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

UNILOC 2017 LLC, *Plaintiff,* v. SAMSUNG ELECTRONICS AMERICA, INC., SAMSUNG ELECTRONICS CO. LTD., *Defendants.*	§ § § § § § § § § § § § §	Case No. 2:18-CV-00506-JRG

MEMORANDUM OPINION AND ORDER

On November 25, 2019, the Court held a hearing to determine the proper construction of the disputed claim terms in United States Patent No. 7,190,408 ("the '408 Patent"). The Court has considered the arguments made by the Parties at the hearing and in their claim construction briefs. (*See* Dkt. Nos. 33, 37, 41.) The Court has also considered the intrinsic evidence and made subsidiary factual findings about the extrinsic evidence. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005); *see also Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). The Court issues this Claim Construction Memorandum Opinion and Order in light of these considerations.

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I. BACKGROUND

The ’408 Patent issued on March 13, 2007, and is titled “TV-Receiver, Image Display Apparatus, TV-System and Method for Displaying an Image.” The ’408 Patent is directed to displaying video encoded in one size on a monitor that is a different size. The specification defines the problem to be solved as follows:

> With the introduction of new digital television standards there will be a mix of aspect ratios (e.g., 4:3 and 16:9) and resolutions for image sizes (e.g. Standard Definition Television SDTV=720x480, High Definition Television HDTV=1280x720 or 1920x1080). Consequently, different transmissions (different types of broadcasted images) have to be made compatible with different types of image display apparatuses, i.e. the aspect ratios as well as the resolutions of the images have to adapted [sic] to the aspect ratio and the resolution of a receiving image display apparatus.

’408 Patent at 1:17–26.

The specification identifies two prior art systems addressed to this issue. One prior art system utilized control data from the broadcaster that defined a “fixed re-sampling rate for re-sampling the image at the receiving end in order to achieve the required resolution-adaptation” corresponding to “a reduction or an increase of the size of the entire image.” *Id.* at 1:27–35. However, when the image size was reduced, “details are lost in said re-sampled image and it may be impossible for a user watching the re-sampled image on the screen to enjoy the program.” *Id.* at 1:47–55.

Another prior art method identified by the ’408 Patent is a “pan & scan” operation. The specification describes this operation as follows:

> [C]ontrol data defining a vector for indicating a location of a partition of important subject matter within said image is broadcasted together with image data in [the] form of a TV-signal to a TV-receiver. This location information is determined by the broadcaster (under operator control) so as to perform a “pan & scan” operation, i.e. so as to maintain the artistic values of the original image within the limitations of an intended display format. In case of “pan & scan” the actual screen size is larger than the partition of subject matter and thus, the entire partition can be shown on the screen without reducing its size. Possibly in at least one direction also a part

of less important environment of the original image can be shown on the screen.

Id. at 1:56–2:4. Figure 7 shows that the "partition of important subject matter" in an HDTV-image "can be shown on the EDTV-screen without any reduction in size," by discarding some of the "less important environment" around the partition. *Id.* at 2:1–10, Fig. 7.

The specification states that it improves on the prior art "such that at least a predefined partition of important subject matter within the original broadcasted image can entirely be shown on a screen even if the size of said screen is smaller than the size of said partition with only a minimal loss of details." *Id.* at 2:11–18. The specification indicates that it accomplishes this by: (1) including control data that defines the size, not just the location, of the "partition of important subject matter"; and (2) employing a variable re-sampling rate defined at the receiving end, instead of a fixed re-sampling rate defined at the broadcasting or transmitting end. *Id.* at 2:21–35. In some embodiments, a "discarding unit" is also included. "The operation of said discarding unit substantially corresponds to a 'pan & scan' operation in order to adapt different aspect ratios of the broadcasted image and the display device." *Id.* at 2:64–3:2.

Claim 1 of the '408 Patent is an illustrative claim and recites the following elements (disputed terms in italics):

> 1. A receiver comprising:
> a decoder for receiving and decoding a signal representing an image and *control data* wherein the *control data* defines a *vector* indicating a location of a *partition of important subject matter* within said image:
> the *control data* further defining the size of said *partition showing said important subject matter*; and
> a re-sampling unit for extracting a re-sampled image to be displayed on the screen of a display device from said decoded image by re-sampling said decoded image at *a variable re-sampling rate defined at the receiving end such that the size of the partition of important subject matter in the re-sampled image is adapted according to a criterion.*

II. APPLICABLE LAW

A. Claim Construction

This Court's claim construction analysis is guided by the Federal Circuit's decision in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the Federal Circuit reiterated that "the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Id.* at 1312. The starting point in construing such claims is their ordinary and customary meaning, which "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1312-13.

However, *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.* at 1313. For this reason, the specification is often 'the single best guide to the meaning of a disputed term.'" *Id*. at 1315 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979–81 (Fed.Cir.1995) (en banc), aff'd, 517 U.S. 370 (1996)) (internal quotation marks omitted). However, it is the claims, not the specification, which set forth the limits of the patentee's invention. *Id.* at 1312. Thus, "it is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004). Other asserted or unasserted claims can also aid in determining a claim's meaning. *See, e.g., Phillips*, 415 F.3d at 1314 (explaining that use of "steel baffles" and "baffles" implied that "baffles" did not inherently refer to objects made of steel).

The prosecution history also plays an important role in claim interpretation as intrinsic evidence of how the U.S. Patent and Trademark Office ("PTO") and the inventor understood the

patent. *Id.* at 1317; *see also 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"); *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1361 (Fed. Cir. 2017) (applying this principle in the context of *inter partes* review proceedings). However, "because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes." *Id.* at 1318; *see also Athletic Alternatives, Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (noting that ambiguous prosecution history may be "unhelpful as an interpretive resource").

Additionally, courts may rely on extrinsic evidence such as "expert and inventor testimony, dictionaries, and learned treatises." *Id.* at 1317. As the Supreme Court recently explained:

> In some cases . . . the district court will need to look beyond the patent's intrinsic evidence . . . 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, 135 S. Ct. at 841. However, the Federal Circuit has emphasized that such extrinsic evidence is subordinate to intrinsic evidence. *Phillips*, 415 F.3d at 1317 ("[W]hile extrinsic evidence can shed useful light on the relevant art, we have explained that it is less significant than the intrinsic record in determining the legally operative meaning of claim language." (internal quotation marks omitted)).

B. Definiteness Under 35 U.S.C. § 112, ¶ 2 (pre-AIA) / § 112(b) (AIA) [1]

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112, ¶ 2. A claim, when viewed in light of the intrinsic evidence,

[1] Because the application resulting in the '408 Patent was filed before September 16, 2012, the effective date of the America Invents Act ("AIA"), the Court refers to the pre-AIA version of § 112.

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

When a term of degree is used in a claim, "the court must determine whether the patent provides some standard for measuring that degree." *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1378 (Fed. Cir. 2015) (quotation marks omitted). Likewise, when a subjective term is used in a claim, "the court must determine whether the patent's specification supplies some standard for measuring the scope of the [term]." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1351 (Fed. Cir. 2005); *see also Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (citing *Datamize*, 417 F.3d at 1351).

III. CONSTRUCTION OF DISPUTED TERMS

The Parties' dispute the meaning and scope of ten terms or phrases in the '408 Patent. Each dispute is addressed below.

A. "vector"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"vector"	Ordinary meaning, alternatively, "data [indicating location]"	"a pair of coordinates"

1. The Parties' Positions

The Parties dispute whether the term "vector" requires construction. Defendants contend

that the term should be limited to "a pair of coordinates." Plaintiff argues that there is no reason to limit the term vector, because the skilled person would readily understand that it should be given plain and ordinary meaning. (Dkt. No. 33 at 4.) Plaintiff further contends that the "vector" only needs to "indicat[e] a location of a partition . . . in the image." (*Id.*) Plaintiff argues that the specification gives two non-limiting examples of how to indicate the location. (*Id.* (citing '408 Patent at 5:38–55).)

Plaintiff also contends that there is no reason to resort to extrinsic evidence, and that Defendants' experts' testimony is flawed. (*Id.*) Plaintiff further argues that Defendants' proposed construction inappropriately attempts to read limitations into the claims from one of the preferred embodiments. (*Id.* at 5). According to Plaintiff, a pair of coordinates is merely an embodiment, and the specification explicitly states that "the invention can also be applied in other systems where an image is sent from a source to a destination apparatus that processes the image for display." (*Id.* at 5 (citing '408 Patent at 7:3–6).) In the alternative, Plaintiff argues that the term should be construed to mean "data [indicating location]."

Defendants respond that the term "vector" is not a term used in everyday conversation, but instead is an expression used in mathematics and physics to indicate a magnitude and direction from a given point. (Dkt. No. 37 at 4.) Defendants argue that Plaintiff's assertion renders the term "vector" superfluous and would improperly read it out of the claim. (*Id.*) According to Defendants, the term "vector" further limits the type of "control data" that indicates a location of a partition. (*Id.*) Defendants also argue that the specification supports their construction. (*Id.* at 5 (citing '408 Patent at 2:36–42; Dkt. No. 37-2 at ¶ 41).) Defendants further argue that the specification repeatedly discloses that the location on a display screen is indicated by a pair of "co-ordinates" (*Id.* (citing '408 Patent at 5:5–7, 5:14–17, 5:37–44, 6:44–46).) Defendants also contend that the

extrinsic evidence supports their proposed construction. (*Id.* at 6 (citing Dkt. No. 37-3; Dkt. No. 37-2 at ¶¶ 36-48).) Regarding Plaintiff's construction, Defendants argue that nothing in the intrinsic record indicates that a "vector" refers to any data other than a pair of coordinates, or that the specification uses the term "vector" differently than the cited extrinsic evidence. (*Id.* at 7.)

Plaintiff replies that vector is known as a means for carrying information, and coordinates is only one way of carrying location information. (Dkt. No. 41 at 1.) Plaintiff contends that the concept of vector for placement of images should not be limited to a pair of coordinates, because these are only examples. (*Id.* at 2.) According to Plaintiff, this is a clear case of a defendant attempting to improperly read limitations into the claims without any basis. (*Id.* (citing *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994)).)

2. Analysis

The term "vector" appears in asserted Claims 1, 8, and 9 of the '408 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. The Court further finds that "vector" is a technical term that would not be easily understandable to a jury. As such, the Court looks to the intrinsic evidence for background and how a person of ordinary skill in the art would understand the term.

The intrinsic evidence indicates that a person of ordinary skill in the art would understand the term "vector" to mean "offset positon." Starting with the claim language, Claim 1 recites a decoder that receives a signal "representing an image and control data." Claim 1 further recites that the "control data" defines: (1) "a vector indicating a location of a partition of important subject matter within said image;" and (2) "the size of said partition showing said important subject matter." *See, also,* '408 Patent at 3:42–48 ("However, in difference to the TV-system known in the art, the control data according to the invention included within a TV-signal broadcasted from

a broadcaster 100 to an image display apparatus 200 *does not only define a vector indicating a location of a partition of important subject matter within a broadcasted image but also define the size of said partition.*") (emphasis added).

The specification further indicates that the "vector" defines the location by indicating a center or an offset position of the "partition of important subject matter," with the size of the partition being defined with a pair of coordinates. Specifically, the specification states the following:

> The size and the location of the partition of important subject matter can be indicated by the co-ordinates of the top-left and bottom-right corners of the framing rectangle. These co-ordinates are transmitted as control data to the TV-receiver. For example, *the location or center of the partition* is approximately at co-ordinates (720, 450)=(3/8, 4/8) and *the size of the partition may vary* according to the following examples:
> Scene 1 (very large subject): subject size is 1440.times.1080, rectangle is (1,1)-(1440, 1080).
> Scene 2 (medium large subject): subject size is 960.times.720, rectangle is (241, 181)-(1200, 900).
> Scene 3 (medium small subject): subject size is 640.times.480, rectangle is (401, 301)-(1040, 780).
> Scene 4 (very small subject): subject size is 480.times.360, rectangle is (481, 361)-(960, 720).

'408 Patent at 5:38–53 (emphasis added). Similarly, the specification also states that the partition "is defined by a location vector (2 degrees of freedom) and by additional size-data, representing for example the extreme partition co-ordinates, i.e. the top-left and bottom-right pixel of a rectangular partition." *Id.* at 2:36–40. Thus, the intrinsic evidence indicates that the recited "vector" defines an offset position of the partition, and that the "additional size data" may be defined with a pair of coordinates.

The specification also refers to International Patent Publication No. WO 97/27704 ("WO '704"), as "teach[ing] that control data defining a vector for indicating a location of a partition of important subject matter within said image is broadcasted together with image data in form of a

TV-signal to a TV-receiver. This location information is determined by the broadcaster (under operator control) so as to perform a 'pan & scan' operation . . . ." '408 Patent at 1:56-63. The relevant portion of WO '704 referred to in the specification states that "*a positioning or image centering signal* may be included within the data stream, so as to allow the inclusion of information which may be utilized by the receiving unit or display monitor to perform a 'pan/scan' operation, and thereby to optimize the display of a signal having a different aspect ratio than that of the display unit." WO '704 at 10:7–13 (emphasis added). Defendants' expert opines, "[a]lthough not explicitly disclosed in WO '704, it would be apparent to a POSITA that the 'positioning or image centering signal' would take the form of a vector. . . . Indeed, the '408 patent refers to the positioning or image centering signal as a 'vector.'" (Dkt. No. 37–2 at ¶45 (citing '408 Patent at 1:56–61). Thus, a person of ordinary skill in the art would understand that the position or imaging centering signal indicates an offset position.

Likewise, the extrinsic evidence cited by Defendants is consistent with the intrinsic evidence. Specifically, The ITU-T H.262 | ISO/IEC 13818-2 (MPEG-2) video coding standard provides a pair of variables (i.e., "frame_centre_horizontal_offset" and "frame_centre_vertical_offset,") for representing the offset position of a "display rectangle" from the center of the reconstructed frame.

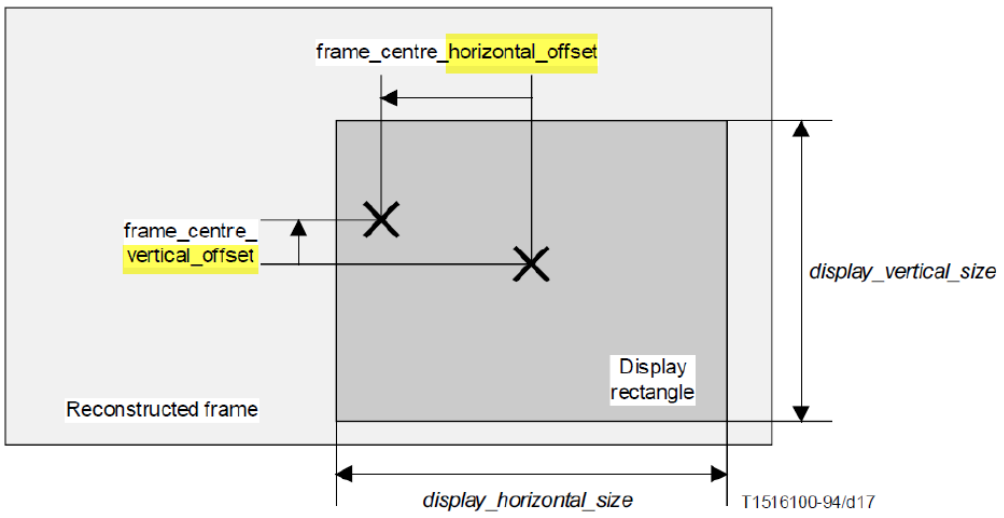


Figure 6-16 – Frame centre offset parameters

(Dkt. No. 37-2 at ¶ 46) (highlighting added). As indicated in Figure 6-16, the vector is represented by "offset parameters." Accordingly, the Court construes the term "vector" to mean "offset position."

Turning to the Parties' construction, the Court rejects Plaintiff's construction because it renders the term "vector" superfluous, and would improperly read the term out of the claims. *Callicrate v. Wadsworth Mfg., Inc.*, 427 F.3d 1361, 1369 (Fed. Cir. 2005) (holding that it was error for the district court to read out a limitation required by the claim language and specification because "the district court's interpretation does not fully reflect the claim language"). Indeed, Plaintiff's constructions redrafts the term "vector" as "data," which is no more specific or limiting than the term "control data," recited earlier in the claim. This would be inconsistent with the intrinsic evidence, because it indicates that the term "vector" identifies a specific type of "control data." Specifically, the "vector" is the part of the control data that indicates the offset position of the partition. Plaintiff's construction fails to capture this limitation.

Plaintiff argues that the "specification gives two examples of how to indicate the location: (1) location of corners (two pair of coordinates) is used for both size and location; and (2) location of center (e.g., single pair coordinate)." (Dkt. No. 33 at 4.) Plaintiff contends that there is no reason to read these example into the claims. (*Id.*) The Court's construction does not limit the term "vector" to either a pair of coordinates or a single coordinate. Instead, it defines "vector" as the offset position of the partition. Furthermore, there is nothing in the intrinsic evidence that prevents the offset position from being zero. Accordingly, the Court's construction does not limit the term "vector" to the disclosed embodiments.

The Court rejects Defendants' construction because it improperly limits the term "vector" to "a pair of coordinates." *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994) ("[P]articular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments."). Defendants argue that the "2 degrees of freedom" disclosed in the specification refers to two coordinates used to define location. (Dkt. No. 37 at 5.) Defendants correctly state that the specification uses coordinates to reference location and size, however, these are only examples. *Teleflex, Inc. v. Ficosa North America Corp.*, 299 F.3d 1313, 1328 (Fed. Cir. 2002) (cautioning "against limiting the claimed invention to preferred embodiments or specific examples in the specification"). Indeed, Defendants do not argue that the specification explicitly defines vector, or that arguments made in the prosecution history limits the term "vector" specifically to coordinates.

Moreover, Defendants' expert stated that "a vector is *typically* expressed using numerical values called coordinates." (Dkt. No. 37 at ¶ 38) (emphasis added). "Typically" is not always, especially in light of the intrinsic evidence in this case. Accordingly, Defendants' construction is rejected because the intrinsic evidence does not limit the contents of the vector to a specific format,

such as a pair of coordinates. Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the Parties, and given it its proper weight in light of the intrinsic evidence.

3. Court's Construction

For the reasons set forth above, the Court construes the term **"vector"** to mean **"offset position."**

B. "re-sampling rate" phrases

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"re-sampling rate defined . . . such that the size of the partition of important subject matter in the re-sampled image is adapted according to a criterion" "re-sampling rate defined . . . such that the size of the partition of important subject matter in the re-sampled image is adapted . . . according to an individual criterion"	Ordinary meaning	"re-sampling rate determined at least in part by the size of the partition of important subject matter in view of a[n individual] criterion"

1. The Parties' Positions

The Parties dispute whether (a) the size of the partition of important subject matter needs to be used as a variable in determining what re-sampling rate the re-sampling unit uses to increase or decrease the image size, or (b) if the re-sampling rate may be defined without reference to the size of the partition of important subject matter, such that the size of the partition is increased or decreased at a rate unassociated with the prior size. Plaintiff argues that the phrase refers to "a re-sample rate that is defined at the receiving end, and the re-sampling is done 'such that the size of the partition of important subject matter in the re-sampled image is adapted according to a criterion.'" (Dkt. No. 33 at 6.)

Plaintiff further argues that there is no reason to change the meaning of the plain words of the claim, as Defendants propose. (*Id.* (citing '408 Patent at 2:30–35).) Plaintiff also contends that dependent claims 2 and 3 support its position. (*Id.* at 7.) According to Plaintiff, these claims indicate that the criterion may specify that the re-sampling rate be defined in a manner that achieves results based on a comparison between the fixed size of the screen and the original size of the partition. (*Id.*) Plaintiff also argues the specification teaches that a comparison may be made between the size of the destination screen and the size of the partition, but that the claims are not limited to these embodiments. (*Id.* (citing *Electro Med.*, 34 F.3d at 1054).) Finally, Plaintiff contends that Defendants' expert's analysis is flawed and should be ignored. (*Id.*)

Defendants respond that the claims require that the "re-sampling rate defined at the receiving end such that the size of the partition of important subject matter in the resampled image is adapted according to a criterion" (claim 1), or "adapted to the fixed size of the screen of the display device according to an individual criterion" (claims 8 and 9). (Dkt. No. 37 at 8.) According to Defendants, the verbs "defined" and "adapted" connote an active association between the re-sampling rate and the size of the partition of important subject matter, as opposed to a passive, coincidental relationship. (*Id.*) Defendants argue that adapting the size of the partition would use a re-sampling rate determined, at least in part, by the size of the partition of important subject matter. (*Id.* (citing Dkt. No. 37-2 at ¶¶ 51, 54).)

Defendants further argue that the point of the alleged invention was to adapt the size of the partition to the size of the screen without losing important details "as far as possible." (*Id.* (citing Dkt. No. 37-2 at ¶ 56).) Defendants contend that this was purportedly accomplished by providing control data defining the size of the partition and a re-sampling unit that re-sampled a decoded image "at a variable re-sampling rate defined at the receiving end," which enables "an individual

adaptation of the size of the image and in particular of the partition to be displayed to the actual size of the screen such that advantageously details remain within the displayed image as far as possible." (*Id.* at 9 (citing '408 Patent at 2:20–35).) Defendants further argue that the specification also discloses that the re-sampling unit "evaluates" the control data, which indicates that the size of the partition is used, at least in part, in determining the re-sampling rate. (*Id.* (citing '408 Patent at 3:55–4:4).)

Regarding Plaintiff's assertions, Defendants contend that Plaintiff "unnaturally divides the phrase at issue into two parts . . . and then treats the two parts like they have nothing to do with each other." (*Id.* at 10.) Defendants argue that there are two concepts in this phrase, both of which relate to defining the re-sampling rate. (*Id.*) According to Defendants, the re-sampling rate must be defined such that the size of the partition is adapted to a criterion, which necessarily entails that the size of the partition is affirmatively used, at least in part, to define the re-sampling rate. (*Id.*)

Defendants further contend that a person of ordinary skill in the art would understand Claim 1 to encompass instances in which the size of the partition is used in defining the re-sampling rate. (*Id.*) Defendants argue that this means Claim 1 encompasses alternative ways to use the size of the partition of important subject matter to define the re-sampling rate other than those claimed by Claims 2 and 3. (*Id.*)

Finally, Defendants contend that Plaintiff's argument that the claims cover instances where the variable resampling rate is defined wholly independently of the size of the partition of important subject matter defeats the whole purpose of the invention. (*Id.* at 11.) Defendants argue that the entire image is reduced according to a fixed re-sampling rate in the prior art, which results in the loss of details in the image such that the user may be unable to enjoy the program. (*Id.* (citing '408 Patent at 1:31–55).) Defendants contend that specification states that the problems of the

prior art are avoided by defining a "variable re-sampling rate . . . at the receiving end" and enabling "an individual adaptation of the size . . . of the partition to be displayed to the actual size of the screen such that advantageously details remain within the displayed image as far as possible." (*Id.* (citing '408 Patent at 2:20–35).) Defendants argue that this "individual adaptation" necessarily entails using the size of the partition as one input in defining the re-sampling rate. (*Id.* at 12.) Defendants further contend that their position is supported by Mr. Williams' declaration. (*Id.* at 14 (citing Dkt. No. 37-2 at ¶¶ 49-60).)

Plaintiff replies that Defendants rearrange the words of the claim and the tense of verbs to exclude passive embodiments of practicing the claim. (Dkt. No. 41 at 3.) Plaintiff contends that the language of the claims are not limited to actively determining the resampling rate, because the claims do not recite a step of dynamically determining the re-sampling rate based on the size of the partition. (*Id.*) According to Plaintiff, the claims do not expressly state that the re-sampling rate be based on an active comparison itself, just that it be defined to achieve a particular result. (*Id.*)

Plaintiff also argues that Defendants' quote from the specification omits the aspect that the variable re-sampling rate is defined at the receiving end. (*Id.* (citing '408 Patent at 2:20–35).) Plaintiff further contends that Defendants' construction does not clarify any technical terms or eliminate any potential jury confusion. (*Id.*) Plaintiff argues that Defendants simply change the meaning of a large phrase to read limitations from examples in the specification into the claims. (*Id.*)

2. Analysis

The disputed phrases appear in asserted Claims 1, 8, and 9 of the '408 Patent. The Court finds that the phrases are unambiguous, are easily understandable by a jury, and should be given

their plain and ordinary meaning. For example, claim 1 recites that the re-sampling unit re-samples the decoded image "at a variable re-sampling rate defined at the receiving end such that the size of the partition of important subject matter in the re-sampled image is adapted according to a criterion." Likewise, Claims 8 and 9 recite that the re-sampling unit re-samples the decoded image "at a variable re-sampling rate defined at the receiving end such that the size of the partition of important subject matter in the re-sampled image is adapted to the fixed size of the screen of the display device according to an individual criterion."

Furthermore, dependent Claims 2 and 3, which depend from Claim 1, provide specific types of comparison to be made between the fixed size of the screen and the original size of the partition of important subject matter. *See, e.g.*, '408 Patent at Claim 2 (determining "if the fixed size of the screen is great enough" to display the partition "in its original size"); Claim 3 (determining "if the fixed size of the screen is smaller than the original size of the partition"). Accordingly, the plain language of the claim is not ambiguous and is easily understandable by a jury.

Moreover, the specification discloses that the problem in the prior art was users not being able to enjoy a broadcast television program due to details being lost when converting an image from one size to another. Specifically, the prior art "fixed re-sampling rate" provided by the broadcaster resulted in a reduction in size of the entire image. '408 Patent at 1:31–35, 1:47–55. The specification states the improvement over the prior art is that "at least a predefined portion of important subject matter within the original broadcasted image can entirely be shown on the screen even if the size of said screen is smaller than the size of said partition with only a minimal loss of details." *Id.* at 2:12–19. The specification further discloses that this is accomplished by providing control data defining the size of the partition and a re-sampling unit that re-samples a decoded image "at a variable re-sampling rate defined at the receiving end," which enables "an individual

adaptation of the size of the image and in particular of the partition to be displayed to the actual size of the screen such that advantageously details remain within the displayed image as far as possible." *Id.* at 2:20–35.

Specifically "[b]y variably defining the re-sampling rate at the receiving end the re-sampling rate can be adapted to the actual size of the predefined partition such that the size of said partition is only reduced as much as necessary for being displayed on the fixed sized screen." *Id.* at 4:18-27. Accordingly, a person of ordinary skill in the art would understand that the stated advantage over the prior art is the ability to adapt the size of the partition to the size of the screen without losing important details "as far as possible."

Indeed, the specification states the following:

> FIG. 2 shows a first preferred embodiment of the TV-receiver according to the present invention. The hardware of said receiver 220 substantially corresponds to the hardware of the TV-receiver known in the prior art and described above by referring to FIG. 6. However, in contrast to the known TV-receiver the TV-receiver 220 and in particular the re-sampling unit 224 according to the present invention evaluates the control data according to the invention as defined above. More specifically, the re-sampling unit 224 is adapted to extract a re-sampled image to be displayed on the screen 255 of the display device 250 from a decoded image as output by the decoder 222. The extraction is done by re-sampling said decoded image at a variable re-sampling rate defined at the receiving end, preferably within said re-sampling unit 224 such that the size of the partition of important subject matter in the re-sampled image is adapted according to a criterion.

Id. at 3:55–4:4 (emphasis added). The specification then provides two examples where the fixed size of the screen is either larger or smaller than the whole partition of important subject matter. If the fixed screen is larger than the whole partition of important subject matter, then the whole partition of important subject matter is displayed in its original size. *Id.* at 4:6–9. If the fixed screen is smaller than the whole partition of important subject matter, then the size of the partition is reduced "not more than necessary for being totally displayed in the screen." *Id.* at 4:11–17. Consistent with the plain language of the claims, the specification indicates that the decoded image

is re-sampled at a variable re-sampling rate defined at the receiving end such that the size of the partition of important subject matter in the re-sampled image is adapted according to an individual criterion.

Turning to the Parties' arguments, the Court rejects any argument by Plaintiff that would defeat the stated purpose of the alleged invention. *See Tech. Patents LLC v. T-Mobile UK, Ltd.*, 700 F.3d 482, 494 (Fed. Cir. 2012) (rejecting construction that eliminates "the heart of the invention's alleged improvement over the prior art"). For instance, the prior art method reduced the entire image according to a *fixed re-sampling rate*, resulting in the loss of details in the image such that the user may be unable to enjoy the program. '408 Patent at 1:31–55. The specification indicates that the problems of the prior art are avoided by defining a "variable re-sampling rate . . . at the receiving end" and enabling "an individual adaptation of the size . . . of the partition to be displayed to the actual size of the screen such that advantageously details remain within the displayed image as far as possible." *Id.* at 2:20–35. Accordingly, the Court rejects any argument by Plaintiff that the plain and ordinary meaning of the phrase encompasses the prior art of a "fixed re-sampling rate."

Regarding Defendants' construction, the Court rejects it because Defendants' paraphrasing of the claim language is confusing and unnecessary. Moreover, there is no reason to redraft this entire phrase as Defendants propose. The plain language of the claim explicitly recites that the "variable re-sampling rate is defined at the receiving end." When the disputed phrases are considered in their entirety, and not parsed and redrafted, their plain and ordinary meaning are clear. Accordingly, the Court rejects Defendants' attempt to redraft the disputed phrases. Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the Parties, and given it its proper weight in light of the intrinsic evidence.

3. Court's Construction

For the reasons set forth above, the phrase "**a variable re-sampling rate defined at the receiving end such that the size of the partition of important subject matter in the re-sampled image is adapted according to a criterion,"** and the phrase **"a variable re-sampling rate defined at the receiving end such that the size of the partition of important subject matter in the re-sampled image is adapted to the fixed size of the screen of the display device according to an individual criterion"** will be given their **plain and ordinary meaning.**

C. "control data"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal[2]
"control data"	Ordinary meaning, alternatively, "data included in the broadcasted signal relating to how an image can be displayed"	"data included in the signal that defines how the image is displayed"

1. The Parties' Positions

The Parties dispute whether the term "control data" should be construed to mean "data included in the broadcasted signal that defines how the image is displayed," as Defendants propose. Plaintiff argues that "control data" is easily understood to mean data for control. (Dkt. No. 33 at 8.) Plaintiff further argues that the remaining words in the claims inform what the control data is and how it is used. (*Id.*) Plaintiff contends that the control data must define location and size of a partition for the image being transmitted, but it does not need to define "how the image is displayed." (*Id.*) Plaintiff further contends that the claims also recite how the system uses the control data, and there is no need to load any concepts onto "control data" that repeat, or compete, with what other words in the claims already recite. (*Id.* at 9.)

Defendants respond that the claim language indicates that the control data ultimately

[2] During the Claim Construction Hearing, Defendants indicated they were dropping the term "broadcasted" from their proposed construction.

defines how the image is to be displayed. (Dkt. No. 37 at 12-13 (citing Dkt. No. 37-2 at ¶ 68).) Defendants further contend that the specification discloses how the resampling unit "evaluates the control data" to "extract a re-sampled image to be displayed on the screen 225 of the display device." (*Id.* at 13 (citing '408 Patent at 3:59–66, 4:50–56, 4:60–64).) Defendants argue that the common thread among the specification's use of the "control data" term is that each instance relates to controlling how the image is displayed on the screen. (*Id.* at 14 (citing Dkt. No. 37-2 at ¶¶ 62-67).) Regarding Plaintiff's argument, Defendants contend that the specification only uses "control data" with respect to what is seen on the screen, and not in any other manner. (*Id.*)

Plaintiff replies that Defendants replace the word "control" with "defines how the image is displayed." (Dkt. No. at 4.) Plaintiff argues that Defendants ignore the words of the claims, which relate to the original image that is transmitted, decoded, and then re-sampled. (*Id.*) According to Plaintiff, the plain language of the claims requires only that the control data relate to the image being transmitted and not define "the image is displayed." (*Id.*)

2. Analysis

The term "control data" appears in asserted claims 1, 5, 8, 9, and 11 of the '408 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. The Court further finds that the term "control data" is unambiguous and is easily understandable by a jury, when considered in the context of the claim language. A juror would understand that "control" modifies the word "data," and thereby indicates that the data is used to control an aspect of the claim. The remaining claim language indicates what the control data is and how it is used. For example, claim 1 recites that the control data "defines a vector indicating a location of a partition" and "further defin[es] the size of said partition." This claim language in not ambiguous or confusing.

Moreover, the claims use the open ended transition phrase "comprising," which means that the control data may include other unrecited elements. Indeed, the claim language only requires the control data to define a location and a size of a partition for the image being transmitted. Furthermore, the claims recite how the system uses the control data by "resampling said decoded image at a variable re-sampling rate defined at the receiving end such that the size of the partition [from the control data] is adapted according to a criterion." Given the intrinsic evidence, it would be improper to read additional requirements into the term "control data."

Turning to Defendants' construction, the Court rejects Defendants' construction because it replaces the word "control" with "defines how the image *is displayed*." The Court finds that this additional limitation is unwarranted. Defendants argue that the control data "ultimately defines how the image is to be displayed." (Dkt. No. 37 at 13.) Defendants further argue that the patent only uses "control data" with respect to what is seen on the screen, and not in any other manner. (*Id.* at 14.)

The problem with Defendants' arguments is that they ignore the claim language, which relates to the original image that is transmitted, decoded, and then re-sampled. The re-sampled image is the image that is displayed. *See, e.g.*, Claim 1 ("decoder for receiving and decoding a signal representing an image . . . control data…indicating a location of a partition of important subject matter within said image…resampling said decoded image"). The plain language of the claims only require that the control data relate to the image being transmitted and not define "how the image is displayed." Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the Parties, and given it its proper weight in light of the intrinsic evidence.

3. Court's Construction

For the reasons set forth above, the term **"control data"** is given its **plain and ordinary meaning.**

D. "broadcast" terms

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"broadcasted"	Ordinary meaning.	"transmitted to a dispersed audience"
"broadcaster"	Ordinary meaning.	"entity that broadcasts, i.e., transmits to a dispersed audience"
"broadcasting"	Ordinary meaning.	"transmitting to a dispersed audience"

1. The Parties' Positions

The Parties dispute whether the recited signal must be broadcasted "to a dispersed audience." Plaintiff argues that video streaming and other manner of broadcasting were known when the '408 Patent was filed. (Dkt. No. 33 at 9 (citing '408 Patent at 7:1–11).) Plaintiff further argues that the '408 Patent relates to receiving a signal and adapting the image represented in that signal for local display. (*Id.* at 10 (citing '408 Patent at 1:5–9).) Plaintiff contends that there is nothing in the patent or the file history that would explain or suggest that only certain types of broadcasts are covered. (*Id.*)

Plaintiff also argues that the concept of broadcasting to a "destination apparatus" is specifically contemplated and should not be read out of the claims. (*Id.* (citing '408 Patent at 2:43–45, 7:3–5, 7:9–11).) Plaintiff contends that requiring broadcasting to relate only to broadcasts to a dispersed audience would be contrary to the specification. (*Id.*) According to Plaintiff, "the specification seems to use the term broadcast in its plain sense, meaning that a signal is transmitted." (*Id.* (citing '408 Patent at 1:21–22).)

Defendants respond that the language of the claims in which the "broadcast" terms appear

are narrower than independent claims 1 and 9, which do not require a "broadcaster." (Dkt. No. 37 at 15.) According to Defendants, a person of ordinary skill in the art would understand that television broadcasters transmit TV signals to a wide array of consumers within the broadcast network or area. (*Id.* (citing Dkt. No. 37-2 *Id.* ¶ 71).) Defendants argue that the problem to be solved related to transmitting to a large number of audience members (*i.e.*, broadcasting), who may each have a different display with a different aspect-ratio or resolution. (*Id.* at 15-16 (citing '408 Patent at 1:10–14, 1:17–26).) Defendants contend that the disclosed system entails transmitting to a wide audience the same image and control data, and each receiver could then re-sample the image at a different re-sampling rate defined at the receiving end. (*Id.* at 16 (citing Dkt. No. 37-2 at ¶¶ 71-72).)

Defendants also argue that U.S. Patent No. 5,835,129 ("Kumar") supports their construction. (*Id.* (citing Dkt. No. 37-6 at 1:10-16, 1:18-30).) According to Defendants, Kumar uses the words "broadcasting" and the like to refer to the transmission of a signal to a dispersed audience. (*Id.*) Defendants also contend that The Oxford English Dictionary ("OED") supports their construction of "broadcasted," "broadcaster" and "broadcasting." (*Id.* at 16-17 (citing Dkt. No. 37-7).) Defendants further contend that a person of ordinary skill in the art would understand that the term "broadcast" and its derivatives refer to the transmission of a signal to a dispersed audience. (*Id.* at 17 (citing Dkt. No. 37-2 at ¶¶ 70-75).)

Regarding Plaintiff's arguments, Defendants contend that the portion of the specification that Plaintiff cites specifically distinguishes a "TV-receiver that receives a broadcasted TV-signal" from streaming devices, which do not receive a broadcast signal. (*Id.* (citing '408 Patent at 7:1–11).) Defendants argue that Plaintiff does not cite to anything in the intrinsic record supporting its position that "broadcasting" should refer to transmissions generally. (*Id.*)

Plaintiff replies that the specification indicates that the disclosure can be applied to "other systems where an image is sent form a source to a destination apparatus that processes the image for display . . . [such as] streaming video over the Internet to remote stations also connected to the Internet." (Dkt. No. 41 at 4-5 (citing '408 Patent at 7:1–11).) Plaintiff argues that the specification does not say that "streaming" is not a form of "broadcasting." (*Id.* at 5.) According to Plaintiff, the purpose of the disclosed system is not affected by the media used to transmit an image. (*Id.*) Finally, Plaintiff contends that Mr. Williams' testimony should be ignored, and that the Kumar reference is irrelevant. (*Id.*)

2. Analysis

The term "broadcasted" appears in Claim 6 of the '408 Patent. The terms "broadcaster" and "broadcasting" appear in Claims 6 and 8 of the '408 Patent. Claims 6 and 8 relate to receiving a signal and adapting the image represented in that signal for local display. Defendants do not point to anything in the specification or the file history that would explain or suggest that only certain types of broadcasts are covered. Indeed, when the application leading to the '408 Patent was filed, video streaming and other manner of broadcasting were known. '408 Patent at 7:9–11 ("An example of such other system is a server sending images in the form of streaming video over the Internet to remote stations also connected to the Internet.").

Furthermore, Claim 6 only requires that the receiver be "suitable for receiving and processing a broadcasted TV-signal." Likewise, claim 8 only requires "a broadcaster for broadcasting a TV-signal, representing an image and control data, to at least one image display apparatus." Requiring broadcasting to relate only to broadcasts to a dispersed audience, and thereby precluding targeted broadcasts, such as streaming video over the internet, would be contrary to the specification. Indeed, the specification indicates that the patentee intended to use

the term broadcast in its plain sense, meaning that a signal is transmitted. *See, e.g.*, '408 Patent at 1:21–26 ("Consequently, different transmissions (different types of broadcasted images) have to be made compatible with different types of image display apparatuses, i.e. the aspect ratios as well as the resolutions of the images have to adapted to the aspect ratio and the resolution of a receiving image display apparatus."). Moreover, Claim 8 recites that the TV-signal is broadcasted "to at least one image display apparatus." Again, the plain language of Claim 8 contradicts reading a "dispersed audience" limitation into the claims, because "at least one image display apparatus" could be one targeted display.

Defendants argue that a person of ordinary skill in the art would understand that television broadcasters transmit TV signals to a wide array of consumers within the broadcast network or area (*i.e.*, a dispersed audience). (Dkt. No. 37 at 19.) Defendants contend that the problem solved was in "broadcasting"—i.e., transmitting to a large number of audience members, who may each have a different display with a different aspect-ratio or resolution. (*Id.* at 20 (citing '408 Patent at 1:17–26).) The Court disagrees that the "dispersed audience" is a requirement for the claims.

The specification does not state that the problem was in "a dispersed audience" per se, but instead the solution was in providing the "claimed variable re-sampling rate at the receiving end [that] enables—in contrast to a fixed re-sampling rate provided by a broadcaster—an individual adaptation of the size of the image and in particular of the partition to be displayed to the actual size of the screen such that advantageously details remain within the displayed image as far as possible." '408 Patent at 2:30–35. This "individual adaptation" may be done for either a dispersed audience or a single person. *See, e.g.*, Claim 8 ("at least one image display apparatus"). There is no reason to read a "dispersed audience" limitation into the claims because the variable re-sampling rate does not require a "dispersed audience." Instead, it only requires that the recited

image and control data be broadcasted (*i.e.*, transmitted).

Furthermore, the words "dispersed audience" or "large number of audience members" do not appear anywhere in the specification. To support their arguments, Defendants point to U.S. Patent No. 5,835,129 ("Kumar"), which was cited during prosecution, for language that supports their construction. (Dkt. No. 37 at 20.) Defendants argue that "Kumar uses the words 'broadcasting' and the like to refer to the transmission of a signal to a dispersed audience, as opposed to a one-to-one transmission, or a signal being 'transferred' from one component of a device (such as a TV) to another." (*Id.*)

Specifically, Kumar states that "[v]ideo conferencing and broadcasting systems may be used for many different applications . . . where, for example, witnesses are located at geographically dispersed areas." (*Id.* (citing Kumar at 1:18-30).) The Court is not persuaded that the narrower definition of broadcasting in Kumar should be applied to the '408 Patent. Kumar's use of the term is inconsistent with the broader use of the term in the '408 Patent. Likewise, the extrinsic evidence cited by Defendants is inconsistent with the broader use of the term in the '408 Patent. (*Id.*)

Defendants also argue that the specification specifically distinguishes a "TV-receiver that receives a broadcasted TV-signal" from streaming devices. (Dkt. 37 at 21 (citing '408 Patent at 7:1-11).) This does not indicate that a "dispersed audience" limitation should be read into the claims. A broadcasted signal could be received by a single person, because the "variable re-sampling rate" does not require a "dispersed audience," as Defendants contend. Instead, the claims only require that the recited image and control data be broadcasted (*i.e.*, transmitted). Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the Parties, and given it its proper weight in light of the intrinsic evidence.

3. Court's Construction

For the reasons set forth above, the Court construes the term **"broadcasted"** to mean **"transmitted,"** the term **"broadcaster"** to mean **"entity that transmits,"** and the term **"broadcasting"** to mean **"transmitting."**

E. "partition of important subject matter" / "partition showing said important subject matter"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"partition of important subject matter" / "partition showing said important subject matter"	Ordinary meaning.	Indefinite.

1. The Parties' Positions

The Parties dispute whether the intrinsic evidence provides any objective boundaries for the phrases "partition of important subject matter" and "partition showing said important subject matter." Plaintiff argues that there is nothing unclear about the claims because the "partition happens to enclose subject matter that is important to the broadcaster." (Dkt. No. 33 at 11.) Plaintiff contends that Defendants' expert's apparent problem is his difficulty figuring out what is important versus what is unimportant. (*Id.*) Plaintiff argues that the entity transmitting the image (*e.g.*, the broadcaster in claim 8) decides what is important. (*Id.*) Plaintiff further contends that the specification teaches the skilled person exactly how a broadcaster would select the partition. (*Id.* (citing '408 Patent at 1:59–65).)

Plaintiff also argues that the term "partition of important subject matter" appears 17 times in the patent, and is shown as examples in the figures. (*Id.* at 12.) Plaintiff further argues that the prosecution history also cuts against Defendants' indefiniteness assertions. (*Id.* (citing Dkt. No. 33-2).) According to Plaintiff, the disclosed system is not about how to determine important

subject matter in an image, but instead only requires that the control data includes size and location of a partition. (*Id.* at 13.) Plaintiff argues that a patentee is not required to draw bright lines for the sake of clarity when those bright lines would obscure rather than enhance disclosure. (*Id.*) Plaintiff contends that the term "important" is easily understood in the context of the term and patent. (*Id.* at 14.)

Defendants respond that a person of ordinary skill in the art would understand these phrases to be inherently subjective. (Dkt. No. 37 at 19 (citing Dkt. No. 37-2 at ¶77).) Defendants contend that what subject matter a person of ordinary skill in the art might deem to be "important" will inevitably vary from person to person. (*Id.* (citing Dkt. No. 37-2 at ¶88).) Defendants further argue that the specification provides no objective standards for determining what is "important subject matter." (*Id.* at 20.) Defendants contend that the only two instances in which the specification addresses the phrase "partition of important subject matter" does so in wholly subjective terms. (*Id.* (citing '408 Patent at 1:61–65, 5:22–25).)

Regarding Plaintiff's arguments, Defendants contend that Plaintiff's position equates a "partition of important subject matter" with a "partition of subject matter," which would impermissibly read the word "important" out of the claims. (*Id.* at 21.) According to Defendants, the subject matter must be "important," separate and apart from being within the partition. (*Id.*). Defendants further argue that the partition of important subject matter is drawn as an ellipse in Figure 4, which means that some portion of the subject matter within the encoded partition is not "important." (*Id.* at 22 (citing '408 Patent at 5:12–13 and FIG. 4).) Defendants contend that a person of ordinary skill in the art would understand that the "framing rectangle" defined by the control data and the "partition of important subject matter" are not coextensive, and would not otherwise be informed as to what portion of a "framing rectangle" constitutes a "partition of

important subject matter" in any given case. (*Id.* (citing Dkt. No. 37-2 at ¶¶ 84-86).)

Finally, Defendants argue that the claim language "actually requires" the subject matter within the partition to be "important." (*Id.* at 23.) Defendants contend that there is no objective guidance provided by the specification and/or prosecution history to determine whether the operator succeeded in selecting important subject matter. (*Id.* (citing '408 Patent at 1:61–65, 5:22–25, 5:33–36).) Defendants argue that determining whether subject matter is "important" is a qualitative determination that "depend[s] solely on the unrestrained, subjective opinion of a particular individual purportedly practicing the invention." (*Id.* at 24 (citing *Datamize*, 417 F.3d at 1350).)

Plaintiff replies that each of the independent Claims 1, 8, and 9 are directed to the receiving end, and are not directed to creating a partition of important subject matter. (Dkt. No. 41 at 6.) According to Plaintiff, one does not have to act on the "importance" of the partition, because the size and location of the partition are provided for processing. (*Id.*) Plaintiff further argues that the cases cited by Defendants are off point. (*Id.* at 6-8.) Finally, Plaintiff contends that Defendants' argument that the partition can be an ellipse is irrelevant because the size and location of the partition are specifically recited in the claims. (*Id.* at 8.) According to Plaintiff, the specification teaches that a rectangle is used for the size of the partition because in all the examples, the screen is a rectangle. (*Id.* (citing '408 Patent at 5:37–6:43).)

2. Analysis

The phrase "partition of important subject matter" appears in asserted Claims 1-3, 5, 8-9, and 11 of the '408 Patent. The phrase "partition showing said important subject matter" appears in asserted Claim 1 of the '408 Patent. The Court finds that the phrases are used consistently in the claims and are intended to have the same general meaning in each claim. Regarding the use of

the phrases in Claims 1-3, 5, and 9, the Court finds that the disputed phrases, when read in light of the specification delineating the patent and the prosecution history, informs, with reasonable certainty, those skilled in the art about the scope of the invention. *Nautilus*, 134 S. Ct. at 2124.

Starting with the claim language, independent Claims 1 and 9 are directed to the end that receives the control data, and not the end that creates the control data. Specifically, each claim recites receiving a signal that includes control data, which indicates the size and location of a partition of important subject matter. *See, e.g.*, Claim 1 ("a decoder for receiving and decoding a signal representing an image and control data wherein the control data defines a vector indicating a location of a partition of important subject matter within said image: the control data further defining the size of said partition showing said important subject matter"); Claim 9 ("receiving and decoding a signal representing an image and control data defining a vector indicating a location of a partition of important subject matter within said image; wherein the control data further defines the size of said partition important subject matter.").

In other words, none of these claims are directed to creating a partition of important subject matter, but instead recite receiving the partition of important subject matter. That is, the "partition of important subject matter" is a label. Therefore, one does not have to act on the "importance" of the partition. Instead, the size and location of the partition are provided for processing. Moreover, it is the recited "*size of said partition* showing said important subject matter size" that is "adapted according to a criterion" (claim 1) or "adapted to . . . an individual criterion" (claim 9) that enables the re-sampled image to be displayed on a screen of a display device. This means that the size of "said partition" is predefined in the received control data.

Indeed, the specification states that "[s]tarting from WO 97/27704 *it is the object of the present invention* to improve a known receiver, a TV-receiver, an image display apparatus, a TV-

system and a method for displaying an image such *that at least a predefined partition of important subject matter* within the original broadcasted image can entirely be shown on a screen even if the size of said screen is smaller than the size of said partition with only a minimal loss of details." '408 Patent at 2:12–19.

Defendants argue that whether that subject matter is "important" will depend on who is viewing the image. (Dkt. No. 37 at 23.) The Court disagrees. The use of the phrase in Claims 1 and 9 is not directed to creating a partition of important subject matter. Instead, Claims 1 and 9 recite receiving the partition of important subject matter. A person of ordinary skill in the art would understand that what is inside the partition is the important subject matter to be displayed. Defendants also argue that "there is nothing further in the specification that would guide a POSITA to determine what the 'artistic values' of an image are, let alone if they are 'maintained.'" (Dkt. No. 37 at 20.) Again, the received signal includes the partition of important subject matter, which does not depend on the receiver of the signal maintaining the "artistic value."

Defendants further argue that the specification provides that an operator or an automatic machine "determines for each scene the optimum partition of important subject matter within the entire image at the broadcaster's end." (*Id* (citing '408 Patent at 5:22–25).) According to Defendants, this does not provide objective guidance for a POSITA, because the term "optimum" is inherently subjective. (*Id.*) Again, independent Claims 1 and 9 are directed to the end that receives the control data, and not the end that creates the control data. Accordingly, the received signal includes the partition of important subject matter, which does not depend on determining the "optimum" partition of important subject matter.

Defendants also contend that Plaintiff's position equates a "partition of important subject matter" with a "partition of subject matter," which impermissibly read the word "important" out of

the claims. (*Id.* at 25). Once again, the claims recite that a signal is received that represents an image and control data. The control data further defines "a location of a partition of important subject matter within said image." Thus, the partition defines the boundary between "important" subject matter in the image, and the remaining subject matter in the image. In other words, the entire image cannot be the "partition of important subject matter," because this would be the prior art described in the specification. '408 Patent at 1:27–35 ("For adapting the resolutions a TV-system as shown in FIG. 5 *is known in the art*. . . . The re-sampling of the image corresponds to a reduction or an increase of the size of *the entire image*.") (emphasis added). To the extent that a party argues that an entire image is "a partition of important subject matter," the Court rejects this argument.

Defendants further contend that the specification contradicts the argument that whatever is within the encoded partition must constitute "important subject matter to be displayed." (Dkt. No. 37 at 25.) According to Defendants, the preferred embodiment illustrates a "framing rectangle," and also illustrates the partition of important subject matter as an ellipse. (*Id.* at 26 (citing '408 Patent at 5:37–41, 5:12–16, 5:41–53).) Defendants argue that "a POSITA would understand that the 'framing rectangle' defined by the control data and the 'partition of important subject matter' are not coextensive, and would not otherwise be informed as to what portion of a 'framing rectangle' constitutes a 'partition of important subject matter' in any given case." (*Id.*)

Defendants' argument is unpersuasive because the size and location of the partition are specifically recited in the claims. Whether the partition of important subject matter is a rectangle, ellipse, or some other shape is irrelevant, because the partition is defined in the control data when it is received. Independent Claims 1 and 9 are directed to the end that receives the control data, and not the end that creates the control data. Everything outside of the defined "partition of important subject matter," would fall into the category of unimportant.

Finally, Defendants argue that Plaintiff's positon contravenes Federal Circuit precedent requiring the specification to provide "objective boundaries" for a POSITA as a matter of law. (Dkt. No. 37 at 26.) The Court finds that the facts in the cited cases are distinguishable from the facts in this case. In *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364 (Fed. Cir. 2014), the key term was "providing to the content display system a set of instructions for enabling the content display system to selectively display, in *an unobtrusive manner . . . .*" *Id.* at 1368. The Federal Circuit found that the invention was "a system that displays content, [and] the claim language offers no objective indication of the manner in which content images are to be displayed to the user." *Id.* at 1371. Like the patent in *Interval Licensing*, the claims here are directed to displaying content. However, unlike the patent in *Interval Licensing*, the claims do recite the manner in which content images are to be displayed to the user. The patent requires "re-sampling said decoded image at a variable re-sampling rate defined at the receiving end such that the size of the partition of important subject matter in the re-sampled image is adapted according to a criterion," where the "size" is provided in the control data.

In *Datamize*, the term "aesthetically pleasing" was used 3 times in the independent claims. 417 F.3d at 1348. To practice the invention, a user would have to understand how to assign "onscreen characteristics," "element characteristics," and "values to the attributes," to achieve "aesthetically pleasing" display and functionality. *Id.* at 1347-49. Unlike the claims in *Datamize*, the user practicing the claims of the '408 Patent is not the arbiter of what is "important."

In summary, Claims 1 and 9 are not directed to the concept of determining what subject matter in an image is important. The key is that the control data includes size and location of a partition of important subject matter. A person of ordinary skill in the art would understand that what is inside the partition is the important subject matter to be displayed. Accordingly, Defendants

have failed to prove by clear and convincing evidence that the phrase in Claims 1 and 9 is indefinite.

Turning to Claim 8, the Court finds that the disputed phrase, when read in light of the specification delineating the patent and the prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention. *Nautilus*, 134 S. Ct. at 2124. Claim 8 recites "a broadcaster for broadcasting a TV-signal, representing an image and control data, to at least one image display apparatus wherein the control data defines a vector indicating a location of a partition of important subject matter within said image; . . . the control data further defines the size of said partition." Thus, in contrast to Claims 1 and 9, the "partition of important subject matter" is subjective, because it requires a broadcaster to act on the "importance" of the partition.

In particular, what subject matter a broadcaster might deem to be "important" will inevitably vary from person to person. Moreover, the specification provides no objective standards for determining what is "important subject matter" given this context. Indeed, Plaintiff argues that the importance of the subject matter is subjectively determined by the broadcaster "to maintain the artistic values of the original image." (Dkt. No. 33 at 12 (citing '408 Patent at 1:61–65).) A person of ordinary skill in the art would not be able to determine, with reasonable certainty, whether the processing of a given signal with control data falls within the scope of the claims. While the broadcaster "tries to select the most important subject matter" in order to provide an "optimum" partition and perhaps "maintain the artistic values of the original image," there is no objective guidance provided by the specification and/or prosecution history to determine whether the operator has succeeded in doing so. '408 Patent at 1:61–65, 5:22–25, 5:33–36. Accordingly, Defendants have proven by clear and convincing evidence that the phrase "partition of important subject matter," as recited in the context of Claim 8 is indefinite. Finally, in reaching its conclusion, the

Court has considered the extrinsic evidence submitted by the Parties, and given it its proper weight in light of the intrinsic evidence.

3. Court's Construction

In light of the intrinsic and extrinsic evidence, the Court finds that the phrases **"partition of important subject matter"** and **"partition showing said important subject matter,"** as recited in Claims 1 and 9, are not indefinite and will be given their **plain and ordinary meaning.** In light of the intrinsic and extrinsic evidence, the Court finds that the phrase **"partition of important subject matter,"** as recited in Claim 8, is indefinite.

F. "the size of the partition is reduced not more than necessary for being totally displayed on the screen by re-sampling the decoded image at an appropriate re-sampling rate"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"the size of the partition is reduced not more than necessary for being totally displayed on the screen by re-sampling the decoded image at an appropriate re-sampling rate"	Ordinary meaning.	Indefinite.

1. The Parties' Positions

The Parties dispute whether the intrinsic evidence provides any objective boundaries for the phrase "the size of the partition is reduced not more than necessary for being totally displayed on the screen by re-sampling the decoded image at an appropriate re-sampling rate." Plaintiff argues that the claim language taken individually and together is reasonably clear. (Dkt. No. 33 at 14.) Plaintiff contends that the viewer's perspective is irrelevant, because Claim 3 does not concern the user. (*Id.* (citing Dkt. No. 37-2 at ¶ 95).) Plaintiff further argues that the phrase is readily understandable in light of the specification, which it contends teaches downsampling. (*Id.* (citing '408 Patent at 6:64–67, 2:30–35, 1:47–55, 2:15–20, 4:11–26).) According to Plaintiff, a person of ordinary skill in the art would understand that this phrase merely requires a resampling rate be

used that optimizes the display by displaying as much of the part of the image within the partition. (*Id.* at 15.)

Plaintiff also contends that the specification walks through a number of examples that disclose to the person of ordinary skill in the art exactly what this phrase means. (*Id.* (citing '408 Patent at 5:45–54).) Plaintiff argues that the patent includes numerous examples explaining various resampling rates that can be used, which is enough to give reasonable certainty. (*Id.*) According to Plaintiff, this phrase in light of the specification is reasonably clear and certain and each word of the phrase should be given its plain and ordinary meaning. (*Id.*)

Defendants respond that a person of ordinary skill in the art would understand that the phrases "not more than necessary" and "appropriate" to be inherently subjective. (Dkt. No. 37 at 24 (citing Dkt. No. 37-2 at ¶ 94).) Defendants further argue that the specification does not provide any objective standards for determining what reduction of a partition is "not more than necessary" and what re-sampling rate is "appropriate." (*Id.* at 25 (citing '408 Patent at 1:47–55, 2:12–19, 3:8–17).) Defendants contend that the cited passages are equally subjective and will depend entirely on the perspective of the individual viewer of the image. (*Id.*). According to Defendants, a person of ordinary skill in the art would not understand whether a reduction is "more than necessary" or "not more than necessary" for displaying a partition at a given size. (*Id.* (citing Dkt. No. 37-2 at ¶¶ 96, 99).)

Defendants further argue that even if a person of ordinary skill in the art could understand what re-sampling rate would reduce a partition "not more than necessary for being totally displayed on the screen," they would also understand that this re-sampling rate will not necessarily be an "appropriate re-sampling rate" because it depends on the user's preferences. (*Id.* at 26 (citing '408 Patent at 4:32–44, 4:60–64).) Defendants argue that an "appropriate" re-sampling rate is

determined based on the subjective preferences of the user, rendering Claim 3 indefinite. (*Id.*) Defendants further contend that there is no indication anywhere in the intrinsic record that the perspective from which appropriateness is viewed differs from Claim 3 to Claims 4 and 10. (*Id.*) According to Defendants, the user's perspective is paramount to understanding the scope of the claims. (*Id.* (citing '408 Patent at 4:32–44, 4:60–64, 1:47–55).)

Defendants also argue that Claim 3 has two separate requirements beyond the limitations of Claim 1. (*Id.* at 27). According to Defendants, the size of the partition must first be reduced "not more than necessary for being totally displayed on the screen," and second, this reduction must happen "by re-sampling the decoded image at an appropriate re-sampling rate." (*Id.*) Defendants argue that not all reductions that fit the first requirement will also meet the second requirement, and the second requirement is wholly dependent on the perspective of the individual user. (*Id.*) Defendants also contend that there is nothing to suggest that the re-sampling rate depicted in Figure 4 will also be "appropriate," and may be inappropriate depending on the user. (*Id.* (citing '408 Patent at 4:32–44, 4:60–64; Dkt. No. 37-2 at ¶ 105).)

Plaintiff replies that the specification describes an alternative embodiment where "a maximum of details of said partition can be displayed on the screen" "by re-sampling the decoded image at an appropriate re-sampling rate." (Dkt. No. 41 at 8 (citing "408 Patent a 4:10-26).) Plaintiff contends that a person of ordinary skill in the art would know, that under the conditions of Claim 3, the partition needs to be reduced in either size or resolution. (*Id.*). According to Plaintiff, the limitation indicates that under certain conditions where the resampled partition is still larger than the target display area, it is acceptable to reduce the size of the original decoded partition. (*Id.* at 9). Plaintiff argues that a person of ordinary skill in the art would understand from the claim language itself that one would *not* reduce data more than they have to. (*Id.*)

2. Analysis

The phrase "the size of the partition is reduced not more than necessary for being totally displayed on the screen by re-sampling the decoded image at an appropriate re-sampling rate" appears in asserted Claim 3 of the '408 Patent. The Court finds that the disputed phrase, when read in light of the specification delineating the patent and the prosecution history, informs, with reasonable certainty, those skilled in the art about the scope of the invention. *Nautilus*, 134 S. Ct. at 2124. Specifically, the claim language itself provides the objective boundary. Independent Claim 1 recites "control data" that defines "the size of said partition showing said important subject matter." Claim 1 further recites that "that the size of the partition of important subject matter in the re-sampled image is adapted according to a criterion."

Dependent Claim 3 provides an application of the criterion for the scenario when "the fixed size of the screen is smaller than the original size of the partition of important subject matter." In this scenario, Claim 3 recites that the "necessary" reduction in the size of the partition is based on the partition being "totally displayed on the screen." Therefore, the "appropriate" re-sampling rate is the one that reduces the size of the partition "not more than necessary for being totally displayed on the screen." Thus, the plain language of Claim 3 provides objective boundaries for this phrase, and informs those skilled in the art about the scope of the invention with reasonable certainty.

Furthermore, the specification informs those skilled in the art about the scope of the invention. The specification states that a goal of the '408 Patent is to display more details for the part of the image that is inside the partition. '408 Patent at 6:64–67. Claim 3 is directed to downsampling, and the specification teaches that downsampling is done such "that advantageously details remain within the displayed image as far as possible." *Id.* at 2:30–35. As indicated, downsampling the whole image can cause some loss of details. *Id.* at 1:47–55. The specification

discloses that the "favourable re-sampling rate has the advantage that more details can remain in the displayed image," which "lead to preservation of details in the important subject." *Id.* at 6:55–67. The specification then provides a number of examples that inform those skilled in the art about the scope of the invention.

For instance, Figures 4a–4l cover examples of a "very large subject," a "medium large subject," a "medium small subject," and a "very small subject." '408 Patent at 5:45–54. The specification discloses how the image can be down-sampled to screens 2 and 3 for each scene. For example, in line 1 of Figure 4 the subject size is down-sampled by a ratio of 1/2.25. Similarly, in line 2 of Figure 4 the subject size is down-sampled by a ratio of 1/1.50. Thus, the intrinsic evidence informs, with reasonable certainty, those skilled in the art on how the size of the partition is reduced not more than necessary for being totally displayed on the screen by re-sampling the decoded image at an appropriate re-sampling rate, as recited in this claim term.

Defendants argue that whether a partition is reduced "not more than necessary," and whether the resampling rate required to achieve the reduction is "appropriate," will vary from person to person. (Dkt. No. 37 at 28.) Defendants further contend that the specification does not provide any objective standards for determining what reduction of a partition is "not more than necessary" and what re-sampling rate is "appropriate." One overarching flaw in Defendants' argument is their attempt to break the disputed phrase into "two separate requirements." (Dkt. No. 37 at 31.) According to Defendants, the first requirement is that the size of the partition must be reduced "not more than necessary for being totally displayed on the screen," and the second requirement is that this reduction must happen "by re-sampling the decoded image at an appropriate re-sampling rate."

This is an incorrect parsing of the claim language. The plain language of the claims

indicates that the "appropriate" re-sampling rate is the one that reduces the size of the partition "not more than necessary for being totally displayed on the screen." Therefore, Defendants are incorrect when they argue that "the second requirement is wholly dependent on the perspective of the individual user." (Dkt. No. 37 at 31.) This incorrect interpretation of the claim language runs throughout Defendants' arguments.

Defendants also argue that "the POSITA would also understand that such a re-sampling rate will not necessarily be an 'appropriate re-sampling rate' according to claim 3, depending on the user's preferences." (*Id.* at 30 (citing '408 Patent at 4:32–44).) According to Defendants, "the specification admits that an 'appropriate' re-sampling rate is determined based on the subjective preferences of the user, rendering claim 3 indefinite." (*Id.*). Again, Defendants argument is based on their incorrect parsing of the claim language. The claim language does not depend on the subjective preference of the user. Indeed, there is no user recited in Claim 3. Instead, it is Claims 4 and 10 that recite a user manipulating the criterion. *See, e.g.*, Claim 4 ("the criterion is manipulated by the user watching the resampled image on the screen such that the variable resampling rate is adapted to the user's individual viewing angle when watching the screen and/or the user's individual visual acuity.").

Defendants also contend that "there is no indication anywhere in the intrinsic record that the perspective from which appropriateness is viewed differs from claim 3 to claims 4 and 10." (Dkt. No. 37 at 30.) The plain language of the claims indicate otherwise. Additionally, "a claim need not cover all embodiments. . . . A patentee may draft different claims to cover different embodiments." *Intamin, Ltd. v. Magnetar Techs., Corp.*, 483 F.3d 1328, 1337 (Fed. Cir. 2007). Accordingly, the Court rejects Defendants' arguments, and finds that Defendants have failed to prove by clear and convincing evidence that the phrase is indefinite. Finally, in reaching its

conclusion, the Court has considered the extrinsic evidence submitted by the Parties, and given it its proper weight in light of the intrinsic evidence.

3. Court's Construction

In light of the intrinsic and extrinsic evidence, the Court finds that the phrase **"the size of the partition is reduced not more than necessary for being totally displayed on the screen by re-sampling the decoded image at an appropriate re-sampling rate"** is not indefinite and will be given its **plain and ordinary meaning.**

G. "partition of important subject matter is located in a remaining image at a similar position as in the received image"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"partition of important subject matter is located in a remaining image at a similar position as in the received image"	Ordinary meaning.	Indefinite.

1. The Parties' Positions

The Parties dispute whether the intrinsic evidence provides any objective boundaries for the phrase "partition of important subject matter is located in a remaining image at a similar position as in the received image." Plaintiff argues that the person of ordinary skill in the art would understand that user control is added to resampling in Figure 3, and then, by comparing the figures 4g and 4h, and 4j and 4k, 4d and 4e, it would have been reasonably clear to them how the similar position can be determined. (Dkt. No. 33 at 16.) Plaintiff further contends that Defendants' expert incorrectly states that there is no description of the pan & scan operation. (*Id.*) Plaintiff argues that a person of ordinary skill in the art would know how to pick the regions to discard to improve on the placement of the partition of important subject matter in the receiver. (*Id.* (citing '408 Patent at 4:50–54, Figure 4).) Plaintiff contends that they would understand how to do this even with resampling. (*Id.*)

Plaintiff further argues that Defendants' expert's analysis for Figures 4a-4l is incorrect because the figures include the ellipses in the resulting display region. (*Id.*) Plaintiff contends that the figures demonstrate the pan & scan concept across three different screen sizes utilizing different schemes. (*Id.* at 17.) Plaintiff further argues that it is clear that the process of going from 4d to 4e underwent resampling to a lower resolution, and in keeping the partition visible and displaying it in a wide screen format, drew the partition towards the left keeping the location similar. (*Id.*) Therefore, according to Plaintiff, the only option is to discard the region outside of the partition and the four edges touch the partition extent. (*Id.*) Plaintiff contends that the same is true for 4a, 4b and 4c, because some aspect of the viewable area is required to be removed to support the change in the aspect ratio. (*Id.*)

Defendants respond that the specification only discusses the "similar position" language once, in connection with the embodiment disclosed in Figure 3. (Dkt. No. 37 at 28 (citing '408 Patent at 4:45–59).) Defendants contend that a person of ordinary skill in the art would not understand, with reasonable certainty, what it means for a partition to be "located in a remaining image at a similar position as in the received image" based on this description. (*Id.* at 28-29 (citing Dkt. No. 37-2 at ¶¶ 112-114).) Defendants further argue that the specification does not indicate how many pixels can be cropped and on which sides, and still have the partition be "in a similar position" as it was before the cropping occurred. (*Id.* at 29.)

Defendants further argue that Figure 4 (and its accompanying description) would not aid a person of ordinary skill in the art in determining the scope of this phrase. (*Id.* (citing Dkt. No. 37-2 at ¶¶ 115-119).) According to Defendants, the specification describes the absolute location of the partition in Screen 1, but not the location of the partition in Screens 2 and 3 relative to its location in Screen 1, rendering Figure 4 unhelpful. (*Id.* (citing Dkt. No. 37-2 at ¶ 115).) Defendants

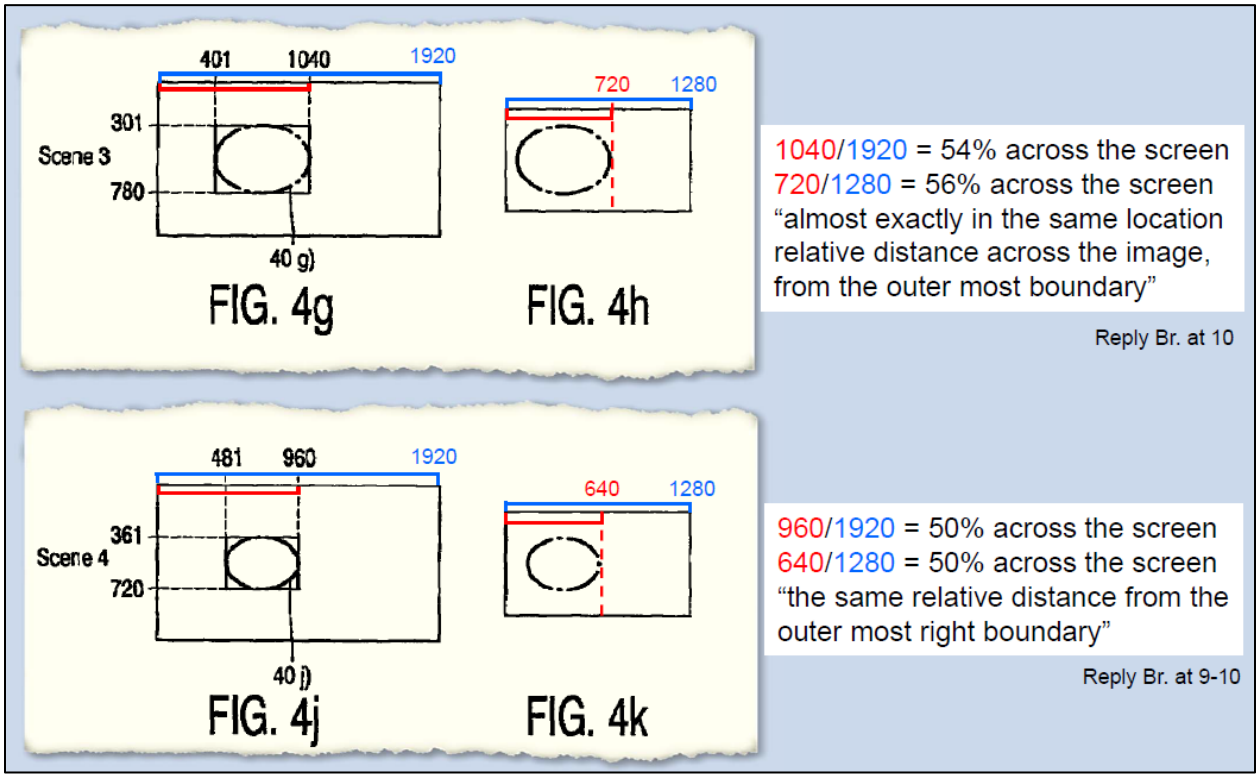
also argue that it is unclear whether the position of the partition is actually changing, and if so, whether those positions are "similar" to each other, given the likenesses and the differences between their locations. (*Id.* at 29-30 (citing Dkt. No. 37-2 at ¶¶117-119).)

Plaintiff replies that the specification discloses the location of the partition in Screens 2 and 3 relative to its location in Screen 1. (Dkt. No. 41 at 9.) Plaintiff argues that analyzing the position of the top right most point of the partition, a person of ordinary skill in the art could determine that it remains the same relative distance from the outer most right boundary of the image in both screens. (Dkt. No. 41 at 9-10.) Plaintiff contends that a person of ordinary skill in the art would be able to calculate a similar position based on the disclosure in the specification. (*Id.* at 10.)

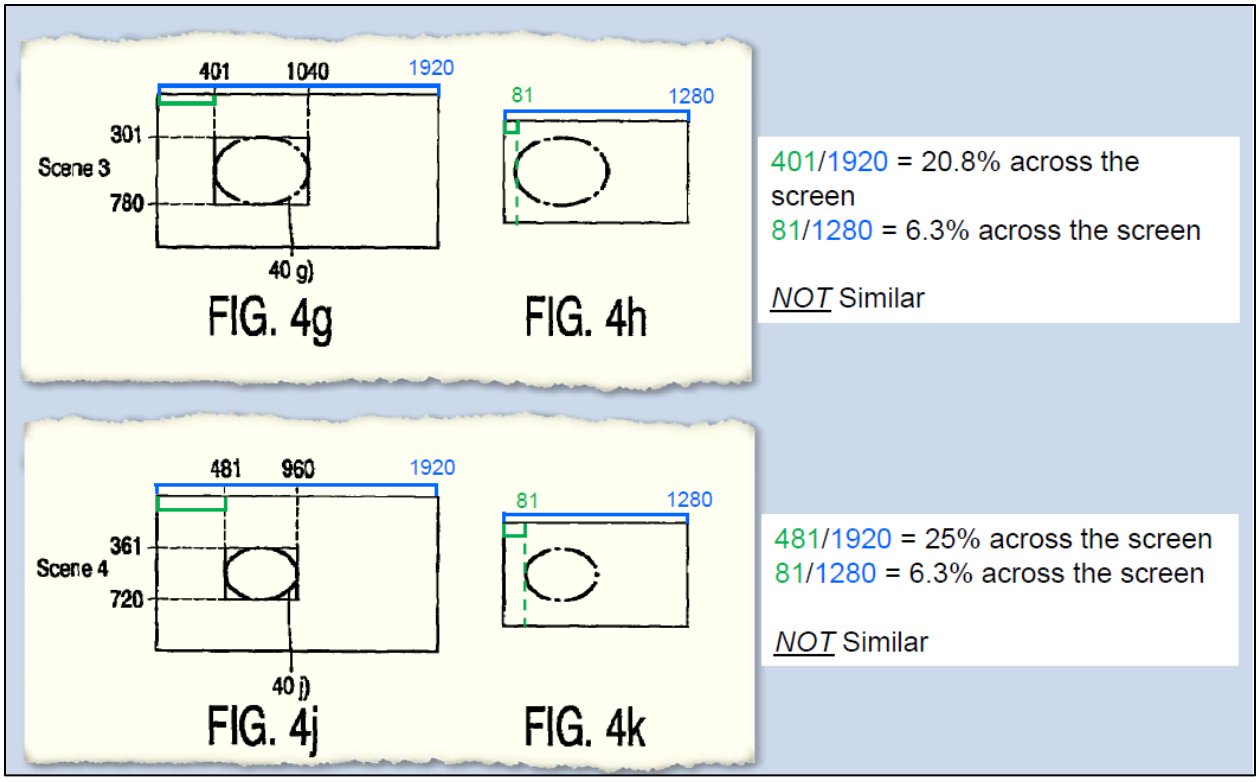
2. Analysis

The phrase "partition of important subject matter is located in a remaining image at a similar position as in the received image" appears in asserted Claims 5 and 11 of the '408 Patent. The Court finds that the disputed phrase, when read in light of the specification delineating the patent and the prosecution history, fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention. *Nautilus*, 134 S. Ct. at 2124. Dependent Claim 5 relates to the embodiment disclosed in Figure 3, which includes a "discarding unit." Claim 5 recites that the discarding unit discards "parts of the received decoded image in response to said control data such that the partition of important subject matter is located in a remaining image at *a similar position* as in the received image." Defendants contend that the phrase "a similar position" is a subjective term, or a term of degree. (Dkt. No. 37 at 32.) Defendants further argue that the specification fails to "provide[] some standard for measuring that degree." *Datamize*, 417 F.3d at 1351. The Court agrees.

Plaintiff argues that the specification indicates that the partition illustrated in Figure 4j and Figure 4k "is generally in the same spot on the screen relative to the size of the screen." (Dkt. No. 41 at 12.) Similarly, Plaintiff argues that the partition illustrated in Figure 4g and Figure 4h is "almost exactly in the same location." (*Id.* at 13.) According to Plaintiff, a person of ordinary skill would be able to calculate a similar position based on these examples. (*Id.* at 13.) The problem with Plaintiff's argument is that it only measures the relative distance of the right edge of the screen, as indicated in the following demonstrative.



Defendants' Markman Slide at 65. However, if the relative distance is measured from the left edge of the screen, then the positions are not "similar."



Defendants' Markman Slide at 66. There is no indication in the intrinsic evidence whether a shift of 14.5% to 18.7% is "at a similar position as in the received image." Thus, Figure 4 (and its accompanying description) does not aid a person of ordinary skill in the art in determining the scope of this phrase, but instead further confuses the issue.

Specifically, the specification fails to indicate whether the partitions in those 6 examples (or all of the 12 scenes) are "similar" to each other, especially given the differences in the positions. In fact, a person of ordinary skill in the art looking to Figure 4 and its explanatory text "could consider situations represented by the various examples to be of minimal change in position, of drastic change in position, or anything in between—dependent solely on the subjective opinion of the viewer." (Dkt. No. 37-2 at ¶ 119). Indeed, when asked by the Court the range of "similar positions," Plaintiff's counsel suggested that 5% would be a similar position. (Dkt. No. 57 at 102:2–4.) As illustrated in the demonstrative above, the 5% number is exceeded in the examples

provided in Figure 4 depending on where the relative distance is measured. This is not sufficient to render Claims 5 and 11 definite, as the specification must provide "objective boundaries." *Interval Licensing,* 766 F.3d at 1371.

Thus, in light of the specification's failure to include any objective measure for determining whether the "partition of important subject matter is located in a remaining image at a similar position as in the received image," Defendants have proven with clear and convincing evidence that the phrase is indefinite. Accordingly, Claims 5 and 11 are indefinite. Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the Parties, and given it its proper weight in light of the intrinsic evidence.

3. Court's Construction

In light of the intrinsic and extrinsic evidence, the Court finds that the phrase **"partition of important subject matter is located in a remaining image at a similar position as in the received image"** is indefinite.

IV. CONCLUSION

The Court adopts the constructions above for the disputed terms of the '408 Patent. Furthermore, the Parties should ensure that all testimony that relates to the terms addressed in this Order is constrained by the Court's reasoning. However, in the presence of the jury the Parties should not expressly or implicitly refer to each other's claim construction positions and should not expressly refer to any portion of this Order that is not an actual construction adopted by the Court. The references to the claim construction process should be limited to informing the jury of the constructions adopted by the Court.

So ORDERED and SIGNED this 16th day of January, 2020.

RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE