasis added).

> Moreover, according to the present invention, a coded bitstream thus obtained by coding as described above is received via a transfer line or storage medium for entropy decoding to generate, at least, post-quantization data, zone-border motion-vector data and parameter data required for constructing a specific syntactic structure, defining a boundary condition of a border, in a reference picture, corresponding to and based on the decoded zone-border motion-vector data, an estimated video signal is generated in each rectangular zone in a picture to be coded, that satisfies Poisson's Equation, based on the defined boundary condition, *thus producing a predictive picture*, and the predictive picture is combined with a decoded residual picture. Therefore, the present invention

> achieves efficient transfer, reception and reproduction of a coded bitstream with a smaller code amount than known art.

'025 Patent at 31:18–32 (emphasis added).

The Court therefore hereby expressly rejects Defendants' proposed construction, and no further construction is necessary. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy."); *see also O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008); *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010) ("Unlike *O2 Micro*, where the court failed to resolve the parties' quarrel, the district court rejected Defendants' construction."); *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012); *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015); *Bayer Healthcare LLC v. Baxalta Inc.*, 989 F.3d 964, 977–79 (Fed. Cir. 2021).

The Court accordingly hereby construes "an estimated video signal" to have its **plain meaning**.

2. "[an estimated video signal . . .] satisfies Poisson's equation"

"[an estimated video signal . . .] satisfies Poisson's equation" ('025 Patent, Claims 1, 4, 6–7, 9–10)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
"[an estimated video signal] for which Poisson's Equation is true"	"[an estimated video signal] generated by applying Poisson's Equation"

(Dkt. No. 63 at 4; Dkt. No. 78 at 45–46.)

(a) The Parties' Positions

Plaintiff argues that Defendants' proposed construction would exclude the preferred embodiment disclosed in the specification. (Dkt. No. 68 at 5.) Plaintiff argues that Defendant's proposal of requiring solving the equation should be rejected, and "a POSITA would understand that estimations of certain inputs are going to lead to estimations of the outputs, but, so long as a method is used to generate an estimated video signal for which Poisson's Equation is true given estimated inputs, then the claim is met." (*Id.* at 6.)

Defendant responds:

> ACT fails to address the actual dispute: what is required to satisfy Poisson's Equation. Under Google's construction, a method must be used which applies Poisson's Equation to generate the estimated video signal—this is any method that is intended to result in a solution that matches the result of Poisson's Equation. Under ACT's construction, any method with results that match the solution to Poisson's Equation may be used, even if such matching occurs only by chance.

(Dkt. No. 69 at 4–5.) As for disclosures in the specification regarding "other signal generation methods," Defendant argues that "these other generation methods still use at least the concept of Poisson's Equation, even if it is not a direct mathematical application of Poisson's Equation." (*Id.* at 6 (citation omitted).)

Plaintiff replies: "Google claims that ACT 'fails to address the actual dispute' while laying bare that this dispute was already resolved in the previous litigation: that there is no requirement in the claims for Poisson's Equation to be used in any calculation to be within the scope of the claims, so long as the output can be understood to satisfy Poisson's Equation." (Dkt. No. 74 at 2.) Plaintiff argues that, whereas Defendant suggests requiring an intent to match the result of Poisson's Equation (as set forth above), "this 'intent' limitation is not found within

the claims, nor is it possible for a machine doing calculations to have 'intent' to do anything." (*Id.*)

(b) Analysis

In *LG*, the Court construed this term to mean "[an estimated video signal] for which Poisson's Equation is true." *LG* at 14; *see id.* at 12–14. *LG* found:

> To the extent [the defendant] suggests a calculation is required, the Court disagrees. The claim language simply characterizes the generated estimated video signal. It does not, however, require calculations or verification that Poisson's Equation is satisfied. Of course, those calculations may be required to prove infringement, but, as Samsung suggests, satisfying Poisson's Equation simply means the estimated signal makes the equation true. That could happen either if the signal is generated and calculated in advance to satisfy Poisson's Equation, or by chance.[fn] Either of those would fall within the scope of this limitation. With that guidance, the Court construes this term as "[an estimated video signal] for which Poisson's Equation is true."
>
> [fn:] For example, a carpenter who crafts a tabletop 10 feet long and 5 feet wide would satisfy a claim limitation directed to a tabletop that satisfies the equation $L = 2 \times W$, even if he never bothered to make that calculation.

Id. at 13–14 (citation omitted).

This finding in *LG* is consistent with the specification, which discloses:

> [A]s shown in FIG. 16, what are defined as gradient data of a video signal on borders 1601a, 1602a, 1603a and 1604a in a predictive picture 1605 in (c) of FIG. 16, are gradient data that are boundary conditions of borders 1601, 1602, 1603 and 1604 in the reference picture 1402 in (a) of FIG. 16 that match the block borders Γ(1), Γ(2), Γ(3) and Γ(4) of the block to be predicted in the picture to be coded 1401. *Poisson's Equation is then applied based on the gradient data of the video signal thus defined to generate a predictive signal in block* [*sic*] *which is then applied to a predictive block 1606a, as shown in (d) of FIG. 16.* These procedures are performed for each block of a predictive picture, thus producing the predictive picture, completion of the zone-border motion estimation.
>
> Discussed next is PHLCT (Polyharmonic Cosine Transform) employed in the first embodiment in generation of a predictive signal in block with the gradient of a video signal on each side of a specific block applied as a boundary condition to Poisson's Equation.

> FIG. 17 is an illustration of a basic concept of PHLCT. PHLCT is a scheme to enhance DCT coding efficiency used for example in JPEG, as discussed in "Improvement of DCT-based Compression Algorithms Using Poisson's Equation". * * * PHLCT is a scheme to generate an estimated signal, from DCT coefficients, based on a block boundary condition by means of a signal in a block represented by a specific source model, such as a quadratic function that defines behavior of the signal in the block.
>
> . . . It is preferable to employ a source model enabling estimation of a signal the closest to the original signal under the boundary conditions. A quadratic function is a typical example of the source model for a one-dimensional signal, such as shown in FIG. 17. The present invention is, however, not limited to this model, a lower-order function such as a line[a]r function or a higher-order function such as a cubic function and a quartic function are available. Accordingly, *this embodiment implements the source model in generation of an estimated signal in a block analytically without mathematically solving Poisson's Equation with a huge amount of calculation.*

'025 Patent at 11:20–12:3 (emphasis added); *see id.* at 9:34–45 ("apply the gradient [of the video signal in each side of a block] to Poisson's Equation to generate a predictive signal"); *id.* at 14:12–13; *see also id.* at 11:66–12:3 ("implements the source model in generation of an estimated signal in a block analytically without mathematically solving Poisson's Equation with a huge amount of calculation").

Defendant maintains that although this disputed term does not require mathematically solving Poisson's Equation, it nonetheless requires using calculations that are designed to approximate a solution to Poisson's Equation. (Dkt. No. 69 at 4–5; *see* Dkt. No. 68, Ex. G, June 24, 2005 [*sic*] Karam Decl. ¶¶ 44–48.)

LG rejected such an interpretation (*see LG* at 13–14, reproduced above), and Defendant does not persuasively justify departing from *LG*. At the October 2, 2025 hearing, Defendant argued that the phrase "is true" in the *LG* construction is unclear, but Defendant does not justify modifying the *LG* construction so as to require "mathematical precision." (Dkt. No. 69 at 8 n.5; *cf. Sonix*, 844 F.3d at 1377 ("[A] patentee need not define his invention with mathematical

precision in order to comply with the definiteness requirement.") (citation omitted).) Also, Defendant does not justify introducing anything resembling an intent-based design requirement into the claims.

Rather, the dispute between the parties pertains to a factual question of infringement rather than any further legal question for claim construction. *See PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998) ("after the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact"); *see also Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007) ("[t]he resolution of some line-drawing problems . . . is properly left to the trier of fact") (citing *PPG*, 156 F.3d at 1355); *Eon Corp. IP Holdings LLC v. Silver Spring Networks, Inc.*, 815 F.3d 1314, 1318–19 (Fed. Cir. 2016) (citing *PPG*, 156 F.3d at 1355; citing *Acumed*, 483 F.3d at 806). To the extent the parties disagree regarding the meaning of mathematically "true" in this context (*see* Dkt. No. 69 at 7 (citing expert deposition testimony on both sides)) or whether the meaning depends on implementation for a specific application (*id.* at 7–8), these are likewise factual issues for the experts, not legal issues for claim construction. (*See, e.g.,* Dkt. No. 68, Ex. J, July 16, 2025 Saber dep. at 200:18–201:12 ("if you were to take, for instance, these equations and go back to the paper where they came out from, and you read that paper, you'd notice that they do -- they approximate derivatives with -- with finite differences. So the approximated derivative with a finite difference, you're – you're obviously have some error, but it's not the same exact thing.").)

The foregoing is also consistent with extensive deposition testimony by Defendant's expert, Dr. Karam, who discussed intent but also discussed at length that approximations can be

used to reduce computational requirements, which is consistent with the above-reproduced disclosure in the specification. (Dkt. No. 68, Ex. K, July 18, 2025 Karam dep. at 31:3–54:17; *see, e.g., id.* at 47:16–20 ("Q. . . . So that approximate solution to Poisson's equation, in your opinion, is still satisfying Poisson's equation; correct? A. Yes."); *see also id.* at 81:18–13, 82:4–13 & 86:17–87:3; '025 Patent at 11:59–12:3 (avoiding "a huge amount of calculation"). The testimony of Plaintiff's expert, Dr. Saber, cited by Defendant does not show otherwise. *See* Dkt. No. 68, Ex. J, July 16, 2025 Saber dep. at 231:25–232:3; *see id.* at 232:4–233:10 ("When you apply the PHLCT methodology to . . . model the . . . borders as they are describing, it would satisfy Poisson's Equation . . . as an aftermath.").

The Court hereby construes "[an estimated video signal . . .] satisfies Poisson's equation" to mean **"[an estimated video signal] for which Poisson's Equation is true."**

3. "coding order and display order are earlier by a factor of a group of pictures" and "coding order and display order are earlier by a factor of the group of pictures"

"coding order and display order are earlier by a factor of a group of pictures" **"coding order and display order are earlier by a factor of the group of pictures"** ('303 Patent, Claims 1, 2)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
"coding order and display order are earlier by one or more groups of pictures"	Indefinite

(Dkt. No. 63 at 4; Dkt. No. 78 at 111.)

(a) The Parties' Positions

Plaintiff argues that "[b]ecause a 'group of pictures' [("GOP")] is a known unit, Defendant's indefiniteness argument fails," and "[t]hat GOPs may vary in size or time based upon the coding environment does not render the claim indefinite." (Dkt. No. 68 at 7 (citation omitted).)

Defendant responds that "even if Groups of Pictures (GOPs) are known units in the art as ACT asserts, ACT has not shown that GOPs are units of time." (Dkt. No. 69 at 8.) Defendant also argues that "ACT concedes that GOPs 'may vary in size or time based upon the coding environment,' compounding the impossible task for a POSITA to determine whether the limitation has been met." (*Id.* (citation omitted).) Further, Defendant argues that "the language 'a factor of' adds further uncertainty as 'a factor of' is never used in the specification." (*Id.* at 9.)

Plaintiff replies: "(1) there's no requirement that a GOP be a 'unit of time' in order to render this claim definite, so long as a Group of Pictures is understandable to a POSITA; and (2) if a GOP is a given number of frames (for example, 30 frames) and a video is played at a known frame rate (for example, 30 frames per second), then a GOP *is* a unit of time, in this case, one second." (Dkt. No. 74 at 3.)

(b) Analysis

Claim 1 of the '303 Patent, for example, recites (emphasis added):

> 1. A video image coding data receiver comprising:
> a processor; and
> a memory unit having instructions stored which, when executed by the processor, cause the processor to perform operations comprising:
> receiving basic video image coding data;
> decoding the received basic video image coding data so as to reproduce a video image;
> receiving supplementary video image coding data including a supplementary hierarchical picture whose *coding order and display order are earlier by a factor of a group of pictures* including an intra coded picture and a plurality of inter prediction coded pictures than those of a basic hierarchical picture included in the basic video image coding data, a basic hierarchy and a supplementary hierarchy being set in units of the group of pictures;
> acquiring basic video image coding data received before supplementary video image coding data that has been received at the moment; and
> reconstructing video image coding data from the basic video image coding data and the supplementary video image coding data.

The phrase "group of pictures" does not refer to a specific amount of time. Rather, this claim and the specification use "group of pictures" with reference to data for a series of consecutive video images. The claim itself recites what a "group of pictures" must include, namely "including an intra coded picture and a plurality of inter prediction coded pictures." The specification also explains that "group of pictures" can potentially be used as a unit of measurement:

> By employing a GOP, which is a unit that is larger than a picture, for the setting of a transmission structure, a clock that synthesizes basic video image coding data and supplementary video image coding data of the coding data reconstruction unit 202 in the video image monitoring station 2000 can be reduced. Obviously, a transmission structure can be also set in units of a plurality of GOPs.

'303 Patent at 12:51–57. Perhaps this could be translated into an amount of time when considered in conjunction with a particular frame rate, but any dispute in this regard is immaterial because this claim uses "earlier" not necessarily to refer to any particular amount of time but rather to refer to relative position in time.

This understanding is further reinforced by extrinsic evidence cited by Plaintiff. (*See* Dkt. No. 68, Ex. R, E.G. Richardson, *Video Codec Design – Developing Image and Video Compression Systems* 60, 62, 297 (2002); *see also id.*, Ex. E, June 24, 2025 Saber Decl. p. 23, ¶ 49 (citing same); *id.*, Ex. S, Miska M. Hannuksela, *Error-Resilient Communication Using the H.264/AVC Video Coding Standard* 73 (2009) ("A group of pictures conventionally consists of one chain of reference pictures in which a reference picture is predicted from the earlier reference picture(s) in decoding order. Consequently, one corrupted reference picture affects all subsequent reference pictures in decoding order within the same group of pictures."). Also, Defendant's expert has acknowledged that "[a] POSITA would be familiar with the concept of GOP." (Dkt. No. 68, Ex. K, July 18, 2025 Karam dep. at 101:2–102:24.)

The opinions of Defendant's expert relied upon by Defendant, such as that "earlier" must necessarily refer to a "duration of time," are unpersuasive. (Dkt. No. 68, Ex. G, June 24, 2005 [*sic*] Karam Decl. ¶ 86; *see id.* at ¶¶ 85–86.) Defendant's argument on this at the October 2, 2025 hearing—that "earlier" refers to time rather than relative position in time because, for example, the patentee could have used the word "before" rather than "earlier"—is likewise unpersuasive. Further, potential variation in the number of pictures within a group of pictures (*id.* at ¶ 87) is unpersuasive because the claim language does not preclude variation.

Finally, although Defendant argues that the phrase "a factor of" is unclear, a fair reading of this phrase in the context of the limitation as a whole is that "a factor of" means that "earlier by" refers to one whole group of pictures or a multiple of whole groups of pictures (rather than potentially some fractional amount). Defendant substantively agrees. (Dkt. No. 69 at 9 ("a POSITA would understand 'factor' to mean whole multiples (of GOPs)") (citation omitted).)

The Court therefore hereby construes "coding order and display order are earlier by a factor of a group of pictures" and "coding order and display order are earlier by a factor of the group of pictures" to mean **"coding order and display order are earlier by one whole group of pictures or by multiple whole groups of pictures."**

4. "reconstructing video image coding data from the basic video image coding data and the supplementary video image coding data"

"reconstructing video image coding data from the basic video image coding data and the supplementary video image coding data" ('303 Patent, Claims 1–2)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
"rearranging basic video image coding data with supplementary video image coding data"	Indefinite Alternatively, "rearranging basic video image coding data with supplementary video image coding data so as to reconstruct video image coding data"

(Dkt. No. 63 at 4; Dkt. No. 78 at 116.)

(a) The Parties' Positions

Plaintiff argues that these claims are not indefinite because "the specification and claims are clear that both types of basic video image coding data are implicated in the claimed reconstructing step." (Dkt. No. 68 at 9.) Plaintiff also argues that Defendant's alternative proposed construction includes superfluous language because it "merely restates the claim term 'reconstructing.'" (*Id.* at 11.)

Defendant responds that "[t]his term is indefinite because a POSITA would not understand, with reasonable certainty, the scope of the term 'reconstructing video image coding data from *the* basic video image coding data and the supplementary video image coding data,' because a POSITA would be unable to discern which of the previously introduced 'basic video image coding data' is the antecedent basis for *the* basic video image coding data in this term." (Dkt. No. 69 at 9 (citation omitted).) Defendant also argues that "ACT's construction is incorrect and incomplete as it reads out the 'reconstruction' aspect from the claim." *Id.* at 12.

Plaintiff replies:

> There is one basic video image coding data that is received. Part of the frames in that basic video image coding data have a coding/display order before and indeed are received before any supplementary hierarchical picture (e.g., the basic video image coding data frames received in time periods T1, T2, and T3 in FIG. 5). The remainder of the basic video image coding data frames have a coding/display order after, and are received after, that supplementary hierarchical picture. Therefore, the basic video image coding data can be considered bifurcated but the "basic video image coding data" referred to throughout Claim 1 is the same. Therefore, a POSITA would not have any confusion . . . .

(Dkt. No. 74 at 3–4.) Plaintiff also argues that referring to reconstructing in the construction would be redundant because rearrangement occurs when frames are received out of order. (*Id.* at 4.)

At the October 2, 2025 hearing, Defendant reiterated that the antecedent basis is not reasonably clear because the claim does not specify whether "the basic video image coding data" refers to the "receiving . . .," the "acquiring . . .," or both.

(b) Analysis

Claim 1 of the '303 Patent, for example, recites (emphasis added):

> 1. A video image coding data receiver comprising:
> a processor; and
> a memory unit having instructions stored which, when executed by the processor, cause the processor to perform operations comprising:
> *receiving basic video image coding data*;
> decoding the received basic video image coding data so as to reproduce a video image;
> receiving supplementary video image coding data including a supplementary hierarchical picture whose coding order and display order are earlier by a factor of a group of pictures including an intra coded picture and a plurality of inter prediction coded pictures than those of a basic hierarchical picture included in the basic video image coding data, a basic hierarchy and a supplementary hierarchy being set in units of the group of pictures;
> *acquiring basic video image coding data* received before supplementary video image coding data that has been received at the moment; and
> *reconstructing video image coding data from the basic video image coding data and the supplementary video image coding data.*

In context, the recital of "the basic video image coding data" refers back to "basic video image coding data" in both the "receiving . . ." and the "acquiring . . ." because each refers to a particular portion of basic video image coding data based on when the portion was received or acquired in relation to other data. The "reconstructing . . ." therefore employs all of the recited "basic video image coding data." Plaintiff's expert addressed this, for example, in deposition testimony. (*See* Dkt. No. 68, Ex. J, July 16, 2025 Saber dep. at 249:13–256:4.) This understanding is consistent with the specification, which discloses:

> The coding data reconstruction unit 202 *rearranges the order of pictures between the basic video image coding data of the past stored in the memory and the supplementary video image coding data received by the receiving unit 200 so as to reconstruct video image coding data* and stores the reconstructed video image coding data in the coding data storage unit 203. Note that, since the supplementary hierarchical picture included in the supplementary video image coding data transmitted from the second transmission unit 104 has a coding order and a display order that precede those of the basic hierarchical picture included in the basic video image coding data transmitted in real time from the first transmission unit 102 as described previously, the video image coding data cannot be reconstructed in combination with the supplementary video image coding data if the basic video image coding data of the past is not stored in the memory. The coding data reconstruction unit 202 deletes the basic video image coding data of the past from the memory after the video image coding data is reconstructed.

'303 Patent at 5:19–38; *see id.* at 11:55–12:11. Defendant's suggestion of construing "acquiring basic video image coding data" as "acquiring *the* basic video image coding data" should therefore be rejected. Also, Plaintiff's expert opines regarding the received pictures being rearranged for proper viewing. (Dkt. No. 68, Ex. E, June 24, 2025 Saber Decl. at ¶ 53 (citing, e.g., '303 Patent at Fig. 5).)

In sum, Defendant does not persuasively demonstrate indefiniteness as to "the basic video image coding data." Defendant's expert similarly opines that "the supplementary video image coding data" lacks antecedent basis. (Dkt. No. 68, Ex. G, June 24, 2005 [*sic*] Karam Decl. ¶ 72.) This argument is similarly unpersuasive.

As for the proper construction, the above-reproduced disclosure refers to "rearrang[ing] the order of pictures," and although Defendant cites disclosure that data can be reproduced "without any rearrangement," this involves using a "picture reproduction order list" that is generated and stored while received data is being stored in the order received. '303 Patent at 8:1–22. Finally, as Plaintiff's expert agrees, the disputed term requires reconstructing, not just rearranging. (*See* Dkt. 68-11 at 251:18–252:6 ("[R]econstructing is basically two pieces. You got rearrange it first. You have to do the arrange -- you know, make sure that frame 10 is after frame 11. . . . So there's a coding, essentially, order that the decoder would -- would know, and then it would decode them appropriately. So that's when the reconstructing comes in. So it's got to rearrange and then decode them so then you can see the high fidelity video or the high quality video."); *see also id.* at 274:4–13. The word "reconstructing" does not appear to be a disputed aspect of this disputed term, and, at the October 2, 2025 hearing, Plaintiff was amenable to including the word "reconstructing" in the construction.

The Court therefore hereby construes "reconstructing video image coding data from the basic video image coding data and the supplementary video image coding data" to mean **"reconstructing video image data by rearranging basic video image coding data with supplementary video image coding data."**

5. "transfer" and "transferring"

"transfer" **"transferring"** ('101 Patent, Claims 1, 4, 7)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
Plain and ordinary meaning	"to move data from one place to another"

(Dkt. No. 63 at 4; Dkt. No. 78 at 171–72.)

(a) The Parties' Positions

Plaintiff submits that "[i]n order to be transferred, according to Google, the data must be deleted or removed from its original place," and Plaintiff argues that "[Google's] narrow proposed definition is allegedly based on statements in the specification and extrinsic evidence, none of which support Google's construction." (Dkt. No. 68 at 11.)

Defendant responds that "[a] POSITA, considering the term 'transfer' in the context of the claims and the specification, would understand that 'transfer' only refers to moving, and not copying, content." (Dkt. No. 69 at 13.) Defendant argues: "The specification confirms this understanding. Indeed, the problem to be solved and the entire purpose of the claimed invention was to minimize the storage space required to store content. Allowing for multiple copies of content to exist simultaneously is contrary to the purpose and intended applications of the claimed invention." (*Id.* (citations omitted).)

Plaintiff replies that "all purported benefits of the invention that are listed in the patent specification need not be captured by every claim," "[n]or is it proper to do so in the face of contemporary extrinsic evidence, including a technical dictionary, stating that that [*sic*] the known definition of 'transfer' includes copying data." (Dkt. No. 74 at 4.)

(b) Analysis

The parties agree that the word "transfer," generally, can encompass copying as well as moving. (*See, e.g.,* Dkt. No. 68, Ex. N, *Wiley Electrical & Electronics Engineering Dictionary* 798 (2004).) The relevant inquiry, however, is the meaning of "transfer" in the claims here at issue.

Claim 1 of the '101 Patent, for example, recites (emphasis added):

1. A server device for media, the server device for media comprising:

an internal storage device for storing digital contents, wherein the server device for media responds to a data transmission request from a network player by stream-delivering corresponding data in corresponding digital contents from the internal storage device to the network player during connection to a network;

a *transfer* control unit adapted to *transfer* and store part of held digital contents in the internal storage device to a network storage device, wherein the network storage device is connected to the network and is capable of storing data, and wherein said *transfer* control unit does not *transfer*, from the internal storage device to the network storage device, the digital contents that cannot be recovered if a network failure occurs during the *transferring* of the digital contents from the internal storage device to the network storage device;

a list information transmission unit adapted to respond to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents *transferred* from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree structure of the digital contents in the internal storage device before *transferring* the digital contents to the network storage device;

a search unit adapted to respond to a data transmission request for the held digital contents from the network player by searching for a location where the held digital contents are currently stored; and

a digital contents data transmission processing unit adapted to allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device,

wherein the server device for media is a media player.

The specification discloses:

It is convenient to use an HDD portable player as a server device for media to play, as required, music pieces held therein from any of the network players which are connected to the same network as that the HDD portable player is connected to. Although the capacity of the HDD in the HDD portable player is large, it is limited, however. Thus, the HDD can store limited amounts of music pieces.

* * *

When the hard disk recorder disclosed in the Patent Document has an insufficient capacity free, it can do nothing but delete a part of the stored contents data in order to store further new contents. Even if the hard disk recorder is adapted to *transfer* a part of the stored contents data to a storage medium such as a DVD-R or the like *instead of deleting them*, the hard disk recorder is difficult to play the transferred contents as required [*sic*].

> An object of the present invention is to provide a server device for media, a method for controlling a server for media, and a program for the same which is capable of maintaining the convenience of playback in a network player, while properly dealing with the large total size of held digital contents.
>
> * * *
>
> The transfer control means 41 *transfers* part of the held digital contents from the internal storage device 51 to the network storage device 57 for any reason. For example, the reason may be (b1) *the user needs a predetermined free capacity* for storing a new digital content since the internal storage device 51 *is nearly filled* with the digital contents stored up to the present time; or (b2) the user wants to *transfer* the held digital contents to the network storage device 57 *instead of deleting them* in the case of using the contents in the future.

'101 Patent at 1:47–53, 1:65–2:11 & 7:4–12 (emphasis added).

By distinguishing between "transfer" and "deleting," these disclosures support reading "transfer" as referring to *moving*, such that the data is maintained on a different device, rather than *deleting* (such that the data would not be maintained at all).

This is also consistent with disclosure that, if only one copy of an item of digital content exists, a "transferring operation" that is interrupted by a network failure could have as a result that "the original digital content cannot be recovered":

> For the purpose of copyright protection, some digital contents are adapted not to permit the overlapped part of the same content exists in a plurality of storage devices for more than several seconds in the playback time, for example. If the *transferring operation* of such a digital content from the internal storage device 51 to the network storage device 57 is interrupted by a failure in the network 55 or the like, the original digital content cannot be recovered neither in the internal storage device 51 nor the network storage device 57, which causes a great damage to the user.

Id. at 9:26–35 (emphasis added). At the October 2, 2025 hearing, Plaintiff argued that this disclosure does not warrant limiting "transferring" to moving because this disclosure pertains to copyright-protected content that is not permitted to be duplicated. Plaintiff's argument is unpersuasive because this passage merely reinforces what is apparent from the other above-

reproduced disclosures, namely that the patentee used the word "transferring" to refer to moving and did so without any indication of a broader potential meaning in this patent. The opinions of Defendant's expert are further persuasive in this regard. (Dkt. No. 68, Ex. H, June 24, 2025 Black Decl. ¶ 99–101.)

Plaintiff's reliance on Defendant's documents, which purportedly refer to "copying" as a form of "transfer," even if assumed to reflect a meaning in the art at the relevant time, are unpersuasive in light of the above-discussed intrinsic evidence. (*See* Dkt. No. 68, Ex. O at GOOG-ACT-00000178, Ex. P at GOOG-ACT-00005279 & Ex. Q at GOOG-ACT-00005645.)

Finally, Defendant proposes moving "data from one place to another," but this additional language is unnecessary in light of surrounding claim language, such as language that recites origin and destination.

The Court therefore hereby construes these disputed terms as follows:

Term	Construction
"transfer"	**"move"**
"transferring"	**"moving"**

6. "a transfer control unit adapted to transfer and store part of held digital contents in the internal storage device to a network storage device, wherein the network storage device is connected to the network and is capable of storing data, and wherein said transfer control unit does not transfer, from the internal storage device to the network storage device, the digital contents that cannot be recovered if a network failure occurs during the transferring of the digital contents from the internal storage device to the network storage device"

"a transfer control unit adapted to transfer and store part of held digital contents in the internal storage device to a network storage device, wherein the network storage device is connected to the network and is capable of storing data, and wherein said transfer control unit does not transfer, from the internal storage device to the network storage device, the digital contents that cannot be recovered if a network failure occurs during the transferring of the digital contents from the internal storage device to the network storage device" ('101 Patent, Claim 1)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
Subject to 112 p. 6 Structure: Software algorithm that performs the steps of: • Selecting the digital contents from the held digital contents in the internal storage device according to any criteria • Transferring part of the held digital contents from the internal storage device to the network storage device for any reason '101 Patent, 6:57–7:12. Function: "transfer and store part of held digital contents in the internal storage device to a network storage device, wherein the network storage device is connected to the network and is capable of storing data, and wherein said transfer control unit does not transfer, from the internal storage device to the network storage device, the digital contents that cannot be recovered if a network failure occurs during the transferring of the digital contents from the internal storage device to the network storage device"	Governed by 35 U.S.C. § 112, ¶ 6 Indefinite due to insufficient corresponding structure (algorithm) in the specification under 35 U.S.C. § 112, ¶¶ 2, 6. Function: "transfer and store part of held digital contents in the internal storage device to a network storage device, wherein the network storage device is connected to the network and is capable of storing data, and herein said transfer control unit does not transfer, from the internal storage device to the network storage device, the digital contents that cannot be recovered if a network failure occurs during the transferring of the digital contents from the internal storage device to the network storage device" Structure/Algorithm: Insufficient

(Dkt. No. 63 at 4–5; Dkt. No. 78 at 177–79.)

(a) The Parties' Positions

Plaintiff argues that "the phrase 'wherein the network storage device is connected to the network and is capable of storing data' is a limitation on the network storage device and not part of the claimed function for the 'transfer control unit,'" and "[t]hus, the structure of the transfer control unit need not enable any function related to the structure in this wherein clause." (Dkt. No. 68 at 14.) Plaintiff argues that "a sufficient algorithm is disclosed by the '101 Patent and, while broad, this algorithm supports the selection of digital contents to be played and the transfer of those digital contents to the network storage device . . . ." (*Id.* (citation omitted).)

Defendant responds that "the structure for this term has to be able to 'transfer and store' to a network storage device that satisfies the wherein clause regardless of if the wherein clause is itself part of the function for this term." (Dkt. No. 69 at 16–17.) Defendant also argues that "[t]he portions of the specification that ACT cites to do not disclose structure for performing the claimed function, but rather only recite the claimed functionality for the 'transfer control unit.'" (*Id.* at 17 (citation omitted).)

Plaintiff replies that "[r]esolving the dispute over the proper function is necessary in order for the Court to determine whether the specification discloses sufficient structure for performing this function," and "[t]he *wherein* clause contains a structural limitation regarding the connections between the network storage device and the network, and therefore is not a 'function' of the transfer control unit." (Dkt. No. 74 at 5.)

(b) Analysis

The parties agree that this term is subject to 35 U.S.C. § 112, ¶ 6. The parties dispute the claimed function and dispute whether the specification discloses sufficient corresponding structure.

Title 35 U.S.C. § 112, ¶ 6 (now known as § 112(f)) provides: "An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

"In exchange for using this form of claiming, the patent specification must disclose with sufficient particularity the corresponding structure for performing the claimed function and clearly link that structure to the function." *Triton Tech of Tex., LLC v. Nintendo of Am., Inc.*, 753 F.3d 1375, 1378 (Fed. Cir. 2014).

Claim 1 of the '101 Patent recites (emphasis added):

> 1. A server device for media, the server device for media comprising:
>
> an internal storage device for storing digital contents, wherein the server device for media responds to a data transmission request from a network player by stream-delivering corresponding data in corresponding digital contents from the internal storage device to the network player during connection to a network;
>
> *a transfer control unit adapted to transfer and store part of held digital contents in the internal storage device to a network storage device, wherein the network storage device is connected to the network and is capable of storing data, and wherein said transfer control unit does not transfer, from the internal storage device to the network storage device, the digital contents that cannot be recovered if a network failure occurs during the transferring of the digital contents from the internal storage device to the network storage device;*
>
> a list information transmission unit adapted to respond to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the

> list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device;
>
> a search unit adapted to respond to a data transmission request for the held digital contents from the network player by searching for a location where the held digital contents are currently stored; and
>
> a digital contents data transmission processing unit adapted to allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device,
>
> wherein the server device for media is a media player.

All of the above-emphasized language appears in connection with the recital of a "transfer control unit," but although the function of this term recites "a network storage device," the phrase "wherein the network storage device is connected to the network and is capable of storing data" modifies the network storage device, not the transfer control unit. Also, the second "wherein" clause is a limitation that pertains to the "transfer control unit" but not to the claimed function itself ("transfer and store"). Rather, this second "wherein" clause is a limitation on how the transfer control unit is employed.

The claimed function is therefore: "transfer and store part of held digital contents in the internal storage device to a network storage device."

As for corresponding structure, the specification discloses:

> The transfer control means 41 selects the digital contents from the held digital contents in the internal storage device 51 to transfer to the network storage device 57 according to any criteria. For example, in the present case, the transfer control means 41 can select, as the contents to be transferred, (a1) a digital content which the user of the server device for media 40 and/or the network player 56 has not been played in a predetermined period past from the present; (a2) a digital content which has not been subjected to the self-playback in the server device for media 40 and only has been subjected to the network-playback in the network storage device 57; (a3) all the digital contents to a predetermined order in the ascending order of the playback frequency; or (a4) a digital content over a predetermined size.
>
> The transfer control means 41 transfers part of the held digital contents from the internal storage device 51 to the network storage device 57 for any reason. For

> example, the reason may be (b1) the user needs a predetermined free capacity for storing a new digital content since the internal storage device 51 is nearly filled with the digital contents stored up to the present time; or (b2) the user wants to transfer the held digital contents to the network storage device 57 instead of deleting them in the case of using the contents in the future.

'101 Patent at 6:57–7:12.

The corresponding structure is therefore "transfer control means 41." To the extent this is implemented as part of a general-purpose processor, no algorithm is required because transferring and storing data is a general function that can be performed without special programming. *See In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1315 (Fed. Cir. 2011) ("Absent a possible narrower construction of the terms 'processing,' 'receiving,' and 'storing,' . . . those functions can be achieved by any general-purpose computer without special programming. As such, it was not necessary to disclose more structure than the general purpose processor that performs those functions.") (footnote omitted). The opinions of Defendant's expert to the contrary are unpersuasive. (*See* Dkt. No. 68, Ex. H, June 24, 2025 Black Decl. ¶¶ 43–48.)

Alternatively, even if the second "wherein" clause were deemed to be part of the claimed function, Defendant's indefiniteness argument would still fail because the specification links the "transfer control means 41" to that function as well. *See* '101 Patent at 9:36–41.

The Court therefore hereby construes this disputed term as set forth in the following chart:

Term	Construction
"a transfer control unit adapted to transfer and store part of held digital contents in the internal storage device to a network storage device, wherein the network storage device is connected to the network and is capable of storing data, and wherein said transfer control unit does not transfer, from the internal storage device to the network storage device, the digital contents that cannot be recovered if a network failure occurs during the transferring of the digital contents from the internal storage device to the network storage device" ('101 Patent, Claim 1)	Governed by 35 U.S.C. § 112, ¶ 6 Function: "transfer and store part of held digital contents in the internal storage device to a network storage device" Structure: **"transfer control means 41; and equivalents thereof"**

7. "a list information transmission unit adapted to respond to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device"

"a list information transmission unit adapted to respond to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device" ('101 Patent, Claim 1)	
Plaintiff's Proposed Construction	**Defendant's Proposal**
Subject to 112 p. 6 Structure: Software algorithm, program, or routine that performs the steps of: • transmitting list information to the network player; • if the network storage device is not connected to the network, making the list information for the network player include predetermined information for allowing	Governed by 35 U.S.C. § 112, ¶ 6 Indefinite due to insufficient corresponding structure (algorithm) in the specification under 35 U.S.C. § 112, ¶¶ 2, 6. Function: "respond to a list presentation

the network player to perform a process for expressing the non-connection on its display list; and • excluding the digital contents that cannot be played in response to an instruction to play issued from the network player from the list information to be transmitted from the server device for media to the network player so that the digital contents are not shown on the display list of the network player. '101 Patent, 8:25–9:25 Function: "respond to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device"	request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device" Structure/Algorithm: Insufficient

(Dkt. No. 63 at 5–7; *see* Dkt. No. 78 at 181–83.)

(a) The Parties' Positions

Plaintiff argues that this term is not indefinite because the specification discloses a sufficient algorithm for performing the claimed function. (Dkt. No. 68 at 16.) Plaintiff also argues that "Google's argument that the patent does not disclose sufficient structure to perform the claimed function is based on an erroneous reading of the claimed function." (*Id.*)

Defendant responds that "even if a POSITA reads the function as ACT now argues, the function requires transmitting a specific type of list information, as defined by the wherein clause," and "ACT fails to recite sufficiently definite structure that can perform the required function." (Dkt. No. 69 at 18 & 19.)

Plaintiff replies that "[t]he wherein clauses specifically recite characteristics of the list information, and are not part of the function of the 'list information transmission unit," and "[t]here is no need for the structure of the list information transmission unit to include these characteristics of the list information." (Dkt. No. 74 at 5.)

(b) Analysis

The parties agree that this term is subject to 35 U.S.C. § 112, ¶ 6, and the parties dispute the claimed function. The parties also dispute whether the specification discloses sufficient corresponding structure.

As for the claimed function, the "wherein" clauses limit the "list information" that is transmitted ("wherein the list information . . ."). These wherein clauses are therefore part of the claimed function. This also comports with Plaintiff's proposal for the claimed function as set forth in the parties' June 24, 2025 Joint Claim Construction and Prehearing Statement (prior to the start of briefing). (Dkt. No. 63 at 5–7.) In its briefing (cited above), and at the October 2, 2025 hearing, Plaintiff urged that the "wherein" clauses do not recite functions but rather pertain to the format of the list information. Defendant persuasively responded that these wherein clauses pertain directly to how the transmitting function is claimed and thus are limitations on how it must be performed as part of the claimed function.

As for the corresponding structure, Plaintiff and its expert (*see* Dkt. 68, Ex. F, June 24, 2025 McClellan Decl. ¶ 49) cite the following portion of the specification:

> Preferably, the list information presentation means 42 transmits the list information to the network player 56, including information for identifying whether each digital content is currently stored in the internal storage device 51 or the network storage device 57 in the display list of the network player 56.
>
> The network player 56 receives the information for identifying whether each digital content is currently stored in the internal storage device 51 or the network storage device 57 from the server device for media 40. In the display list for the

user, for example, the network player 56 shows names of the digital contents stored in the internal storage device and names of the digital contents stored in the network storage device 57 in different colors, or shows the names of the digital contents stored in the network storage device 57 in lighter color than that of the names of the digital contents stored in the internal storage device 51.

Even if the server device for media 40 and the network player 56 are normally connected to the network 55, the server device for media 40 may be unable to respond to the data transmission request from the network player 56 for the digital contents which have been transferred to the network storage device 57 by actually transmitting the data to the network player 56 for such a reason as the network storage device 57 being switched off. To deal with such a problem, the server device for media 40 is equipped with connection detecting means (not shown) for checking whether the network storage device 57 is connected to the network 55 or not. If the network storage device 57 is not connected to the network 55, the list information presentation means 42 can make the list information for the network player 56 include predetermined information for allowing the network player 56 to perform a process for expressing the non-connection on its display list. In that case, the user views the list of the digital contents on the display unit of the network player 56 and can identify whether the digital contents stored in the network storage device 57 (c1) can be actually played in response to an instruction to play issued from the network player 56, or (c2) cannot be played in response to the instruction to play issued from the network player 56.

It is also possible to exclude the digital contents relating to (c2) from the list information to be transmitted from the server device for media 40 to the network player 56 so that the digital contents are not shown on the display list of the network player 56.

Described below is a specific example of list information structure that is transmitted from the server device for media 40 to the network player 56 for allowing the user of the network player 56 to identify the digital contents held in the internal storage device 51 (hereinafter, referred to as “real held contents” for convenience) and the digital contents held in the network storage device 57 (hereinafter, referred to as “virtual held contents”). Neither UPnP nor DLNA has a specification in which a proper flag or the like that can be used to distinguish the virtual held contents from the real held contents is defined. Since the GUI for the DMP is generated by the DMP and the DMP manufacturer designs the GUI at discretion, the DMS cannot change the displayed color or the like of the GUI. Therefore, “*”, for example, is added to the title of the digital contents or an extension tag, for example, <kenwood:BackUp> is defined in the XML of the digital contents so that the DMP that can recognize the tag determines whether the digital contents are the virtual held contents or the real held contents according to the value (for example, 1 and 0) and displays them in different colors or the like in the GUI.

’101 Patent at 8:25–9:25.

This disclosure cited by Plaintiff contains nothing regarding the portion of the claimed function that recites “maintain[ing] a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device.” Although the Court is not obligated to search elsewhere in the specification for corresponding structure, the Court has found no corresponding structure. For example, column 5 discloses that a tree structure is maintained, but this disclosure does not link any structure to such a function, instead using the passive voice (“the tree structure shown in FIG. 4 is maintained”). *Id.* at 5:53–67.

The specification thus lacks sufficient corresponding structure for performing the claimed function, and this disputed term is therefore indefinite. *See, e.g., Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1312 (Fed. Cir. 2012); *Williamson*, 792 F.3d at 1339.

The Court therefore hereby construes this disputed term as follows:

Term	Construction
“a list information transmission unit adapted to respond to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device” (’101 Patent, Claim 1)	Governed by 35 U.S.C. § 112, ¶ 6 Function: “respond to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device” Structure: **None (indefinite)**

8. "said list information transmission unit makes the list information to be transmitted to the network player include information for identifying whether each digital content is currently stored in the internal storage device or the network storage device in the display list of the network player"

"said list information transmission unit makes the list information to be transmitted to the network player include information for identifying whether each digital content is currently stored in the internal storage device or the network storage device in the display list of the network player" ('101 Patent, Claim 5)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
Structure: Software algorithm, program, or routine that performs the steps of: • transmitting list information to the network player; • if the network storage device is not connected to the network, making the list information for the network player include predetermined information for allowing the network player to perform a process for expressing the non-connection on its display list; and • excluding the digital contents that cannot be played in response to an instruction to play issued from the network player from the list information to be transmitted from the server device for media to the network player so that the digital contents are not shown on the display list of the network player. '101 Patent, 8:25–9:25 Function: "makes the list information to be transmitted to the network player include information for identifying whether each digital content is currently stored in the internal storage device or the network storage device in the display list of the network player"	Governed by 35 U.S.C. § 112, ¶ 6 This term provides additive functionality to the functionality required by the term "a list information transmission unit adapted to respond to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device" in claim 1. The corresponding structure for the additive functionality in claim 5 is not sufficient to perform the functionality from claim 1 and at most can perform the additional functionality added by claim 5. Therefore, claim 5 is indefinite. Function: "makes the list information to be transmitted to the network player include information for identifying whether each digital content is currently stored in the internal storage device or the network storage device in the display list of the network player" Structure/Algorithm:

	Algorithm that shows whether the digital contents is stored in the network storage device or internal storage device using different colors, lighter colors, or an asterisk as set forth in the '101 patent at 8:35–42 and 9:4–25.

(Dkt. No. 63 at 7–8; *see* Dkt. No. 78 at 184–87.)

(a) The Parties' Positions

Plaintiff argues that Google's indefiniteness argument ignores that the '101 Patent describes that "the list information to the network player 56, includ[es] information for identifying whether each digital content is currently stored in the internal storage device 51 or the network storage device 57 in the display list of the network player 56." (Dkt. No. 68 at 19 (quoting '101 Patent at 8:25–30).)

Defendant responds this term is indefinite for the same reasons as presented for Term 7 ("a list information transmission unit"), above. (Dkt. No. 69 at 20.) Alternatively, Defendant argues that "if not found indefinite, this term should be limited to the structure identified." (*Id.*)

Plaintiff replies that "[t]his additional limitation on the list information transmission unit is covered by the structure in Claim 1, and this dependent claim merely provides an additional requirement to the type of list information transmitted by the list information transmission unit." (Dkt. No. 74 at 6.)

(b) Analysis

Claim 5 of the '101 Patent recites:

> 5. The server device for media according to claim 1, wherein said list information transmission unit makes the list information to be transmitted to the network player include information for identifying whether each digital content is currently stored in the internal storage device or the network storage device in the display list of the network player.

Because this disputed term refers to the same "list information transmission unit" in Claim 1 that the Court has found indefinite because of lack of corresponding structure, above, this term in Claim 5 is also indefinite.

The Court therefore hereby finds that this disputed term is **indefinite**.

9. "a search unit adapted to respond to a data transmission request for the held digital contents from the network player by searching for a location where the held digital contents are currently stored"

"a search unit adapted to respond to a data transmission request for the held digital contents from the network player by searching for a location where the held digital contents are currently stored" ('101 Patent, Claim 1)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
Subject to 112 p. 6 Structure: Software algorithm, program, or routine that performs the steps of: • receiving a data transmission request for held digital contents from the network player • responding to a data transmission request by searching for the location of requested digital contents • transmitting the result of the search to the contents data transmission processing means if the result of the search shows the network storage device '101 Patent, 6:41–48 Function: "respond to a data transmission request for the held digital contents from the network player by searching for a location where the held digital contents are currently stored"	Governed by 35 U.S.C. § 112, ¶ 6 Indefinite due to insufficient corresponding structure (algorithm) in the specification under 35 U.S.C. § 112, ¶¶ 2, 6. Function: "respond to a data transmission request for the held digital contents from the network player by searching for a location where the held digital contents are currently stored" Structure/Algorithm: Insufficient

(Dkt. No. 63 at 8–9; Dkt. No. 78 at 187–88.)

(a) The Parties' Positions

Plaintiff argues that Defendant's expert admits that a person of ordinary skill in the art would have known how to search for digital contents, and that there is no novelty in the way that the '101 Patent performs these searches, and Plaintiff argues that "[t]he disclosed algorithm that the search unit performs a known search technique in response to a data transmission request and transmits the results of the search is all that is required for algorithmic structure." (Dkt. No. 68 at 20.)

Defendant responds: "[T]he portion of the specification that ACT identifies as structure does not actually disclose any structure whatsoever. Indeed, ACT's structure is solely functional language which is not sufficient." (Dkt. No. 69 at 21 (citing *Impact Engine, Inc. v. Google LLC*, No. 2022-2291, 2024 WL 3287126, at *8 (Fed. Cir. July 3, 2024) ("Recognizing the need for genuine structure in the specification over and above the claimed function, we have repeatedly explained that 'purely functional language, which simply restates the function associated with the means-plus-function limitation, is insufficient to provide the required corresponding structure.'") (quoting *Noah*, 675 F.3d at 1317).) Defendant argues that "a POSITA would not know how the patentee intended to implement the functionality because not only is there insufficient disclosure of structure to perform the claimed function, there is absolutely *no* structure disclosed in the specification at all." (*Id.* at 22.)

Plaintiff replies that "[t]he disclosed algorithm that the search unit performs a known search technique in response to a data transmission request and transmits the results of the search is all that is required for algorithmic structure," and "[t]he search unit does more than just search: it receives a data transmission request, responds to that request by performing a search using a known technique, and it transmits the result of that search." (Dkt. No. 74 at 6–7.)

(b) Analysis

The parties agree that this term is subject to 35 U.S.C. § 112, ¶ 6, and the parties agree on the claimed function. The parties dispute whether the specification discloses sufficient corresponding structure. Plaintiff argues that the claimed function is processor-implemented and that the specification discloses sufficient corresponding structure in the form of an algorithm for performing the claimed function. Defendant argues that the specification sets forth no algorithm and therefore the term lacks corresponding structure and is indefinite.

The specification discloses:

> The *search means 43 responds* to the data transmission request for the held digital contents issued from the network player 56 by *searching* for the location where the held digital contents are currently stored. If the result of search shows the network storage device 57, the contents data transmission processing means 44 makes the corresponding data stream-delivered from the network storage device 57 to the network player 56.

'101 Patent at 6:41–48 (emphasis added).

The corresponding structure is therefore "search means 43." To the extent this is implemented as part of a general-purpose processor, no algorithm is required because locating data is a general function that can be performed without special programming. *See In re Katz*, 639 F.3d at 1315 ("Absent a possible narrower construction of the terms 'processing,' 'receiving,' and 'storing,' . . . those functions can be achieved by any general-purpose computer without special programming. As such, it was not necessary to disclose more structure than the general purpose processor that performs those functions.") (footnote omitted).

Alternatively, even if the algorithm requirement were deemed to apply, this disclosure regarding "search means 43" sufficiently sets forth an algorithm in prose and does more than merely restate the claimed function. *Id.* In particular, the disclosed algorithm includes triggering "contents data transmission processing means 44." *Id.* Although the specification cannot rely on

the knowledge of a person of ordinary skill in the art as providing an algorithm, *see, e.g., EON Corp. IP Holdings LLC v. AT&T Mobility LLC*, 785 F.3d 616, 623–24 (Fed. Cir. 2015), disclosures in the specification are read in light of such knowledge. *See id.* at 624 ("Where the specification discloses an algorithm that the accused infringer contends is inadequate, we judge the disclosure's sufficiency based on the skilled artisan's perspective."); *see also Williamson*, 792 F.3d at 1339 ("if *a person 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, a means-plus-function clause is indefinite") (emphasis added). Finally, the testimony of Plaintiff's expert regarding box S74 in Figure 6 of the '101 Patent, cited by Defendants, addresses that particular figure but does not concede lack of an algorithm in the specification as a whole. (*See* Dkt. No. 69, Ex. 5, McClellan dep. at 102:13–104:11.)

The Court therefore hereby construes this disputed term as set forth in the following chart:

Term	Construction
"a search unit adapted to respond to a data transmission request for the held digital contents from the network player by searching for a location where the held digital contents are currently stored" ('101 Patent, Claim 1)	Governed by 35 U.S.C. § 112, ¶ 6 Function: "respond to a data transmission request for the held digital contents from the network player by searching for a location where the held digital contents are currently stored" Structure: **"search means 43; and equivalents thereof"**

10. "a digital contents data transmission processing unit adapted to allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device"

11. "said digital contents data transmission processing unit causes the network storage device to transmit the corresponding data to the server device for media, and then transmits the corresponding data received from the network storage device from the server device for media to the network player"

12. "said digital contents data transmission processing unit transmits the corresponding data and information for identifying the network storage device to the network player, and causes the network storage device to directly transmit the corresponding data to the network player"

"a digital contents data transmission processing unit adapted to allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device" ('101 Patent, Claim 1)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
Subject to 112 p. 6 Structure: Software algorithm, program, or routine that performs the steps of: • determining whether digital contents should be transmitted from the network storage device to the network player directly or indirectly • transmitting digital contents to the network player according to the determination of direct or indirect transmission. '101 Patent, 7:24–65. Function: "allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device"	Governed by 35 U.S.C. § 112, ¶ 6 Indefinite due to insufficient corresponding structure (algorithm) in the specification under 35 U.S.C. § 112, ¶¶ 2, 6. Function: "allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device" Structure/Algorithm: Insufficient

"said digital contents data transmission processing unit causes the network storage device to transmit the corresponding data to the server device for media, and then transmits the corresponding data received from the network storage device from the server device for media to the network player" ('101 Patent, Claim 2)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
Subject to 112 p. 6 Structure: Software algorithm, program, or routine that performs the steps of: • determining whether digital contents should be transmitted from the network storage device to the network player directly or indirectly • transmitting digital contents to the network player according to the determination of direct or indirect transmission. '101 Patent, 7:24–65. Function: "allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device, and causes the network storage device to transmit the corresponding data to the server device for media, and then transmits the corresponding data received from the network storage device from the server device for media to the network player"	Governed by 35 U.S.C. § 112, ¶ 6 Indefinite due to insufficient corresponding structure (algorithm) in the specification under 35 U.S.C. § 112, ¶¶ 2, 6. Function: "allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device, and causes the network storage device to transmit the corresponding data to the server device for media, and then transmits the corresponding data received from the network storage device from the server device for media to the network player" Structure/Algorithm: Insufficient
"said digital contents data transmission processing unit transmits the corresponding data and information for identifying the network storage device to the network player, and causes the network storage device to directly transmit the corresponding data to the network player" ('101 Patent, Claim 3)	

Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
Subject to 112 p. 6 Structure: Software algorithm, program, or routine that performs the steps of: • determining whether digital contents should be transmitted from the network storage device to the network player directly or indirectly • transmitting digital contents to the network player according to the determination of direct or indirect transmission. '101 Patent, 7:24-65. Function: "allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device, transmits the corresponding data and information for identifying the network storage device to the network player, and causes the network storage device to directly transmit the corresponding data to the network player"	Governed by 35 U.S.C. § 112, ¶ 6 Indefinite due to insufficient corresponding structure (algorithm) in the specification under 35 U.S.C. § 112, ¶¶ 2, 6. Function: "allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device, and transmits the corresponding data and information for identifying the network storage device to the network player, and causes the network storage device to directly transmit the corresponding data to the network player" Structure/Algorithm: Insufficient

(Dkt. No. 63 at 9–12; *see* Dkt. No. 78 at 190–97.)

(a) The Parties' Positions

Plaintiff argues that the specification discloses sufficient algorithmic structure for these terms. (Dkt. No. 68 at 21–23.)

Defendant responds that "[i]n an attempt to suggest there is an actual algorithm that is disclosed, ACT lards up its proposed structure with additional steps," and "[w]hen those steps are removed from ACT's proposed structure (because they do not contribute to implementation of the actual required function), the only thing left in ACT's structure is the transmitting itself,

which is just a restatement of the function and therefore not sufficient structure for actually performing the function." (Dkt. No. 69 at 23 & 24.)

Plaintiff replies that it is not "lard[ing] up" (*id.*) its proposal because: "[T]he digital contents data transmission processing unit must still determine, from the information received from the search means, where the stored data is located in order to perform the function of streaming. Performing this function is conditional on the results of the search. The location of the data is also crucial to the determination of whether the data should be streamed directly or indirectly." (Dkt. No. 74 at 7.)

(b) Analysis

The parties agree that these terms are subject to 35 U.S.C. § 112, ¶ 6, and the parties agree on the claimed function. The parties dispute whether the specification discloses sufficient corresponding structure.

The specification discloses:

> The digital contents which have been transferred to the network storage device 57 are transmitted from the network storage device 57 to the network player 56 directly and indirectly.
>
> For indirect transmission, the contents data transmission processing means 44 causes the network storage device 57 to transmit the corresponding data to the server device for media 40, and then, to transmit the corresponding data received from the network storage device 57 from the server device for media 40 to the network player 56.
>
> In the specific example of indirect transmission to the network player 56, the server device for media 40 receives a stream-delivery request from the network player 56, obtains the data of the corresponding digital contents (which is referred to as "items" in the DLNA) from the network storage device 57, and sends out the data to the network player 56, and the contents data transmission processing means 44 does not transfer the stream-delivery request from the network player 56 to the network storage device 57. The contents data transmission processing means 44 needs not to [*sic*] copy the data to the internal storage device 51 to implement the above-described operations alone. The contents data transmission processing means 44 can implement the operations only by obtaining the data

> from the network storage device 57 to a buffer memory in the server device for media 40 step by step and sending the data out to the network player 56.
>
> For direct transmission, the contents data transmission processing means 44 transmits the corresponding data and information for identifying the network storage device 57 to the network player 56, and causes the network storage device 57 to directly transmit the corresponding data to the network player 56.
>
> In the specific example of direct transmission to the network player 56, if the network storage device 57 has an HTTP server function, a URI of the corresponding data in the network storage device 57 is written in the metadata relating to the digital contents that is to be transmitted from the server device for media 40 to the network player 56 as a value of "address (URI) to be accessed when the data of the actual contents is obtained by HTTP-GET" so that the network player 56 can obtain the data from the network storage device 57 (by HTTP-GET).

'101 Patent at 7:24–65.

This disclosure of transmitting data among specified components amounts to sufficient disclosure of an algorithm for performing the claimed functions. *Id.* This is evident from the disclosure, and the opinion of Plaintiff's expert provides additional support. (Dkt. No. 68, Ex. F, June 24, 2025 McClellan Decl. ¶ 55.)

The Court therefore hereby construes these disputed terms as set forth in the following chart:

Term	Construction
"a digital contents data transmission processing unit adapted to allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device" ('101 Patent, Claim 1)	Governed by 35 U.S.C. § 112, ¶ 6 Function: "allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device" Structure: **"a processor configured to perform the algorithm set forth in the '101 Patent at 7:24–65; and equivalents thereof"**

"said digital contents data transmission processing unit causes the network storage device to transmit the corresponding data to the server device for media, and then transmits the corresponding data received from the network storage device from the server device for media to the network player" ('101 Patent, Claim 2)	Governed by 35 U.S.C. § 112, ¶ 6 Function: "allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device, and causes the network storage device to transmit the corresponding data to the server device for media, and then transmits the corresponding data received from the network storage device from the server device for media to the network player" Structure: **"a processor configured to perform the algorithm set forth in the '101 Patent at 7:24–65; and equivalents thereof"**
"said digital contents data transmission processing unit transmits the corresponding data and information for identifying the network storage device to the network player, and causes the network storage device to directly transmit the corresponding data to the network player" ('101 Patent, Claim 3)	Governed by 35 U.S.C. § 112, ¶ 6 Function: "allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device, and transmits the corresponding data and information for identifying the network storage device to the network player, and causes the network storage device to directly transmit the corresponding data to the network player" Structure: **"a processor configured to perform the algorithm set forth in the '101 Patent at 7:24–65; and equivalents thereof"**

13. "a return control unit adapted to cause the digital contents corresponding to a predetermined condition among the digital contents which have been transferred to the network storage device to be returned from the network storage device to the internal storage device"

"a return control unit adapted to cause the digital contents corresponding to a predetermined condition among the digital contents which have been transferred to the network storage device to be returned from the network storage device to the internal storage device" ('101 Patent, Claim 4)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
Subject to 112 p. 6 Structure: Software algorithm, program, or routine that performs the steps of: • determining a predetermined condition whether digital contents have recently been subjected to self-playback among the digital contents which have been transferred to the network storage device; or • determining a predetermined condition whether the digital contents have recently been played, whether by self-playback or network-playback; • returning digital contents from the network storage device to the internal storage device based on the determined predetermined condition '101 Patent, 7:66–8:24 Function: "cause the digital contents corresponding to a predetermined condition among the digital contents which have been transferred to the network storage device to be returned from the network storage device to the internal storage device"	Governed by 35 U.S.C. § 112, ¶ 6 Indefinite due to insufficient corresponding structure (algorithm) in the specification under 35 U.S.C. § 112, ¶¶ 2, 6. Function: "cause the digital contents corresponding to a predetermined condition among the digital contents which have been transferred to the network storage device to be returned from the network storage device to the internal storage device" Structure/Algorithm: Insufficient

(Dkt. No. 63 at 12–13; Dkt. No. 78 at 197–99.)

(a) The Parties' Positions

Plaintiff argues that the specification discloses sufficient algorithmic structure for this term. (Dkt. No. 68 at 23–24.)

Defendant responds that: "[T]he term is indefinite because the only portion of the specification that ACT cites for structure for the 'return control unit' describes 'returning' content that was 'transferred' to the network storage device. But that is merely functional language that discusses 'returning' content without any disclosure of the structure that would perform the 'returning.'" (Dkt. No. 69 at 25 (citations omitted).)

Plaintiff replies that the claimed function is not merely returning the digital contents, and "[t]he disclosure in the specification performs the claimed function, 'caus[ing] the digital contents corresponding to a predetermined condition among the digital contents which have been transferred to the network storage device to be returned from the network storage device to the internal storage device,' because it both determines the state of the digital contents; and returns the digital contents." (Dkt. No. 74 at 8.)

At the October 2, 2025 hearing, Defendant argued that the disclosure cited by Plaintiff merely restates the claim language.

(b) Analysis

The parties agree this term is subject to 35 U.S.C. § 112, ¶ 6, and the parties agree on the claimed function. The parties dispute whether there is sufficient corresponding structure.

The specification discloses:

> The server device for media 40 may additionally include return control means 47. The return control means 47 causes the network storage device 57 to return the digital contents corresponding to a predetermined condition among the digital contents, which have been transferred to the network storage device 57, to the server device for media 40.

> The predetermined condition may be, for example, the digital contents which have recently been subjected to the self-playback among the digital contents which have been transferred to the network storage device 57, or the digital contents which have recently been played whether by self-playback or the network-playback. The "self-playback" here includes not only the case in which the server device for media 40 plays the digital contents left in the internal storage device 51 as a single item but also the case in which the server device for media 40 plays the digital contents which have been transferred from the internal storage device 51 to the network storage device 57 and stored there as a single item. For example, if the digital contents which have been transferred from the internal storage device 51 to the network storage device 57 and stored there are called at least once for the self-playback or the network-playback after the transfer, the process for returning (putting back) the digital contents from the network storage device 57 to the internal storage device 51 can be taken.

'101 Patent at 7:66–8:24.

The specification thus discloses an algorithm for performing the claimed function, including regarding "[t]he predetermined condition," in terms of "self-playback" and "network-playback." *Id.* The algorithm evaluates a predetermined condition and causes the digital contents to be returned, and the degree of disclosure is sufficiently commensurate with the complexity level of the claimed function. The opinions of Defendant's expert to the contrary are unpersuasive. (Dkt. No. 68, Ex. H, June 24, 2025 Black Decl. ¶¶ 94–96.)

The Court therefore hereby construes this disputed term as set forth here:

Term	Construction
"a return control unit adapted to cause the digital contents corresponding to a predetermined condition among the digital contents which have been transferred to the network storage device to be returned from the network storage device to the internal storage device" ('101 Patent, Claim 4)	Governed by 35 U.S.C. § 112, ¶ 6 Function: "cause the digital contents corresponding to a predetermined condition among the digital contents which have been transferred to the network storage device to be returned from the network storage device to the internal storage device" Structure: **"a processor configured to perform the algorithm set forth in the '101 Patent at 7:66–8:24; and equivalents thereof"**

14. "a symbol judging means for obtaining a baseband signal representative of a sequence of multilevel symbols and judging the symbol represented by the baseband signal"

"a symbol judging means for obtaining a baseband signal representative of a sequence of multilevel symbols and judging the symbol represented by the baseband signal" ('891 Patent, Claims 1, 4)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
Plain and ordinary meaning, not subject to 112 p. 6 Alternatively, subject to 112 p. 6: Structure: processor and a memory that stores a program executed by the processor that judges the symbol represented by a symbol section containing a Nyquist point and, based on the judgment, reproduces data corresponding to a generated interleaved frame, and equivalents thereof '891 Patent, 9:13–20, 9:27–34. Function: "obtaining a baseband signal representative of a sequence of multilevel symbols and judging the symbol represented by the baseband signal"	Governed by 35 U.S.C. § 112, ¶ 6 Function: "obtaining a baseband signal representative of a sequence of multilevel symbols and judging the symbol represented by the baseband signal" Structure/Algorithm: "a demodulator as set forth in 9:5–12 and a processor and a memory that stores a program executed by the processor in a receiver that judges the instantaneous value of the baseband signal at the Nyquist point against threshold values and determines a symbol value of the section depending on the result as set forth in 9:13–10:4, 14:30–43"

(Dkt. No. 63 at 13–14; *see* Dkt. No. 78 at 199–200.)

(a) The Parties' Positions

Plaintiff argues that "Google's suggestion that the structure include 'a demodulator' completely misconstrues the disclosure of the patent, which distinguishes the 'demodulator unit' R2 from the 'symbol judgment unit' R3 . . . ." (Dkt. No. 68 at 25 (citation omitted).)

Defendant responds that "[b]y attempting to exclude a demodulator from the required structure despite the specification explicitly explaining that the baseband signal is *obtained* by

demodulation, ACT fundamentally misunderstands what 'obtaining' means." (Dkt. No. 69 at 26 (citation omitted).)

Plaintiff replies that "Google's artificial distinctions between 'providing' and 'obtaining' while simultaneously blurring a demodulator and symbol judgment unit should be disregarded." (Dkt. No. 74 at 9.)

At the October 2, 2025 hearing, Plaintiff reiterated its argument that the claimed "obtaining" is not the same as the "providing" that the specification discloses as being performed by a demodulator.

(b) Analysis

The parties dispute whether the corresponding structure includes a demodulator. In particular, the parties discuss the disclosure in Figure 6 of a "Demodulator Unit" (labeled "R2") and a "Symbol Judgment Unit" (labeled "R3"). With reference to Figure 6, the specification discloses:

> The *demodulator unit R2* is composed of a well known detection circuit for detecting the frequency modulated waves, and it detects the FSK modulated waves provided by the high frequency input unit R1 to *restore the baseband signal*. It then *provides the restored baseband signal to the symbol judgment unit R3*. The demodulator unit R2 may be composed of a processor, a memory that stores a program executed by the processor, and the like.
>
> Each of the symbol judgment unit R3, deinterleaving process unit R4, communication quality judgment unit R5, and voice data restoring unit R6 is composed of a processor, a memory that stores a program executed by the processor, and the like. Some or all functions of the symbol judgment unit R3, deinterleaving process unit R4, communication quality judgment unit R5, and voice data restoring unit R6 may be implemented in a single processor. The processor that implements some or all functions of the demodulator unit R2 or transmission device T may further implement some or all functions of the symbol judgment unit R3, deinterleaving process unit R4, communication quality judgment unit R5, and voice data restoring unit R6.
>
> Based on a instantaneous value at a Nyquist point of each of baseband signals provided by the demodulator unit R2, the symbol judgment unit R3, as shown

> schematically in (a) and (b) of FIG. 7, judges the symbol represented by a symbol section containing the Nyquist point and, based on the judgment, reproduces data (FIG. 7 (b)) corresponding to the interleaved frame generated by the interleaving process unit T3 in the transmission device T. The reproduced data is then provided to the deinterleaving process unit R4.
>
> Specifically, the symbol judgment unit R3 first, for example, determines whether the instantaneous value of the baseband signal at the Nyquist point is not less than a first threshold (Th+), or not less than a second threshold (Th0) and less than (Th+), or not less than a third threshold (Th−) and less than (Th0), or less than (Th−), for each Nyquist point contained in the baseband signals provided by the demodulator unit R2.
>
> At this time, the value of (Th+) is more than (+1) and less than (+3), the value of (Th0) is more than (−1) and less than (+1), and the value of (Th−) is more than (−3) and less than (−1). Specifically, therefore, the value of (Th+) may, for example, be (+2), the value of (Th0) may, for example, be (0), and the value of (Th−) may, for example, be (−2).
>
> If it is judged that the instantaneous value of the baseband signal at the Nyquist point is greater than or equal to (Th+), the symbol judgment unit R3 then judges that the symbol value of the symbol section containing the Nyquist point is (+3) and therefore the symbol section represents symbol "01."
>
> Similarly, if it is judged that the value is not less than (Th0) and less than (Th+), the unit judges that the symbol value of the symbol section containing the Nyquist point is (+1) and therefore the symbol section represents symbol "00." If it is judged that the value is not less than (Th−) and less than (Th0), the unit also judges that the symbol value of the symbol section containing the Nyquist point is (−1) and therefore the symbol section represents symbol "10." If it is judged that the value is less than (Th−), the unit also judges that the symbol value of the symbol section containing the Nyquist point is (−3) and therefore the symbol section represents symbol "11."
>
> Once all symbols of one interleaved frame are judged, the symbol judgment unit R3 then provides a sequence of these symbols to the deinterleaving process unit R4 as data corresponding to one reproduced interleaved frame.

'891 Patent at 9:5–10:4 (emphasis added); *see id.* at 14:30–43 (regarding "[t]he symbol judgment unit R3 in the reception device R").

The claimed function recites not just "judging" but also "obtaining a baseband signal," and this above-reproduced disclosure links these functions to the symbol judgment unit R3 and

the demodulator R2, respectively. Plaintiff's interpretation of "obtaining" as referring to merely receiving an already-demodulated signal is unpersuasive. A fair reading of the above-reproduced disclosure is that the patentee linked the claimed function of "obtaining a baseband signal" to the "demodulator" that is disclosed as "restor[ing] the baseband signal." The deposition testimony of Defendant's expert, cited by Plaintiff, does not show otherwise. (*See* Dkt. No. 68, Ex. M, July 15, 2025 Mahon dep. at 72:15–24 & 83:17–25; *see also id.* at 73:6–13 ("A POSITA would clearly understand that R3 is not obtaining. It is being given, provided the baseband signal by R2.").)

The Court therefore hereby construes this disputed term as set forth in the following chart:

Term	Construction
"a symbol judging means for obtaining a baseband signal representative of a sequence of multilevel symbols and judging the symbol represented by the baseband signal" ('891 Patent, Claims 1, 4)	Governed by 35 U.S.C. § 112, ¶ 6 Function: "obtaining a baseband signal representative of a sequence of multilevel symbols and judging the symbol represented by the baseband signal" Structure: **"demodulator R2 and symbol judgment unit R3 as disclosed in the specification; and equivalents thereof"**

15. "a communication quality judging means . . ."

As to this term, which appears in Claim 1 of the '891 Patent, the parties reached the following agreed-upon construction, as set forth in the parties' September 9, 2025 Joint Claim Construction Chart Under P.R. 4-5(d) (except that the parties clarified at the October 2, 2025 hearing that their reference to "10:62–12:10" was an error and should be "10:63–12:10", as reflected in the following chart):

Term	Construction
"a communication quality judging means for judging communication quality of a transmission channel over which the baseband signal has been transmitted, based on content of the symbol judged by the symbol judging means [. . .] wherein the communication quality judging means identifies the number of redundant bits having the predetermined value or the number of redundant bits missing the predetermined value among the redundant bits contained in the symbol that contains a bit belonging to the protected portion, and judges the communication quality of the transmission channel based on the identified result" ('891 Patent, Claim 1)	Governed by 35 U.S.C. § 112, ¶ 6 Function: "judging communication quality of a transmission channel over which the baseband signal has been transmitted, based on content of the symbol judged;" "identifies the number of redundant bits having the predetermined value or the number of redundant bits missing the predetermined value among the redundant bits contained in the symbol that contains a bit belonging to the protected portion, and judges the communication quality of the transmission channel based on the identified result" Structure: "a processor and a memory that stores a program executed by the processor that receives a bit string derived from symbols obtained from a demodulated signal and checks the value of bits and compares the number of bits having or missing a predetermined value to threshold values as set forth in 9:13–25, 10:45–54, 10:63–12:10"

16. "a data changing means for, [. . .] making a predetermined change to the data to be transmitted represented by the symbol used in the judgment"

"a data changing means for, if the communication quality judged by the communication quality judging means does not satisfy a predetermined condition, making a predetermined change to the data to be transmitted represented by the symbol used in the judgment" ('891 Patent, Claim 1)	
Plaintiff's Proposed Construction	**Defendant's Proposed Construction**
Plain and ordinary meaning, not subject to 112 p. 6 Alternatively, subject to 112 p. 6: Structure: processor and a memory that stores a program executed by the processor that either (i) replaces the content of output data with content of previous output data; (ii) destroys/mutes either all of or certain output data of the total output data; and equivalents thereof[1] '891 Patent, 11:26–34, FIG. 8. Function: "making a predetermined change to the data to be transmitted represented by the symbol used in the judgment"[2]	Governed by 35 U.S.C. § 112, ¶ 6 Indefinite due to insufficient corresponding structure (algorithm) in the specification under 35 U.S.C. § 112, ¶¶ 2, 6. Function: "making a predetermined change to the data to be transmitted represented by the symbol used in the judgment" Structure/Algorithm: Insufficient

(Dkt. No. 63 at 14–16; *see* Dkt. No. 78 at 201–05.)

(a) The Parties' Positions

Plaintiff argues that "Google's proposed function merely requires making a predetermined change to the data, but omits the claim's requirement that this change only occurs

[1] At the October 2, 2025 hearing, Plaintiff withdrew its proposal of "(iii) do not change the output data."

[2] At the October 2, 2025 hearing, Plaintiff withdrew its proposal that the claimed function begins with: "if the communication quality judged by the communication quality judging means does not satisfy a predetermined condition."

if the communication quality (as judged by the communication quality judging means) does not satisfy a predetermined condition." (Dkt. No. 68 at 27.) Plaintiff also argues that the specification discloses sufficient algorithmic structure. (*Id.* at 27–28.)

Defendants respond that "a POSITA would not understand the separate claim element 'if' statement as a part of the 'data changing means' functionality because the 'if' statement is a *pre-condition* serving as a determination of whether or not the data changing means functionality is performed and not itself a function that is performed by the 'data changing means,' as both experts agree." (Dkt. No. 69 at 28 (citation omitted).) Defendant argues that "[a] computer would require special programming to implement the functionality under either party's proposal but no such algorithm is sufficiently disclosed in the specification." (*Id.* (citation omitted).) Defendant argues, for example, that the specification "fails to provide *how* the POSITA should mute the voices or *how* 'the content of the vocoder output data' should be replaced 'with content of previous vocoder output data," and "ACT also omits the 'attenuating process' from its proposed structure entirely, which the specification also fails to provide a sufficient algorithm [*sic*]." (*Id.* at 29 (citations omitted).)

Plaintiff replies that "[t]he algorithmic structure is run regardless of the condition," and "[t]he condition on which . . . steps are performed is necessarily part of the Function, which Google ignores." (Dkt. No. 74 at 9.) Plaintiff also argues that "Google does not dispute that ACT's identified algorithmic Structure is able to perform the claimed Function." (*Id.*)

<u>(b) Analysis</u>

The parties agree that this term is subject to 35 U.S.C. § 112, ¶ 6. The parties dispute the claimed function and dispute whether the specification discloses sufficient corresponding structure.

Claim 1 of the ’891 Patent recites (emphasis added):

> 1. A communication quality judging device comprising:
>
> a symbol judging means for obtaining a baseband signal representative of a sequence of multilevel symbols and judging the symbol represented by the baseband signal;
>
> a communication quality judging means for judging communication quality of a transmission channel over which the baseband signal has been transmitted, based on content of the symbol judged by the symbol judging means; and
>
> *a data changing means for, if the communication quality judged by the communication quality judging means does not satisfy a predetermined condition, making a predetermined change to the data to be transmitted represented by the symbol used in the judgment*,
>
> wherein at least a portion of a bit string is distinguished as a protected portion, the bit string constituting data to be transmitted represented by the sequence of symbols, and at least a portion of the symbol that belongs to the sequence of symbols contains a bit belonging to the protected portion and a redundant bit having a predetermined value, and
>
> *wherein the communication quality judging means identifies the number of redundant bits having the predetermined value or the number of redundant bits missing the predetermined value among the redundant bits contained in the symbol that contains a bit belonging to the protected portion, and judges the communication quality of the transmission channel based on the identified result.*

At the October 2, 2025 hearing, Plaintiff withdrew its proposal that the phrase “if the communication quality judged by the communication quality judging means does not satisfy a predetermined condition” is part of the claimed function. The parties are thus in agreement that the claimed function is “making a predetermined change to the data to be transmitted represented by the symbol used in the judgment.”

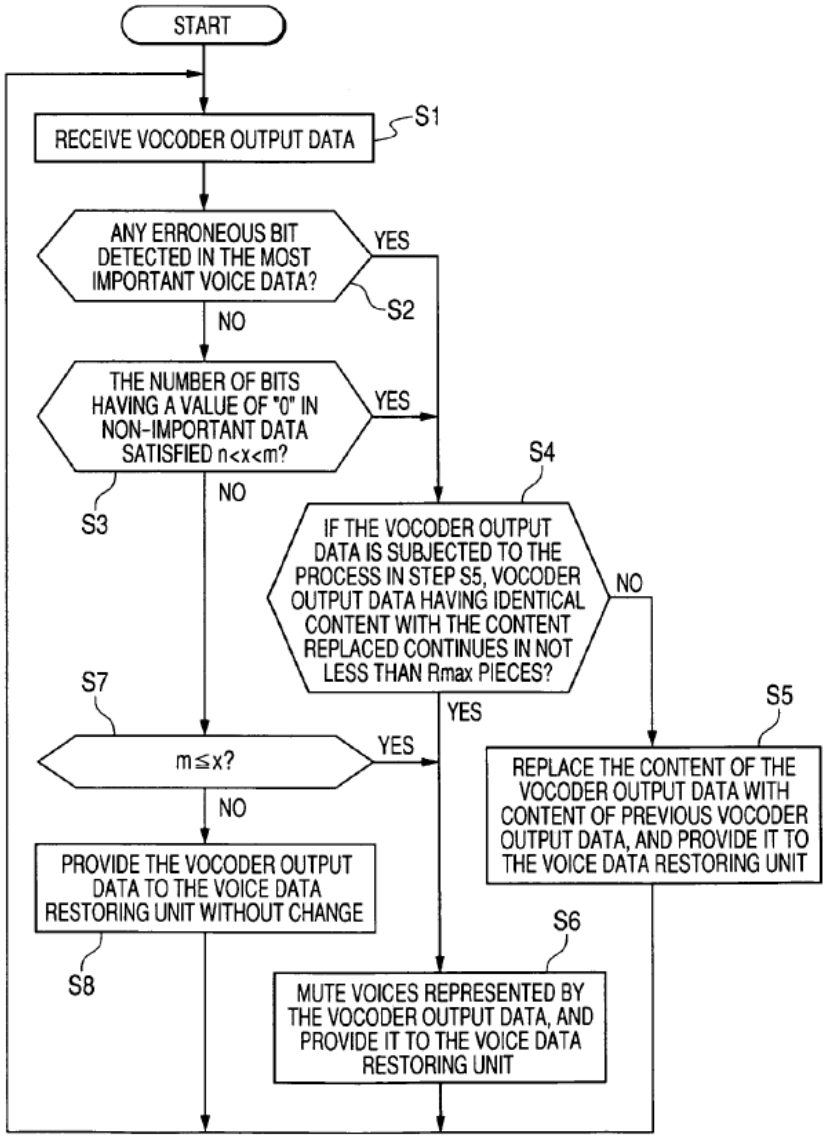
As for corresponding structure, the specification discloses:

> The communication quality judging device may be further provided with a data changing means for, if the communication quality judged by the communication quality judging means does not satisfy a predetermined condition, making a predetermined change to the data to be transmitted represented by the symbol used in the judgment.
>
> * * *

> In step S4, the communication quality judgment unit R5 determines whether or not "if the vocoder output data received in step S1 is subjected to the process in step S5 as described below, vocoder output data having identical content replaced with the content of previous vocoder output data continues in not less than predetermined Rmax pieces (where Rmax is a positive integer)," and performs a bad masking process depending on the determination (steps S5, S6) and returns the process to step S1.
>
> Specifically, if it is determined in step S4 that not less than Rmax pieces of replaced vocoder output data having identical content does not continue after replacement, the *communication quality judgment unit R5 replaces the content of the vocoder output data received in step S1 with content of previous vocoder output data* that has been received immediately before the vocoder output data of interest (or that otherwise matches a predetermined condition) to provide it to the voice data restoring unit R6 (step S5), and returns the process to step S1.
>
> On the other hand, if it is determined that greater than or equal to Rmax pieces of data continues, voices represented by the vocoder output data is muted and provided to the voice data restoring unit R6 (step S6), and the process returns to step S1. Specifically in step S6, *the communication quality judgment unit R5 may, for example, destroy the vocoder output data, or may substantially destroy the content of the vocoder output data such as by changing the content of the vocoder output data such that it represents a silent state.*

'891 Patent at 3:10–15 & 11:7–34 (emphasis added). Figure 8 of the '891 Patent is reproduced here:

FIG. 8



For the claimed function of "making a predetermined change . . .," the specification links this function to the "communication quality judgment unit R5." *See id.* at 11:7–34 (reproduced above). To the extent Defendant is arguing that the specification does not provide sufficient detail regarding how to "substantially destroy" data, for example, the above-reproduced disclosure expressly states that "substantially destroy" is done "by changing the content of the vocoder output data such that it represents a silent state." *Id.* at 11:32–34. The *Cloud Farm* case

cited by Defendant does not compel otherwise. *See Cloud Farm Assocs. LP v. Volkswagen Grp. of Am., Inc.*, 674 F. App'x 1000, 1011 (Fed. Cir. 2017) ("[T]he patent offers the ends but not the means, which is not sufficient for structure."). Likewise, Defendant does not persuasively support its assertion that the testimony of Plaintiff's expert, regarding multiple ways to implement what is disclosed in the specification, necessarily demonstrates a lack of corresponding structure. (Dkt. No. 69 at 29.)

The opinions of Defendant's expert to the contrary are unpersuasive. (*See* Dkt. No. 68, Ex. I, June 24, 2025 Mahon Decl. ¶¶ 66–102.)

The Court therefore hereby construes these disputed terms as set forth in the following chart:

Term	Construction
"a data changing means for, if the communication quality judged by the communication quality judging means does not satisfy a predetermined condition, making a predetermined change to the data to be transmitted represented by the symbol used in the judgment" ('891 Patent, Claim 1)	Governed by 35 U.S.C. § 112, ¶ 6 Function: "making a predetermined change to the data to be transmitted represented by the symbol used in the judgment" Structure: **"communication quality judgment unit R5; and equivalents thereof"**

17. "the data changing means comprises means for externally obtaining a parameter that defines at least a portion of the condition"

This term appears in Claim 2 of the '891 Patent. In its opening claim construction brief, Plaintiff argued: "As argued above, Claim 1 is not indefinite because sufficient algorithmic structure for the 'data changing means' is disclosed. Therefore, Google's indefiniteness position with respect to Claim 2 rises and falls with Claim 1, and should also be rejected." (Dkt. No. 68 at 29.) Plaintiff also argued: "Google's transparent omission of pertinent structure identified in

the patent specification and failure to address the distinction between the 'data changing means' and the separate 'means for externally obtaining a parameter' are fatal. Therefore, both Google's indefiniteness challenge and inadequate alternative § 112 ¶ 6 structure should be rejected." (*Id.* at 30.)

In its responsive claim construction brief, Defendant submits that the parties have agreed upon the following construction:

> Governed by 35 U.S.C. § 112 ¶ 6
>
> Function: "externally obtaining a parameter that defines at least a portion of the condition"
>
> Structure: "a receiver compatible with a switch, keyboard, or other input devices for inputting parameters, or with a serial interface circuit or recording media drive device to externally obtain serially-transmitted parameters or to read parameters recorded on the recording media as set forth in 13:22–31, 14:3–16."

Dkt. No. 69 at 30. Defendant submits: "Dependent claim 2's additive functionality does not save the term in claim 1; so claim 2 is indefinite for the same reasons as for claim 1." *Id.* (citations omitted). Plaintiff's reply brief does not address this term. *See* Dkt. No. 74.

This term is presented as an agreed-upon term in the parties' July 9, 2025 Joint Claim Construction Chart Under P.R. 4-5(d) (Dkt. No. 78 at 206–07), as set forth in the following chart (with the addition of "and equivalents thereof" pursuant to 35 U.S.C. § 112, ¶ 6):

Term	Construction
"the data changing means comprises means for externally obtaining a parameter that defines at least a portion of the condition" ('891 Patent, Claim 2)	Governed by 35 U.S.C. § 112, ¶ 6 Function: "externally obtaining a parameter that defines at least a portion of the condition" Structure: **"a receiver compatible with a switch, keyboard, or other input devices for inputting parameters, or with a serial interface circuit or recording media drive device to externally obtain serially-transmitted parameters or to read parameters recorded on the recording media, as set forth in the '891 Patent at 13:22–31, 14:3–16; and equivalents thereof"**

V. CONCLUSION

The Court adopts the constructions set forth in this opinion for the above-addressed terms of the patents-in-suit.

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.

So ORDERED and SIGNED this 10th day of October, 2025.

RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE