

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DISH NETWORK L.L.C. and DISH TECHNOLOGIES L.L.C.,
Petitioner,

v.

DIGITAL BROADCASTING SOLUTIONS, LLC,
Patent Owner.

IPR2023-00977
Patent 9,538,122 B2

Before ST. JOHN COURTENAY III, SHEILA F. McSHANE, and
JOHN D. HAMANN, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

DISH Network L.L.C. and DISH Technologies L.L.C. (collectively, “Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–20 (“the challenged claims”) of U.S. Patent No. 9,538,122 B2 (Ex. 1001, “the ’122 patent”). Petitioner filed a Declaration of Kevin Jeffay, Ph.D. (Ex. 1002) with the Petition. Digital Broadcasting Solutions, LLC (“Patent Owner”) filed a Preliminary Response. Paper 7 (“Prelim. Resp.”).

We have authority to determine whether to institute an *inter partes* review. *See* 35 U.S.C. § 314 (2018); 37 C.F.R. § 42.4(a) (2022). Under 35 U.S.C. § 314(a), we may not authorize an *inter partes* review unless the information in the petition and the preliminary response “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

Upon consideration of the Petition, the Preliminary Response, and the evidence of record, we determine that the information presented in the Petition demonstrates that there is a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of at least one challenged claim of the ’122 patent.

I. INTRODUCTION

A. *Real Parties in Interest*

Petitioner identifies DISH Network L.L.C. as the real party-in-interest, noting under the heading “Real Party-in-Interest under 37 C.F.R. 42.8(b)(1)” that “DISH Network L.L.C. (‘DISH’) is the petitioner.” Pet. vi. In addition, Petitioner asserts that DISH is directly or indirectly owned by DISH Network Corporation. *Id.* Patent Owner identifies itself, Digital Broadcasting Solutions, LLC (DBS), as the real party-in-interest. Paper 6, 1.

B. Related Matters

The parties identify the following related district court litigation: *Digital Broadcasting Solutions, LLC v. DISH Network L.L.C.*, Case No. 2:22-cv-00335 (E.D. Tex.) (“related litigation”) as a matter that may affect, or be affected by, a decision in this proceeding. Pet. vi; Paper 6, 1.

Patent Owner additionally identifies IPR2023-00976 as a related proceeding before the Board. Paper 6, 1.

C. The ’122 patent

The ’122 patent is entitled “System and Method for Time Shifting at Least a Portion of a Program,” and relates to “storage and play back of time-shifted data.” Ex. 1001, code (54), 1:18–19. The ’122 patent observes that digital video recorders (DVRs) allow a user to record data such as audio and video for play back at a later time, referred to as time-shifting, which provides the advantage of “allow[ing] a user to pause, rewind or fast forward a television program,” including “skip[ping] a portion of the program.” *Id.* at 1:23–27, 1:44–47. The features, however, present “a problem for the content owner and/or the content provider in that it allows the user to skip commercials, or paid advertisements, which can decrease the value of the program.” *Id.* at 1:47–50. The ’122 patent proposes “a system and method for adding auxiliary data (e.g., advertisements, news tickers, ‘crawlers,’ etc.) to data that has been time-shifted.” *Id.* at 2:17–19.

In particular, the ’122 patent describes a receiving device that may function as a standard receiver or a DVR, but when time-shifted data is being played, the receiving device “may be configured to acquire auxiliary data, and insert the auxiliary data into the time-shifted data, so that both the time-shifted data and the auxiliary data are displayed to the user.” *Id.* at 2:33–44. For example, in an embodiment, time-shifted data may be broken

into three segments, and a receiving device may play a first segment in response to a user command to play the data, whereafter the receiving device may play auxiliary data. *Id.* at 6:43–55. Then, the receiving device may play the second segment, followed by more auxiliary data, followed by the third segment. *Id.* at 6:55–57. However, in an embodiment, a “processor is configured to display auxiliary data only when the time-shifted data is being played, and not when the time-shifted data is in rewind or fast forward;” rather, auxiliary data “is only displayed when the time-shifted data is being played, in a forward direction, and at a normal (or original) speed.” *Id.* at 10:15–27.

More directly related to the claims, the Abstract (code 57) describes one embodiment of the ’122 patent in which:

a receiver, which may be configured to function as both a receiver and a DVR, is configured to receive a video program having both primary and secondary portions. The receiving device is further configured to play both portions of the video program if the program is being watched (a) during a first period of time or (b) during a second period of time and a user desires to watch both portions, and to play only the primary portions if the program is being watched during the second period of time and the user desires to watch only the primary portions. By doing this, the user can avoid the secondary portions when those portions have a provider and/or advertisers.

D. Illustrative Claim

Petitioner challenges claims 1–20 of the ’122 patent. Pet. 8. Of the challenged claims, claims 1, 11, and 18 are independent.

Claim 1, reproduced below, is illustrative of the challenged claims, and recites the following (bracketing and identifiers added):

1[Pre] A digital video recorder (DVR) for time shifting at least one video program, said video program being transmitted over a data distribution system, comprising:

1[a][i] a tuner for receiving a plurality of video programs, wherein (i) said plurality of video programs are transmitted at the same time on a single channel within said data distribution system,

1[a][ii] (ii) said tuner can be tuned to said single channel to receive said plurality of video programs, and

1[a][iii] (iii) at least one of said plurality of video programs includes at least first, second and third portions, wherein said second portion as transmitted is configured to follow said first portion, and said third portion as transmitted is configured to follow said second portion;

1[b] a memory device for storing said plurality of video programs, allowing said one of said plurality of video programs to be played back at a later time;

1[c] a controller configured to receive commands from a user of said DVR, wherein a first command changes said DVR from a first playback state to a second playback state, a second command initiates playback of said one of said plurality of video programs from said memory device, and a third command instructs said DVR to receive and store said plurality of video programs; and

1[d][i] at least one processor configured to (i) provide said one of said plurality of video programs in its entirety to a display device in response to receiving said second command during a first period of time,

1[d][ii] (ii) provide said one of said plurality of video programs in its entirety to said display device in response to receiving said second command during a second period of time if said DVR is in said first playback state, and

1[d][iii] (iii) 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, wherein said third portion is provided to said display device immediately following said first portion if said second command is received during said second period of time and said DVR is in said second playback state;

[1e] wherein said second period of time is a period of time after said first period of time.

Ex. 1001, 11:60–12:39; Pet. 1–2.

E. Declaration

Petitioner filed a Declaration of Kevin Jeffay, Ph.D. (Ex. 1002).

F. Prior Art

Petitioner submits the following asserted references as evidence:

Prior Art	Exhibit No.
Casagrande, US 8,510,771 B2 (issued Aug. 13, 2013)	1006
Dow, US 7,251,413 B2 (issued July 31, 2007)	1007
Russ, US 2006/0225105 A1 (published Oct. 5, 2006)	1008
Miller, US 2009/0165057 A1 (published June 25, 2009)	1009

a. Summary of Casagrande (Ex. 1006)

Casagrande is titled “Methods and Apparatus for Filtering Content from a Presentation Stream Using Signature Data,” and relates to identifying locations within a presentation stream of segment boundaries, “such as segments of a show and interstitials (e.g., commercials) of the show,” in order to filter segments during presentation. Ex. 1006, codes (54), (57).

More specifically, Casagrande involves using identified portions of content in a presentation for: (1) “skipping segments of content during presentation,” (2) the “insertion of supplemental or substitute content within various locations of the presentation stream,” (3) the “selective presentation of specific segments of the presentation stream,” and (4) the “presentation of segments of content in non-sequential order and the like.” *Id.* 2:41–47. Casagrande teaches insertion or replacement of video content. *Id.* 2:41–47. Casagrande describes “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, [and] a satellite television receiver” (*Id.* 4:41–45).

b. Summary of Dow (Ex. 1007)

Dow is titled “System and Method for Improved Blackfield Detection.” Ex. 1007, code (54). Dow relates to “providing enhanced navigation of stored digital video content based upon an event index,” for example, with “a digital video recorder that detects and stores black field and silent frame events for use in locating commercial groups.” *Id.* at code (57).

More specifically, Dow describes that a DVR may generate an index file for a video file that “frees the system from sequential access to the content file by allowing the system to directly access any time point in the content file,” which provides for “instant replay and skip forward features.” *Id.* at 3:17–30. In an embodiment for navigating video presentation content based on an event index, a system may “identif[y] content transitions based upon event patterns in the event index and provide[] one or more navigation options based upon those content transitions.” *Id.* at 22:30–37. There may

be “one or more variables governing activation of the navigation function when the DVR is in a particular state, such as playback mode, playback menu mode, live view mode, program guide menu mode, etc.” *Id.* at 24:23–27. “For example, a commercial skip function may be active or inactive during playback,” and a control interface may define “control signals for toggling the commercial skip function between active and inactive modes, such as a button on (and corresponding control signal from) a remote control.” *Id.* at 24:27–32.

c. Summary of Russ (Ex. 1008)

Russ is titled “Networked Multi-Room System Ad Insertion,” and relates to inserting “[r]eplacement material, such as new commercials,” in a presentation based on ad-insertion tags corresponding to commercial breaks in the presentation. Ex. 1008, codes (54), (57). Russ describes that a user’s control of a viewing experience may be enhanced through trick mode functionality “(e.g., pause, fast forward, rewind, skip ahead, or skip back functionality).” *Id.* ¶ 32. In one embodiment, however, “trick play functionality, such as fast forward, would not work for certain commercials as specified, for example, by the local cable operator or the presentation programmer.” *Id.* ¶ 33. Further, an alternative commercial may be inserted into the presentation upon use of a fast forward function to replace an original commercial, and “added or replaced material, such as new commercials, would also be unskippable.” *Id.* ¶¶ 32–33.

d. Summary of Miller (Ex. 1009)

Miller is titled “Concurrent Program Content Processing Apparatus, Systems, and Methods.” Ex. 1009, code (54). Miller relates to “systems and

methods for concurrently presenting and recording program content received via a single carrier signal.” *Id.* ¶ 1. In particular, a system may include a receiving device with a tuner that can receive a multiplexed signal including multiple program content portions, and may also include a program content transporter for concurrently presenting a first program on a display device and recording a second program. *Id.* ¶ 2. Miller teaches a “receiving device 118 [that] may include at least two tuners” (*Id.* ¶ 31), and “a receiving device 118 having a single tuner.” *Id.* ¶ 32. Miller also teaches the storage and selected viewing of video content using a DVR system. *Id.* ¶¶ 15–16, 35–37.

G. The Asserted Grounds of Unpatentability

Petitioner challenges claims 1–20 of the ’122 patent based upon the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)
1–20	103(a) ¹	Casagrande, Russ, Miller
1, 3–5, 7–11, 13–16, 18, 19	102(b) ²	Dow
1–20	103(a)	Dow, Russ, Miller

Pet. 8. Patent Owner disputes Petitioner’s asserted grounds of unpatentability. *See generally* Prelim. Resp.

¹ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102, 103, and was effective on March 16, 2013. The ’122 patent claims the benefit of filing dates prior to the effective date of the applicable AIA amendments. *See* Ex. 1001, (code 63). Therefore, we refer to the pre-AIA versions of 35 U.S.C. §§ 102, 103.

² Dow issued as US Pat. 7,251,413 B2 on July 31, 2007 (code 45), more than one year prior to the effective filing date of the ’122 patent (Oct. 24, 2011) (code 63).

II. LEVEL OF ORDINARY SKILL IN THE ART

We consider the asserted grounds of unpatentability in view of the understanding of a person of ordinary skill in the art (POSITA). In assessing the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (quoting *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986)). “[O]ne or more factors may predominate.” *Id.*

Relying on the declaration testimony of Dr. Jeffay, Petitioner contends that an ordinarily skilled artisan for the ’122 patent “would have been someone with at least a bachelor of science in electrical engineering, computer engineering, computer science or a similar technology degree, as well as two years of relevant industry experience, including Internet networking architectures, digital programming delivery, and STBs.” Pet. 9 (citing Ex. 1002 ¶ 41). At this stage, Patent Owner “does not dispute the level of skill of a person of ordinary skill in the art . . . [as] identified in the Petition.” Prelim. Resp. 6.

For purposes of this Decision, we adopt Petitioner’s definition of the level of ordinary skill in the art. On the present record, we are satisfied that this definition comports with the level of skill necessary to understand and implement the teachings of the ’122 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (explaining that the prior art itself can reflect appropriate level of ordinary skill in art).

III. CLAIM CONSTRUCTION

In interpreting the claims of the '122 patent, we “us[e] the same claim construction standard that would be used to construe the claim[s] in a civil action under 35 U.S.C. [§] 282(b).” *See* 37 C.F.R. § 42.100(b) (2023). Accordingly, our claim construction standard is the same as that of a district court. *See id.* Under the standard applied by district courts, claim terms are generally given their plain and ordinary meaning, as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). “There are only two exceptions to this general rule: (1) when a patentee sets out a definition and acts as his own lexicographer, or (2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

Petitioner asserts that the district court in the related litigation has not construed any claims of the '122 patent, but that in the Petition it “has applied what it understands to be DBS’s [Digital Broadcasting Solutions, LLC’s] interpretation of the terms as evidenced by the Complaint (Ex[1004]) and Initial Infringement Contentions (Ex[1005]).” Pet. 9–10. Moreover, Petitioner asserts “that the prior art discloses or renders obvious every claim element under any reasonable construction, in accordance with 37 C.F.R. § 42.100(b).” *Id.* at 10.

Patent Owner contends that the Board need not construe any terms as “the Petition fails to demonstrate a reasonable likelihood that any Challenged Claim of the '122 Patent is unpatentable” because “[t]he Petition

provides no proposed constructions for any terms, and instead relies on Patent Owner's alleged interpretation of the claims." Prelim. Resp. 6–7. That is, according to Patent Owner, the Petition fails under 37 C.F.R. § 42.104(b)(3), which "requires that the petition identify '[h]ow the challenged claim is to be construed.'" *Id.* at 8. Further, alleging an inconsistency in Petitioner's approach to claim construction, Patent Owner notes that Petitioner's invalidity contentions in the district court assert that certain claims terms are indefinite under 35 U.S.C. § 112, "[b]ut Petitioner did not provide any proposed constructions for those allegedly indefinite terms" in the Petition. *Id.* at 7–9. Patent Owner argues that because Petitioner is merely arguing that it is applying its understanding of DBS's interpretation of the terms, it does not meet 37 C.F.R. § 42.104(b)(3), because the Petition "does not identify how the challenged claims are to be construed, especially given Petitioner's contention that the claims are indefinite." *Id.* at 8.

Section 42.104(b)(3) requires that the Petition identify "[h]ow the challenged claim is to be construed." 37 C.F.R. § 42.104(b)(3). Although Patent Owner argues that Petitioner has not done so, we disagree. The Petition states that it has applied Patent Owner's interpretation of the claim terms as evidenced in the Complaint and Initial Infringement Contentions in the related litigation, as Petitioner understands the terms have been used. Pet. 9–10. Even if Patent Owner argues that Petitioner has asserted that certain claims are indefinite in the related litigation, Petitioner is nonetheless adopting Patent Owner's interpretations as the basis for requesting review of the challenged claims here. *See Western Digital Corp. v. Spex Techs, Inc.*, IPR2018-00084, Paper 14 at 10–12 (April 25, 2018); *see id.* at 11 ("37 C.F.R. § 104(b)(3) does not require [a p]etitioner to express its subjective

agreement regarding correctness of its proffered claim constructions or to take ownership of those constructions.).” Accordingly, we determine that Petitioner’s identification of its claim construction for the purposes of the Petition is sufficient under Section 42.104(b)(3).

For purposes of this Decision, we determine that no aspects of the challenged claims require explicit construction. *See, e.g., Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

IV. PRINCIPLES OF LAW

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). This burden of persuasion never shifts to Patent Owner except in certain limited circumstances not present here. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burden of proof in *inter partes* review).

1. Grounds 1 and 3 (Obviousness under pre-AIA § 103(a))

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective evidence of nonobviousness.³ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). “[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *KSR*, 550 U.S. at 416 (citing *United States v. Adams*, 383 U.S. 39, 50–51 (1966)). An obviousness inquiry is not limited to the prior art’s preferred embodiment. *See, e.g., Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1370 (Fed. Cir. 2007). We also recognize that prior art references must be “considered together with the knowledge of one of ordinary skill in the pertinent art.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (citing *In re Samour*, 571 F.2d 559, 562 (CCPA 1978)).

2. *Ground 2 (Anticipation under pre-AIA § 102(b))*

A “prior art reference—in order to anticipate under 35 U.S.C. § 102—must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements ‘arranged as in the claim.’” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008) (quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed.

³ Patent Owner does not present arguments or evidence of secondary considerations (i.e., objective indicia of non-obviousness) in its Preliminary Response. Therefore, secondary considerations do not constitute part of our analysis herein.

Cir. 1983)). “A single prior art reference may anticipate without disclosing a feature of the claimed invention if such feature is necessarily present, or inherent, in that reference.” *Allergan, Inc. v. Apotex Inc.*, 754 F.3d 952, 958 (Fed. Cir. 2014).

V. GROUND 1 – ALLEGED OBVIOUSNESS OVER CASAGRANDE, RUSS, AND MILLER

Petitioner contends that claims 1–20 of the ’122 patent are unpatentable under 35 U.S.C. § 103(a) as obvious over Casagrande in view of Russ and Miller. Pet. 14–44. Patent Owner opposes, arguing that several of the claim limitations are not taught, and that the rationale to combine the references is insufficient or flawed. Prelim. Resp. 9–23.

A. *Claim 1*

1. *Preamble 1[Pre]*

The preamble of claim 1 recites: “A digital video recorder (DVR) for time shifting at least one video program, said video program being transmitted over a data distribution system, comprising[.]” Pet. 1.

Petitioner contends that Casagrande teaches the preamble of claim 1, because Casagrande discloses a DVR to “allow viewers to record video in a digital format to a disk drive.” Pet. 15 (quoting Ex. 1006, 1:17–22). Petitioner notes that Casagrande describes that DVRs are often incorporated to set-top boxes (STB) for “satellite and cable television services” and that “[a] television program stored on a set-top box allows a viewer to perform time shifting functions, and may additionally allow a viewer to skip over commercial breaks.” Pet. 15 (quoting Ex. 1006, 1:21–26).

At this preliminary stage, we find persuasive Dr. Jeffay’s testimony that “DVRs with time-shifting capabilities were well-known in the art as of

the priority date of the '122 Patent” and such DVRs “included functions [(commands)] such as pausing, fast forwarding, rewinding, skipping ahead, skipping back, and buffering.” Ex. 1002 ¶ 94. Regarding the claim 1 preamble limitation “said video program being transmitted over a data distribution system,” we find persuasive Dr. Jeffay’s testimony that Casagrande explains “the A/V stream may be supplied by any source, such as an over-the-air broadcast, a satellite or cable television distribution system.” Ex. 1002, ¶ 95 (citing Ex. 1006, 4:36-40).

Patent Owner does not specifically address the preamble in the Preliminary Response, but states “*Casagrande* is generally directed to a set top box with digital video recorder (DVR) functionality.” Prelim. Resp. 9.

Based upon our review, we preliminarily find Petitioner has shown that at least Casagrande teaches the preamble of claim 1.

2. *Limitation 1[a][i]*

Limitation 1[a][i] of claim 1 recites: “a tuner for receiving a plurality of video programs, wherein (i) said plurality of video programs are transmitted at the same time on a single channel within said data distribution system.” Pet. 1.

Petitioner argues that a POSA (person having ordinary skill in the art) would have understood that Casagrande’s set-top box (STB) would use a “tuner to receive the data from a satellite transponder via the antenna.” Pet. 16 (citing Ex. 1002, ¶ 99). Petitioner argues that “a POSA would have been motivated and found it obvious to implement Casagrande’s STB with a tuner to isolate and extract the desired programming from the received signal.” Pet. 16–17 (citing Ex. 1002 ¶ 101).

Petitioner notes that “Russ explains that ‘primary device 140’ is a STB that ‘includes a processor, *a tuner system*,’ ‘which may be a simplified processor and only one tuner, may be included to extract channels from the received downstream broadband signals.’” Pet. 17 (citing Ex. 1008 ¶¶ 20, 33). At this preliminary stage, we find persuasive Dr. Jeffay’s testimony that a POSA would have understood that Casagrande’s DVR includes “one or more tuners for receiving a plurality of video segments or would have found this an obvious implementation choice.” Ex. 1002 ¶ 101.

Turning to Miller, Petitioner notes that Miller discloses “a system that concurrently processes multiple distinct programs communicated via a single carrier signal.” Pet. 17 (citing Ex. 1009 ¶ 2). Miller “‘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 of a plurality of programs, and a program content transporter that is communicatively coupled to the *tuner*.’” *Id.* (citing Ex. 1009 ¶ 2) (emphasis added).

But Patent Owner argues that “the Petition fails to identify in either reference [(Casagrande or Russ)] any disclosure of a ‘tuner’ that receives a ‘plurality of video programs’ that are ‘transmitted at the same time’—mere generic reference to ‘multiple tuners’ or extracting and decoding signals are not sufficient.” Prelim. Resp. 12. Petitioner, however, relies upon the teachings of Casagrande, Russ, and Miller in combination for the teaching of the claim limitation. Although Patent Owner argues that Miller only discloses recording one video program (*id.* at 12), Miller’s description of “a tuner operable to receive a multiplexed signal via a satellite network,” at paragraph 2, at least, provides a sufficient teaching of the claim limitation

“receiving a plurality of video programs [] transmitted at the same time on a single channel.”

We preliminarily find Petitioner has shown that at least Miller teaches limitation 1[a][i].

3. *Limitation 1[a][ii]*

Limitation 1[a][ii] of claim 1 recites: “(ii) said tuner can be tuned to said single channel to receive said plurality of video programs.”

Petitioner argues that “Miller renders obvious element 1[a][ii] by teaching ‘a system that concurrently processes multiple distinct programs communicated via a single carrier signal’ including ‘a tuner operable to receive a multiplexed signal via a satellite network . . . and a program content transporter that is communicatively coupled to the tuner.’” Pet. 20 (citing Ex. 1009 ¶ 2).

Petitioner further contends that “[a] POSA would have been motivated to have Casagrande’s tuner be capable of tuning to a single channel to receive a plurality of video programs because, as Miller teaches, this provides the benefits of saving resources, improving operation efficiencies of satellite-based networks, and to provide a STB capable of decoding existing multiplexed satellite signals.” Pet. 20 (citing 1009 ¶ 2; Ex. 1002 ¶ 110).

Patent Owner does not separately and substantively argue limitation 1[a][ii] of claim 1, aside from the similar arguments previously advanced for limitation 1[a][i], discussed above.

Based upon our review of Miller’s description of “a tuner operable to receive a multiplexed signal via a satellite network” at paragraph 2, we

preliminarily find that Petitioner has shown that at least the combination of Casagrande and Miller teaches limitation 1[a][ii].

4. *Limitation 1[a][iii]*

Limitation 1[a][iii] of claim 1 recites: “(iii) at least one of said plurality of video programs includes at least first, second and third portions, wherein said second portion as transmitted is configured to follow said first portion, and said third portion as transmitted is configured to follow said second portion.”

Regarding the respective first, second, and third portions of the video program, Petitioner initially argues that Figures 2 and 8 of Casagrande show contiguous segments corresponding to the claimed “first, second, and third portions.” Pet. 22 (citing Ex. 1006 ¶ 114).

Regarding the respective first and second portions of the video program, Petitioner further argues that “Casagrande explains ‘[t]he receiving device 710A is operable to receive a first A/V stream 704’ that ‘includ[es] at least one segment of a show, [and] at least one interstitial of the show.’” Pet. 24 (citing Ex. 1006, 15:21–24, 21:28–32).

Patent Owner does not separately and substantively argue limitation 1[a][iii] of claim 1, aside from the similar arguments previously advanced for limitation 1[a][i], as discussed above.

Based upon our review of the record, we preliminarily find Petitioner has shown that at least Casagrande teaches limitation 1[a][iii].

5. *Limitation 1[b]*

Limitation 1[b] of claim 1 recites: “a memory device for storing said plurality of video programs, allowing said one of said plurality of video programs to be played back at a later time.”

Petitioner argues that Casagrande’s Figure 15 includes a storage unit (i.e., a memory device), the first A/V stream 1504, and the supplemental content 1506. Pet. 22 (citing Ex. 1006, 18:18–25, Fig. 15). Petitioner notes that “Casagrande explains that ‘the receiving device 1510, by way of the control logic 1520,’ stores ‘the A/V stream 1504 in the storage unit 1516.’” *Id.* (citing Ex. 1006, 18:64–67).

Patent Owner contends that Miller discloses recording only one program, not a plurality (i.e., more than one) of video programs. Prelim. Resp. 13 (citing Ex. 1009 at Fig. 5 (the “first program” is presented while the “second program” is recorded)).

Petitioner relies, however, upon the combination of Casagrande, Russ, and Miller in its obviousness ground and relies specifically on Casagrande for the teaching of this claim limitation. At this juncture, we credit Dr. Jeffay’s testimony that a person of ordinary skill in the art “would have understood that a storage unit in the context of the Casagrande patent includes a memory device for storing a plurality of video programs” (Ex. 1002 ¶ 118), because Casagrande is directed to the use of DVRs and storage for content therein, which would include storage for more than one video program (*see* Ex. 1006, code (57)).”

Based upon our review of Casagrande’s storage unit 1516, as depicted in Figure 15, we preliminarily find Petitioner has shown that at least the combination of Casagrande and Miller teaches limitation 1[b].

6. *Limitation 1[c]*

Limitation 1[c] of claim 1 recites: “a controller configured to receive commands from a user of said DVR, wherein **a first command** changes said DVR from a first playback state to a second playback state, **a second command** initiates playback of said one of said plurality of video programs from said memory device, and **a third command** instructs said DVR to receive and store said plurality of video programs.” (emphasis added).

Regarding the claimed “**first command**,” Petitioner argues that “Casagrande teaches that ‘a user may select by way of the user input 1523 whether the first A/V stream 1504 or the second A/V stream 1512 is outputted to the display device 1514,” corresponding to the claimed first and second playback states. Pet. 24 (quoting Ex. 1006, 19:63–66) (emphasis added). Given this description (*id.*), Petitioner argues that “Casagrande teaches a user selecting between a first playback state (i.e., playback of the entire first A/V stream) and a second playback state (i.e., playback of the second A/V stream, excluding commercials).” Pet. 25.

Regarding the claimed “**second command**,” Petitioner notes that “Casagrande explains that ‘a user may be presented with a menu of available segments of the television program, and may select one or more of the available segments for presentation.’” Pet. 25 (quoting Ex. 1006, 4:1–4) (emphasis added). Petitioner further notes that Casagrande explains: “[b]ased upon user selection of particular segments from the selection menu, the receiving device responsively outputs the selected segments.” Pet. 25 (quoting Ex. 1006, 4:4–8).

Regarding the claimed “**third command**,” Petitioner notes that “Casagrande’s discloses ‘user input 1523 directing the operation of the receiving device 1510 ‘(quoting Ex. 1006, 18:54–60) the operations

including ‘receiving device 1510, by way of the control logic 1520, [] configured to receive the first A/V stream 1504 . . . and store the A/V stream 1504 in the storage unit 1516.’” Pet. 25 (quoting Ex. 1006, 18:64–67) (emphasis added).

Patent Owner contends that the “claimed ‘*first command*,’ which places the DVR in a ‘first playback state’ or a ‘second playback state,’ is associated with time-based limitations on navigation through a program, as discussed in further detail below for limitation 1[d].” Prelim. Resp. 14. (emphasis added). Patent Owner argues that “it is the ‘*second command*’ that initiates playback of a particular program or stream.” Prelim. Resp. 14 (citing Ex. 1001, 12:10–16) (emphasis added). Patent Owner further contends that the claimed ‘*third command* instructs said DVR to receive and store said plurality of video programs,’ not only a single program.” Prelim. Resp. 15. Patent Owner also argues that “even if Petitioner had argued that it would have been obvious to modify *Casagrande* in view of *Miller*, *Miller* actually ‘teaches away’” from storing more than one program. *Id.*

We are not persuaded by Patent Owner’s argument that *Casagrande* does not teach the “first command” because it initiates playback rather than changing playback state. *See* Prelim. Resp. 15. *Casagrande* teaches, as Petitioner asserts, that “a user may select by way of the user input 1523 whether the first A/V stream 1504 or the second A/V stream 1512 is outputted to the display device 1514,” which we preliminarily agree is sufficient to teach the claimed change of playback states. Pet. 24; Ex. 1006, 19:63–66. As for the argument about the association of time with the first command and respective states, we do not discern that a time-based limitation is included within limitation 1[c], and we address the different

states during certain time-based periods below in the discussion of limitation 1[d].

For the argument on the third command, as discussed above for limitation 1[b], we have found that the record is sufficient at this juncture that Casagrande teaches or suggests the use of a memory device for storing a plurality of video programs. The record reflects that Petitioner relies only on Casagrande for the teaching of storage of a plurality of video programs under limitation 1[b] (Pet. 22–23), so at this juncture, we do not find persuasive Patent Owner’s allegations related to a “teaching away” by Miller as to this limitation.

Accordingly, we preliminarily find Petitioner has shown that at least the combination of Casagrande and Miller teaches limitation 1[c].

7. *Limitation 1[d][i]*

Limitation 1[d][i] of claim 1 recites: “at least one processor configured to (i) provide said one of said plurality of video programs in its entirety to a display device in response to receiving said second command during a first period of time.”

Petitioner argues that “Casagrande teaches the use of ‘control logic 1520 [that] ***includes a processor,***’ for ‘execution of software configured to perform the various control functions described herein.’” Pet. 25–26 (citing Ex. 1006, 18:45–49). In support, Petitioner contends:

The control logic ‘control[s] the operation of’ the ‘communication interface 1502, the storage unit 1516, and the A/V interface 1518.’ Ex[1006], 18:42-45; Ex[1002] ¶129. Casagrande further explains that ‘A/V interface 1518 . . . is configured to output A/V streams from the receiving device 1510 to a display device 1514 for presentation to a user.’ Ex[1006], 18:26-29; Ex[1002] ¶129. Thus, a POSA would have understood

that ‘control logic’ is ‘configured’ to control ‘A/V interface 1518’ to “\’output A/V streams from the receiving device 1510 to the display device.’ Ex[1002] ¶129.

Pet. 26.

Petitioner asserts that a person of ordinary skill in the art “would have understood that Casagrande presents the entirety of the A/V presentation (e.g., the first A/V stream) even when the user requests the shortened version without commercials (the second A/V stream).” Pet. 26 (citing Ex. 1002 ¶ 130). Petitioner also points to Casagrande’s disclosure that “commercials within a television program may be associated with restrictions against fast forwarding or skipping, and a recording device may automatically present the commercial segments regardless of the receipt of user input requesting non-presentation of the segments.” *Id.* (citing Ex. 1006, 4:23–27).

Dr. Jeffay testifies that a person of ordinary skill in the art “would have understood that processing a user request for either the first A/V stream and second A/V stream will still lead to the depiction of the first A/V stream (i.e., the stream in its entirety) on the display device during a first period of time where the content provider has placed restrictions on removing interstitial content.” Ex. 1002 ¶ 131. Thus, according to Petitioner, “Casagrande teaches playback of the entire first A/V stream during a first period of time (i.e., while restrictions are active), ‘regardless of’ whether the first or second playback state had been requested by the user.” Pet. 26.

Petitioner further contends that “[p]rocessing a user request for changing between the first playback state (i.e., first A/V stream) and the second playback state (i.e., second A/V stream) will still lead to the depiction of the first A/V stream on the STB during a first time period where the content provider has placed restrictions on removing interstitial content.”

Id. at 27. Petitioner also asserts that Casagrande “when combined with Russ,” teaches that the “restriction on skipping may be lifted after a time period.” *Id.*

Patent Owner contends that the “combination of *Casagrande*, *Russ*, and *Miller* as pled in the Petition, does not disclose the first scenario (i.e., limitation 1[d][i]). *See* Pet. at 25–27.” Prelim. Resp. 18. Patent Owner contends that the “Petition cites to only *Casagrande* for alleged disclosure of the first scenario (i.e., limitation 1[d][i]).” Prelim. Resp. 18 (citing Pet. 25–27). Patent Owner argues that “there is no determination as to the state of the DVR during this first period of time” and the “Petition does not argue that it would have been obvious to modify *Casagrande* to satisfy this claim limitation, alone or in combination with *Russ* or *Miller*, so the combination of *Casagrande* and *Russ* does not disclose the first scenario (i.e., limitation 1[d][i]).” *Id.* at 18–19.

Regarding Patent Owner’s argument that “there is no determination as to the state of the DVR during this first period of time” (*Id.* at 18), we note that Patent Owner arguments are not commensurate with the scope of the claim. Claim 1 is silent regarding any mention of *determining* the state of the DVR, as argued by Patent Owner. *Id.* Moreover, the record discloses that Casagrande teaches restricting the skipping of commercials. Ex. 1006, 4:20–27. Petitioner also provides expert testimony that a person of ordinary skill in the art would have understood that a content provider could place restrictions on removing interstitial content so that there would be depiction of the first A/V stream (i.e., the stream in its entirety) on the display device during a first period of time *See* Ex. 1002 ¶ 131. Additionally, Petitioner refers to Russ’s disclosure that Casagrande’s “restriction on skipping may be lifted *after a time period*.” Pet. 27 (emphasis added). More specifically, in

the discussion for limitation 1[d][ii], Petitioner argues that “Russ discloses its ‘trick play functionality’ for skipping commercials ‘could be restricted,’ particularly suggesting to ‘preclude trick play for only a specified length of time, such as two weeks.’” *Id.* at 27 (citing Ex. 1008 ¶ 35; Ex. 1002 ¶ 135). Petitioner further asserts “Russ further explains that ‘a tag corresponding with a commercial could expire after a period of time.’” *Id.* (citing Ex. 1008 ¶ 35; Ex. 1002 ¶ 136). Accordingly, our preliminary view is that the record provides support that Casagrande, in combination with Russ, teaches that there is an initial first period of time where a video program is played in its entirety, that is, there are restrictions on skipping commercials.

Accordingly, we preliminarily find Petitioner has shown that a combination of Casagrande, Russ, and Miller teaches limitation 1[d][i].

8. *Limitation 1[d][ii]*

Limitation 1[d][ii] of claim 1 recites: “(ii) provide said one of said plurality of video programs in its entirety to said display device in response to receiving said second command during a second period of time if said DVR is in said first playback state.”

Petitioner argues that “[s]imilar to Casagrande, Russ discloses its ‘trick play functionality’ for skipping commercials ‘could be restricted,’ particularly suggesting to ‘*preclude trick play for only a specified length of time, such as two weeks.*’” Pet. 27 (citing Ex. 1008 ¶ 35). Petitioner argues that “Russ discloses the desirability of having a first period of time wherein the user must watch the entire A/V stream, including commercials, regardless of whether the user requested playback of a commercial-free stream.” *Id.* (citing Ex. 1002 ¶ 136).

Petitioner asserts that a person of ordinary skill in the art “would have been motivated to combine the time-based restrictions of Russ with the ability to restrict the skipping of interstitials as illustrated by Casagrande’s Figure 8.” *Id.* at 27–28. Petitioner further notes that “Russ further explains that “tag corresponding with a commercial could expire after a period of time.” *Id.* Petitioner argues that “Russ discloses the desirability of having a second period of time (i.e., once the restriction expires) in which *the user may elect to skip the commercials or not.*” *Id.* at 27 (emphasis added).

Dr. Jeffay provides supporting testimony that “Russ discloses the desirability of having a first period of time wherein the user must watch the entire A/V stream, including commercials, such as when the operator or programmer has placed a two-week restriction on skipping commercials” and “the desirability of having a second period of time (i.e., once the restriction expires) in which the user may elect to skip the commercials or not.” Ex. 1002 ¶ 136.

Patent Owner responds that the “combination of *Casagrande*, *Russ*, and *Miller* as pled in the Petition, does not disclose the second scenario (i.e., limitation 1[d][ii]). *See* Pet. at 27-30.” Prelim. Resp. 19. In support, Patent Owner contends:

Casagrande does not disclose the second scenario for the similar reason that the limitation by the ‘content provider’ remains the same—there is no determination based on “receiving said second command during a second period of time” as is required by the claim. *See* Ex. 1006 at 19:66-20:2; *see also id.* at 5:66-6:3. In other words, it is the “content provider” that determines whether a commercial can be skipped—not the time period as claimed.

Prelim. Resp. 19.

Patent Owner also argues that Russ does not disclose the second scenario because the “commercial-related functionality in Russ is driven by

‘tags,’” which “can also specify an expiration date.” Prelim. Resp. 19. Patent Owner notes that a tag can “specify whether the user can fast forward through a commercial (so-called ‘trick play’ functionality),” and an expiration date for the tag can be specified. *Id.* Patent Owner states that after a tag expiration time, the commercial would no longer be viewable or could be replaced with another commercial. *Id.* at 19–20. Patent Owner argues that Russ does not disclose the time limitation because “it is the ‘tag’ that determines whether the commercial can be skipped—not the time at which the video program is played back.” *Id.* at 20. Further, Patent Owner asserts, after the tag expires, “the commercial would either be non-viewable or replaced by a new commercial,” that is, it would not be the transmitted commercial that is displayed. *Id.* at 20.

At this juncture, we are not persuaded by Patent Owner’s arguments. Petitioner has read this limitation on Russ, not Casagrande. Pet. 27 (citing Ex. 1008 ¶ 35). And again, we find claim 1 is silent regarding any mention of *determining* based on “receiving said second command during a second period of time,” as argued by Patent Owner. Prelim. Resp. 19. Petitioner also relies upon Russ’s disclosures for a two-week restriction on skipping commercials (Ex. 1008 ¶ 35), and Dr. Jeffay provides testimony that once that time period expires, that is, in “a second period of time,” a user may elect to skip the commercials or not. Pet. 27 (citing Ex. 1002 ¶ 136).

Additionally, Russ discloses “multipurpose tags can signify . . . whether or not to preclude trick play,” and “[t]he commercial slot could also preclude trick play for only a specified length of time, such as two weeks.” Ex. 1008 ¶ 35. Russ explains that “a tag corresponding with a commercial could expire after a period of time after which the tag would become inactive or replaceable.” *Id.* Russ does not describe that an “inactive” tag

means that a commercial would “no longer be viewable,” as asserted by Patent Owner. Instead, Russ states a tag can “preclude trick play,” which permits commercial skipping, but the tag can become inactive after a period of time so that after that period of time, commercial skipping could be utilized, but if “trick play” is not selected, the commercial could still be viewed. Additionally, we are not persuaded at this juncture, as Patent Owner asserts, that the commercial viewed would not be the transmitted commercial, because Russ states that different commercials could be displayed, but, nevertheless, the same commercial that was transmitted could be displayed instead. *See* Ex. 1008 ¶ 35.

Accordingly, we preliminarily find Petitioner has shown that at least the combination of Russ and Casagrande teaches limitation 1[d][ii].

9. *Limitation 1[d][iii]*

Limitation 1[d][iii] of claim 1 recites: “(iii) 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, wherein said third portion is provided to said display device immediately following said first portion *if said second command is received during said second period of time and said DVR is in said second playback state*” (emphasis added).

We note limitation 1[d][iii] of claim 1 recites conditional limitations, as indicated above by the emphasized “if” condition precedents.⁴

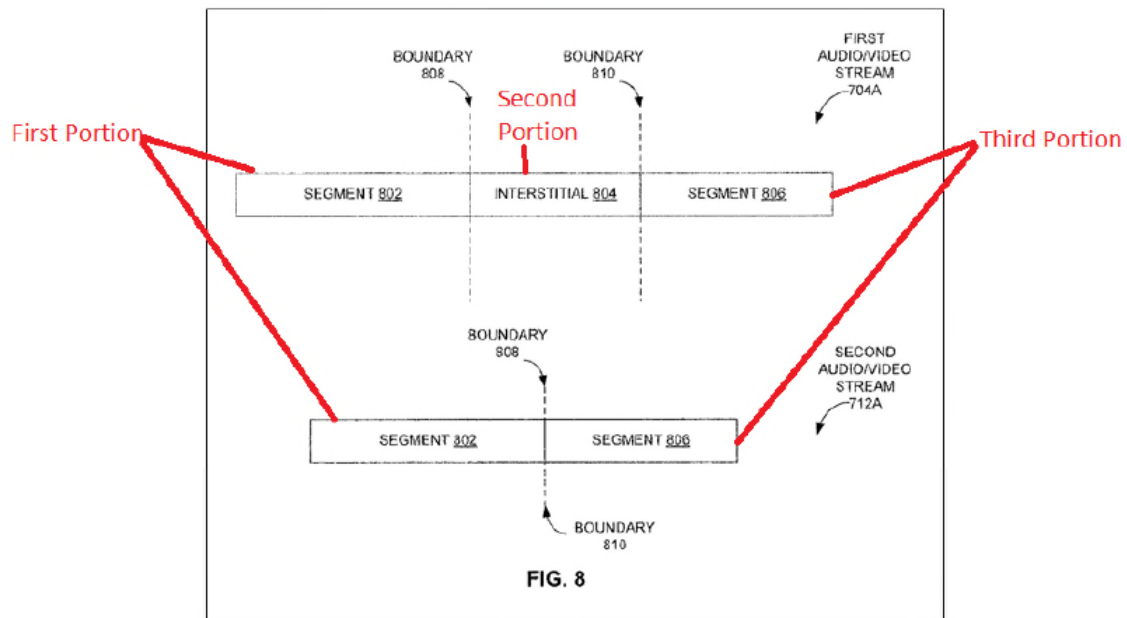
Petitioner argues that a “POSA would have understood that Casagrande’s ‘second A/V stream’ includes segments in the original temporal order, excluding one or more interstitial segments.” Pet. 31 (citing Ex. 1002 ¶ 145). Petitioner contends that Casagrande’s Figure 21 illustrates the “process for processing an audio/video stream.” Pet. 31 (citing Ex. 1006, 23:45–46; Ex. 1002 ¶ 145).

Petitioner asserts that by using Figure 21’s steps, a user “effectively view[s] a subset of the segments of an A/V stream in the original temporal order of the segments, skipping output of undesigned segments of the A/V stream.” Pet. 31 (citing Ex. 1006, 24:23–26; Ex. 1002 ¶ 145).

Petitioner contends this is shown in Casagrande’s Figure 8, as annotated by Petitioner below. Pet. 31 (citing Ex. 1006, 13:5–8; Ex. 1002 ¶ 146).

⁴ Regarding method claims 11–17 of the ’122 patent, the holding regarding conditional limitations of *Ex parte Schulhauser*, Appeal No. 2013-007847, 2016 WL 6277792, at *9 (PTAB, Apr. 28, 2016) (precedential), is applicable.

Casagrande's Figure 8 is reproduced below,



Casagrande's Figure 8, as annotated by Petitioner, depicting first, second, and third portions of video segments.

Petitioner explains that in annotated Figure 8 of Casagrande:

In Casagrande, ‘a first A/V stream 704 includes a first A/V segment 802 of a show, an interstitial 804 and a second A/V segment 806 of the show.’ Ex[1006], 13:13-15; Ex[1002] ¶146. ‘[T]he boundary 808 (e.g., the ending boundary of segment 802) is the starting point at which the interstitial 804 is to be filtered from the first A/V stream 704A’ and ‘boundary 810 (e.g., the beginning boundary of segment 806) is the ending point at which the interstitial 804 is to be filtered from the first A/V Stream 704A.’ Ex[1006], 13:23-28; Ex[1002] ¶146. Casagrande explains that ‘[a]s a result of the filtering . . . second segment 806 [*third portion*] is outputted immediately following the first segment 802 [*first portion*].’ Ex[1006], 13:29-31; Ex[1002] ¶146.

Pet. 31–32 (emphasis added).

Petitioner additionally contends that “[a]s discussed for claim element 1[d][ii], in the combination with Russ, once the commercial skipping inhibition period (i.e., the claimed “first period of time”) expires, the combination would permit the user to request playback of the “second A/V stream” where the commercial is removed as described above.” *Id.* (citing Ex. 1002 ¶¶ 148–151).

Patent Owner disagrees, and argues:

The combination of *Casagrande*, *Russ*, and *Miller*, as pled in the Petition, does not disclose the third scenario (i.e., limitation 1[d][iii]). *See* Pet. at 30-32. Claim 1 requires that the ‘**second portion**’ of ‘said one of said plurality of video programs’ (e.g., the transmitted commercial) is played back during the first period of time’ **regardless** of the playback state of said DVR. Ex. 1001 at 12:18-21. It is not until the second period of time that the ‘**second portion**’ (e.g., the transmitted commercial) can be played back or not, depending on the playback state, as selected by the user. *See id.* at 12:21-36. It is this feature—where the transmitted commercial *cannot* be played back *during the first period of time* but *can* be played back *during the second period of time*—that is not disclosed in either *Casagrande*, *Russ*, or *Miller*.

Prelim. Resp. 20 (emphasis added).

Patent Owner further argues “there is no determination based on ‘receiving said second command during a second period of time’ as is required by the claim.” Prelim. Resp. 21.

But claim 1 is silent regarding any mention of the argued *determining*. And the argued phrase “regardless of the playback state of said DVR” (*id.*) is not recited in claim 1. Prelim. Resp. 20. Additionally, as discussed for limitation 1[d][i] above, the record supports that the combination of *Casagrande* and *Russ* teaches that there is a first period of time where commercial skipping is restricted, and there is a second period of time (as

Petitioner asserts for this limitation, and we preliminarily agree), where Casagrande teaches that only a portion of the video program may be displayed.

Accordingly, we preliminarily find Petitioner has shown that the combination of Casagrande, Russ, and Miller teaches or suggests limitation 1[d][iii].

10. Limitation 1[e]

Limitation 1[e] of claim 1 recites: “wherein said second period of time is a period of time after said first period of time.”

Petitioner argues that Russ explains that “a tag corresponding with a commercial could expire after a period of time after which the tag would become inactive or replaceable.” Pet. 32 (citing Ex. 1008 ¶ 35). Petitioner reasons that “during the first time period, the combination of Casagrande and Russ results in the ability to play only the ‘first A/V stream’ as shown in Casagrande’s Figure 8, regardless of whether the user requests playback of a stream without commercials.” Pet. 32 (citing Ex. 1006, Fig. 8).

Patent Owner advances no arguments specific to temporal limitation 1[e]. Pet. 22.

Therefore, we preliminarily find Petitioner has shown that at least the combination of Casagrande and Russ teaches temporal limitation 1[e].

11. Rationale for Combining Casagrande with Russ and Miller under Ground 1

Petitioner contends there are at least four motivations to combine the Casagrande, Russ, Miller, and Dow references (under all grounds 1, 2, and 3), emphasizing the analogous features:

1. All four references concern the use of DVRs by a user to view content. Pet. 13 (citing Ex. 1007, Abstract; Ex. 1006, 1:18-34; Ex. 1008 ¶ 3; Ex. 1009 ¶ 16; Ex 1002 ¶ 93).
2. All four references disclose time-shifting functionality when viewing content. Pet. 13 (citing Ex. 1007, 9:37–39; Ex. 1006, 9:64–67; Ex. 1008 ¶ 32; Ex. 1009 ¶ 44; Ex 1002 ¶ 93).
3. Dow, Casagrande, and Russ each teach using restrictions to prevent users from performing trick-play or skipping over content such as commercials. Pet. 13 (citing Ex. 1007, 24:44–48; Ex. 1006, 9:64–67; Ex. 1008 ¶ 33; Ex. 1002 ¶ 93).
4. All [four references] teach using DVRs in satellite-based systems. Pet. 14 (citing Ex. 1006, 4:64–5:11; Ex. 1008 ¶ 16; Ex. 1002 ¶¶ 93, 105, 110; Ex. 1009, Abstract, ¶¶ 19–20)

Petitioner contends that a POSA viewing the teachings of Casagrande or Dow would have looked to “Russ for additional details regarding the implementation of such functionality on DVRs” and would have considered “Russ’s disclosure of time-limited restrictions on trick-play/commercial skipping as applicable to Dow’s and Casagrande’s systems,” and would have “understood the benefits of adding this feature to Dow and Casagrande.” Pet. 13–14 (citing Ex. 1002 ¶ 93). Specifically, Petitioner asserts, with supporting testimony from Dr. Jeffay, that a person of ordinary skill in the art “would have been motivated to implement the known time-based limits on restrictions found in Russ in the systems of Dow and Casagrande to obtain the predictable result of restricting automatically skipping of commercials for a finite period of time, thereby increasing the financial value of the commercial content to the broadcaster.” *Id.* at 14 (citing Ex.

1002 ¶ 137). Petitioner further contends: “[a] POSA would have recognized that Russ’s limits on the use of trick-play (e.g., fast-forwarding) based on time periods was applicable to the various types of trick-play described in Casagrande and Dow, such as automatically skipping commercials.” *Id.* (citing Ex. 1002 ¶ 137).

Regarding analogous feature 4 (Pet. 14), Petitioner additionally contends that a “POSA would have looked to Miller for details surrounding the processing of signals delivered to a DVR over a satellite network.” Pet. 14 (citing Ex. 1002 ¶ 105).

In response, Patent Owner generally asserts that the Petition does not “identify any specific reasoning” to combine or modify the references and the Jeffay Declaration does not cure the deficiencies of the Petition “because it does nothing more than restate Petitioner’s argument without any additional supporting evidence or reasoning.” Prelim. Resp. 12, 22. Patent Owner specifically argues that the citation to Miller is only from the reliance upon impermissible hindsight gleaned from claim 1. *Id.* at 12. Patent Owner also advances a “teaching away” argument for Miller based upon allegations that Miller discloses recording only one program, but not a plurality of video programs.” *Id.* at 12–13.

We are not persuaded by Patent Owner’s arguments on this preliminary record. Petitioner presents detailed support for the similarities among the references. Pet. 13–14. And, more specifically, as to the rationale to combine Russ with Casagrande, Petitioner’s motivation that it would offer an improvement is supported by Dr. Jeffay’s testimony of a resulting financial value to a broadcaster (Ex. 1002 ¶ 137) by the modification, which we find is sufficient at this juncture.

As to Patent Owner’s hindsight argument on Miller, while we are fully aware that hindsight bias often plagues determinations of obviousness, *Graham*, 383 U.S. at 36, we are also mindful that the Supreme Court guides that the “combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, 550 U.S. at 401 (citation omitted).

Here, at this juncture, we credit Dr. Jeffay’s testimony that Miller identifies techniques that offer advantages to Casagrande’s and Russ’s DVR system. *See* Ex. 1002 ¶¶ 103–105. Dr. Jeffay also testifies that the combination would have had predictable results, and a person of skill “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.” *Id.* ¶ 105. Additionally, as discussed above, we are not persuaded by Patent Owner’s argument that Miller teaches away, because we do not find that this argument applies—Petitioner does not rely upon Miller for teaching limitation 1[b], i.e., the storage of a plurality of video programs.

12. Conclusion for Claim 1 under Ground 1

Based upon the present record, we find Petitioner has shown sufficiently that Casagrande, Russ, and Miller collectively teach or suggest all the limitations of independent claim 1. In addition, we find Petitioner has set forth sufficient reasons for combining these references with a reasonable expectation of success.

Having considered the arguments and evidence presented by both the Petitioner and Patent Owner, we determine that Petitioner has established a reasonable likelihood that it would prevail in showing that the subject matter

of independent claim 1 would have been obvious over the combination of Casagrande, Russ, and Miller.

B. Claims 2–20 under Ground 1

With respect to ground 1, Patent Owner does not separately and substantively argue claims 2–20 of the '122 patent. Prelim. Resp. 23. We have reviewed the record and find Petitioner's evidence and argument on the obviousness of these claims are sufficient at this juncture.

VII.

VI. ADDITIONAL GROUNDS

Petitioner also contends that the challenged claims would have been obvious over other grounds, identified above. Pet. 44–69. At this stage, we find that Petitioner's showing as to obviousness over Casagrande, Russ, and Miller for claims 1–20 is sufficient, and the other grounds will be addressed at trial.

VII. DESCRETIONARY DENIAL UNDER SECTION 325(d)

Patent Owner urges us to exercise our discretion to deny institution under 35 U.S.C. § 325(d) because the references Petitioner relies upon are each substantially the same as the prior art evaluated by the Examiner during prosecution, namely, the Gratton and Dow '498 (code 56) references, and because "Petitioner has not pointed out how the Examiner erred in its evaluation of *Gratton*." Prelim. Resp. 54; *see also id.* at 48–50 (regarding Dow '498).

However, in view of our institution of this review on the first ground, we need not address the alleged cumulative nature of Dow with Dow '498 (code 56), as argued by Patent Owner. Prelim. Resp. 48–49.

In support of discretionary denial under 325(d), Patent Owner generally asserts that: (1) Casagrande, Russ, and Miller are cumulative to Gratton; (2) the asserted prior art references purportedly do not teach particular claim 1 limitations; and (3) the Examiner did not reject any claims over Gratton. Prelim. Resp. 45–55. *See also* Ex. 1003, (Examiner's "Reasons for Allowance" pp. 99–100, mailed May 16, 2016).

Petitioner contends the "PTO has not previously considered Casagrande, Dow, or Russ in connection with any of the '122 Patent's claims," and "the combinations presented in the Petition are not redundant to any combination of references considered during prosecution." Pet. 70.

Section 325(d) provides that the Director may elect not to institute a proceeding if the challenge to the patent is based on matters previously presented to the Office. *Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 7 (PTAB Feb. 13, 2020) (precedential) ("*Advanced Bionics*"). In evaluating matters under § 325(d), the Board uses the following two-part framework: (1) determining whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of the first part of the framework is satisfied, determining whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Id.* at 8.

We consider several non-exclusive factors as set forth in *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8

(Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) (“*Becton, Dickinson*”), which “provide useful insight into how to apply the framework” under § 325(d). *Advanced Bionics*, 9. These non-exclusive factors include:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;
- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and
- (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson, 17–18 (formatting added). “If, after review of factors (a), (b), and (d), it is determined that the same or substantially the same art or arguments previously were presented to the Office, then factors (c), (e), and (f) relate to whether the petitioner has demonstrated a material error by the Office.” *Advanced Bionics*, 10.

Neither party asserts that any of the references relied upon in the first ground of the Petition, namely, Casagrande, Russ, or Miller, were before the Examiner, or were presented to the Office during prosecution. *See* Pet. 14; Prelim. Resp. 9–23. Instead, Patent Owner asserts Gratton had been relied upon by the Examiner, and asserts that each of the references in the Petition

are both “similar to” and “cumulative with respect to” Gratton. *See* Prelim. Resp. 50–53.

Patent Owner notes that “during prosecution, the Examiner stated that *Gratton* is “[t]he closest prior art” to the claimed invention. Ex. 1003, p. 99.” Prelim. Resp. 47. We note in the “Reasons for Allowance” the Examiner finds limitation 1[d][iii] is not anticipated nor obvious over Gratton. Ex. 1003, p. 99–100. Patent Owner acknowledges that the Examiner found that Gratton failed to disclose transmitting the entire video program during a first time period “regardless of a playback state of said DVR,” as independent claim 1 requires. Prelim. Resp. 51.

As to *Advanced Bionics* factor (a), we find that Gratton materially differs from all the references of the first ground because Gratton is directed to “replacement of all or a portion of the audio content of an audio/video stream, such as a program or commercial message, after the audio/video stream has been recorded by the user.” Ex. 2005 ¶ 44. Notably, Gratton does not replace any video content. In contrast, each of the asserted references in the first ground are directed to the storage and selective viewing of video content, as explained above in the discussion of the prior art references.

Moreover, Patent Owner states that the Examiner found Gratton failed to disclose the claim limitation for transmitting the entire video program during a first time period “regardless of a playback state of said DVR,” as independent claim 1 requires. Prelim. Resp. 51. Although Patent Owner argues that the asserted prior art of the first ground does not teach the claim limitations, at this juncture, we disagree with Patent Owner, finding that the asserted prior art teaches displaying the entire video program during a first time period “regardless of a playback state of said DVR” for the reasons

discussed above—which Patent Owner acknowledges that Gratton does not teach in the Examiner’s findings. *See* Prelim. Resp. 50, 52–53. The Examiner did not consider the combination of Casagrande, Russ, and Miller in the ’122 patent prosecution. Accordingly, the combination of these references is not cumulative to Gratton, and thus is materially different than the Examiner’s consideration of Gratton alone.

We therefore find that because the first part of *Advanced Bionics* is not met, we need not proceed to the second part of the test. We thus conclude that the circumstances presented here do not warrant us exercising our discretion to deny institution based upon § 325(d).

VIII. CONCLUSION

After considering the arguments presented in the Petition, the Preliminary Response, and the evidence of record, we determine that Petitioner has demonstrated at least a reasonable likelihood of success in proving that at least one claim of the ’122 patent is unpatentable as obvious over the combination of Casagrande, Russ, and Miller.

Accordingly, we institute an *inter partes* review of all challenged claims (i.e., claims 1–20) on all grounds set forth in the Petition. Our determinations at this stage of the proceeding are based on the evidentiary record currently before us. This decision to institute trial is not a final decision as to the patentability of any claim for which we have instituted an *inter partes* review. *See TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (noting that “there is a significant difference between a Petitioner’s burden to establish a ‘reasonable likelihood of success’ at institution, and actually proving invalidity by a preponderance of the

evidence at trial”). We will base any final decision on the full record developed during trial.

IX. ORDER

In consideration of the foregoing, it is hereby

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted for claims 1–20 of the ’122 patent on the unpatentability grounds asserted in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which commences on the entry date of this decision.

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