

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

DIGITAL BROADCASTING SOLUTIONS LLC,	§	Case No. 2:22-cv-00335-JRG
Plaintiff	§	
	§	
v.	§	
	§	
DISH NETWORK L.L.C.,	§	JURY TRIAL DEMANDED
Defendant.	§	
	§	

DEFENDANT’S INITIAL INVALIDITY CONTENTIONS

Pursuant to Local Patent Rule (“P.R.”) 3-3 and the Docket Control Order (Dkt. No. 28), Defendant DISH Network L.L.C. (“DISH” or “Defendant”) respectfully sets forth its invalidity contentions for the asserted claims of the patents-in-suit, U.S. Patent No. 8,929,710 (the “’710 Patent”) and U.S. Patent No. 9,538,122 (the “’122 Patent”).

Defendant’s invalidity contentions address the following claims of the patents-in-suit, which are the claims currently asserted by Plaintiff Digital Broadcasting Solutions LLC (“DBS” or “Plaintiff”) according to its Infringement Contentions of November 3, 2022:

Patent	Claims Addressed
’710 patent	Claims 1-19
’122 patent	Claims 1-20

To the extent that Defendant’s P.R. 3-3 invalidity contentions rely on or otherwise embody particular constructions of terms or phrases in the asserted claims, Defendant is not proposing any such constructions as proper constructions of those terms or phrases at this time. The Court established separate deadlines for the parties’ proposed claim constructions in the Docket Control Order (Dkt. No. 28), and Defendant will disclose its proposed constructions according to those deadlines. For purposes of these invalidity contentions, Defendant may adopt alternative claim

construction positions and will generally apply the broadest conceivable constructions of each term or phrase. In particular, certain of these invalidity contentions may be based on claim constructions that appear to underlie DBS's infringement contentions. Defendant, however, does not concede that DBS's apparent constructions are proper, and reserves the right to contest any such constructions. Moreover, Defendant does not admit that any accused product, method, or service, or any of Defendant's other products, methods, or services, infringe any of the asserted claims. Nothing stated herein shall be treated as an admission or suggestion regarding either the scope of any of the asserted claims or that any of the accused technology meets any limitations of the asserted claims.

Nothing stated herein shall be construed as an admission or a waiver of any particular construction of any claim term. Moreover, the use of terms herein from the patents-in-suit should not be understood to mean that such terms as used in the patents-in-suit or claims thereof are definite or otherwise comply with 35 U.S.C. § 112. Likewise, the use of terms herein from the patents-in-suit should not be understood to suggest or imply a common, usual, ordinary, customary, plain, or accepted meaning in the art for any such term.

Pursuant to P.R. 3-3(c), Defendant has, in the attached appendices, identified where the prior art references disclose subject matter recited in preambles of the asserted claims, without regard to whether the preambles are properly considered to be limitations of the asserted claims. Defendant reserves the right to argue that the preambles are or are not limitations during the claim construction proceedings in this case.

Defendant's invalidity contentions are based on their current knowledge of the patents-in-suit, the prior art, DBS's infringement contentions, and upon information presently and reasonably available to Defendant. In addition, Defendant's invalidity contentions, in some instances, rely at

least in part on Plaintiff's apparent positions regarding the scope of its claims for purposes of asserting infringement. This litigation is in the early stages and Defendant's investigation of the prior art is ongoing. Defendant reserves the right to supplement, amend, modify, revise, or correct any aspect of its invalidity contentions, and to provide additional information as such information becomes available through discovery or otherwise. In particular, Defendant reserves the right to supplement its invalidity contentions as discovery continues and after the Court's claim construction rulings.

Defendant reserves the right to supplement its invalidity contentions should DBS subsequently attempt to amend its P.R. 3-1 or 3-2 disclosures in any way, (e.g., via P.R. 3-1(g) as modified in the Discovery Order), or to otherwise modify their infringement allegations against Defendant or seek to establish an earlier date of invention (while reserving all rights to challenge any attempt by DBS to do so). Defendant identifies obviousness combinations below and, to the extent Plaintiff alleges that a reference does not disclose or teach a specific element, Defendant specifically identifies which references render that element obvious as well as reasons to combine such references. Nevertheless, Defendant acknowledges that the Parties are discussing, and intend to enter into, an order to limit asserted claims and prior art references. Accordingly, at the time that Defendant is required to reduce the number of prior art references, Defendant expressly reserves the right to update the specific obviousness combinations in accordance with such reduction.

I. '710 PATENT - INVALIDITY UNDER 35 U.S.C. §§ 102 AND 103

The asserted claims are invalid as anticipated by the prior art under various subsections of 35 U.S.C. § 102 and/or as obvious in view of the prior art under 35 U.S.C. § 103.

A. Identification of Prior Art

Pursuant to P.R. 3-3(a), the charts attached as appendices to these invalidity contentions set forth how prior art identified by Defendant anticipates either expressly or inherently, and/or renders obvious, each asserted claim. Defendant cites the most relevant portions of the identified prior art references. However, other portions of the identified prior art may additionally anticipate, either expressly or inherently, and/or render obvious one or more of the asserted claims.

Where Defendant cites a particular drawing or figure in the accompanying charts, the citation encompasses the description of the drawing or figure, as well as any text associated with the drawing or figure (even if the associated text is not itself expressly cited). Similarly, where Defendant cites particular text concerning a drawing or figure in the accompanying charts, the citation encompasses that drawing or figure as well (even if the associated drawing or figure is not expressly cited). Defendant further incorporates by reference the prior art references cited in the Patent-in-Suit, any patents or patent applications related to the Patent-in-Suit, and any patent or patent application sharing a common inventor with the Patent-in-Suit. This includes without limitation those identified in any other proceeding involving the Patent-in-Suit or related U.S. or foreign patents. Defendant additionally incorporates by reference all prior art produced or otherwise known to Plaintiff and all prior art known to the named inventor, any past or current owner, or any individual substantively involved in the prosecution of the Patent-in-Suit.

Defendant contends that at least some of the systems and products disclosed in one or more of the prior art references identified here or in the attached exhibits are prior art under 35 U.S.C. §§ 102(a), (b), (e), (f) and/or (g), and/or 103. Defendant's reference to any particular component, device, machine, or other product herein should also be interpreted as a reference to the product itself and any corresponding patents, publications, or product literature cited here or in the attached exhibits that relate to the cited component, device, machine, or other product. Defendant does not

yet have complete information regarding the dates by which some of the cited products were publicly disclosed, used, sold, or offered for sale, the circumstances under which the research, design, and development activities were conducted, and the identities of the particular individuals involved in such activities through publicly available patents, publications, and product literature. Defendant anticipates that the actual dates, circumstances, and identities of individuals will be the subject of third party discovery during this lawsuit.

It is understood that a person of ordinary skill in the art reads a prior art reference as a whole and in the context of other publications, literature, and general knowledge in the field. To understand and interpret any specific statement or disclosure in a prior art reference, a person of ordinary skill in the art also relies upon other information including other publications and general scientific, engineering or other relevant knowledge. Defendant reserves the right to rely upon the general scientific, engineering or other relevant knowledge in the field in interpreting the disclosure of the prior art references. In addition, Defendant reserves the right to rely upon other publications and on expert testimony to provide context and to aid in the understanding of the prior art references. Defendant also reserves the right to rely upon other portions of the prior art references, other publications, and the testimony of experts to establish that the alleged inventions would have been obvious to a person of ordinary skill in the art, including the basis for modifying or combining the prior art references. Furthermore, Defendant reserves the right to rely upon any admissions relating to prior art found in the intrinsic evidence for the Patent-in-Suit.

Certain pieces of identified prior art inherently disclose features of the asserted claims. Defendant may rely on inherency to demonstrate the invalidity of the asserted claims. Moreover, certain prior art references and solutions may inherently anticipate certain features of the asserted claims as construed by Customedia. Defendant may rely on other portions of the prior art, other

documents, and expert testimony to establish the inherency of certain features of the prior art to invalidate the asserted claims. Defendant also may rely on any reference identified in these invalidity contentions or any other reference to prove that the references are enabled or to explain the meaning of a term used in the solutions or any reference.

The '710 Patent claims priority to November 1, 2010 based on the filing of U.S. Provisional App. No. 61/408,759. However, Defendant reserves the right to assert that the claims of the '710 Patent are not entitled to this priority date. For example, Defendant may assert that the claims of the '710 Patent were not fully supported by the provisional application, and therefore are only entitled to a priority date as of the filing of the '710 Patent itself. Defendant may also assert that amendments made during prosecution of the '710 Patent presented new material and, thus, are not entitled to a claim of earlier priority. Defendants do not imply in any way that the claims are fully supported or enabled by the specification at all, as will be discussed in greater detail below with regards to 35 U.S.C. § 112.

1. Admitted Prior Art

The '710 Patent acknowledges that nearly every aspect of the Asserted Claims was known in the prior art. In particular, the Patent-in-Suit acknowledges that all of the following was prior art:

- “Digital video recorders” ('710 Patent at 1:21)
- “The concept of time-shifting” ('710 Patent at 1:29)
- “set-top boxes, satellite receivers, analog or digital cable boxes” ('710 Patent at 4:20-22)
- “satellites, cables, fiber-optics, telephone lines, wide area networks, local area networks, wireless communication paths” ('710 Patent at 4:25-28)
- “CRTs, LCDs, plasmas, projection devices” ('710 Patent at 4:30-31)
- “hard drives, disk drives, RAM, ROM” ('710 Patent at 7:66-67)

In combination with the references discussed below, these admissions render the Asserted Claims invalid at least under 35 U.S.C. § 103.

2. Prior Art Patents and Publication References

The table below lists prior art patents, patent applications, and patent publications that describe the state of the art and/or render the Asserted Claims invalid under 35 U.S.C. §§ 102 and/or 103. Each listed reference became prior art at least as early as the dates provided on the face of the document. Defendant reserves the right to rely upon earlier dates of publication or public availability to the extent such information is uncovered during discovery.

Author/Inventor	Title	Date	Patent/Application Number	Short Name
Steven M. Casagrande, David A. Kummer	Methods And Apparatus For Filtering Content From A Presentation Stream Using Signature Data	May 4, 2009	US8510771B2	Casagrande 771
Samuel Russ	Networked Multi-Room System Ad Insertion	April 05, 2005	US20060225105A1	Russ 105
Kerry Philip MillerGary W. DalmadgeStephen Bartlett	Concurrent Program Content Processing Apparatus, Systems, And Methods	December 20, 2007	US20090165057A1	Miller 057
Kenneth Robert Hodge	Methods And Apparatus For Generating Metadata Utilized To Filter Content From A Video Stream Using Text Data	November 20, 2007	US8136140B2	Hodge 140
David M. Bjordammen; Niranjana R. Samant	Averting Ad Skipping In Adaptive Bit Rate Systems	September 04, 2013	US9124947B@	Bjordammen 947

Author/Inventor	Title	Date	Patent/Application Number	Short Name
Steven Michael Casagrande	Methods And Apparatus For Filtering Content In A Video Stream Using Text Data	November 19, 2007	US8165450B2	Casagrande 450
Christopher B. Coles, Christoph Hieslcher, Stefan Jenzowsky, Axel Scheuer, Harald Schweickhardt, Rudolf Stelzl	Method And Configuration For Storing And Playing Back TV Programs	March 30, 2005	US20100195988A1	Coles 988
En Hisamune, Hirohiko Hasegawa, Nobuyasu Sato, Ikutaro Miura, Keitaro Kurokawa, Takashi Yasuda, Toshiomi Kojima, Kyoichi Igarashi	Method For Managing Reproduction Of Digital Content, Content Regenerator, System For Managing Advertisement Content And Computer Program	November 19, 2001	JP2003158721A	Hisamune 721
Akitomo Ikuma, Shinji Nakai, Yasushi Sugawara, Tomoya Umetsu,	Broadcast Communication System And Distributing Method	March 02, 2001	JP2002262239A	Ikuma 239
Osamu Isaka, Haruo Kochi, Mitsuru Takahashi	Information Processing Apparatus, Information Processing Method And Program	March 17, 2005	JP2006262057A	Isaka 057
Chaminda Jayamanne, David John Weaver, Martin Vincent Davey	Method And Apparatus For Replacing A Commercial In A Recorded Program	October 16, 2013	US20150104148A1	Jayamanne 148

Author/Inventor	Title	Date	Patent/Application Number	Short Name
Nobutoshi Koyama, Hisashi Tomita	Broadcast Program Processing Device, Broadcast Program Processing Method, Broadcasting Station Device, Information Distribution Server, Program, And Information Storage Media	December 16, 2011	US20140298381A1	Koyama 381
Shahab Layeghi	Selective Processing Of Data Embedded In A Multimedia File	February 18, 2000	US6963877B2	Layeghi 877
Keith Millar	Content Sub-Item Substitution	April 01, 2009	WO2010112978A1	Millar 978
Daniel Stoller, Albert Straub, Peter Stern	Content Management In A Network Environment	November 13, 2013	US20150135241A1	Stoller 241
Scott White, James L. Cansler, Ian C. Schmehl	System And Method For Substituting Broadband Delivered Advertisements For Expired Advertisements	September 24, 2009	US20110072456A1	White 456

3. Prior Art Systems Publicly Known or Offered for Sale; Known or Used in the United States; or Invented Prior to the '710 Patent and Not Concealed, Suppressed, or Abandoned

The table below lists prior art systems and products identified that reveal the state of the art and/or render the Asserted Claims invalid under 35 U.S.C. §§ 102 and/or 103. Some or all of the supporting references for these systems may also qualify as prior art publications under 35 U.S.C. § 102 and may be used as invalidating prior art under 35 U.S.C. §§ 102 and 103. In particular, the manuals for these products, patents filed to cover these products, and publicly.

On information and belief, each of the above prior art systems were publicly known or used, or offered for sale prior to the critical date of the asserted patent, as described in each system's respective claim chart. Pursuant to P.R. 3-3(a), the date of the offer or use, or the system became known, and the identity of the person or entity are provided in the respective system's claim chart, where applicable, based on the information reasonably available to Defendants. In addition, Defendant continues to investigate the systems and products, and reserves the right to supplement the contentions and accompanying claim charts after further discovery and investigation. Although additional information and prior art systems may be obtained through discovery, such prior art systems include at least the following:

Item Offered for Sale, Publicly Known or Used	Date
Lifextender	January 4, 2008
VideoReDo	January 1, 2004
Comskip	November 2, 2006
Scrubs	February 26, 2007
ReplayTV	October 2002

1. Yellow Cup's Lifextender ("Lifextender"), is described, for example, in one or more of the following documents:
 - a. Lifextender's website homepage: the dealio; 2008, archived at: <https://web.archive.org/web/20080102234414/http://www.lifextender.com/> (last accessed Jan. 18. 2023).
 - b. Lifextender's documentation page: documentation, 2008; archived at: <https://web.archive.org/web/20080103082043/http://www.lifextender.com/documentation.aspx> (last accessed Jan. 18. 2023).
 - c. Lifextender's Frequently Asked Questions page: faq, 2008, archived at: <https://web.archive.org/web/20080103082048/http://www.lifextender.com/faq.aspx> (last accessed Jan. 18. 2023).
2. DRD Systems, Inc.'s VideoReDo ("VideoRedo"), is described, for example, in one or more of the following documents:

- a. VideoReDo, VideoRedo.com (as archived by the Wayback Machine on May 1, 2008),
<https://web.archive.org/web/20080501213953/http://www.videoredo.com/en/index.htm> (last accessed Jan. 18, 2023).
 - b. VideoReDo, VideoReDo TVSuite Help Guide, 2007.
3. Erik Kaashoek's Comskip ("Comskip"), is described, for example, in one or more of the following documents:
 - a. Erik, A short guide to Comskip (as Archived by the Wayback Machine on January 27, 2009),
<https://web.archive.org/web/20090127015415/http://kaashoek.com:80/files/manual.htm> (last visited Jan. 11, 2023).
 - b. Comskip, Comskip.org (as archived by the Wayback Machine on April 20, 2010),
<http://web.archive.org/web/20100420002654/http://www.comskip.org/>, (last visited Jan. 11, 2023).
4. DISH Network's Scrubs ("Scrubs"), is described, for example, in one or more of the following documents:
 - a. DISH's Source Code offered for inspection in accordance with the protective order in this case;
 - b. Scrubs II, Version 0.7, September 24, 2007;
 - c. Show Marking, Signaling, and Usage, Version 0.7, September 9, 2008;
 - d. Scrub Implementation, Version 0.03, September 14, 2011;
 - e. Scrubs (TimeSaver) March 9, 2010;
 - f. DISH Network HDTV DVR Satellite Receiver User's Guide;
 - g. Commercial skip A/V PLAYBACK requirements, Version 0.1, January 16, 2009;
 - h. Scrubs (TimeSaver) User Notes;
 - i. ViP622 Block Diagram 1-17-06
 - j. Casagrande 771 (describing certain aspects of Scrubs)
 - k. Hodge 140 (describing certain aspects of Scrubs)
 - l. Casagrande 450 (describing certain aspects of Scrubs)

- m. Miller 057 (describing certain aspects of Scrubs)
- 5. ReplayTV's ReplayTV ("ReplayTV"), is described, for example, in one or more of the following documents:
 - a. ReplayTV 5000 User's Guide, 2002;
 - b. ReplayTV 5000 Quick Setup Guide
 - c. SONICblue Launches ReplayTV 5000 Series Digital VideoRecorder, October 22, 2002;
 - d. ReplayTV Website as archived by The Wayback Machine on June 8, 20003 at <https://web.archive.org/web/20030608181553/http://replaytv.com:80/video/replaytv5000/default.asp>; and
 - e. Replay Strikes 5000, October 21, 2002.

4. Derivation Under Section 102(f)

Defendant does not have any disclosures under 35 U.S.C. § 102(f) at this time. Discovery is ongoing, however, and Defendant reserves the right to assert any of the preceding items of prior art under 35 U.S.C. § 102(f).

5. Knowledge and Teachings Available to Persons of Skill in the Art at the Time of Inventions

Persons of ordinary skill in the art at the time of the alleged invention of the '710 Patent understood the basics of digital video recorders, including (1) delivery and storage of content; (2) time-shifting applications; (3) trick play functionality; and (4) copyright protection including basic digital rights management. This "common sense" industry understanding combined with the widespread and increasing use of computer based end-user devices to securely distribute content to users before and at the time of the inventions created pressure and motivation to combine known content distribution and usage rights methods. In addition to the references noted above, persons of skill in the art would have had additional resources available to them with disclosures regarding these known methods and systems. These available references include those cited in the patents-

in-suit and their related patents and those identified during prosecution of the patents-in-suit and their related patents.

In addition to the prior art identified above and the accompanying invalidity claim charts, Defendants also may rely on the “Background of the Invention” and other relevant portions of the patents-in-suit, other related patents, and their respective file histories (including references incorporated into and cited in the patents-in-suit and related patents), and other evidence, including fact and expert testimony about that evidence, to prove that the asserted claims are anticipated and/or rendered obvious under 35 U.S.C. §§ 102 and 103.

In addition to the references disclosed in these contentions, the attachments hereto, the patents-in suit and related patents and their prosecution histories, Patent Office proceedings related to the patents-in-suit and related patents, and the common sense knowledge of those in the industry at the time of the alleged inventions, invalidity may be demonstrated by the live testimony of witnesses, which will be identified in accordance with the scheduling orders of these cases. Such witnesses may be used, among other purposes, to discuss issues of prior art systems, prior art references, and the knowledge of one of skill in the art at the time of the alleged inventions.

B. Anticipation

The prior art references or items listed below anticipate the asserted claims identified below, and thus those claims are invalid under 35 U.S.C. § 102(a), (b), (e) and/or (g). Pursuant to P.R. 3-3(c), each of the following charts identifies where specifically in each alleged item of prior art each element of each anticipated claim is found. To the extent a particular claim element is considered to be written in means-plus-function form and governed by 35 U.S.C. § 112, ¶ 6, the chart similarly identifies where specifically in each alleged item of prior art discloses the recited function being performed and the means that accomplishing that function.

'710 Patent		
Prior Art	Claims Anticipated / Obvious	Appendix
Casagrande 771	1-19	A-1
Russ 105	1-19	A-2
Miller 057	1-19	A-3
Hodge 140	1-19	A-4
Bjordammen 947	1-19	A-5
Casagrande 450	1-19	A-6
Coles 988	1-19	A-7
Hisamune 721	1-19	A-8
Ikuma 239	1-19	A-9
Isaka 057	1-19	A-10
Jayamanne 148	1-19	A-11
Koyama 381	1-19	A-12
Layeghi 877	1-19	A-13
Millar 978	1-19	A-14
Stoller 241	1-19	A-15
White 456	1-19	A-16
Lifextender	1-19	A-17
VideoReDo	1-19	A-18
Comskip	1-19	A-19
Scrubs	1-19	A-20
ReplayTV	1-19	A-21

C. Obviousness

The prior art identified in these Initial Invalidity Contentions, including the exemplary charts referenced herein in Exhibits A-1 to A-21, demonstrate that the concepts of the Asserted Claims were well known to persons of ordinary skill in the art prior to the alleged invention of the Patent-In-Suit. Provided below are examples of the prior art that disclose various limitations of the Asserted Claims. Notwithstanding these examples, all of the prior art referenced in these Initial Invalidity Contentions either anticipate or render obvious (alone or in combination) the Asserted Claims.

Defendant believes that no showing of a specific motivation to combine prior art is required to combine the references disclosed above and in the attached charts. There was a reason to make each combination; each combination of art would have produced no unexpected results; and each combination at most would simply represent a known alternative to one of ordinary skill in the art. *See KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 415-18 (2007) (rejecting the Federal Circuit's "rigid" application of the teaching, suggestion, or motivation to combine test, instead espousing an "expansive and flexible" approach). Indeed, the Supreme Court held that a person of ordinary skill is "a person of creativity, not an automaton" and "in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *Id.* at 420-21; *see also* Examination Guidelines for Determining Obviousness Under 35 U.S.C. §103 in view of the Supreme Court Decision in *KSR International Co. v. Telefax Inc.*, 72 Fed. Reg. 57,526 (Oct. 10, 2007).

One or more combinations of the prior art references identified above would have been obvious because these references would have been combined using: known methods to yield predictable results; known techniques in the same way; a simple substitution of one known,

equivalent element for another to obtain predictable results; and/or a teaching, suggestion, or motivation in the prior art generally. In addition, it would have been obvious to try combining the prior art references identified above because there were only a finite number of predictable solutions and/or because known work in one field of endeavor prompted variations based on predictable design incentives and/or market forces either in the same field or a different one. In addition, the combination of the prior art references identified above would have been obvious because the combination represents the known potential options with a reasonable expectation of success.

Additional evidence that there would have been a motivation to combine the prior art references identified above includes the interrelated teachings of multiple prior art references; the effects of demands known to the design community or present in the marketplace; the existence of a known problem for which there was an obvious solution encompassed by the asserted claims; the existence of a known need or problem in the field of the endeavor at the time of the invention(s); and the background knowledge that would have been possessed by a person having ordinary skill in the art.

Thus, the motivation to combine the teachings of the prior art references disclosed herein is found in the references themselves and: (1) the nature of the problem being solved; (2) the express, implied and inherent teachings of the prior art; (3) the knowledge of persons of ordinary skill in the art; (4) the predictable results obtained in combining the different elements of the prior art; (5) the predictable results obtained in simple substitution of one known element for another; (6) the use of a known technique to improve similar devices, methods, or products in the same way; (7) the predictable results obtained in applying a known technique to a known device, method, or product ready for improvement; (8) the finite number of identified predictable solutions

that had a reasonable expectation of success; and (9) known work in various technological fields that could be applied to the same or different technological fields based on design incentives or other market forces.

Any reference or combination of references that anticipates or makes obvious an asserted independent claim also makes obvious any asserted claim dependent on that independent claim because every element of each dependent claim was known by a person of ordinary skill at the time of the alleged invention, and it would have been obvious to combine those known elements with the independent claims at least as a matter of common sense and routine innovation. Accordingly, Defendants contend that each asserted claim would have been obvious not only by the combinations explicitly defined in these contentions, but also by any combination of references that renders obvious an asserted claim.

As an illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of Casagrande '771 with the teachings of Russ. For example, Casagrande '771 and Russ both disclose restrictions on removing interstitials that are directly linked to a first and second period of time. Casagrande '771 explains that “in some embodiments, a user may be restricted from temporally moving through particular identified segments of a presentation stream at a non-real time presentation rate of the A/V stream. In other words, a receiving device may automatically output particular segments of a presentation stream without skipping over or otherwise fast forwarding through the segments, regardless of whether a user provides input requesting fast forwarding or skipping through the segments.” Casagrande '771 at 4:20–27. Similarly, Russ teaches “trick play functionality” such as “fast forward” may be used to skip commercials. Russ at ¶[0033]. However, Russ also teaches that trick play “could be restricted while viewing a portion of a presentation, such as commercials” and “would not work for certain

commercials as specified, for example, by the local cable operator or the presentation programmer.” *Id.* Russ explains that “[t]he commercial slot could also preclude trick play for only a specified length of time, such as two weeks.” *Id.* at ¶[0035]. Russ further explains that “[f]or example, a tag corresponding with a commercial could expire after a period of time after which the tag would become inactive or replaceable.” *Id.* Thus, a person of ordinary skill in the art would have been motivated to combine Casagrande ’771 and Russ in order to effectuate the desired result of restricting “temporally moving through particular identified segments” discussed in Casagrande ’771. Casagrande ’771 at 4:20–21. A person of ordinary skill in the art would look to the teachings and methods of Russ for guidance to understand how to further achieve the desired result.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of Scrubs with the teachings of Russ. As an initial matter, aspects of DISH’s Scrubs system are described in Casagrande ’771, and thus, a person of ordinary skill in the art would have been motivated to combine the teachings of Scrubs with the teachings of Russ for the same reasons described above regarding the combination of Casagrande ’771 and Russ. Further, the process carried out by Scrubs involves several steps that must be carried out before the set-top box / DVR may be capable of skipping portions of the content. For example, Scrubs involves manual tagging of content to identify commercial boundaries in show metadata. Said show metadata must then be transmitted to the set-top box / DVR where it is processed alongside closed captioning data to create offsets for locating the start and end of commercial breaks. Thus, a person of ordinary skill in the art would have recognized that adding a formal restriction on attempting to perform Scrubs for a period of time would have been advantageous. For example, Russ teaches that trick play “could be restricted while viewing a portion of a

presentation, such as commercials” and “would not work for certain commercials as specified, for example, by the local cable operator or the presentation programmer.” Russ at ¶[0033]. Russ explains that “[t]he commercial slot could also preclude trick play for only a specified length of time, such as two weeks.” *Id.* at ¶[0035]. A person of ordinary skill in the art would look to the teachings and methods of Russ for guidance on how to disable the Scrubs functionality while the system processes the appropriate data, thereby preventing issues that may be created by trying to skip content before the system is ready to do so.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of Coles with the teachings of Russ. For example, Coles teaches “[a] method and configuration allows storing and playing back TV programs, in particular an improved method and configuration for operating a network PVR.” Coles at Abstract. Coles explains that a “very popular feature of a PVR is the ability to skip lengthy sections in a recording with minimal delay” such as by “skip[ping] blocks of commercials contained in the program during playback.” Coles at Para 0005. As Coles notes, “the ability of PVR users to completely skip advertising embedded in TV programs automatically or at least manually means that conventional advertising-financed TV is deprived of the basis on which it is financed.” *Id.* at Para 0010. Thus, Coles explains it is advantageous to “to specify a method and configuration for the storage and playback of TV programs which prevents advertising and other special content from being skipped.” *Id.* at Para 0011. Similarly, Russ teaches “trick play functionality” such as “fast forward” may be used to skip commercials. Russ at ¶[0033]. However, Russ also teaches that trick play “could be restricted while viewing a portion of a presentation, such as commercials” and “would not work for certain commercials as specified, for example, by the local cable operator or the presentation programmer.” *Id.* Russ explains that “[t]he commercial slot could also preclude

trick play for only a specified length of time, such as two weeks.” *Id.* at ¶[0035]. Russ further explains that “[f]or example, a tag corresponding with a commercial could expire after a period of time after which the tag would become inactive or replaceable.” *Id.* Thus, a person of ordinary skill in the art would have been motivated to look to the teachings of Russ to provide a mechanism for restricting the skipping of commercials for a period of time when it is desirable not to deprive the advertisers “of the basis on which it is financed” as Coles suggests. Once the financial benefit has lessened or disappeared, however, the user would be free to skip the commercials and the restriction would be removed.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of ReplayTV with the teachings of Russ. ReplayTV is a DVR that enabled a user to “[c]ontrol live television,” “[a]utomatically record every episode of your favorite shows,” “[j]ump past commercials or recorded scenes you don’t want to watch,” and “[w]atch your shows commercial free.” ReplayTV 5040 Manual at 2. ReplayTV included a COMMERCIAL ADVANCE feature “that allows you to choose whether to skip most commercial messages during playback of recorded shows.” *Id.* at 53. A user would “have the choice to watch them or not—automatically.” *Id.* However, ReplayTV includes temporal restrictions on use of the feature such that “[s]hows delayed within a few minutes of the live broadcast will not skip commercials.” *Id.* at 54. Similarly, Russ teaches “trick play functionality” such as “fast forward” may be used to skip commercials. Russ at ¶[0033]. However, Russ also teaches that trick play “could be restricted while viewing a portion of a presentation, such as commercials” and “would not work for certain commercials as specified, for example, by the local cable operator or the presentation programmer.” *Id.* Russ explains that “[t]he commercial slot could also preclude trick play for only a specified length of time, such as two weeks.” *Id.* at ¶[0035]. Russ further explains

that “[f]or example, a tag corresponding with a commercial could expire after a period of time after which the tag would become inactive or replaceable.” *Id.* Thus, a person of ordinary skill in the art would have been motivated to look to the teachings of Russ to provide a detailed mechanism for restricting the skipping of commercials for a period of time as ReplayTV suggests.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of Bjordammen with the teachings of Russ. For example, Bjordammen teaches “[a]n adaptive bit rate client device ... capable of providing streaming playback by requesting an appropriate series of segments from an adaptive bit rate system 100 over the internet protocol content delivery network (CDN) 120.” Bjordammen at 2:24-28. Bjordammen describes “techniques in an adaptive bit rate system to minimize, inhibit, or prevent ad skipping by subscribers of the internet protocol TV network.” Bjordammen at 3:32-34. As Bjordammen explains, “[i]t is desirable for the network operator to limit the skipping of ads.” *Id.* at 8:12-23. However, Bjordammen also explains that “once a user presumably has watched ad content associated with a respective period indicated by the expiration of the associated ad break playback duration, the user will be able to fast forward or rewind through the ad content.” Bjordammen at 16:14-28. Similarly, Russ teaches “trick play functionality” such as “fast forward” may be used to skip commercials. Russ at ¶[0033]. However, Russ also teaches that trick play “could be restricted while viewing a portion of a presentation, such as commercials” and “would not work for certain commercials as specified, for example, by the local cable operator or the presentation programmer.” *Id.* Russ explains that “[t]he commercial slot could also preclude trick play for only a specified length of time, such as two weeks.” *Id.* at ¶[0035]. Russ further explains that “[f]or example, a tag corresponding with a commercial could expire after a period of time after which the tag would become inactive or replaceable.” *Id.* Thus, a person of ordinary skill in

the art would have been motivated to look to the teachings of Russ to provide a mechanism for restricting the skipping of commercials for a period of time when it is desirable to do so as Bjordammen suggests. Once the appropriate time period has lapsed, however, the user would be free to skip the commercials and the restriction would be removed.

Numerous prior art references, including those identified above, reflect common knowledge and the state of the prior art prior to the priority date that Applicants claimed on the face of the asserted patent.

For at least the reasons described above and below in the examples provided as well as in the attached claim charts, it would have been obvious to one of ordinary skill in the art to combine any of a number of prior art references, including any combination of those identified in Exhibits A-1 to A-21, to meet the limitations of the asserted claims. As such, Defendant's inclusion of exemplary combinations does not preclude Defendants from identifying other invalidating combinations as appropriate.

To the extent any reference disclosed does not chart every aspect of an element, the references still render the Asserted Claims obvious because one of ordinary skill in the art would find that aspect obvious without the need to combine such aspect of the element with other references.

1. a tuner for receiving video programs (e.g., '710 Patent, Claims 1, 9, and 18)

To the extent Plaintiff contends that any of the references identified above do not disclose this limitation, the limitation is obvious in light of the background knowledge possessed by a person of ordinary skill in the art, and/or the limitation can be found, for example, in one or more of the following references:

- Casagrande 540
- Hodge 140

- Scrubs
- Miller 057
- Russ 105
- Coles 988

A person of ordinary skill in the art desiring to provide an end-user device to store and play video programs would recognize that such a device would include at least some form of tuner to receive the video programs. The use of tuners to receive video programs was a well-known technique well before the alleged invention of the '710 Patent.

Each of the references above demonstrates use of a tuner to receive video programs. *See, e.g.,* Exhibits attached hereto. Importantly, each of the identified prior art references deals with improvements to digital media distribution and viewing systems. Accordingly, a person of skill in the art would have been motivated to combine or adapt known or familiar methods in the art, especially where market forces prompt such variations. For example, to the extent market forces demanded use of tuners to receive video programs, one of skill in the art would have thought to combine or modify references that described known methods which one of skill in the art would have recognized as offering improvement to existing systems. Each of the above references describe methods that were known to offer such improvements, and, accordingly, one of skill in the art would have been motivated to combine or modify the references as identified in each of the above combinations. It would have been obvious to try combining these prior art references because there were only a finite number of predictable solutions, each with a reasonable expectation of success.

2. a first command for changing the playback state of a DVR (e.g., '710 Patent, Claims 1, 9, and 18)

To the extent Plaintiff contends that any of the references identified above do not disclose this limitation, the limitation is obvious in light of the background knowledge possessed by a

person of ordinary skill in the art, and/or the limitation can be found, for example, in one or more of the following references:

- Casagrande 771
- Casagrande 540
- Hodge 140
- Scrubs
- Coles 988
- Bjordammen 947

A person of ordinary skill in the art desiring to provide an end-user device to skip portions of a video program during playback would recognize that such a device would include at least a mechanism for enabling and disabling the ability skip said portions. The use of a mechanism for enabling and disabling the ability skip portions of a video program was a well-known technique well before the alleged invention of the '710 Patent.

Each of the references above demonstrates use of a first command for changing the playback state of a DVR. *See, e.g.*, Exhibits attached hereto. Importantly, each of the identified prior art references deals with improvements to digital media distribution and viewing systems. Accordingly, a person of skill in the art would have been motivated to combine or adapt known or familiar methods in the art, especially where market forces prompt such variations. For example, to the extent market forces demanded use of a mechanism for enabling and disabling the ability skip portions of a video program, one of skill in the art would have thought to combine or modify references that described known methods which one of skill in the art would have recognized as offering improvement to existing systems. Each of the above references describe methods that were known to offer such improvements, and, accordingly, one of skill in the art would have been motivated to combine or modify the references as identified in each of the above combinations. It would have been obvious to try combining these prior art references because there were only a finite number of predictable solutions, each with a reasonable expectation of success.

3. **providing a video program in its entirety or only providing a first and third portion of said video program depending on the playback state and period of time during which the request for playback is received (e.g., '710 Patent, Claims 1, 3, 4, 6, 8, 9, 12, 13, 14, 15, and 18)**

To the extent Plaintiff contends that any of the references identified above do not disclose this limitation, the limitation is obvious in light of the background knowledge possessed by a person of ordinary skill in the art, and/or the limitation can be found, for example, in one or more of the following references:

- Russ 105
- Casagrande 771
- Casagrande 540
- Hodge 140
- Scrubs
- Layeghi 877
- Coles 988
- Bjordammen 947

A person of ordinary skill in the art desiring to provide an end-user device to skip portions of a video program during playback would recognize that skipping content may not be advantageous at all times. The use of restrictions on the ability to skip content and engage in other forms trick play as a function of time was a well-known technique well before the alleged invention of the '710 Patent.

Each of the references above demonstrates that skipping portions of content may only be available at certain periods of time. *See, e.g.*, Exhibits attached hereto. Importantly, each of the identified prior art references deals with improvements to digital media distribution and viewing systems. Accordingly, a person of skill in the art would have been motivated to combine or adapt known or familiar methods in the art, especially where market forces prompt such variations. For example, to the extent market forces demanded use of restrictions on the ability to skip content and engage in other forms trick play as a function of time, one of skill in the art would have thought

to combine or modify references that described known methods which one of skill in the art would have recognized as offering improvement to existing systems. Each of the above references describe methods that were known to offer such improvements, and, accordingly, one of skill in the art would have been motivated to combine or modify the references as identified in each of the above combinations. It would have been obvious to try combining these prior art references because there were only a finite number of predictable solutions, each with a reasonable expectation of success.

4. storing at least one time when said secondary video content begins and at least one time when said secondary video content end (e.g., '710 Patent, Claims 5, 11, and 17)

To the extent Plaintiff contends that any of the references identified above do not disclose this limitation, the limitation is obvious in light of the background knowledge possessed by a person of ordinary skill in the art, and/or the limitation can be found, for example, in one or more of the following references:

- Casagrande 771
- Casagrande 540
- Hodge 140
- Scrubs
- Layeghi 877
- Coles 988
- Bjordammen 947

A person of ordinary skill in the art desiring to provide an end-user device to skip portions of a video program during playback would recognize that the end-user device must know the start and stop times of content to be skipped. The use of start and stop times to identify portions of content was a well-known technique well before the alleged invention of the '710 Patent.

Each of the references above demonstrates use of times to identify the start and stop locations of content to be skipped. *See, e.g.*, Exhibits attached hereto. Importantly, each of the

identified prior art references deals with improvements to digital media distribution and viewing systems. Accordingly, a person of skill in the art would have been motivated to combine or adapt known or familiar methods in the art, especially where market forces prompt such variations. For example, to the extent market forces demanded use of start and stop times to identify portions of content, one of skill in the art would have thought to combine or modify references that described known methods which one of skill in the art would have recognized as offering improvement to existing systems. Each of the above references describe methods that were known to offer such improvements, and, accordingly, one of skill in the art would have been motivated to combine or modify the references as identified in each of the above combinations. It would have been obvious to try combining these prior art references because there were only a finite number of predictable solutions, each with a reasonable expectation of success.

II. '710 PATENT - INVALIDITY UNDER 35 U.S.C. § 112

A. Indefiniteness

On June 2, 2014, the United States Supreme Court established a new standard for indefiniteness. *Nautilus, Inc. v. Biosig Instruments, Inc.*, No. 13-369, 134 S. Ct. 2120 (June 2, 2014). Rejecting the Federal Circuit's prior "insolubly ambiguous" standard, the Supreme Court held that "a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Id.* at 2124. The following terms render one or more claims of the patents-in-suit indefinite under 35 U.S.C. § 112, as the claims, specifications, and prosecution histories fail to inform those of skill in the art of the scope of the claimed invention(s) with any reasonable certainty¹:

¹ Independent claims listed also include all asserted claims dependent thereon, even if those

Claim Term	Claim(s)
“is configured to follow”	1, 9, 18
“a later time”	1
“only a portion ... said portion of said video program including at least said first and third portions of said video program”	1
“immediately following”	1, 9, 18
“a period of time after said first period of time”	1, 9
“said second period of time is any time after said first period of time”	6
“only a portion of said video program ... said portion of said video program including at least said first and second portions of said video program”	9
“said second period of time is a time period thereafter”	14
“said second period of time is a time period after said first period of time”	15

The asserted claims of the patents-in-suit are also invalid as functional claims that do not comply with 35 U.S.C. § 112, ¶ 6. A prohibition against functional claiming has existed in the United States for over 150 years. *See O’Reilly v. Morse*, 56 U.S. (15 How.) 62, 112 (1854) (finding that “no patent can lawfully issue upon such a claim” for a mere result or “effect” instead of “the process or machinery necessary to produce it”); *see also Fuller v. Yentzer*, 94 U.S. 288, 288 (1877) (“[It has long been the] established rule [that a patent] will not be sustained if the claim is for a result.”). In 1952, Congress created a lifeline to patent applicants by allowing drafters to identify specific structures, materials, or acts in their patent specifications, as opposed to in their claims,

claims are not individually listed.

and advised courts to treat these structures, materials, or acts as if they had been recited in the claims expressly:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of a structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112, ¶ 6. At no time, however, either before or after 1952 has Congress or the Supreme Court allowed patent applicants to claim a naked function without identifying specific structures, materials, or acts for performing those functions somewhere in the patent, either in the claims expressly or by invoking the lifeline of § 112, ¶ 6.

The asserted claims purport to cover certain functions, or desired outcomes such as a receiver for receiving audio or video. Yet the claims do not provide any specific inventive structures, materials, or acts used to accomplish these functions. Additionally, the various claim elements do not require any specified inventive structure, materials or acts but instead merely require certain desired functions or results, such as a receiver for receiving audio or video.

B. Written Description²

“To satisfy the written description requirement, the applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention, and demonstrate that by disclosure in the specification of the patent.” *Novozymes A/S v. DuPont Nutrition Biosciences APS*, 723 Fed. 1336, 1344 (Fed. Cir. 2013) (internal quotation marks omitted).

² Independent claims listed also include all asserted claims dependent thereon, even if those claims are not individually listed.

The following terms render one or more of the claims of the patents-in-suit invalid for lack of written description under 35 U.S.C. § 112, as the original specification of the '710 Patent does not demonstrate that the inventors were in possession of the claimed subject matter:

Claim Term	Claim(s)
“first, second and third portions”	1, 9, 18
“a first command changes said DVR from a first playback state to a second playback state”	1
“said first command indicating a playback state of said DVR”	9
“a first command for setting a playback state of said DVR”	18
“a first playback state”	1, 9, 18
“a second playback state”	1, 9, 18
“a first period of time”	1, 9, 18
“a second period of time”	1, 9, 18
“wherein said second period of time is a period of time after said first period of time”	1, 9
“provide only a portion of said video program to said display device in response to receiving said second command if said second command is received during said second period of time and said DVR is in said second playback state, said portion of said video program including at least said first and third portions of said video program, wherein said third portion of said video program is provided to said display device immediately following said first portion of said video program”	1
“providing only a portion of said video program to said display device in response to receiving said second command if said second command is received during said second period of time and said DVR is in said second playback state, said portion of said video program including at least said first and second portions of said video program, wherein said third portion of said video program is provided to said display device immediately following said first portion of said video program”	9

“providing only said first and third portions of said video program to said display device in response to receiving said second command during said second period of time if said DVR is in a second playback state, wherein said third portion of said video program is provided to said display device immediately following said first portion of said video program”	18
“said portion of said video program that is provided to said display device ... includes said primary video content and only a portion of said secondary video content	3
“said portion of said video program that is provided to said display device ... includes only said primary video content”	4
“at least one time when said secondary video content begins”	5
“at least one time when said secondary video content ends”	5
“said first period of time is a period of time that is less than one week from said transmission of said video program”	6
“said second period of time is any time after said first period of time”	6
“storing at least one time of when said second portion of said video program begins and at least one time of when said second portion of said video program ends”	11
“wherein said portion of said video program provided during said second time and when said DVR is in said second playback state does not include at least said second portion”	11
“said portion of said video program that is provided to said display device if said second command is received during said second period of time and said DVR is in said second playback state includes said primary video content and only a portion of said secondary video content”	12
“said portion of said video program that is provided to said display device if said second command is received during said second period of time and said DVR is in said second playback state includes only said primary video content”	13
“said first period of time is a first day after said video program has been transmitted”	14
“said second period of time is a time period thereafter”	14

“said first period of time is a period of time that is less than one week from said transmission of said video program”	15
“said second period of time is a time period after said first period of time”	15

C. Enablement

The following terms render one or more of the claims of the patents-in-suit invalid for lack of enablement under 35 U.S.C. § 112, as the claims, specifications, and prosecution histories would not enable one of skill in the art to practice the claimed invention(s) without undue experimentation:

Claim Term	Claim(s)
“first, second and third portions”	1, 9, 18
“a first command changes said DVR from a first playback state to a second playback state”	1
“said first command indicating a playback state of said DVR”	9
“a first command for setting a playback state of said DVR”	18
“a first playback state”	1, 9, 18
“a second playback state”	1, 9, 18
“a first period of time”	1, 9, 18
“a second period of time”	1, 9, 18
“wherein said second period of time is a period of time after said first period of time”	1, 9
“provide only a portion of said video program to said display device in response to receiving said second command if said second command is received during said second period of time and said DVR is in said second playback state, said portion of said video program including at least said first and third portions of said video program, wherein said third portion of said video program is provided to said display device immediately following said first portion of said video program”	1

“providing only a portion of said video program to said display device in response to receiving said second command if said second command is received during said second period of time and said DVR is in said second playback state, said portion of said video program including at least said first and second portions of said video program, wherein said third portion of said video program is provided to said display device immediately following said first portion of said video program”	9
“providing only said first and third portions of said video program to said display device in response to receiving said second command during said second period of time if said DVR is in a second playback state, wherein said third portion of said video program is provided to said display device immediately following said first portion of said video program”	18
“said portion of said video program that is provided to said display device ... includes said primary video content and only a portion of said secondary video content	3
“said portion of said video program that is provided to said display device ... includes only said primary video content”	4
“at least one time when said secondary video content begins”	5
“at least one time when said secondary video content ends”	5
“said first period of time is a period of time that is less than one week from said transmission of said video program”	6
“said second period of time is any time after said first period of time”	6
“storing at least one time of when said second portion of said video program begins and at least one time of when said second portion of said video program ends”	11
“wherein said portion of said video program provided during said second time and when said DVR is in said second playback state does not include at least said second portion”	11
“said portion of said video program that is provided to said display device if said second command is received during said second period of time and said DVR is in said second playback state includes said primary video content and only a portion of said secondary video content”	12

“said portion of said video program that is provided to said display device if said second command is received during said second period of time and said DVR is in said second playback state includes only said primary video content”	13
“said first period of time is a first day after said video program has been transmitted”	14
“said second period of time is a time period thereafter”	14
“said first period of time is a period of time that is less than one week from said transmission of said video program”	15
“said second period of time is a time period after said first period of time”	15

III. '122 PATENT – INVALIDITY UNDER 35 U.S.C. §§ 102 AND 103

The asserted claims are invalid as anticipated by the prior art under various subsections of 35 U.S.C. § 102 and/or as obvious in view of the prior art under 35 U.S.C. § 103.

C. Identification of Prior Art

Pursuant to P.R. 3-3(a), the charts attached as appendices to these invalidity contentions set forth how prior art identified by Defendant anticipates either expressly or inherently, and/or renders obvious, each asserted claim. Defendant cites the most relevant portions of the identified prior art references. However, other portions of the identified prior art may additionally anticipate, either expressly or inherently, and/or render obvious one or more of the asserted claims.

Where Defendant cites a particular drawing or figure in the accompanying charts, the citation encompasses the description of the drawing or figure, as well as any text associated with the drawing or figure (even if the associated text is not itself expressly cited). Similarly, where Defendant cites particular text concerning a drawing or figure in the accompanying charts, the citation encompasses that drawing or figure as well (even if the associated drawing or figure is not expressly cited). Defendant further incorporates by reference the prior art references cited in the

Patent-in-Suit, any patents or patent applications related to the Patent-in-Suit, and any patent or patent application sharing a common inventor with the Patent-in-Suit. This includes without limitation those identified in any other proceeding involving the Patent-in-Suit or related U.S. or foreign patents. Defendant additionally incorporates by reference all prior art produced or otherwise known to Plaintiff and all prior art known to the named inventor, any past or current owner, or any individual substantively involved in the prosecution of the Patent-in-Suit.

Defendant contends that at least some of the systems and products disclosed in one or more of the prior art references identified here or in the attached exhibits are prior art under 35 U.S.C. §§ 102(a), (b), (e), (f) and/or (g), and/or 103. Defendant's reference to any particular component, device, machine, or other product herein should also be interpreted as a reference to the product itself and any corresponding patents, publications, or product literature cited here or in the attached exhibits that relate to the cited component, device, machine, or other product. Defendant does not yet have complete information regarding the dates by which some of the cited products were publicly disclosed, used, sold, or offered for sale, the circumstances under which the research, design, and development activities were conducted, and the identities of the particular individuals involved in such activities through publicly available patents, publications, and product literature. Defendant anticipates that the actual dates, circumstances, and identities of individuals will be the subject of third party discovery during this lawsuit.

It is understood that a person of ordinary skill in the art reads a prior art reference as a whole and in the context of other publications, literature, and general knowledge in the field. To understand and interpret any specific statement or disclosure in a prior art reference, a person of ordinary skill in the art also relies upon other information including other publications and general scientific, engineering or other relevant knowledge. Defendant reserves the right to rely upon the

general scientific, engineering or other relevant knowledge in the field in interpreting the disclosure of the prior art references. In addition, Defendant reserves the right to rely upon other publications and on expert testimony to provide context and to aid in the understanding of the prior art references. Defendant also reserves the right to rely upon other portions of the prior art references, other publications, and the testimony of experts to establish that the alleged inventions would have been obvious to a person of ordinary skill in the art, including the basis for modifying or combining the prior art references. Furthermore, Defendant reserves the right to rely upon any admissions relating to prior art found in the intrinsic evidence for the Patent-in-Suit.

Certain pieces of identified prior art inherently disclose features of the asserted claims. Defendant may rely on inherency to demonstrate the invalidity of the asserted claims. Moreover, certain prior art references and solutions may inherently anticipate certain features of the asserted claims as construed by Customedia. Defendant may rely on other portions of the prior art, other documents, and expert testimony to establish the inherency of certain features of the prior art to invalidate the asserted claims. Defendant also may rely on any reference identified in these invalidity contentions or any other reference to prove that the references are enabled or to explain the meaning of a term used in the solutions or any reference.

The '122 Patent claims priority to November 1, 2010 based on the filing of U.S. Provisional App. No. 61/408,759. However, Defendant reserves the right to assert that the claims of the '122 Patent are not entitled to this priority date. For example, Defendant may assert that the claims of the '122 Patent were not fully supported by the provisional application, and therefore are only entitled to a priority date as of the filing of the '122 Patent itself. Defendant may also assert that amendments made during prosecution of the '122 Patent presented new material and, thus, are not entitled to a claim of earlier priority. Defendants do not imply in any way that the claims are fully

supported or enabled by the specification at all, as will be discussed in greater detail below with regards to 35 U.S.C. § 112.

1. Admitted Prior Art

The '122 Patent acknowledges that nearly every aspect of the Asserted Claims was known in the prior art. In particular, the Patent-in-Suit acknowledges that all of the following was prior art:

- “Digital video recorders” ('122 Patent at 1:23-24)
- “The concept of time-shifting” ('122 Patent at 1:31)
- “set-top boxes, satellite receivers, analog or digital cable boxes” ('122 Patent at 4:23-25)
- “satellites, cables, fiber-optics, telephone lines, wide area networks, local area networks, wireless communication paths” ('122 Patent at 4:28-31)
- “CRTs, LCDs, plasmas, projection devices” ('122 Patent at 4:33-34)
- “hard drives, disk drives, RAM, ROM” ('122 Patent at 8:6-7)

In combination with the references discussed below, these admissions render the Asserted Claims invalid at least under 35 U.S.C. § 103.

2. Prior Art Patents and Publication References

The table below lists prior art patents, patent applications, and patent publications that describe the state of the art and/or render the Asserted Claims invalid under 35 U.S.C. §§ 102 and/or 103. Each listed reference became prior art at least as early as the dates provided on the face of the document. Defendant reserves the right to rely upon earlier dates of publication or public availability to the extent such information is uncovered during discovery.

Author/Inventor	Title	Date	Patent/Application Number	Short Name
Steven M. Casagrande, David A. Kummer	Methods And Apparatus For Filtering Content From A Presentation Stream Using Signature Data	May 4, 2009	US8510771B2	Casagrande 771
Samuel Russ	Networked Multi-Room System Ad Insertion	April 05, 2005	US20060225105A1	Russ 105
Kerry Philip MillerGary W. DalmadgeStephen Bartlett	Concurrent Program Content Processing Apparatus, Systems, And Methods	December 20, 2007	US20090165057A1	Miller 057
Kenneth Robert Hodge	Methods And Apparatus For Generating Metadata Utilized To Filter Content From A Video Stream Using Text Data	November 20, 2007	US8136140B2	Hodge 140
David M. Bjordammen; Niranjana R. Samant	Averting Ad Skipping In Adaptive Bit Rate Systems	September 04, 2013	US9124947B2*	Bjordammen 947
Steven Michael Casagrande	Methods And Apparatus For Filtering Content In A Video Stream Using Text Data	November 19, 2007	US8165450B2	Casagrande 450
Christopher B. Coles, Christoph Hieslcher, Stefan Jenzowsky, Axel Scheuer, Harald Schweickhardt, Rudolf Stelzl	Method And Configuration For Storing And Playing Back TV Programs	March 30, 2005	US20100195988A1	Coles 988

Author/Inventor	Title	Date	Patent/Application Number	Short Name
En Hisamune, Hirohiko Hasegawa, Nobuyasu Sato, Ikutaro Miura, Keitaro Kurokawa, Takashi Yasuda, Toshiomi Kojima, Kyoichi Igarashi	Method For Managing Reproduction Of Digital Content, Content Regenerator, System For Managing Advertisement Content And Computer Program	November 19, 2001	JP2003158721A	Hisamune 721
Akitomo Ikuma, Shinji Nakai, Yasushi Sugawara, Tomoya Umetsu,	Broadcast Communication System And Distributing Method	March 02, 2001	JP2002262239A	Ikuma 239
Osamu Isaka, Haruo Kochi, Mitsuru Takahashi	Information Processing Apparatus, Information Processing Method And Program	March 17, 2005	JP2006262057A	Isaka 057
Chaminda Jayamanne, David John Weaver, Martin Vincent Davey	Method And Apparatus For Replacing A Commercial In A Recorded Program	October 16, 2013	US20150104148A1	Jayamanne 148
Nobutoshi Koyama, Hisashi Tomita	Broadcast Program Processing Device, Broadcast Program Processing Method, Broadcasting Station Device, Information Distribution Server, Program, And Information Storage Media	December 16, 2011	US20140298381A1	Koyama 381
Shahab Layeghi	Selective Processing Of Data Embedded In A Multimedia File	February 18, 2000	US6963877B2	Layeghi 877
Keith Millar	Content Sub-Item Substitution	April 01, 2009	WO2010112978A1	Millar 978

Author/Inventor	Title	Date	Patent/Application Number	Short Name
Daniel Stoller, Albert Straub, Peter Stern	Content Management In A Network Environment	November 13, 2013	US20150135241A1	Stoller 241
Scott White, James L. Cansler, Ian C. Schmehl	System And Method For Substituting Broadband Delivered Advertisements For Expired Advertisements	September 24, 2009	US20110072456A1	White 456
Scott White, James L. Cansler, Ian C. Schmehl	System And Method For Substituting Broadband Delivered Advertisements For Expired Advertisements	September 24, 2009	US20110072456A1	White 456

3. Prior Art Systems Publicly Known or Offered for Sale; Known or Used in the United States; or Invented Prior to the '122 Patent and Not Concealed, Suppressed, or Abandoned

The table below lists prior art systems and products identified that reveal the state of the art and/or render the Asserted Claims invalid under 35 U.S.C. §§ 102 and/or 103. Some or all of the supporting references for these systems may also qualify as prior art publications under 35 U.S.C. § 102 and may be used as invalidating prior art under 35 U.S.C. §§ 102 and 103. In particular, the manuals for these products, patents filed to cover these products, and publicly.

On information and belief, each of the above prior art systems were publicly known or used, or offered for sale prior to the critical date of the asserted patent, as described in each system's respective claim chart. Pursuant to P.R. 3-3(a), the date of the offer or use, or the system became known, and the identity of the person or entity are provided in the respective system's claim chart, where applicable, based on the information reasonably available to Defendants. In addition, Defendant continues to investigate the systems and products, and reserves the right to

supplement the contentions and accompanying claim charts after further discovery and investigation. Although additional information and prior art systems may be obtained through discovery, such prior art systems include at least the following:

Item Offered for Sale, Publicly Known or Used	Date
Lifextender	January 4, 2008
VideoReDo	January 1, 2004
Comskip	November 2, 2006
Scrubs	February 26, 2007
ReplayTV	October 2002

1. Yellow Cup’s Lifextender (“Lifextender”), is described, for example, in one or more of the following documents:
 - a. Lifextender’s website homepage: the dealio; 2008, archived at: <https://web.archive.org/web/20080102234414/http://www.lifextender.com/> (last accessed Jan. 18. 2023).
 - b. Lifextender’s documentation page: documentation, 2008; archived at: <https://web.archive.org/web/20080103082043/http://www.lifextender.com/documentation.aspx> (last accessed Jan. 18. 2023).
 - c. Lifextender’s Frequently Asked Questions page: faq, 2008, achived at: <https://web.archive.org/web/20080103082048/http://www.lifextender.com/faq.aspx> (last accessed Jan. 18. 2023).
2. DRD Systems, Inc.’s VideoReDo (“VideoRedo”), is described, for example, in one or more of the following documents:
 - a. VideoReDo, VideoRedo.com (as archived by the Wayback Machine on May 1, 2008), <https://web.archive.org/web/20080501213953/http://www.videoredo.com/en/index.htm> (last accessed Jan. 18. 2023).
 - b. VideoReDo, VideoReDo TVSuite Help Guide, 2007.
3. Erik Kaashoek’s Comskip (“Comskip”), is described, for example, in one or more of the following documents:
 - a. Erik, A short guide to Comskip (as Archived by the Wayback Machine on January 27, 2009),

<https://web.archive.org/web/20090127015415/http://kaashoek.com:80/files/manual.htm> (last visited Jan. 11, 2023).

- b. Comskip, Comskip.org (as archived by the Wayback Machine on April 20, 2010), <http://web.archive.org/web/20100420002654/http://www.comskip.org/>, (last visited Jan. 11, 2023).
4. DISH Network's Scrubs ("Scrubs"), is described, for example, in one or more of the following documents:
 - a. DISH's Source Code offered for inspection in accordance with the protective order in this case;
 - b. Scrubs II, Version 0.7, September 24, 2007;
 - c. Show Marking, Signaling, and Usage, Version 0.7, September 9, 2008;
 - d. Scrub Implementation, Version 0.03, September 14, 2011;
 - e. Scrubs (TimeSaver) March 9, 2010;
 - f. DISH Network HDTV DVR Satellite Receiver User's Guide;
 - g. Commercial skip A/V PLAYBACK requirements, Version 0.1, January 16, 2009;
 - h. Scrubs (TimeSaver) User Notes;
 - i. ViP622 Block Diagram 1-17-06
 - j. Casagrande 771 (describing certain aspects of Scrubs)
 - k. Hodge 140 (describing certain aspects of Scrubs)
 - l. Casagrande 450 (describing certain aspects of Scrubs)
 - m. Miller 057 (describing certain aspects of Scrubs)
5. ReplayTV's ReplayTV ("ReplayTV"), is described, for example, in one or more of the following documents:
 - a. ReplayTV 5000 User's Guide, 2002;
 - b. ReplayTV 5000 Quick Setup Guide
 - c. SONICblue Launches ReplayTV 5000 Series Digital VideoRecorder, October 22, 2002;

- d. ReplayTV Website as archived by The Wayback Machine on June 8, 20003 at <https://web.archive.org/web/20030608181553/http://replaytv.com:80/video/replaytv5000/default.asp>; and
- e. Replay Strikes 5000, October 21, 2002.

4. Derivation Under Section 102(f)

Defendant does not have any disclosures under 35 U.S.C. § 102(f) at this time. Discovery is ongoing, however, and Defendant reserves the right to assert any of the preceding items of prior art under 35 U.S.C. § 102(f).

5. Knowledge and Teachings Available to Persons of Skill in the Art at the Time of Inventions

Persons of ordinary skill in the art at the time of the alleged invention of the '122 Patent understood the basics of digital video recorders, including (1) delivery and storage of content; (2) time-shifting applications; (3) trick play functionality; and (4) copyright protection including basic digital rights management. This “common sense” industry understanding combined with the widespread and increasing use of computer based end-user devices to securely distribute content to users before and at the time of the inventions created pressure and motivation to combine known content distribution and usage rights methods. In addition to the references noted above, persons of skill in the art would have had additional resources available to them with disclosures regarding these known methods and systems. These available references include those cited in the patents-in-suit and their related patents and those identified during prosecution of the patents-in-suit and their related patents.

In addition to the prior art identified above and the accompanying invalidity claim charts, Defendants also may rely on the “Background of the Invention” and other relevant portions of the patents-in-suit, other related patents, and their respective file histories (including references incorporated into and cited in the patents-in-suit and related patents), and other evidence, including

fact and expert testimony about that evidence, to prove that the asserted claims are anticipated and/or rendered obvious under 35 U.S.C. §§ 102 and 103.

In addition to the references disclosed in these contentions, the attachments hereto, the patents-in suit and related patents and their prosecution histories, Patent Office proceedings related to the patents-in-suit and related patents, and the common sense knowledge of those in the industry at the time of the alleged inventions, invalidity may be demonstrated by the live testimony of witnesses, which will be identified in accordance with the scheduling orders of these cases. Such witnesses may be used, among other purposes, to discuss issues of prior art systems, prior art references, and the knowledge of one of skill in the art at the time of the alleged inventions.

D. Anticipation

The prior art references or items listed below anticipate the asserted claims identified below, and thus those claims are invalid under 35 U.S.C. § 102(a), (b), (e) and/or (g). Pursuant to P.R. 3-3(c), each of the following charts identifies where specifically in each alleged item of prior art each element of each anticipated claim is found. To the extent a particular claim element is considered to be written in means-plus-function form and governed by 35 U.S.C. § 112, ¶ 6, the chart similarly identifies where specifically in each alleged item of prior art discloses the recited function being performed and the means that accomplishing that function.

'122 Patent		
Prior Art	Claims Anticipated / Obvious	Appendix
Casagrande 771	1-20	B-1
Russ 105	1-20	B-2
Miller 057	1-20	B-3
Hodge 140	1-20	B-4

'122 Patent		
Prior Art	Claims Anticipated / Obvious	Appendix
Bjordammen 947	1-20	B-5
Casagrande 450	1-20	B-6
Coles 988	1-20	B-7
Hisamune 721	1-20	B-8
Ikuma 239	1-20	B-9
Isaka 057	1-20	B-10
Jayamanne 148	1-20	B-11
Koyama 381	1-20	B-12
Layeghi 877	1-20	B-13
Millar 978	1-20	B-14
Stoller 241	1-20	B-15
White 456	1-20	B-16
Lifextender	1-20	B-17
VideoReDo	1-20	B-18
Comskip	1-20	B-19
Scrubs	1-20	B-20
ReplayTV	1-20	B-21

E. Obviousness

The prior art identified in these Initial Invalidity Contentions, including the exemplary charts referenced herein in Exhibits A-1 to A-19, demonstrate that the concepts of the Asserted Claims were well known to persons of ordinary skill in the art prior to the alleged invention of the Patent-In-Suit. Provided below are examples of the prior art that disclose various limitations of

the Asserted Claims. Notwithstanding these examples, all of the prior art referenced in these Initial Invalidity Contentions either anticipate or render obvious (alone or in combination) the Asserted Claims.

Defendant believes that no showing of a specific motivation to combine prior art is required to combine the references disclosed above and in the attached charts. There was a reason to make each combination; each combination of art would have produced no unexpected results; and each combination at most would simply represent a known alternative to one of ordinary skill in the art. *See KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 415-18 (2007) (rejecting the Federal Circuit's "rigid" application of the teaching, suggestion, or motivation to combine test, instead espousing an "expansive and flexible" approach). Indeed, the Supreme Court held that a person of ordinary skill is "a person of creativity, not an automaton" and "in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *Id.* at 420-21; *see also* Examination Guidelines for Determining Obviousness Under 35 U.S.C. §103 in view of the Supreme Court Decision in *KSR International Co. v. Telefax Inc.*, 72 Fed. Reg. 57,526 (Oct. 10, 2007).

One or more combinations of the prior art references identified above would have been obvious because these references would have been combined using: known methods to yield predictable results; known techniques in the same way; a simple substitution of one known, equivalent element for another to obtain predictable results; and/or a teaching, suggestion, or motivation in the prior art generally. In addition, it would have been obvious to try combining the prior art references identified above because there were only a finite number of predictable solutions and/or because known work in one field of endeavor prompted variations based on predictable design incentives and/or market forces either in the same field or a different one. In

addition, the combination of the prior art references identified above would have been obvious because the combination represents the known potential options with a reasonable expectation of success.

Additional evidence that there would have been a motivation to combine the prior art references identified above includes the interrelated teachings of multiple prior art references; the effects of demands known to the design community or present in the marketplace; the existence of a known problem for which there was an obvious solution encompassed by the asserted claims; the existence of a known need or problem in the field of the endeavor at the time of the invention(s); and the background knowledge that would have been possessed by a person having ordinary skill in the art.

Thus, the motivation to combine the teachings of the prior art references disclosed herein is found in the references themselves and: (1) the nature of the problem being solved; (2) the express, implied and inherent teachings of the prior art; (3) the knowledge of persons of ordinary skill in the art; (4) the predictable results obtained in combining the different elements of the prior art; (5) the predictable results obtained in simple substitution of one known element for another; (6) the use of a known technique to improve similar devices, methods, or products in the same way; (7) the predictable results obtained in applying a known technique to a known device, method, or product ready for improvement; (8) the finite number of identified predictable solutions that had a reasonable expectation of success; and (9) known work in various technological fields that could be applied to the same or different technological fields based on design incentives or other market forces.

Any reference or combination of references that anticipates or makes obvious an asserted independent claim also makes obvious any asserted claim dependent on that independent claim

because every element of each dependent claim was known by a person of ordinary skill at the time of the alleged invention, and it would have been obvious to combine those known elements with the independent claims at least as a matter of common sense and routine innovation. Accordingly, Defendants contend that each asserted claim would have been obvious not only by the combinations explicitly defined in these contentions, but also by any combination of references that renders obvious an asserted claim.

As an illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of Casagrande 771 with the teachings of Russ. For example, Casagrande '771 and Russ both disclose restrictions on removing interstitials that are directly linked to a first and second period of time. Casagrande '771 explains that “in some embodiments, a user may be restricted from temporally moving through particular identified segments of a presentation stream at a non-real time presentation rate of the A/V stream. In other words, a receiving device may automatically output particular segments of a presentation stream without skipping over or otherwise fast forwarding through the segments, regardless of whether a user provides input requesting fast forwarding or skipping through the segments.” Casagrande '771 at 4:20–27. Similarly, Russ teaches “trick play functionality” such as “fast forward” may be used to skip commercials. Russ at ¶[0033]. However, Russ also teaches that trick play “could be restricted while viewing a portion of a presentation, such as commercials” and “would not work for certain commercials as specified, for example, by the local cable operator or the presentation programmer.” *Id.* Russ explains that “[t]he commercial slot could also preclude trick play for only a specified length of time, such as two weeks.” *Id.* at ¶[0035]. Russ further explains that “[f]or example, a tag corresponding with a commercial could expire after a period of time after which the tag would become inactive or replaceable.” *Id.* Thus, a person of ordinary skill in the

art would have been motivated to combine Casagrande '771 and Russ in order to effectuate the desired result of restricting “temporally moving through particular identified segments” discussed in Casagrande '771. Casagrande '771 at 4:20–21. A person of ordinary skill in the art would look to the teachings and methods of Russ for guidance to understand how to further achieve the desired result.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of Casagrande 771 with the teachings of Russ and Miller. For example, each of these references discloses the use of satellite systems to deliver video content. Casagrande 771 explains that “*an A/V stream is a contiguous block of associated audio and video data that may be transmitted to*, and received by, an electronic device, such as a terrestrial (‘over-the-air’) television receiver, a cable television receiver, *a satellite television receiver*, an internet connected television or television receiver, a computer, a portable electronic device, or the like.” Casagrande 771 at 4:41-46 (emphasis added). Russ explains that “[b]roadband communications systems, such as *satellite and cable television systems*, are now capable of providing many services in addition to analog broadcast video.” Russ at Para 0003 (emphasis added). Russ teaches that “[t]he primary device 140, in accordance with one embodiment of the present invention, includes a processor, *a tuner system*, a storage device, a modulator, and a remote device communications receiver.” *Id.* at Para 0020 (emphasis added). Miller describes that “[t]he system includes a receiving device comprising *a tuner operable to receive a multiplexed signal via a satellite network* that communicates digital video programming, the multiplexed signal comprising a plurality of program content portions, each program content portion corresponding to one or a plurality of programs.” Miller at Para 0002. (emphasis added). A person of ordinary skill in the art would have expected predictable results from combining the teachings of these

results. Specifically, each of these references describes a system for receiving content from a satellite system via tuner. Thus, a person of ordinary skill in the art would have been motivated to look to the teachings of Miller which describe the known process of using multiplexed signals alongside one or more tuners to deliver video content.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of Scrubs with the teachings of Russ. As an initial matter, aspects of DISH's Scrubs system are described in Casagrande '771, and thus, a person of ordinary skill in the art would have been motivated to combine the teachings of Scrubs with the teachings of Russ for the same reasons described above regarding the combination of Casagrande '771 and Russ. Further, the process carried out by Scrubs involves several steps that must be carried out before the set-top box / DVR may be capable of skipping portions of the content. For example, Scrubs involves manual tagging of content to identify commercial boundaries in show metadata. Said show metadata must then be transmitted to the set-top box / DVR where it is processed alongside closed captioning data to create offsets for locating the start and end of commercial breaks. Thus, a person of ordinary skill in the art would have recognized that adding a formal restriction on attempting to perform Scrubs for a period of time would have been advantageous. For example, Russ teaches that trick play "could be restricted while viewing a portion of a presentation, such as commercials" and "would not work for certain commercials as specified, for example, by the local cable operator or the presentation programmer." Russ at ¶[0033]. Russ explains that "[t]he commercial slot could also preclude trick play for only a specified length of time, such as two weeks." *Id.* at ¶[0035]. A person of ordinary skill in the art would look to the teachings and methods of Russ for guidance on how to disable the Scrubs functionality while the

system processes the appropriate data, thereby preventing issues that may be created by trying to skip content before the system is ready to do so.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of Scrubs with the teachings of Russ and Miller. As an initial matter, aspects of DISH's Scrubs system are described in Casagrande '771, and thus, a person of ordinary skill in the art would have been motivated to combine the teachings of Scrubs with the teachings of Russ for the same reasons described above regarding the combination of Casagrande '771 and Russ. Further, each of these references discloses the use of satellite systems to deliver video content. DISH's Scrubs system was for use in "digital video record satellite top box[es]." Scrub Implementation, Version 0.03, September 14, 2011 at 3. The Scrubs feature was available on set-top boxes that included "three tuners (two satellite and one over-the-air) for record and playback in standard or high definition." DISH Network HDTV DVR Satellite Receiver User's Guide at 2. Russ explains that "[b]roadband communications systems, such as *satellite and cable television systems*, are now capable of providing many services in addition to analog broadcast video." Russ at Para 0003 (emphasis added). Russ teaches that "[t]he primary device 140, in accordance with one embodiment of the present invention, includes a processor, *a tuner system*, a storage device, a modulator, and a remote device communications receiver." *Id.* at Para 0020 (emphasis added). Miller describes that "[t]he system includes a receiving device comprising *a tuner operable to receive a multiplexed signal via a satellite network* that communicates digital video programming, the multiplexed signal comprising a plurality of program content portions, each program content portion corresponding to one or a plurality of programs." Miller at Para 0002 (emphasis added). A person of ordinary skill in the art would have expected predictable results from combining the teachings of these results. Specifically, each of these references

describes a system for receiving content from a satellite system via tuner. Thus, a person of ordinary skill in the art would have been motivated to look to the teachings of Miller which describe the known process of using multiplexed signals alongside one or more tuners to deliver video content.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of Coles with the teachings of Russ. For example, Coles teaches “[a] method and configuration allows storing and playing back TV programs, in particular an improved method and configuration for operating a network PVR.” Coles at Abstract. Coles explains that a “very popular feature of a PVR is the ability to skip lengthy sections in a recording with minimal delay” such as by “skip[ping] blocks of commercials contained in the program during playback.” Coles at Para 0005. As Coles notes, “the ability of PVR users to completely skip advertising embedded in TV programs automatically or at least manually means that conventional advertising-financed TV is deprived of the basis on which it is financed.” *Id.* at Para 0010. Thus, Coles explains it is advantageous to “to specify a method and configuration for the storage and playback of TV programs which prevents advertising and other special content from being skipped.” *Id.* at Para 0011. Similarly, Russ teaches “trick play functionality” such as “fast forward” may be used to skip commercials. Russ at ¶[0033]. However, Russ also teaches that trick play “could be restricted while viewing a portion of a presentation, such as commercials” and “would not work for certain commercials as specified, for example, by the local cable operator or the presentation programmer.” *Id.* Russ explains that “[t]he commercial slot could also preclude trick play for only a specified length of time, such as two weeks.” *Id.* at ¶[0035]. Russ further explains that “[f]or example, a tag corresponding with a commercial could expire after a period of time after which the tag would become inactive or replaceable.” *Id.* Thus, a person of ordinary

skill in the art would have been motivated to look to the teachings of Russ to provide a mechanism for restricting the skipping of commercials for a period of time when it is desirable not to deprive the advertisers “of the basis on which it is financed” as Coles suggests. Once the financial benefit has lessened or disappeared, however, the user would be free to skip the commercials and the restriction would be removed.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of Coles with the teachings of Russ and Miller. For example, each of these references discloses the use of satellite systems to deliver video content. Coles describes a system wherein a user device “receives the TV channels from a receiver 122 which receives suitable TV signals via terrestrial antenna 124 and/or *satellite antenna 126* and/or TV cable 128.” Coles at Para 0029 (emphasis added). Russ explains that “[b]roadband communications systems, such as *satellite and cable television systems*, are now capable of providing many services in addition to analog broadcast video.” Russ at Para 0003 (emphasis added). Russ teaches that “[t]he primary device 140, in accordance with one embodiment of the present invention, includes a processor, *a tuner system*, a storage device, a modulator, and a remote device communications receiver.” *Id.* at Para 0020 (emphasis added). Miller describes that “[t]he system includes a receiving device comprising *a tuner operable to receive a multiplexed signal via a satellite network* that communicates digital video programming, the multiplexed signal comprising a plurality of program content portions, each program content portion corresponding to one or a plurality of programs.” Miller at Para 0002. (emphasis added). A person of ordinary skill in the art would have expected predictable results from combining the teachings of these results. Specifically, each of these references describes a system for receiving content from a satellite system via tuner. Thus, a person of ordinary skill in the art would have been motivated

to look to the teachings of Miller which describe the known process of using multiplexed signals alongside one or more tuners to deliver video content.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of ReplayTV with the teachings of Russ. ReplayTV is a DVR that enabled s user to “[c]ontrol live television,” “[a]utomatically record every episode of your favorite shows,” “[j]ump past commercials or recorded scenes you don’t want to watch,” and “[w]atch your shows commercial free.” ReplayTV 5040 Manual at 2. ReplayTV included a COMMERCIAL ADVANCE feature “that allows you to choose whether to skip most commercial messages during playback of recorded shows.” *Id.* at 53. A user would “have the choice to watch them or not—automatically.” *Id.* However, ReplayTV includes temporal restrictions on use of the feature such that “[s]hows delayed within a few minutes of the live broadcast will not skip commercials.” *Id.* at 54. Similarly, Russ teaches “trick play functionality” such as “fast forward” may be used to skip commercials. Russ at ¶[0033]. However, Russ also teaches that trick play “could be restricted while viewing a portion of a presentation, such as commercials” and “would not work for certain commercials as specified, for example, by the local cable operator or the presentation programmer.” *Id.* Russ explains that “[t]he commercial slot could also preclude trick play for only a specified length of time, such as two weeks.” *Id.* at ¶[0035]. Russ further explains that “[f]or example, a tag corresponding with a commercial could expire after a period of time after which the tag would become inactive or replaceable.” *Id.* Thus, a person of ordinary skill in the art would have been motivated to look to the teachings of Russ to provide a detailed mechanism for restricting the skipping of commercials for a period of time as ReplayTV suggests.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of ReplayTV with the teachings of Russ and Miller. For

example, each of these references discloses the use of satellite systems to deliver video content. ReplayTV teaches a DVR box that may be connected to a “satellite receiver using standard audio/video cables.” ReplayTV 5040 Manual at 5. Russ explains that “[b]roadband communications systems, such as *satellite and cable television systems*, are now capable of providing many services in addition to analog broadcast video.” Russ at Para 0003 (emphasis added). Russ teaches that “[t]he primary device 140, in accordance with one embodiment of the present invention, includes a processor, *a tuner system*, a storage device, a modulator, and a remote device communications receiver.” *Id.* at Para 0020 (emphasis added). Miller describes that “[t]he system includes a receiving device comprising *a tuner operable to receive a multiplexed signal via a satellite network* that communicates digital video programming, the multiplexed signal comprising a plurality of program content portions, each program content portion corresponding to one or a plurality of programs.” Miller at Para 0002. (emphasis added). A person of ordinary skill in the art would have expected predictable results from combining the teachings of these results. Specifically, each of these references describes a system for receiving content from a satellite system via tuner. Thus, a person of ordinary skill in the art would have been motivated to look to the teachings of Miller which describe the known process of using multiplexed signals alongside one or more tuners to deliver video content.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of Bjordammen with the teachings of Russ. For example, Bjordammen teaches “[a]n adaptive bit rate client device ... capable of providing streaming playback by requesting an appropriate series of segments from an adaptive bit rate system 100 over the internet protocol content delivery network (CDN) 120.” Bjordammen at 2:24-28. Bjordammen describes “techniques in an adaptive bit rate system to minimize, inhibit, or prevent

ad skipping by subscribers of the internet protocol TV network.” Bjordammen at 3:32-34. As Bjordammen explains, “[i]t is desirable for the network operator to limit the skipping of ads.” *Id.* at 8:12-23. However, Bjordammen also explains that “once a user presumably has watched ad content associated with a respective period indicated by the expiration of the associated ad break playback duration, the user will be able to fast forward or rewind through the ad content.” Bjordammen at 16:14-28. Similarly, Russ teaches “trick play functionality” such as “fast forward” may be used to skip commercials. Russ at ¶[0033]. However, Russ also teaches that trick play “could be restricted while viewing a portion of a presentation, such as commercials” and “would not work for certain commercials as specified, for example, by the local cable operator or the presentation programmer.” *Id.* Russ explains that “[t]he commercial slot could also preclude trick play for only a specified length of time, such as two weeks.” *Id.* at ¶[0035]. Russ further explains that “[f]or example, a tag corresponding with a commercial could expire after a period of time after which the tag would become inactive or replaceable.” *Id.* Thus, a person of ordinary skill in the art would have been motivated to look to the teachings of Russ to provide a mechanism for restricting the skipping of commercials for a period of time when it is desirable to do so as Bjordammen suggests. Once the appropriate time period has lapsed, however, the user would be free to skip the commercials and the restriction would be removed.

As another illustrative example, a person of ordinary skill in the art would have been motivated to combine the teachings of Bjordammen with the teachings of Russ and Miller. For example, each of these references discloses the use of satellite systems to deliver video content. Bjordammen describes a system wherein an “adaptive bit rate syste 100 receives content from a content source, represented by the live content backbone 102” that may be “any number of possible cable or content provider networks and manners for distributing content (e.g., *satellite*, fiber, the

Internet, etc.).” Bjordammen at 4:3-16 (emphasis added). Russ explains that “[b]roadband communications systems, such as *satellite and cable television systems*, are now capable of providing many services in addition to analog broadcast video.” Russ at Para 0003 (emphasis added). Russ teaches that “[t]he primary device 140, in accordance with one embodiment of the present invention, includes a processor, *a tuner system*, a storage device, a modulator, and a remote device communications receiver.” *Id.* at Para 0020 (emphasis added). Miller describes that “[t]he system includes a receiving device comprising *a tuner operable to receive a multiplexed signal via a satellite network* that communicates digital video programming, the multiplexed signal comprising a plurality of program content portions, each program content portion corresponding to one or a plurality of programs.” Miller at Para 0002. (emphasis added). A person of ordinary skill in the art would have expected predictable results from combining the teachings of these results. Specifically, each of these references describes a system for receiving content from a satellite system via tuner. Thus, a person of ordinary skill in the art would have been motivated to look to the teachings of Miller which describe the known process of using multiplexed signals alongside one or more tuners to deliver video content.

Numerous prior art references, including those identified above, reflect common knowledge and the state of the prior art prior to the priority date that Applicants claimed on the face of the asserted patent.

For at least the reasons described above and below in the examples provided as well as in the attached claim charts, it would have been obvious to one of ordinary skill in the art to combine any of a number of prior art references, including any combination of those identified in Exhibits B-1 to B-21, to meet the limitations of the asserted claims. As such, Defendant’s inclusion of

exemplary combinations does not preclude Defendants from identifying other invalidating combinations as appropriate.

To the extent any reference disclosed does not chart every aspect of an element, the references still render the Asserted Claims obvious because one of ordinary skill in the art would find that aspect obvious without the need to combine such aspect of the element with other references.

1. a tuner for receiving a plurality of video programs at the same time on a single channel (e.g., '122 Patent, Claims 1, 11, and 18)

To the extent Plaintiff contends that any of the references identified above do not disclose this limitation, the limitation is obvious in light of the background knowledge possessed by a person of ordinary skill in the art, and/or the limitation can be found, for example, in one or more of the following references:

- Miller 057
- Casagrande 540
- Hodge 140
- Scrubs
- Russ 105
- Coles 988

A person of ordinary skill in the art desiring to provide an end-user device to store and play video programs would recognize that such a device would include at least some form of tuner to receive a plurality of video programs. The use of a single tuner to receive multiple video programs at the same time was a well-known technique well before the alleged invention of the '122 Patent.

Each of the references above demonstrates use of a tuner to receive video programs. *See, e.g.,* Exhibits attached hereto. Importantly, each of the identified prior art references deals with improvements to digital media distribution and viewing systems. Accordingly, a person of skill in the art would have been motivated to combine or adapt known or familiar methods in the art,

especially where market forces prompt such variations. For example, to the extent market forces demanded use of a single tuner to receive multiple video programs at the same time, one of skill in the art would have thought to combine or modify references that described known methods which one of skill in the art would have recognized as offering improvement to existing systems. Each of the above references describe methods that were known to offer such improvements, and, accordingly, one of skill in the art would have been motivated to combine or modify the references as identified in each of the above combinations. It would have been obvious to try combining these prior art references because there were only a finite number of predictable solutions, each with a reasonable expectation of success.

2. multiple tuners for receiving content on a first tuner while a second tuner is used to receive and/or view other content (e.g., '122 Patent, Claim 3)

To the extent Plaintiff contends that any of the references identified above do not disclose this limitation, the limitation is obvious in light of the background knowledge possessed by a person of ordinary skill in the art, and/or the limitation can be found, for example, in one or more of the following references:

- Miller 057
- Casagrande 540
- Hodge 140
- Scrubs
- Russ 105
- Coles 988

A person of ordinary skill in the art desiring to provide an end-user device to store and play video programs would recognize that such a device would include multiple tuners to access multiple channels at the same time. The use of multiple tuners was a well-known technique well before the alleged invention of the '122 Patent.

Each of the references above demonstrates use of multiple tuners. *See, e.g.,* Exhibits attached hereto. Importantly, each of the identified prior art references deals with improvements to digital media distribution and viewing systems. Accordingly, a person of skill in the art would have been motivated to combine or adapt known or familiar methods in the art, especially where market forces prompt such variations. For example, to the extent market forces demanded use of multiple tuners, one of skill in the art would have thought to combine or modify references that described known methods which one of skill in the art would have recognized as offering improvement to existing systems. Each of the above references describe methods that were known to offer such improvements, and, accordingly, one of skill in the art would have been motivated to combine or modify the references as identified in each of the above combinations. It would have been obvious to try combining these prior art references because there were only a finite number of predictable solutions, each with a reasonable expectation of success.

3. a first command for changing the playback state of a DVR (e.g., '122 Patent, Claims 1, 11, and 18)

To the extent Plaintiff contends that any of the references identified above do not disclose this limitation, the limitation is obvious in light of the background knowledge possessed by a person of ordinary skill in the art, and/or the limitation can be found, for example, in one or more of the following references:

- Casagrande 771
- Casagrande 540
- Hodge 140
- Scrubs
- Coles 988
- Bjordammen 947

A person of ordinary skill in the art desiring to provide an end-user device to skip portions of a video program during playback would recognize that such a device would include at least a

mechanism for enabling and disabling the ability skip said portions. The use of a mechanism for enabling and disabling the ability skip portions of a video program was a well-known technique well before the alleged invention of the '122 Patent.

Each of the references above demonstrates use of a first command for changing the playback state of a DVR. *See, e.g.*, Exhibits attached hereto. Importantly, each of the identified prior art references deals with improvements to digital media distribution and viewing systems. Accordingly, a person of skill in the art would have been motivated to combine or adapt known or familiar methods in the art, especially where market forces prompt such variations. For example, to the extent market forces demanded use of a mechanism for enabling and disabling the ability skip portions of a video program, one of skill in the art would have thought to combine or modify references that described known methods which one of skill in the art would have recognized as offering improvement to existing systems. Each of the above references describe methods that were known to offer such improvements, and, accordingly, one of skill in the art would have been motivated to combine or modify the references as identified in each of the above combinations. It would have been obvious to try combining these prior art references because there were only a finite number of predictable solutions, each with a reasonable expectation of success.

4. providing a video program in its entirety or only providing a first and third portion of said video program depending on the playback state and period of time during which the request for playback is received (e.g., '122 Patent, Claims 1, 10, 11, 14, 15, and 18)

To the extent Plaintiff contends that any of the references identified above do not disclose this limitation, the limitation is obvious in light of the background knowledge possessed by a person of ordinary skill in the art, and/or the limitation can be found, for example, in one or more of the following references:

- Russ 105

- Casagrande 771
- Casagrande 540
- Hodge 140
- Scrubs
- Layeghi 877
- Coles 988
- Bjordammen 947

A person of ordinary skill in the art desiring to provide an end-user device to skip portions of a video program during playback would recognize that skipping content may not be advantageous at all times. The use of restrictions on the ability to skip content and engage in other forms trick play as a function of time was a well-known technique well before the alleged invention of the '122 Patent.

Each of the references above demonstrates that skipping portions of content may only be available at certain periods of time. *See, e.g.*, Exhibits attached hereto. Importantly, each of the identified prior art references deals with improvements to digital media distribution and viewing systems. Accordingly, a person of skill in the art would have been motivated to combine or adapt known or familiar methods in the art, especially where market forces prompt such variations. For example, to the extent market forces demanded use of restrictions on the ability to skip content and engage in other forms trick play as a function of time, one of skill in the art would have thought to combine or modify references that described known methods which one of skill in the art would have recognized as offering improvement to existing systems. Each of the above references describe methods that were known to offer such improvements, and, accordingly, one of skill in the art would have been motivated to combine or modify the references as identified in each of the above combinations. It would have been obvious to try combining these prior art references because there were only a finite number of predictable solutions, each with a reasonable expectation of success.

5. storing at least one time when said secondary video content begins and at least one time when said secondary video content end (e.g., '122 Patent, Claims 5 and 13)

To the extent Plaintiff contends that any of the references identified above do not disclose this limitation, the limitation is obvious in light of the background knowledge possessed by a person of ordinary skill in the art, and/or the limitation can be found, for example, in one or more of the following references:

- Casagrande 771
- Casagrande 540
- Hodge 140
- Scrubs
- Layeghi 877
- Coles 988
- Bjordammen 947

A person of ordinary skill in the art desiring to provide an end-user device to skip portions of a video program during playback would recognize that the end-user device must know the start and stop times of content to be skipped. The use of start and stop times to identify portions of content was a well-known technique well before the alleged invention of the '122 Patent.

Each of the references above demonstrates use of times to identify the start and stop locations of content to be skipped. *See, e.g.*, Exhibits attached hereto. Importantly, each of the identified prior art references deals with improvements to digital media distribution and viewing systems. Accordingly, a person of skill in the art would have been motivated to combine or adapt known or familiar methods in the art, especially where market forces prompt such variations. For example, to the extent market forces demanded use of start and stop times to identify portions of content, one of skill in the art would have thought to combine or modify references that described known methods which one of skill in the art would have recognized as offering improvement to existing systems. Each of the above references describe methods that were known to offer such

improvements, and, accordingly, one of skill in the art would have been motivated to combine or modify the references as identified in each of the above combinations. It would have been obvious to try combining these prior art references because there were only a finite number of predictable solutions, each with a reasonable expectation of success.

6. wireless technology to transfer video program to a display device (e.g., '122 Patent, Claims 2 and 12)

To the extent Plaintiff contends that any of the references identified above do not disclose this limitation, the limitation is obvious in light of the background knowledge possessed by a person of ordinary skill in the art, and/or the limitation can be found, for example, in one or more of the following references:

- ReplayTV
- Russ 105
- Miller 057
- Hodge 140
- Stoller 241

A person of ordinary skill in the art desiring to provide an end-user device to play back video programs would recognize that wireless technology and connections could be used to transfer the content to a display device. The use of wireless connections to transfer data was a well-known technique well before the alleged invention of the '122 Patent.

Each of the references above demonstrates use of times to identify the start and stop locations of content to be skipped. *See, e.g.*, Exhibits attached hereto. Importantly, each of the identified prior art references deals with improvements to digital media distribution and viewing systems. Accordingly, a person of skill in the art would have been motivated to combine or adapt known or familiar methods in the art, especially where market forces prompt such variations. For example, to the extent market forces demanded use of wireless connections to transfer data, one of skill in the art would have thought to combine or modify references that described known

methods which one of skill in the art would have recognized as offering improvement to existing systems. Each of the above references describe methods that were known to offer such improvements, and, accordingly, one of skill in the art would have been motivated to combine or modify the references as identified in each of the above combinations. It would have been obvious to try combining these prior art references because there were only a finite number of predictable solutions, each with a reasonable expectation of success.

IV. '122 PATENT - INVALIDITY UNDER 35 U.S.C. § 112

A. Indefiniteness

On June 2, 2014, the United States Supreme Court established a new standard for indefiniteness. *Nautilus, Inc. v. Biosig Instruments, Inc.*, No. 13-369, 134 S. Ct. 2120 (June 2, 2014). Rejecting the Federal Circuit’s prior “insolubly ambiguous” standard, the Supreme Court held that “a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Id.* at 2124. The following terms render one or more claims of the patents-in-suit indefinite under 35 U.S.C. § 112, as the claims, specifications, and prosecution histories fail to inform those of skill in the art of the scope of the claimed invention(s) with any reasonable certainty³:

Claim Term	Claim(s)
“is configured to follow”	1, 11, 18
“a later time”	1

³ Independent claims listed also include all asserted claims dependent thereon, even if those claims are not individually listed.

“only a portion ... said portion of said one of said plurality of video program including at least said first and third portions of said video program”	1, 11
“immediately following”	1, 11, 18
“a period of time after said first period of time”	1, 11
“at least indirectly”	2. 20
“a predetermined time”	6
“a particular channel”	16
“a particular time”	16
“indicating a desire to record a second video program”	17
“a particular frequency”	19
“individual channels associated with content owners”	20

B. Written Description⁴

“To satisfy the written description requirement, the applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention, and demonstrate that by disclosure in the specification of the patent.” *Novozymes A/S v. DuPont Nutrition Biosciences APS*, 723 Fed. 1336, 1344 (Fed. Cir. 2013) (internal quotation marks omitted).

The following terms render one or more of the claims of the patents-in-suit invalid for lack of written description under 35 U.S.C. § 112, as the original specification of the '122 Patent does not demonstrate that the inventors were in possession of the claimed subject matter:

Claim Term	Claim(s)
“first, second and third portions”	1, 11, 18

⁴ Independent claims listed also include all asserted claims dependent thereon, even if those claims are not individually listed.

“a first command changes said DVR from a first playback state to a second playback state”	1
“said first command indicating a playback state of said DVR”	11
“a first command for setting a playback state of said DVR”	18
“a first playback state”	1, 11, 18
“a second playback state”	1, 11, 18
“a first period of time”	1, 11
“a second period of time”	1, 11, 18
“a first portion of time”	18
“wherein said second period of time is a period of time after said first period of time”	1, 11
“provide only a portion of said one of said plurality of video programs to said display device in response to receiving said second command during said second period of time if said DVR is in said second playback state, said portion of said one of said plurality of video programs including at least said first and third portions of said one of said plurality of video programs”	1
“providing only a portion of said one of said plurality of video programs to said display device in response to receiving said second command during said second period of time if said DVR is in said second playback state, said portion of said one of said plurality of video programs including at least said first and third portions of said video program, wherein said third portion is provided to said display device immediately following said first portion”	11
“providing said first and third portions of said one of said plurality of video programs respectively to said display device in response to receiving said second command during said second period of time if said DVR is in a second playback state, wherein said third portion is provided to said display device immediately following said first portion”	18
“said plurality of video programs are transmitted at the same time on a single channel within said data distribution system”	1

“said tuner can be tuned to said single channel to receive said plurality of video programs”	1
“said plurality of video programs are transmitted as the same time and are received by a single tuner in said DVR”	11
“a first tuner for receiving data on said plurality of video programs, wherein said data on one of said plurality of video programs is transmitted together with said data on other ones of said plurality of video programs, so that said first tuner receives said data on said one of said plurality of video programs at the same time that it receives data on said other ones of said plurality of video programs”	18
“said wireless transmitter being configured to transmit said one of said plurality of video programs in its entirety or said portion of said one of said plurality of programs at least indirectly to said display device”	2
“at least one time when said second portion begins”	5
“at least one time when said second portion ends”	5
“said first period of time is a period of time that begins when said one of said plurality of video programs is stored on said memory device and available to be viewed and ends within a predetermined time thereafter”	6
“data communicated via said single channel is compressed prior to transmission and said at least one processor is configured to decompress said data”	8
“transmitting said at least a portion of said one of said plurality of video programs to said display device via a transmission path that includes at least one wireless connection”	12
“transmitting said at least a portion of said one of said plurality of video programs to said display device via a transmission path that includes at least one wireless connection”	14
“compressing said plurality of video programs prior to said plurality of video programs being transmitted over said data distribution system”	15
“decompressing said plurality of video programs”	15

“tuning said single tuner to a particular channel at a particular time in response to receiving said third command”	16
“said fourth command indicating a desire to record a second video program, which is accomplished using another tuner if said second video program is being transmitted to said DVR while said plurality of video programs are being transmitted to said DVR”	17
“said third command further results in said first tuner being tuned to a particular frequency to receive said data on said plurality of video programs”	19
“said second portion comprises at least one commercial and said data on said plurality of video programs is packetized, with individual packets being linked at least indirectly to individual ones of said plurality of video programs and to individual channels associated with content owners thereof”	20

C. Enablement

The following terms render one or more of the claims of the patents-in-suit invalid for lack of enablement under 35 U.S.C. § 112, as the claims, specifications, and prosecution histories would not enable one of skill in the art to practice the claimed invention(s) without undue experimentation:

Claim Term	Claim(s)
“first, second and third portions”	1, 11, 18
“a first command changes said DVR from a first playback state to a second playback state”	1
“said first command indicating a playback state of said DVR”	11
“a first command for setting a playback state of said DVR”	18
“a first playback state”	1, 11, 18
“a second playback state”	1, 11, 18
“a first period of time”	1, 11
“a second period of time”	1, 11, 18

“a first portion of time”	18
“wherein said second period of time is a period of time after said first period of time”	1, 11
“provide only a portion of said one of said plurality of video programs to said display device in response to receiving said second command during said second period of time if said DVR is in said second playback state, said portion of said one of said plurality of video programs including at least said first and third portions of said one of said plurality of video programs”	1
“providing only a portion of said one of said plurality of video programs to said display device in response to receiving said second command during said second period of time if said DVR is in said second playback state, said portion of said one of said plurality of video programs including at least said first and third portions of said video program, wherein said third portion is provided to said display device immediately following said first portion”	11
“providing said first and third portions of said one of said plurality of video programs respectively to said display device in response to receiving said second command during said second period of time if said DVR is in a second playback state, wherein said third portion is provided to said display device immediately following said first portion”	18
“said plurality of video programs are transmitted at the same time on a single channel within said data distribution system”	1
“said tuner can be tuned to said single channel to receive said plurality of video programs”	1
“said plurality of video programs are transmitted as the same time and are received by a single tuner in said DVR”	11
“a first tuner for receiving data on said plurality of video programs, wherein said data on one of said plurality of video programs is transmitted together with said data on other ones of said plurality of video programs, so that said first tuner receives said data on said one of said plurality of video programs at the same time that it receives data on said other ones of said plurality of video programs”	18
“said wireless transmitter being configured to transmit said one of said plurality of video programs in its entirety or said portion of	2

said one of said plurality of programs at least indirectly to said display device”	
“at least one time when said second portion begins”	5
“at least one time when said second portion ends”	5
“said first period of time is a period of time that begins when said one of said plurality of video programs is stored on said memory device and available to be viewed and ends within a predetermined time thereafter”	6
“data communicated via said single channel is compressed prior to transmission and said at least one processor is configured to decompress said data”	8
“transmitting said at least a portion of said one of said plurality of video programs to said display device via a transmission path that includes at least one wireless connection”	12
“ transmitting said at least a portion of said one of said plurality of video programs to said display device via a transmission path that includes at least one wireless connection”	14
“compressing said plurality of video programs prior to said plurality of video programs being transmitted over said data distribution system”	15
“decompressing said plurality of video programs”	15
“tuning said single tuner to a particular channel at a particular time in response to receiving said third command”	16
“said fourth command indicating a desire to record a second video program, which is accomplished using another tuner if said second video program is being transmitted to said DVR while said plurality of video programs are being transmitted to said DVR”	17
“said third command further results in said first tuner being tuned to a particular frequency to receive said data on said plurality of video programs”	19
“said second portion comprises at least one commercial and said data on said plurality of video programs is packetized, with individual packets being linked at least indirectly to individual ones of said plurality of video programs and to individual channels associated with content owners thereof”	20

V. PRODUCTION ACCOMPANYING INVALIDITY CONTENTIONS

Pursuant to P.R. 3-4(a), Defendant is producing documentation sufficient to show the operation of aspects or elements of the Accused Instrumentalities identified by the patent claimant in the P.R. 3-1(c) chart, to the extent the Defendant could understand those contentions. Pursuant to P.R. 3-4(b), Defendant is also producing prior art references and corroborating evidence concerning prior art systems. Defendant's search for prior art references, additional documentation, and/or corroborating evidence concerning prior art systems is ongoing. Accordingly, Defendant reserves the right to continue to supplement its production as Defendant obtain additional prior art references, documentation, and/or corroborating evidence concerning invalidity during the course of discovery.

Defendant's P.R. 3-4 production may be found at DISH00000001 - DISH00007933.

Additionally, in accordance with P.R. 3-4 and the Protective Order entered in this case (Dkt. No. 39), Defendant is making source code available for inspection at Plaintiff's request.

Dated: January 20, 2023

Respectfully submitted,

/s/ Jamie R. Lynn

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of Defendant's Invalidity Contentions has been sent to counsel of record via electronic mail on this January 20, 2023.

/s/ Thomas Carter

Thomas Carter