

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

MUSIC CHOICE,

Plaintiff,

v.

STINGRAY DIGITAL GROUP INC. and
STINGRAY MUSIC USA, INC.,

Defendants.

C.A. No: 2:16-cv-586-JRG-RSP (lead)

CLAIM CONSTRUCTION MEMORANDUM OPINION AND ORDER

Before the Court is the opening claim construction brief of Music Choice (“Plaintiff”) (Dkt. No. 112, filed on under seal on April 28, 2017),¹ the response of Stingray Digital Group Inc. and Stingray Music USA, Inc. (collectively “Defendants”) (Dkt. No. 130, filed under seal on May 12, 2017), and the reply of Plaintiff (Dkt. No. 135, filed on May 19, 2017). The Court held a hearing on the issues of claim construction and claim definiteness on June 12, 2017. Having considered the arguments and evidence presented by the parties at the hearing and in their briefing, the Court issues this Order.

¹ Citations to the parties’ filings are to the filing’s number in the docket (Dkt. No.) and pin cites are to the page numbers assigned through ECF.

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I. BACKGROUND

Plaintiff alleges infringement of five U.S. Patents: No. 7,320,025 (the “’025 Patent”), No. 8,769,602 (the “’602 Patent”), No. 9,351,045 (the “’045 Patent”), No. 9,357,245 (the “’245 Patent”), and No. 9,414,121 (the “’121 Patent”) (collectively, the “Asserted Patents”). The Asserted Patents consist of two patent families. The first family includes the ’025, ’045, and ’121 Patents (the “Video-On-Demand Patents”). The second family includes the ’602 and ’245 Patents (the “Visual-Complement Patents”).

A. The Video-On-Demand Patents

Through a series of continuation and continuation-in-part applications, each of the Video-On-Demand Patents claim priority to an application filed on March 18, 2002. In general, the Video-On-Demand Patents are directed to technology for supplementing a broadcast media service with an on-demand and personalized media service.

The abstracts of the Video-On-Demand Patents are identical and provide:

The present invention provides systems and methods for, in some cases, supplementing a broadcast media service with an on-demand and personalized media service.

Claim 1 of the ’025 Patent, an exemplary method claim, provides:

1. A method, comprising:
 - configuring a client system to receive and play music broadcast from a broadcast media source through a broadcast channel;
 - receiving application data at the client system, the application data including a video identifier identifying a video, wherein the application data is transmitted with the broadcast music;
 - while the client system is playing the broadcast music, (a) enabling a user of the client system to indicate that the user desires to view the video and (b) receiving an indication that the user desires to view the video;
 - in response to receiving the indication, automatically ceasing the playing of the broadcast music, transmitting from the client system to an on-demand system

the received video identifier, and establishing an on-demand session between the on-demand system and the client system; and
after establishing the on-demand session, transmitting from the on-demand system to the client system the identified video, receiving the transmitted video at the client system, and automatically playing the received video in response to receiving the transmitted video from the on-demand system.

Claim 1 of the '121 Patent, an exemplary system claim, provides:

1. A system for providing an on-demand, personalized media service and a broadcast service to a set-top-box, comprising:

a distribution network, wherein the set-top-box is connected to the distribution network; and

a distribution system including a transmission system operable to transmit via the distribution network a media channel comprising a stream of audio and video data, wherein

the set-top-box is operable to:

- (1) receive the media channel via the distribution network,
- (2) reproduce the stream of audio data included in the received media channel for a user of the client system to hear,
- (3) display video corresponding to the stream of video data included in the received media channel on a display device for the user to see,
- (4) receive via the distribution network video identifier information comprising an identifier for identifying an available on-demand video while displaying on the display device the video corresponding to the stream of video data included in the received media channel,
- (5) display a user selectable element for requesting the available on-demand video on the display device so that the user selectable element is displayed on the display device together with at least a portion of the video corresponding to the stream of video data as a result of receiving the video identifier information transmitted to the set-top-box using the distribution network, the user selectable element being associated with the available on-demand video, and
- (6) in response to the user of the set-top-box selecting the user selectable element, causing an on-demand video system to transmit to the set-top-box the available on-demand video by transmitting to the on-demand video system an on-demand request message.

B. The Visual-Complement Patents

Through a series of continuation applications, each of the Visual-Complement Patents claim priority to an application filed on August 28, 2001. In general, the Visual-Complement Patents are directed to technology for providing a video image to complement an audio data stream.

The abstracts of the Visual-Complement Patents are identical and provide:

A system and method for providing an interactive, visual complement to one or more audio programs. In one aspect, the system comprises an audio subsystem for generating an audio signal corresponding to a sound recording. The system also comprises a video subsystem for generating a video image specification based, at least in part, on the sound recording. In one aspect, the audio signal and video image specification are transmitted to an audio/video signal transmission system. The transmission system receives the video image specification and generates a video signal that conforms to the video image specification. The video signal and the audio signal are transmitted to at least one consumer receiver. In this way, the system provides a visual complement to an audio program.

Claim 1 of the '602 Patent, an exemplary method claim, provides:

- 1.** A method for providing a visual complement to an audio stream, comprising: transmitting, from a first transmission system to a second transmission system, audio data corresponding to a sound recording; and transmitting a data packet comprising a video image specification while the audio data is being transmitted, wherein the video image specification specifies one or more media asset identifiers, each of which identifies one or more media assets, one or more of said media asset identifiers identifying a media asset associated with the sound recording, said data packet further comprising sound recording information associated with the sound recording, the sound recording information comprising one or more of the title of the sound recording and the name of the artist who recorded the sound recording, wherein the step of transmitting the data packet comprises transmitting the data packet to a system comprising a video image generator, wherein the video image generator is configured to generate a video image using the video image specification and the system is configured to provide the generated video image to a device that is operable to display the video image to a user of the device, and wherein the video image generator is configured to generate the

video image by retrieving the media assets identified in the video image specification.

Claim 12 of the '245 Patent, an exemplary system claim, provides:

12. A system for providing a visual complement to an audio service, the system comprising:

an audio transmission system configured to transmit audio data corresponding to a sound recording specified in a playlist for a linear audio channel; and a receiving system, comprising a receiver and a video image generator, the receiving system being configured to:

- i) in response to receiving a data packet that was generated using an identifier identifying the sound recording, generate a video image in accordance with information included in the data packet, wherein the data packet includes a media asset identifier identifying a media asset and further includes sound recording information associated with the sound recording, the sound recording information comprising the title of the sound recording and the name of the artist who recorded the sound recording; and
- ii) automatically output the generated video image such that it is received at a display device operable to display the video image to a user of the display device without the user having to select a menu item, wherein the generated video image includes the song information comprising the title of the song and the name of the artist, and the receiving system is configured to retrieve the identified media asset and use the retrieved media asset in generating the video image.

II. LEGAL PRINCIPLES

A. Claim Construction

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *Id.* at 1313; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Group, Inc.*, 262 F.3d

1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. The general rule—subject to certain specific exceptions discussed *infra*—is that each claim term is construed according to its ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) (“There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.”) (vacated on other grounds).

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

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* (quoting *Vitronics Corp. v.*

Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The prosecution history is another tool to supply the proper context for claim construction because, like the specification, the prosecution history provides evidence of how the U.S. Patent and Trademark Office (“PTO”) and the inventor understood the patent. *Phillips*, 415 F.3d at 1317. However, “because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Id.* at 1318; *see also Athletic Alternatives, Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (ambiguous prosecution history may be “unhelpful as an interpretive resource”).

Although extrinsic evidence can also be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad

or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition are not helpful to a court. *Id.* Extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.* The Supreme Court recently explained the role of extrinsic evidence in claim construction:

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

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

B. Departing from the Ordinary Meaning of a Claim Term

There are “only two exceptions to [the] general rule” that claim terms are construed according to their plain and ordinary meaning: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution.”² *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2014) (quoting *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362,

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

1365 (Fed. Cir. 2012)); *see also GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) (“[T]he specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal.”). The standards for finding lexicography or disavowal are “exacting.” *GE Lighting Solutions*, 750 F.3d at 1309.

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

To disavow or disclaim the full scope of a claim term, the patentee’s statements in the specification or prosecution history must amount to a “clear and unmistakable” surrender. *Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009); *see also Thorner*, 669 F.3d at 1366 (“The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.”). “Where an applicant’s statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable.” *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013).

C. Definiteness Under 35 U.S.C. § 112, ¶ 2 (pre-AIA) / § 112(b) (AIA)³

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112, ¶ 2. A claim, when viewed in light of the intrinsic evidence, must “inform those skilled in the art about the scope of the invention with reasonable certainty.”

³ The Court refers to the pre-AIA version of § 112 but understands that there is no substantial difference between definiteness under the pre-AIA version and under the AIA version of the statute.

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

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

III. AGREED CONSTRUCTIONS

The parties have agreed to the following constructions set forth in their Joint Claim Construction Chart P.R. 4-5(d) (Dkt. No. 137) and at oral argument.

Term ⁴	Agreed Construction
<p>“media asset(s)”</p> <ul style="list-style-type: none"> • ’602 Patent Claims 1, 8 • ’245 Patent Claims 1, 12, 17 • ’025 Patent Claim 8 • ’045 Patent Claims 1, 6, 14, 19 	<p>media items including, for example, graphic image files, audio files, video files and/or text messages</p>
<p>“personalized media service”</p> <ul style="list-style-type: none"> • ’121 Patent Claim 1 	<p>a service that allows a user to have at least some degree of control over the content that is transmitted by the service provider to the user</p>
<p>“on-demand service”</p> <ul style="list-style-type: none"> • ’121 Patent Claim 6 	<p>a service that enables a user to select the precise content (e.g., music, video or other content) and/or type of content (e.g., genre and sub-genre) that is transmitted by the service provider to the user, when the user desires such content</p>
<p>“video image specification”</p> <ul style="list-style-type: none"> • ’602 Patent Claims 1, 8 	<p>no construction necessary – the words of the claims should be given their plain and ordinary meaning</p>
<p>“configured to”</p> <ul style="list-style-type: none"> • ’602 Patent Claims 1, 8 • ’245 Patent Claim 12 • ’045 Patent Claims 5, 6, 10–11, 16 • ’121 Patent Claim 6 	<p>no construction necessary – the words of the claims should be given their plain and ordinary meaning</p>
<p>“media channel”</p> <ul style="list-style-type: none"> • ’121 Patent Claims 1, 6 	<p>no construction necessary – the words of the claims should be given their plain and ordinary meaning</p>
<p>“video data”</p> <ul style="list-style-type: none"> • ’045 Patent Claims 1, 6, 11, 16 • ’121 Patent Claims 1, 6 	<p>no construction necessary – the words of the claims should be given their plain and ordinary meaning</p>

⁴ For all term charts in this order, the claims in which the term is found are listed with the term but: (1) only the highest-level claim in each dependency chain is listed, and (2) only asserted claims identified in the parties’ Joint Claim Construction Chart P.R. 4-5(d) (Dkt. No. 137) are listed.

Considering the parties’ agreement, the Court hereby adopts the parties’ agreed constructions.

IV. CONSTRUCTION OF DISPUTED TERMS

A. “first transmission system” and “second transmission system”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“first transmission system” <ul style="list-style-type: none"> • ’602 Patent Claims 1, 8 • ’245 Patent Claims 1, 17 	no construction necessary – the words of the claims should be given their plain and ordinary meaning	first/second system that is not a digital network and that transmits a signal
“second transmission system” <ul style="list-style-type: none"> • ’602 Patent Claims 1, 8 • ’245 Patent Claims 1, 17 	no construction necessary – the words of the claims should be given their plain and ordinary meaning	first/second system that is not a digital network and that transmits a signal

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

The Parties’ Positions

Plaintiff submits: These terms are used in the Visual-Complement Patents according to their plain and ordinary meanings (systems that transmit things) and a jury will properly understand these terms without construction. Dkt. No. 112 at 9. Defendants’ proposed “signal” limitation is improper because the claims expressly state that the systems transmit “data.” *Id.* at 10. And the “is not a digital network” limitation is improper because the patents describe exemplary transmission systems that may, in the art, be or include digital networks. *Id.* at 9–10.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’602 Patent fig.1, col.1 ll.59–63, col.4 ll.21–23, col.4 ll.27–30, col.6 ll.22–27, col.10 ll.41–46; ’602 Patent File Wrapper July 29, 2013 Reply

to Non-Final Office Action (Plaintiff’s Ex. A, Dkt. No. 112-8). **Extrinsic evidence:** Russ Decl.⁵ ¶¶ 45–56 (Dkt. No. 112-6 at 18–23).

Defendants respond: In the description of the invention, the Video-On-Demand Patents distinguish “transmission system” from “public network” and “private network” by listing them in the disjunctive, and thus define “transmission system” as something other than a network. Dkt. No. 130 at 6–7. Further, the patents consistently describe the “transmission systems” as signal transmission systems. *Id.* at 7–8.

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** ’602 Patent col.1 ll.45–67, col.4 ll.20–21, col.4 ll.23–25, col.5 ll.37–40, col.6 ll.26–27, col.8 ll.12–15. **Extrinsic evidence:** Steinberg Dep.⁶ 130:8–13 (Defendants’ Ex. 4, Dkt. No. 130-5 at 8); Shamos Decl.⁷ ¶¶ 29–30 (Dkt. No. 130-9 at 6); Giannetti Dep.⁸ 119:22 – 120:1 (Defendants’ Ex. 1, Dkt. No. 130-2 at 3–4).

Plaintiff replies: The description of the “transmission system” that Defendants identify as defining a “transmission system” as other than a “digital network” concerns exemplary embodiments and is therefore not limiting. Dkt. No. 135 at 3–4.

Plaintiff cites further **intrinsic evidence** to support its position: ’602 Patent col.5 l.37, col.6 ll.14–15.

⁵ Declaration of Dr. Samuel H. Russ in Support of Music Choice’s Opening Claim Construction Brief.

⁶ Deposition of Robert M. Steinberg (Mar. 8, 2017).

⁷ Declaration of Michael Shamos, Ph.D.

⁸ Deposition of Kelley L. Giannetti (Mar. 10, 2017).

Analysis

The issues in dispute are: (1) whether the transmission systems necessarily exclude digital networks and (2) whether the transmission systems necessarily transmit signals. There is no dispute that the transmission systems are systems for transmitting—that is the plain meaning of the term. And there is insufficient evidence to limit the systems to transmitting “signals” and to exclude “digital networks.”

The transmission systems of the Visual-Complement Patents transmit information, but are not necessarily limited to transmitting “signals.” The term “transmission system” is used in the patents to denote systems that transmit information such as video images, audio signals, encoded recordings, and data packets from one point to another. For example, the patents explain “[t]he transmission system then transmits the *video image* and the *audio signal* to consumers’ audio/video receivers.” ’602 Patent col.1 ll.59–60 (emphasis added). The patent further explains, “transmission subsystem 190 . . . may transmit the *encoded sound recordings*.” *Id.* at col.4 ll.19–20 (emphasis added), fig.1 (denoting item 190 “First Transmission System”). And the patent explains, “[v]ideo subsystem 104 may use transmission subsystem 190 to transmit the *data packet*” and “data packets may be extensible mark-up language (XML) files or hyper-text mark-up language (HTML) files.” *Id.* at col.5 ll.29–44. That is, in the various embodiments, various types and formats of data are transmitted by the transmission systems. Claim 1 of the ’602 Patent, for example, recites “transmitting, from a first transmission system to a second transmission system, *audio data* corresponding to a sound recording.” *Id.* at col.15 ll.62–64. It is not clear from the intrinsic record the transmission systems necessarily transmit signals. Further, it is not clear how Defendants intend “signal” to be understood. Injecting “signal” into the construction does not clarify claim scope.

The transmission systems of the patents do not necessarily exclude “digital networks.” The passage Defendants rely on, ’602 Patent col.5 ll.37–40, does not support their proposed negative limitation. With surrounding context, this passage provides:

FIG. 6 illustrates an exemplary data packet 600. As shown in FIG. 6, data packet 600 includes a video image specification 602. Optionally, data packet 600 may also include sound recording information 604, and purchase information 606. Video image specification 602 comprises a list of visual media asset identifiers and associates a screen position with each asset identifier. The data packets may be extensible mark-up language (XML) files or hyper-text mark-up language (HTML) files.

In the embodiment shown in FIG. 1, after generating a data packet for a particular channel, video subsystem 104 transmits the data packet so that it will be received by transmission system 170. Video subsystem 104 may use transmission subsystem 190 to transmit the data packet to transmission system 170 or may use a public network (e.g., the Internet) or private network to transmit the data packet to transmission system 170.

Id. at col.5 ll.28–44. The passage is describing how an exemplary data packet may flow in an exemplary audio/video system. It can be transmitted by a specific exemplary transmission system, “transmission subsystem 190,” or it can bypass this specific transmission system and be transmitted by a “public network” or a “private network.” At most, this suggests that the specific exemplary transmission system is not simply a public network or a private network. It does not support excluding “digital networks” from the scope of “transmission system” in general.⁹ Indeed, it is not clear what meaning Defendants ascribe to “digital network” so including it in the negative in a construction does not clarify claim scope.

⁹ The passage at column 8, lines 1 through 19 is similar, and the Court’s reasoning applies equally.

Accordingly, the Court rejects Defendants’ proposed “not a digital network” and “signal” limitations and determines the transmission-system terms have their plain and ordinary meaning without the need for further construction.

B. “generate the video image by retrieving the media assets identified in the video image specification” and “generate a video image using the media assets identified in the video image specification”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“generate the video image by retrieving the media assets identified in the video image specification” • ’602 Patent Claim 1	No construction necessary – the words of the claims should be given their plain and ordinary meaning	create the/a video image while or after the audio data is being transmitted by retrieving/using media assets identified in the video image specification
“generate a video image using the media assets identified in the video image specification” • ’602 Patent Claim 8		

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

The Parties’ Positions

Plaintiff submits: These terms have their plain and ordinary meaning which can be understood without construction. Dkt. No. 112 at 15. Defendants’ proposed swap of “generate” for “create” is unnecessary and the requirement that the generating be accomplished “while or after the audio data is being transmitted” is improper. *Id.* at 15–16. Specifically, reading in a temporal limitation is improper for two reasons: First, the ’602 Patent Claim 1 expressly recites a temporal limitation with respect to a transmitting step, evincing that a temporal limitation should not be read into the claims when not expressed. *Id.* at 16. And second, the ’602 Patent describes exemplary

embodiments in which the video image is generated before being transmitted. *Id.* (citing '602 Patent col.3 ll.18–21, col.12 ll.57–61).

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** '602 Patent col.3 ll.18–21, col.7 ll.42–45, col.11 ll.31–38, col.12 ll.41–46, col.12 ll.57–61. **Extrinsic evidence:** Russ Decl. ¶¶ 72–84 (Dkt. No. 112-6 at 30–33).

Defendants respond: The claims themselves require that the video image is generated “while or after the audio data is being transmitted.” Dkt. No. 130 at 11. For example, Claim 1 of the '602 Patent recites that the video image is generated “using the video image specification” and the “video image specification” is transmitted to the generator “while the audio data is being transmitted.” *Id.* at 11–12. Defendants agree the '602 Patent discloses embodiments in which the images are generated before being transmitted—but those are referred to in the patent as pre-generated images that are distinct from generated images and the claims involve generated images. *Id.* at 12–13.

In addition to the claims themselves, Defendants cite the following **intrinsic evidence** to support their position: '620 Patent col.2 ll.7–13, col.12 ll.57–59.

Plaintiff replies: “While or after the audio data is being transmitted” should not be read into the construction of these terms since the limitation is already required by the claims. Dkt. No. 135 at 5–6.

Analysis

The issues here appear to be: (1) whether “generate” is limited to “create” and (2) whether temporal limitations that are expressed elsewhere in the claims should be read into the

constructions of these terms. There is no good reason to rewrite “generate” as “create” or to impose a temporal limitation on “generate” that is otherwise expressed in the claims.

The parties do not dispute that the image is generated “while or after the audio data is being transmitted” and that this limitation is elsewhere expressed in the claims. The Court agrees. Given that there is no dispute, there is no need to construe the terms to resolve the dispute. Further, that this limitation is recited elsewhere in the claims suggests that the video image is not inherently generated “while or after the audio data is being transmitted.”

The Court declines to rewrite “generate” as “create.” It is not clear whether the parties agree that “create” and “generate” are coextensive. And the Visual Complement Patents refer both to generating an image and creating an image. *See, e.g.*, ’602 Patent col.2 ll.10–13 (“The video image generator then generates a video image based on the provided video image specification and transmits the video image to a first transmission subsystem.”), col.10 ll.37–39 (“Video image generator 702 functions to create a video image based on the video image specification contained in data packet 732.”). The claims recite “generate” and Defendants have not provided sufficient reason to stray from the examined and issued claim language.

Accordingly, the Court rejects Defendants’ proposed construction and determines that these terms have their plain and ordinary meanings without the need for further construction.

C. “transmit to the second transmission system the generated video image multiplexed with the audio data corresponding to the sound recording”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“transmit to the second transmission system the generated video image multiplexed with the audio data corresponding to the sound recording” • ’602 Patent Claim 8	transmit to the second transmission system the generated video image together in a single stream with the audio data corresponding to the sound recording	transmit to the second transmission system the generated video image combined into a single data stream with the audio data corresponding to the sound recording

The Parties’ Positions

Plaintiff submits: “Multiplexed” in the context of transmitting video image and audio data in the ’602 Patent means that they are transferred “together.” Dkt. No. 112 at 17. It would be improper to require the video image and audio data to be “combined into a single data stream” as Defendants propose. *Id.* at 18.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’602 Patent col.2 ll.17–19, col.10 ll.44–46. **Extrinsic evidence:** Russ Decl. ¶¶ 86–90 (Dkt. No. 112-6 at 33–35).

Defendants respond: The ’602 Patent explains that the video image and the audio data is transmitted together by being “combined into a single MPEG-2 data stream.” Dkt. No. 130 at 13–14 (citing ’602 Patent fig.7, col.4 ll.18–19, col.10 ll.44–46) (quotation marks omitted). And the testimony of several of the inventors supports that “multiplexed” connotes combined signals transmitted in a single channel or stream. *Id.* at 14–15.

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** ’602 Patent fig.7, col.4 ll.18–19, col.10 ll.37–46. **Extrinsic evidence:** Shamos Decl. ¶ 61 (Dkt. No. 130-9 at 14); Steinberg Dep. 50:7–16

(Defendants' Ex. 4, Dkt. No. 130-5 at 7); Rosenberg Dep.¹⁰ 129:7–12 (Defs.' Ex. 3, Dkt. No. 130-4 at 5); Feras Dep.¹¹ 77:7–14 (Defendants' Ex. 5, Dkt. No. 130-6 at 3).

Analysis

The issue here is whether “multiplexed” means “combined into a single data stream” or “together in a single stream.” The Court determines that “together in a single stream” is the better interpretation.

The Visual-Component Patents do not use the term “multiplexed” other than in the claims but the patents do, however, describe audio and video data being transmitted together. For example, the patents provide: “the first transmission subsystem then transmits the audio signal together with the video image to a second transmission system.” ’602 Patent col.2 ll.16–19. They also describe that “[i]n one embodiment, the video image, data packet 731 and audio stream are transmitted together in an MPEG-2 data stream.” *Id.* at col.10 ll.44–46. The parties’ experts agree that these passages refer to multiplexing. Shamos Decl. ¶ 60, Dkt. No. 130-9 at 14; Russ Decl. ¶ 87, Dkt. No. 112-6 at 33–34.

The parties have not precisely articulated the difference between “together in a single stream” and “combined into a single data stream.” Plaintiff does not dispute that the single stream is a data stream. Rather, at oral argument Plaintiff stated that “data” is simply redundant. Indeed, the claim language recites that the stream includes data. And it is not clear to the Court how separate data streams can be transmitted together in a single stream without being combined at some point. But in light of the parties’ oral arguments, it appears that the dispute may actually be whether Claim 8 includes a “combining” step or a “combining” functionality inherent in a recited

¹⁰ Deposition of Jeremy C. Rosenberg (May 1, 2017).

¹¹ Deposition of John J. Feras (March 23, 2017).

element. With respect to this, the Court notes that Claim 8 is a “comprising” claim to a system, which means the claimed system is not limited to the recited elements. The Court further notes that, as recited in the claim, “the first transmission system is further configured to *transmit* to the second transmission system the generated video image multiplexed with the audio data corresponding to the sound recording.” ’602 Patent col.17 ll.1–4 (emphasis added). The claim does not recite that the first transmission is configured to multiplex or combine the video and audio data. That is, while the claim requires that the first transmission system is the element which transmits the video and audio data together, the claim is silent on whether the first transmission system is also configured to combine the signals. The Court declines to read in Defendants’ proposed “combined into a single data stream” limitation because it appears that the limitation is meant to limit first transmission system in way not mandated by the claim language.

Accordingly, the Court construes “transmit to the second transmission system the generated video image multiplexed with the audio data corresponding to the sound recording” as follows:

- “transmit to the second transmission system the generated video image multiplexed with the audio data corresponding to the sound recording” means “transmit to the second transmission system the generated video image together in a single data stream with the audio data corresponding to the sound recording.”

D. “trigger message”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“trigger message” <ul style="list-style-type: none"> • ’602 Patent Claim 8 • ’245 Patent Claim 4 	No construction necessary – the words of the claims should be given their plain and ordinary meaning	a message created by the audio subsystem to initiate the creation of the video image

The Parties' Positions

Plaintiff submits: This term carries the ordinary meanings of its constituent words “trigger” and “message” which can be understood without construction. Dkt. No. 112 at 18–19. Further, the claims provide context for the content of the message and what actions it triggers. *Id.* Defendants’ proposed construction improperly imports limitations from exemplary embodiments and conflicts with Claim 6 of the ’245 Patent, which recites that the “video specification” is generated on receipt of the trigger message. *Id.* at 19.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’602 Patent col.6 ll.42–47, col.9 ll.8–11, col.10 ll.54–58, col.11 l.64 –col.12 l.4. **Extrinsic evidence:** Russ Decl. ¶¶ 91–97 (Dkt. No. 112-6 at 35–37); *Merriam Webster’s Collegiate Dictionary* 1262 (10th ed. 1993) (“trigger”) (Plaintiff’s Ex. D, Dkt. No. 112-11 at 18).

Defendants respond: “Trigger message” needs to be construed regardless of whether a jury would understand “trigger” and “message” separately, and the Visual-Complement Patents explain the meaning of the term. Dkt. No. 130 at 15. First, the patents describe an “audio system for . . . transmitting triggers to a video subsystem,” thus, the trigger message is created by the audio system. *Id.* (quoting ’602 Patent col.1 ll.48–51) (modification by the Court). Second, the patents explain that “[u]pon receiving a trigger from the audio subsystem the video subsystem generates an image specification” that is transmitted to the transmission system which “receives the video image specification and generates a video image that conforms to the video image specification.” *Id.* at 15–16 (quoting ’602 Patent col.1 ll.52–58). Thus, the trigger message initiates creation of the video image. *Id.*

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** '602 Patent col.1 ll.48–58, col.2 ll.7–12, col.6 ll.28–30. **Extrinsic evidence:** Shamos Decl. ¶ 66 (Dkt. No. 130-9 at 15–16).

Plaintiff replies: The intrinsic record does not support importing Defendants' proposed limitations. Dkt. No. 135 at 4.

Analysis

The issues here are: (1) whether the trigger message is necessarily “created” by the audio subsystem and (2) whether the trigger message necessarily is “to initiate the creation of the video image.” The trigger message is not necessarily created by the audio subsystem and it is not necessarily meant to initiate creation of the video image. It is a message configured to trigger (i.e., initiate) some action. At oral argument, the parties agreed to the Court’s construction of this term “message configured to initiate an action.”

The Visual-Complement Patents do not define how, or by what, the trigger messages are created. For example, the patents provide: “In one aspect [of the invention], the system includes an audio subsystem for selecting a sound recording based on a playlist, generating an audio signal corresponding to the sound recording, and transmitting triggers to a video subsystem whenever a sound recording is selected.” '602 Patent col.1 ll.47–52. In this passage, it is illustrative that the audio subsystem is described as *generating* the audio signal and *transmitting* the triggers. There is no mention here of what generates the trigger, only that it is transmitted. *See also, id.* at col.6 ll.28–39 (“audio subsystem 102 transmits to video subsystem 104 a trigger message”). Elsewhere, the patents describe that in the embodiment of Figure 13: “the trigger message generated by audio subsystem 102 may be sent to transmission system 170.” *Id.* at col.13 ll.27–28. Here, the patents describe that the audio subsystem not only sends the trigger, but also generates the trigger. Claim

8 of the '602 Patent recites: “the audio subsystem is configured to ... *provide* to the video system a trigger message.” *Id.* at col.17 ll.6–9 (emphasis added). Here, there is no restriction on what creates or generates the trigger. That is, in some embodiments the patents explicitly describe the generation point of a trigger message, implying that the trigger message is not inherently generated by the audio subsystem. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc) (noting that the use of the term “steel baffles” “strongly implies that the term ‘baffles’ does not inherently mean objects made of steel”). Thus, the Court understands the trigger message may be generated by the audio subsystem but need not be generated by the audio subsystem.

The Visual-Complement Patents do not require that a trigger message triggers the creation of an image. Indeed, the claims define what actions the trigger message triggers. For example, Claim 10 of the '602 Patent recites “the video subsystem is configured to generate the video image specification in response to receiving the trigger message.” '602 Patent col.17 ll.17–19; *see also*, '245 Patent col.26 ll.43–45 (Claim 6 recites “the video subsystem is configured to generate the video image specification in response to receiving the trigger message”). Elsewhere in the patents, the trigger message is described as triggering a process to *retrieve* a video image:

Process 1300 begins in step 1302, where transmission system 170 receives a trigger message that includes a sound recording identifier. Next (step 1304) transmission system 170 parses the trigger message to determine the sound recording identifier included therein. Next (step 1305), transmission system 170 accesses data structure 1200 to determine the ordered set of video image identifiers and purchase information that are associated with the sound recording identifier determined in step 1304. Next (step 1306), transmission system 170 *retrieves* from storage unit 185 the video image identified by the first identifier in the set.

'602 Patent col.13 ll.31–41 (emphasis added). The intrinsic record does not support requiring the trigger message to initiate creation of the video image.

Accordingly, the Court construes “trigger message” as follows:

- “trigger message” means “message configured to initiate an action.”

E. “still image”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“still image” <ul style="list-style-type: none"> • ’245 Patent Claims 2, 17 	No construction necessary – the words of the claims should be given their plain and ordinary meaning	graphic image file (<i>e.g.</i> , GIF files, JPEG files, bitmap file)

The Parties’ Positions

Plaintiff submits: “Still image” has the ordinary meaning of its constituent words and can be understood without construction. Dkt. No. 112 at 19. Specifically, a video file, such as a MPEG file, may be a “still image.” *Id.* at 20 (citing ’245 col.11 ll.47–53 (referring to a MPEG image with “null P-frames”); Russ Decl. ¶ 102 (stating the “null P-frames” indicate the image is “still”). Excluding MPEG-formatted files from the scope of “still image” would improperly exclude described exemplary embodiments involving television transmission of still images because MPEG is the standard for such transmission. *Id.* at 20–21.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’245 Patent fig.2, col.4 ll.47–53, col.4 ll.56–62, col.11 ll.47–53. **Extrinsic evidence:** Russ Decl. ¶¶ 98–104 (Dkt. No. 112-6 at 38–40); ATIS Telecom Glossary, “still video”¹² (Plaintiff’s Ex. E, Dkt. No. 112-12).

Defendants respond: “Still image” refers to the graphic image files of the ’245 Patent which are distinct from the video files of the patent in that the latter includes a time component. Dkt. No. 130 at 17. Specifically, an MPEG file is not a still image. *Id.*

¹² <http://www.atis.org/glossary/definition.aspx?id=1426>

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** '245 Patent col.4 ll.49–52, col.6 ll.10–11.

Extrinsic evidence: Shamos Decl. ¶¶ 72, 130–31 (Dkt. No. 130-9 at 17).

Plaintiff replies that it would be improper to exclude the MPEG embodiment of a still image. Dkt. No. 135 at 6.

Analysis

The issue here appears to be whether a “still image” is necessarily a data type other than MPEG. The Visual-Complement Patents do not restrict still images to certain data types and specifically do not exclude MPEG data types.

The patents describe that a video image is displayed to the user and may comprise various data types. The patents describe displaying a video image based on the video image specification:

The video image conforms to the video image specification contained in the data packet so that when the video image is displayed on the subscribers' audio/video device 182, the visual media assets defined in the video image specification are displayed in the locations as specified in the video image specification.

'602 Patent col.6 ll.1–6. For example, the video image from an album may be displayed when a song from the album is playing. *Id.* at col.4 ll.50–58. A video image may be constructed from various media assets, such as graphic image files, video files, and text messages. *Id.* at col.4 ll.41–49. “The video image may be encoded according to a Moving Pictures Experts Group (MPEG) standard, the National Television Standards Committee (NTSC) video signal standard, or other video signal standard.” *Id.* at col.6 ll.7–10. For example, “[i]n one embodiment, the video image, data packet 731 and audio stream are transmitted together in an MPEG-2 data stream.” *Id.* at col.10 ll.44–46. Thus, the patents teach that information other than “moving pictures” may be encoded as MPEG data.

The video image may include a time component in that the image displayed to the user changes over time. *See, e.g., id.* at col.2 ll.24–27 (“the video image is updated at various times so that the video image seen by the consumer changes over time as well as changing whenever a new sound recording is selected and played by the audio subsystem”), col.5 ll.5–9 (“some of the assets ... specified by the video image specification are determined as function of time”).

From this, the Court understands that whether an image is “still” is determined from the user’s perspective, and is not based on its data type. If a particular video image, as displayed to a user, does not change over time, then it is a still image regardless of whether the image is encoded as MPEG or in some other data format.

Accordingly, the Court construes “still image” as follows:

- “still image” means “image that, as displayed, does not change over time.”

F. The Broadcast Terms

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“broadcast” • ’025 Patent Claim 1	transmitted to a plurality of client systems	transmitted simultaneously to all client systems (users)
“broadcast service” • ’121 Patent Claim 1	a service that transmits to a plurality of set-top-boxes	see “broadcast”
“broadcast from a broadcast media source through a broadcast channel” • ’025 Patent Claim 1	transmitted to a plurality of client systems from a media source through a channel	transmitted simultaneously to all client systems (users) from a media source through a channel designed or constructed to transmit simultaneously to all client systems (users) connected to the channel

Disputed Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction
<p>“providing an on demand, personalized media service and a broadcast service to a set-top-box”</p> <ul style="list-style-type: none"> • '121 Patent Claim 1 	<p>providing to a set-top-box an on-demand, personalized media service and a service that transmits to a plurality of set-top-boxes</p>	<p>providing an on demand, personalized media service along with a service that transmits content simultaneously to all client systems (users)</p>

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

The Parties’ Positions

Plaintiff submits: As used in the Visual-Complement Patents and as explained during prosecution of a parent application, “broadcast” refers to transmission to a plurality of users but does not require transmission to all users. Dkt. No. 112 at 23–25.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’025 Patent fig.1, col.1 ll.27–34, col.3 ll.43–45, col.4 ll.3–5, col.5 ll.44–54; U.S. Patent No. 7,783,772¹³ File Wrapper July 2, 2007 Reply to Office Action Amendment (Plaintiff’s Ex. F, Dkt. No. 112-13). **Extrinsic evidence:** Shamos Decl. ¶¶ 86–94 (Plaintiff’s Ex. B, Dkt. No. 112-10 at 20–22); Russ Decl. ¶¶ 115–20 (Dkt. No. 112-6 at 43–45); *Microsoft Computer Dictionary* 62 (4th ed. 1999) (“broadcast”) (Plaintiff’s Ex. G, Dkt. No. 112-14 at 8).

Defendants respond: In the art, “broadcast” refers to transmission to all clients and that the term has this meaning in the claims. Dkt. No. 130 at 20–21. Further, while a broadcast is directed

¹³ U.S. Patent No. 7,783,772 issued from Application No. 10/098,620; the ’025, ’045, and ’121 Patents claim priority to Application No. 10/098,620 through a series of continuation and continuation-in-part applications. ’025 Patent, at [63] Related U.S. Application Data; ’045 Patent, at [63] Related U.S. Application Data; ’121 Patent, at [63] Related U.S. Application Data.

to a plurality of clients, that does not mean that the plurality may be less than all clients. *Id.* at 21–22. This is how the patentee explained the meaning of “broadcast” in a related patent application. *Id.* at 21.

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** ’025 Patent col.1 ll.27–34. **Extrinsic evidence:** Shamos Decl. ¶¶ 88, 90, 93 (Dkt. No. 130-9 at 20–21); *Microsoft Computer Dictionary* 62 (4th ed. 1999) (“broadcast”) (Plaintiff’s Ex. G, Dkt. No. 112-14 at 8); Steinberg Dep. 33:21 – 34:3, 35:14 – 36:18 (Defendants’ Ex. 4, Dkt. No. 130-5 at 3–6).

Plaintiff replies: The intrinsic evidence does not support restricting “broadcast” to require transmission to all users. Dkt. No. 135 at 7.

Analysis

The issues here distill to: (1) whether “broadcast” necessarily entails simultaneous transmission, and (2) whether a “broadcast” is necessarily transmitted to all client systems. In the context of the intrinsic record, the Court understands “broadcast” to refer to simultaneous transmission to multiple unspecified users, regardless of whether that constitutes all client systems.

“Broadcast” in the context of the Video-On-Demand Patents, refers to simultaneous transmission to multiple unspecified users. The Video-On-Demand Patents describe that a broadcast transmission is sent to “a plurality of client systems.” *See, e.g.*, ’025 Patent col.5 ll.44–53. And the disclosures distinguish broadcast media systems from on-demand media systems and personalized media systems based on the control the user has over the content the system transmits to the user: a user does not have any control over the content of a broadcast system, a user has precise control over the content of an on-demand system, and a user has some control over the

content of a personalized system. *Id.* at col.1 ll.26–56. This distinction was further explained during prosecution of a parent application:

By definition, a “broadcast recording” is a recording that is broadcast. For example, it is a recording that is sent to multiple unspecified users simultaneously so that each of the multiple users can listen to the recording. This is the well-known definition of the term “broadcast.” See e.g., Webopedia, <http://www.webopedia.com> (defining broadcast to mean “to simultaneously send the same message to multiple recipients”); and The Free On-Line Dictionary of Computing, <http://foldoc.org>, (defining broadcast to mean “a transmission to multiple, unspecified recipients”).

In contrast, a recording transmitted from an “on-demand system,” by definition, is not broadcast. Rather, a recording transmitted by an on-demand system is transmitted to a single recipient (i.e., it is transmitted to the device that requested the recording).

U.S. Patent No. 7,783,772 File Wrapper July 2, 2007 Reply to Office Action Amendment 14 (Dkt. No. 112-13 at 15). That is, a broadcast system is distinct from systems that allow user control over content in that a broadcast is simultaneously transmitted generally to multiple users, and not addressed to specific users.

The extrinsic evidence does not dictate that a broadcast must be to all client systems. The term “broadcast” has multiple plain and ordinary meanings. For example, the *Microsoft Computer Dictionary* provides: (1) “Sent to more than one recipient. In communications and other networks, a broadcast message is one distributed to all stations.” and (2) “As in radio or television, a transmission sent to more than one recipient.” *Microsoft Computer Dictionary* 62 (4th ed. 1999) (Dkt. No. 112-14 at 8). And as set forth above in the prosecution history, broadcast can also mean: (1) “to simultaneously send the same message to multiple recipients” and (2) “a transmission to multiple, unspecified recipients.” That is, a broadcast may be sent to all users or just more than one, without specifying the users. Based on the intrinsic record, “broadcast” is used in the Video-

On-Demand Patents according to multiple-recipient meaning, and does not refer to transmissions that are necessarily directed to all client systems.

The Court declines to read Defendants’ “designed or constructed to transmit simultaneously to all client systems (users) connected to the channel” into the meaning of broadcast channel. As set forth above, the Court rejects the “all client systems” limitation. And it is unclear what “designed or constructed to” means in this context. For example, is a channel that is broadcast but was not specially designed to be broadcast a “broadcast channel”? Defendants’ proposed limitation does not clarify claim scope.

Accordingly, the Court determines that “providing an on demand, personalized media service and a broadcast service to a set-top-box” has its plain and ordinary meaning subject to the constructions of its constituent terms “broadcast service” and “set-top-box” and construes the other Broadcast terms as follows:

- “broadcast” means “simultaneously transmitted to multiple unspecified users”;
- “broadcast service” means “service for simultaneously transmitting to multiple unspecified users”;
- “broadcast from a broadcast media source through a broadcast channel” means “simultaneously transmitted to multiple unspecified users from a broadcast media source through a broadcast channel.”

G. “multicast” and “music multicast system”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“multicast” • ’245 Patent Claim 17	a system for providing an audio stream to a plurality of	system that transmits simultaneously to a subset of client systems (users) only

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“music multicast system” <ul style="list-style-type: none"> • ’245 Patent Claim 17 	users essentially simultaneously	after a user tunes or subscribes to a music station or channel

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

The Parties’ Positions

Plaintiff submits: Claim 17 of the ’245 Patent itself explains the meaning of “multicast” and “music multicast system” and therefore the terms can be understood without construction. Dkt. No. 112 at 21. For example, the claim provides the “music multicast system” is “for providing [an] audio stream to a plurality of users essentially simultaneously.” *Id.* Defendants’ proposed construction obfuscates—and contradicts—the plain meaning of the surrounding claim language. *Id.* Further, Defendants’ construction is based on an overly narrow dictionary definition that is inconsistent with actual usage of “multicast” in the relevant art. *Id.* at 22.

In addition to the claims themselves, Plaintiff cites the following **extrinsic evidence** to support its position: Russ Decl. ¶¶ 107–112 (Dkt. No. 112-6 at 41–42); Shamos Decl.¹⁴ ¶¶ 82–83 (Plaintiff’s Ex. C, Dkt. No. 112-10 at 20).

Defendants respond: In the art, “multicast” refers to transmission to all subscribing machines and the term has this meaning in the claims. Dkt. No. 130 at 18. Further, while the claims recite what the “music multicast system” is for—i.e., “for providing said audio stream to a plurality of users essentially simultaneously”—this language informs the intended use of the system, it does

¹⁴ Declaration of Michael Shamos, Ph.D.

not define the system. *Id.* at 18–19. Not every system that provides an “audio stream to a plurality of users essentially simultaneously” is a “music multicast system.” *Id.* at 19.

In addition to the claims themselves, Defendants cite the following **extrinsic evidence** to support their position: Shamos Decl. ¶¶ 81–82 (Dkt. No. 130-9 at 18–19); Russ Decl. ¶¶ 105, 108 (Dkt. No. 112-6 at 41); Farber Dep.¹⁵ 32:11–17 (Defendants’ Ex. 2, Dkt. No. 130-3 at 3).

Analysis

The issue here appears to distill to whether a music multicast system necessarily provides audio data to all subscribing users or simply to multiple users. The Court understands that a multicast system provides content to multiple specified users.

To begin, the Court rejects Plaintiff’s contention that the meaning of multicast is provided in Claim 17 of the ’245 Patent. The claim recites: “[a] method for providing a visual complement to an audio stream, the method being performed by a *music multicast system* for providing said audio stream to a plurality of users essentially simultaneously.” ’245 Patent col.18 ll.4–7 (emphasis added). The claim further recites steps performed by the music multicast system. The Court agrees with Defendants that “for providing said audio stream to a plurality of users essentially simultaneously” does not define a “music multicast system.” Indeed, if this language were definitional, there would be no need to include “multicast” in the claims at all, as Plaintiff posits. But such a construction fails to give effect to the fact that “multicast” is used in the claims. A “music multicast system” should be construed as something other than just a “music system.” *Info-Hold, Inc. v. Muzak LLC*, 783 F.3d 1365, 1373 (Fed. Cir. 2015) (“Claims must be interpreted with an eye toward giving effect to all terms in the claim”).

¹⁵ Deposition of Stuart H. Farber (March 24, 2017).

As the parties agreed at oral argument, “multicast” is not synonymous with “broadcast.” While “broadcast” is used in the Visual-Complement Patents, “multicast” is not used outside of the claim set of the ’245 Patent. This alone suggests that “multicast” means something different than “broadcast.” Defendants’ expert suggests multicasting is directed to “subscribers” or “members.” Shamos Decl. ¶¶ 82–83, Dkt. No. 130-9 at 19. Plaintiff’s expert suggests that such a meaning is not appropriate in the context of the patents. Russ Decl. at ¶ 112, Dkt. No. 112-6 at 42. Given the Court’s understanding of the customary meaning of “broadcast,” as set forth above, and that “multicast” is directed to multiple users as expressed in the claims, “multicast” differs from “broadcast” in that the destinations of the transmission are specified for multicast and unspecified for broadcast.

Accordingly, the Court determines that “multicast” need not be construed apart from “music multicast system” and construes “music multicast system” as follows:

- “music multicast system” means “system for providing an audio stream to a plurality of specified users essentially simultaneously.”

H. “configuring a client system to receive and play music broadcast from a broadcast media source through a broadcast channel”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“configuring a client system to receive and play music broadcast from a broadcast media source through a broadcast channel” <ul style="list-style-type: none"> • ’025 Patent Claim 1 	configuring a client system to receive and play music transmitted to a plurality of client systems from a media source through a channel	tuning a client system to a broadcast channel in order to receive and play music broadcast from a broadcast media source

The Parties' Positions

Plaintiff submits: “Configuring” and “tuning” are not synonymous in the ’025 Patent. Dkt. No. 112 at 25. For example, Dependent Claim 5 recites “tuning” as a subset of configuring: “wherein the act of configuring . . . comprises tuning”—evincing that not all configuring includes “tuning.” *Id.* at 25–26. And the patent describes exemplary embodiments in which systems are configured to receive and play without tuning. *Id.* at 26 (citing ’025 Patent col.15 ll.20–23).

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’025 Patent col.15 ll.20–23. **Extrinsic evidence:** Russ Decl. ¶¶ 124–25 (Dkt. No. 112-6 at 46).

Defendants respond: The ’025 Patent explains that “configuring a client system to receive and play music” is “tuning” the system. Dkt. No. 130 at 23 (citing ’025 Patent col.15 ll.22–24). While the patent includes exemplary embodiments that do not involve tuning, these embodiments do not include a “configuring” step and do not inform the meaning of this “configuring” limitation. *Id.* Further, Claim 5 recites “tuning a tuner,” thus Claim 5 is narrower than Claim 1 by reason of the “tuner” and does not evince that “configuring a client system” is other than “tuning.” *Id.* at 23–24.

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** ’025 Patent col.15 ll.22–24, col.15 ll.37–38. **Extrinsic evidence:** Shamos Decl. ¶ 96 (Dkt. No. 103-9 at 22).

Plaintiff replies. “Tuning” may be a form of “configuring” but not all “configuring” is “tuning.” Dkt. No. 135 at 6.

Analysis

The sole issue in dispute here, other than the issues addressed in the Broadcast Terms, is whether “configuring a client system” is limited to “tuning a client system.” It is not.

“Configuring a client system” is broader than “tuning a client system.” Dependent Claim 5 recites, “The method of claim 1, wherein the act of configuring the client system to receive and play music broadcast from the broadcast media source over the broadcast channel comprises tuning a tuner of the client system to the broadcast channel.” ’025 Patent col.17 ll.6–10. The Court agrees with Plaintiff that the distinction between Claim 1 and Claim 5 is the tuning. Indeed, it is not clear that a tuner is anything other than the thing that enables the tuning. The ’025 Patent describes that the client systems receive information through an interface that may or may not include a tuner:

The client systems 110 may include, for example, a conventional unidirectional or bi-directional set-top box or a computer equipped with, at the least, an interface (e.g., tuner and demodulator) for receiving information sent through distribution network 108. In another embodiment, the client system 110 may include a computer or similar device which is equipped with an interface (network card or similar) for receiving data packets (e.g., IP packets or other packets) sent through network 108.

Id. at col.5 ll.11–19. The Court understands the essence of this configuring limitation is explained in the ’025 Patent as isolating, or selecting, the channel:

Client systems 110 are operable to isolate at least one of the channels within combined signal 125 and then provide the audio and video data contained in the channel to an audio/video system 111, which reproduces the audio/video for a user 101 to hear and/or view.

Id. at col.4 l.65 – col.5 l.2.

Accordingly, the Court rejects Defendants’ proposed “tuning” limitation and determines that this term has its plain and ordinary meaning, subject to the construction of “broadcast from a broadcast media source through a broadcast channel.”

I. “creating a playlist”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“creating a playlist” <ul style="list-style-type: none"> • ’025 Patent Claim 8 • ’045 Patent Claim 1, 6, 14, 19 	No construction necessary – the words of the claims should be given their plain and ordinary meaning	creating a playlist by an/the on-demand system

The Parties’ Positions

Plaintiff submits: “Creating a playlist” can be understood without construction. Dkt. No. 112 at 26. Further, it would be improper to require an “on-demand system” be the means for creating the playlist. *Id.* at 25–26. The claims are silent regarding what is used to create the list and reading in a “by the on-demand system” from exemplary embodiments is not justified. *Id.* Indeed, some claims recited an on-demand system and some do not. *Id.* (citing Claims 1 and 11 of the ’045 Patent).

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’025 Patent col.11 ll.64–67. **Extrinsic evidence:** Russ Decl. ¶¶ 127–29 (Dkt. No. 112-6 at 47).

Defendants respond: The claims and the described embodiments show that the on-demand system, and not the user, creates the playlist. Dkt. No. 130 at 24–25.

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** ’025 Patent col.9 ll.10–15, col.11 l.64 – col.12 l.3, col.13 l.67 – col.14 l.5, col.14 ll.24–31, col.15 ll.4–7. **Extrinsic evidence:** Shamos Decl. ¶¶ 103–04 (Dkt. No. 130-9 at 23–24).

Plaintiff replies: The claims expressly recite that the on-demand system performs some steps, which implies that when not expressly recited, the step is not necessarily performed by the on-demand system. Dkt. No. 135 at 5.

Analysis

The issue here is whether the playlist is necessarily created by the on-demand system. It is not. The parties did not dispute the Court's construction at oral argument.

The Claims do not expressly require that the playlist is created by an on-demand system. For example, '025 Patent Claim 8 recites: "creating a playlist, wherein the playlist includes a plurality of media assets, including one media asset corresponding to the selected video" in a claim to a method "comprising" a number of steps. While the "selected video" is identified in information received by the on-demand system, it does not necessarily follow that it must be the on-demand system that creates the playlist. For example, the "comprising" transition phrase allows that the "selected video" is identified elsewhere such that the playlist can be created elsewhere. Indeed, the user necessarily has this information as the on-demand system receives the information from the user. '025 Patent col.17 ll.20–24. Further, even if the on-demand system creates the playlist in all the exemplary embodiments, that alone is not enough to read that limitation into the claims. *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1366(Fed. Cir. 2012) ("It is likewise not enough that the only embodiments, or all of the embodiments, contain a particular limitation. We do not read limitations from the specification into claims; we do not redefine words. Only the patentee can do that."). Defendants have not identified any clear expression in the Video-On-Demand Patents limiting where or by what the playlist is created.

Accordingly, the Court rejects Defendants’ proposed “by an/the on-demand system” and determines “creating a playlist” has its plain and ordinary meaning without the need for further construction.

J. “data packet”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“data packet” <ul style="list-style-type: none"> • ‘602 Patent Claim 1 • ‘245 Patent Claims 1, 12, 17 	a collection of data such as one or more files or documents	a unit of information, such as a file, transmitted as a whole from one device to another

The Parties’ Positions

Plaintiff submits: “Data packet” is used in the Visual-Complement Patents to denote a collection of data that may comprise multiple pieces. Dkt. No. 112 at 29–30. Defendants’ proposed construction is taken from a dictionary divorced from the intrinsic record and, while it may be applicable to “packets” in packet-switched networks, it does not accurately reflect how “data packet” is used in the context of the patents. *Id.* at 31.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ‘602 Patent fig.6, col.4 ll.33–38, col.5 ll.18–25, col.5 ll.22–25, col.5 ll.28–36, col.9 ll.42–46, col.11 ll.45–51. **Extrinsic evidence:** Russ Decl. ¶¶ 136–45 (Dkt. No. 112-6 at 50–53); *Microsoft Computer Dictionary* 385 (5th ed. 2002) (“packet”) (Plaintiff’s Ex. I, Dkt. No. 112-16 at 7).

Defendants respond: A “data packet” is not just any “collection of data” and must be so construed else it would read on Google’s database. Dkt. No. 130 at 28. The Visual-Complement Patents include examples of data packets that are single files, but do not include an example of a data packet that is more than one file. *Id.*

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** '602 Patent fig.6, col.5 l.28, col.5 ll.34–36, col.11 ll.45–46. **Extrinsic evidence:** Shamos Decl. ¶ 141 (Dkt. No. 130-9 at 32).

Plaintiff replies: The claims themselves constrain the “data packet” from being just any collection of data, like Google’s database. Dkt. No. 135 at 8. For instance, the data packet of the claims is transmitted. *Id.* Further, there is no support in the intrinsic evidence that a data packet must be transmitted as a whole. *Id.*

Analysis

The issues here are: (1) whether a data packet necessarily is “transmitted as whole,” (2) whether a data packet is necessarily a “unit of information,” (3) whether a data packet may span more than one file, and (4) whether a data packet is any collection of data. A “data packet” is not necessarily “transmitted as a whole,” a “unit of information,” or limited to one file. Nor is a “data packet” just any collection of data. It is a collection of data associated for a specific purpose—as expressly set forth in the claims.

The Court rejects Defendants’ “unit of information” and “transmitted as a whole” limitations. To begin, it is unclear what these phrases mean in the context of the Visual-Complement Patents, which relate to audio/visual broadcasts over cable and satellite systems. It is clear, however, that the patents are using “data packets” to refer to collections of information rather than to transmission units. *See, e.g.,* '602 Patent col.4 ll.35–38 (“A data packet for a particular channel comprises a video image specification that specifies a visual complement of the audio service for the particular channel.”), *id.* at col.4 ll.28–31 (“data packet 600 includes a video image specification 602 . . . [and] may also include sound recording information 604, and purchase information 606”). These collections take the form, for example, of files or documents. *See, e.g.,*

id. at col.5 ll.34–36 (“The data packets may be extensible mark-up language (XML) files or hyper-text mark-up language (HTML) files.”), col.11 ll.45–46 (“In one embodiment, data packet 732 is an HTML document.”). Accordingly, the Court finds Defendants’ extrinsic evidence not helpful or credible on this issue.

The Court rejects Defendants’ “single file” limitation. The intrinsic record is ambiguous on whether a data packet may comprise more than one file. While the patents disclose that “data packets may be ... files,” *id.* at col.5 ll.34–36, this does not necessarily mean that a data packet may be multiple files or that a data packet is necessarily a single file. Similarly, the described exemplary embodiment of the data-packet creation process refers generally to collecting and assembling (packaging) various information related to the visual complement to a sound recording. *Id.* at figs.5A–5B, col.9 l.2 – col.10 l.18. The Court finds nothing to justify limiting “data packet” to a single file.

Construing “data packet” as “collection of data” does not render the term unbounded. Indeed, the claims provide significant guidance regarding the nature of the data packet. For example, Claim 1 of the ’602 Patent recites: “data packet comprising a video image specification” and “said data packet further comprising sound recording information associated with the sound recording.” *Id.* at col.15 l.65 – col.16 l.6. Given the “comprising” language, the data packet expressly may include other information. But that does not render the term unbounded. The data packet of Claim 1 must have at least the video image specification (as defined in the claim) and the sound recording information (as defined in the claim).

Accordingly, the Court construes “data packet” as follows:

- “data packet” means “collection of data.”

K. “set-top-box”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“set-top-box” <ul style="list-style-type: none">• ‘045 Patent Claims 2, 7, 12, 17• ‘121 Patent Claims 1, 6	device that converts a signal to an input signal to the television	device that converts a television signal to an input signal to the television

The Parties’ Positions

Plaintiff submits: “Set” in set-top-box refers to a television set. Dkt. No. 112 at 31–32. But the signals the set-top-box process to provide to the television set are not necessarily traditional television signals, they can be, for example, IP signals. *Id.* at 32.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ‘045 Patent col.15 ll.51–55. **Extrinsic evidence:** Russ Decl. ¶¶ 148, 150–51 (Dkt. No. 112-6 at 54–56); *Microsoft Computer Dictionary* 405 (4th ed. 1999) (“set-top box”) (Plaintiff’s Ex. G, Dkt. No. 112-14 at 17).

Defendants respond: The Video-On-Demand Patents describe set-top-boxes as converting signals received from a television network into signals for input into the television set. Dkt. No. 130 at 29. This comports with the ordinary meaning of the term in the art—that a set-top-box converts television signals into signals to be input to the television. *Id.*

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** ‘045 Patent col.15 ll.48–55, col.15 ll.62–65. **Extrinsic evidence:** Shamos Decl. ¶¶ 143–47 (Dkt. No. 130-9 at 32–33); *Microsoft Computer*

Dictionary 405 (4th ed. 1999) (“set-top box”) (Pl.’s Ex. G, Dkt. No. 112-14 at 17); McGonigal Dep.¹⁶ 98:15–17 (Defendants’ Ex. 7, Dkt. No. 130-8 at 3).

Analysis

The issue here appears to be whether the signal the set-top-box converts is necessarily a television signal. It is not, as the Court understands Defendants to use “television signal.”

A set-top-box is not limited to cable TV signals. It is not clear what constitutes a “television signal” as posited by Defendants, but Defendants’ expert appears to equate “television signal” with “cable TV signal.” Shamos Decl. ¶ 45, Dkt. No. 130-9 at 33. The Video-On-Demand Patents, however, are not limited to cable TV signals. For example, the patents provide that the set-top-box is connected to a network “which *may be* a cable-TV (CATV) network.” ’025 Patent col.16 ll.5–7 (emphasis added). The Court understands that *may be* a cable network is distinct from *must be* a cable network. Further, the Video-On-Demand Patents incorporated the disclosure of the Visual-Complement Patents. *See, e.g.*, ’025 Patent col.5 ll.41–44 (incorporating by reference U.S. Patent Application No. 10/066,793); ’602 Patent, at [63] Related US. Application Data (listing U.S. Patent Application No. 10/066,793 as a parent application in a series of continuation applications). The Visual-Complement Patents provide: “there exist systems that broadcast music via satellite and cable to consumers’ televisions or set-top boxes.” ’602 Patent col.1 ll.20–22. This means: (1) signals to the set-top-box are not necessarily cable signals and (2) signals to the set-top-box may be “music.” Further, the *Microsoft Computer Dictionary* provides that “[s]et-top boxes can be used to access the World Wide Web.” *Microsoft Computer Dictionary* 405 (4th ed. 1999), Dkt. No.

¹⁶ Deposition of Daniel L. McGonigal (Apr. 3, 2017).

112-14 at 17. Simply, set-top-boxes do not necessarily process “television signals” as the Court understands Defendants to use that term.

Accordingly, the Court construes “set-top-box” as follows:

- “set-top-box” means “device that converts a signal to an input signal to the television.”

L. “linear audio channel”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“linear audio channel” • ’245 Patent Claim 12	Not indefinite – the words of the claims should be given their plain and ordinary meaning	Indefinite

The Parties’ Positions

Plaintiff submits: The meaning of “linear audio channel” is reasonably certain in the context of the ’245 Patent and its prosecution history, which describes and claims delivering audio information over a channel. Dkt. No. 112 at 33–34. Plaintiff contends that Defendants’ use of a similar term, “linear music channel,” to describe services evinces that this term has an established meaning in the art. *Id.* at 33. Finally, Plaintiff contends two of the three possible definitions posited by Defendants’ expert are not reasonable in the context of the intrinsic record—the patent is not concerned with “operating regions of electronic devices or the combining of noise signals.” *Id.* at 34.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’245 Patent col.4 ll.11–15. **Extrinsic evidence:** Stingray, *Galaxie* (Plaintiff’s Ex. J, Dkt. No. 112-17); Stingray, *All Good Vibes*

website¹⁷ (Plaintiff's Ex. K, Dkt. No. 112-18); Russ Decl. ¶¶ 154–58 (Dkt. No. 112-6 at 56–58); Shamos Decl. ¶¶ 76-78 (Plaintiff's Ex. C, Dkt. No. 112-10 at 18–19).

Defendants respond: It is unclear whether a “linear audio channel” is: (1) an audio channel with sequentially-arranged content, (2) an audio channel with an electronic device operating in its linear mode, or (3) an audio channel in which information and noise are added together. Dkt. No. 130 at 30–31. Further, the documents showing Defendants’ use of “linear music channel” do not evince the meaning of “linear audio channel” because the documents were drafted over a decade after the priority date. *Id.* at 30.

In addition to the claims themselves, Defendants cite the following **extrinsic evidence** to support their position: Shamos Decl. ¶¶ 74–78 (Dkt. No. 130-9 at 17–18).

Plaintiff replies: The only meaning of “linear audio channel” that is supported by the record is “an audio channel whose content is arranged sequentially.” Dkt. No. 135 at 9. Further, even though Defendants’ documents were after the priority date, Defendants have not proffered any evidence to suggest the term did not have meaning in the art. *Id.*

Plaintiff cites further **extrinsic evidence** to support its position: Steinberg Dep. 33:1–5, 33:17 – 34:3 (Defendants’ Ex. 4, Dkt. No. 130-5 at 3–4).

Analysis

The issue in dispute is whether the meaning of “linear audio channel” is reasonably certain. The Court holds that Defendants have failed to prove the meaning of the term is not reasonably certain.

¹⁷ <http://www.stingray.com/entertainment/music>

The Court agrees with Plaintiff that of Defendants’ three proposed meanings of “linear audio channel,” only one is related to the intrinsic evidence and therefore only one is reasonable. The Visual-Complement Patents do not pertain to operating modes of electronic devices or how noise and information might be combined to form a signal. Rather, they pertain to supplementing broadcast audio streams with visual complements related to the recording playing at any given time. *See, e.g.*, ’602 Patent col.1 ll.45–63. And these audio streams comprise a series of sound recordings played over time. *See, e.g., id.* at col.4 ll.7–11 (“A playlist 110 for a particular channel specifies sound recordings that have been programmed for transmission to the listeners of system 100 over that channel during a given period of time.”). The patents describe exemplary ordering of these recordings: “Audio subsystem 102 typically retrieves, encodes, and streams the sound recordings to consumers *in the order in which the sound recordings are listed in the playlists 110.*” *Id.* at col.4 ll.13–15 (emphasis added). That is, the patents specifically teach a sequential ordering of recordings on an audio channel.

Accordingly, the Court construes “linear audio channel” as follows:

- “linear audio channel” means “audio channel whose content is arranged sequentially.”

M. “popular music videos”

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“popular music videos” • ’121 Patent Claim 11	Not indefinite – the words of the claims should be given their plain and ordinary meaning	Indefinite

The Parties' Positions

Plaintiff submits: The meaning of “popular music videos” is reasonably certain in the context of the disclosure of the ’121 Patent, which relates “popular” with the level of popularity. Dkt. No. 112 at 35–36 (citing ’121 Patent col.10 ll.19–28 (referring to “the local top 10 videos for the currently selected format” as “popular videos”)).

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** ’121 Patent col.10 ll.19–28. **Extrinsic evidence:** Russ Decl. ¶ 160 (Dkt. No. 112-6 at 58–59); Shamos Decl. ¶ 119 (Plaintiff’s Ex. C, Dkt. No. 112-10 at 28).

Defendants respond: It is unclear whether a “popular music video” is: (1) a video in the popular-music genre, (2) a music video that is popular, or (3) a video for a popular piece of music. Dkt. No. 130 at 31–32. Further, there is no described standard by which to determine if a video or piece of music is “popular.” *Id.* at 32.

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** ’121 Patent col.12 ll.42–44. **Extrinsic evidence:** Shamos Decl. ¶¶ 117–21 (Dkt. No. 130-9 at 26–27).

Plaintiff replies: The disclosure of using the “local top 10 videos” to provide the “popular” videos is sufficient guidance to render the meaning of “popular music videos” reasonably certain. Dkt. No. 135 at 10.

Analysis

The issue here is whether the meaning of “popular music videos” is reasonably certain. It is—it refers to videos that have a relatively high number of downloads. Defendants have failed to prove that any claim is rendered indefinite by this term.

In the context of the disclosure of the '121 Patent, it is reasonably clear that “popular music videos” refers to music videos that are popular with their audience. Specifically, the '121 Patent provides:

If the user 101 is interested in selecting a popular video, the user 101 may select button 603. In response to user 101 selecting button 603, client system 110 transmits to on-demand system 192 information indicating that the user 101 activated button 603 (step 528). In response, on-demand system 192 determines the local top 10 videos for the currently selected format (step 530). This information may be determined from information stored in a database. Accordingly, on-demand system 192 may record all user 101 video selections so that the popular videos can be determined. In step 531, on-demand system 192 transmits to client system 110 a list of the videos determined in step 530. After step 531, control passes back to step 506.

'121 Patent col.10 ll.19–31. That is, the popular videos are those videos that have a relatively high frequency of download, such as the “local top 10 videos.”

Accordingly, the Court holds the Defendants have failed to establish the meaning of the term is not reasonably certain and determines that “popular music videos” has its plain and ordinary meaning.

N. The Stream Terms

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“stream of audio data” <ul style="list-style-type: none"> • '121 Patent Claims 1 	Not indefinite, and no construction necessary – the words of the claims should be given their plain and ordinary meaning	Indefinite
“stream of video data” <ul style="list-style-type: none"> • '121 Patent Claims 1 	Not indefinite, and no construction necessary – the words of the claims should be given their plain and ordinary meaning	Indefinite

Disputed Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction
"video data stream" <ul style="list-style-type: none"> • '121 Patent Claim 6 	Not indefinite, and no construction necessary – the words of the claims should be given their plain and ordinary meaning	Indefinite
"stream of audio and video data" <ul style="list-style-type: none"> • '121 Patent Claims 1, 6 	Not indefinite, and no construction necessary – the words of the claims should be given their plain and ordinary meaning	Indefinite

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

The Parties' Positions

Plaintiff submits: "Stream" is well-defined, as evinced by Defendants' use of "stream" in the proposed construction of "video image multiplexed with the audio data" (discussed above), and the "audio" and "video" modifiers denote the type of stream. Dkt. No. 112 at 36.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** '121 Patent col.4 ll.29–31, col.6 ll.65–67, col.8 ll.18–19. **Extrinsic evidence:** Russ Decl. ¶ 161 (Dkt. No. 112-6 at 59).

Defendants respond: It is not clear whether the "stream of audio and video data" is: (1) a single combined stream with both audio and video data or (2) two separate streams, one of video data and one of audio data. Dkt. No. 130 at 32–33. Specifically, the claim language "a stream of audio and video data" suggests a single stream but later recited "the stream of audio data" and "the stream of video data," which derive antecedent basis from "a stream of audio and video data," suggest two streams. *Id.* at 33.

In addition to the claims themselves, Defendants cite the following intrinsic and extrinsic evidence to support their position: **Intrinsic evidence:** '121 Patent col.4 ll.26–31. **Extrinsic evidence:** Shamos Decl. ¶¶ 134–36 (Dkt. No. 130-9 at 30–31).

Plaintiff replies: The “stream of audio and video data” is a single combined stream having both audio data and video data. Dkt. No. 135 at 10–11. And, as described in the '121 Patent, the audio data and visual data is extracted from that combined stream. *Id.*

Plaintiff cites further intrinsic and extrinsic evidence to support its position: **Intrinsic evidence:** '121 Patent col.4 ll.29–34, col.4 ll.62–66, col.5 ll.40–49. **Extrinsic evidence:** Russ Decl. ¶ 162 (Dkt. No. 112-6 at 59–60).

Analysis

The issue here distills to whether the meanings of “stream of audio and video data,” “stream of audio data,” “stream of video data,” and “video data stream” are reasonably certain. The meanings are reasonably certain—Defendants failed to prove that any claim is rendered indefinite by any of these terms.

The “stream of audio and video data” term refers to a combined data stream comprising audio data and video data. The '121 Patent teaches that separate audio and video data streams may be combined. *See, e.g.,* '121 Patent col.11 ll.1–3 (“A personalized channel’ may be an audio channel, a video channel or in some embodiments, a combination of audio and video channels.”). This is the plain meaning of “a stream of audio and video data.”

The “stream of audio data,” “stream of video data,” and “video data stream” terms refer to the components of the combined stream of audio and video data. The '121 Patent teaches that, ultimately, audio data is played for the user to hear and the video data is displayed for the user to view. *See, e.g., id.* at col.4 l.62–col.5 l.1 (describing a audio/visual system that “preferably includes

a display device . . . for displaying the video portion” and “which reproduces the audio/video for a user 101 to hear and/or view”). This suggests the common-sense notion that while audio and video data may part of a single data stream, the data must be separable for ultimate use. *See also*, Russ Decl. ¶ 162 (“if an audio and video stream are combined, they need to be separated at some point, if for no other reason than the fact that audio needs to be played and the video needs to be displayed”), Dkt. No. 112-6 at 59–60.

Accordingly, Defendants have failed to prove that Claims 1 and 6 are rendered indefinite by any of the Stream terms.

V. CONCLUSION

The Court adopts the constructions above for the disputed and agreed terms of the Asserted Patents. 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.

SIGNED this 6th day of July, 2017.


ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE