

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CHARTER COMMUNICATIONS, INC.,
Petitioner,

v.

SPRINT COMMUNICATIONS COMPANY, L.P.,
Patent Owner.

IPR2019-01135
Patent 6,757,907 B1

Before WILLIAM V. SAINDON, BRIAN J. McNAMARA,
and NATHAN A. ENGELS, *Administrative Patent Judges*.

McNAMARA, *Administrative Patent Judge*.

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

I. INTRODUCTION

Charter Communications, Inc. (“Petitioner”) filed a petition, Paper 2 (“Petition” or “Pet.”), to institute an *inter partes* review of claims 1–53 (the “challenged claims”) of U.S. Patent No. 6,757,907 B1 (“the ’7907 patent”). 35 U.S.C. § 311. We have jurisdiction under 37 C.F.R. § 42.4(a) and 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted unless the information presented in the Petition “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.” Having considered the arguments and the associated evidence presented in the Petition and the Preliminary Response, for the reasons described below, we decline to institute *inter partes* review.

II. REAL PARTIES IN INTEREST

The Petition identifies the following real parties-in-interest: Charter Communications, Inc.; Charter Communications Holdings, LLC; Spectrum Management Holding Company, LLC; Charter Communications Operating, LLC; and Time Warner Cable, LLC. Pet. 75. Patent Owner identifies itself as the real party-in-interest. Paper 5.

III. RELATED MATTERS

A. *Identification of Related Proceedings*

The Petition states that the ’7907 patent is asserted in the following litigation: (1) *Sprint Commc’ns Co. L.P. v. Charter Commc’ns Inc., Charter Commc’ns Holdings, LLC, Spectrum Management Holding Co., LLC, Charter Commc’ns Operating, LLC, and Time Warner Cable, LLC*, Case No. 1:18-cv02033 (D. Del.); and (2) *Sprint Commc’ns Co. L.P. v. Cequel Commc’ns, LLC D/B/A Suddenlink Commc’ns, CSC Holding, LLC D/B/A*

Optimum-Cablevision, and Altice USA, Inc., Case No. 1:18-cv-01919-UNA (D. Del.). Pet. 75.

Petitioner identifies the following additional petitions filed against the '7907 patent: IPR2019-01137 and IPR2019-01139. *Id.*

Petitioner identifies the following petitions filed against related U.S. patent 6,754,907 (“the '4907 patent”): IPR2019-01136, IPR2019-01138, and IPR2019-01140).

IV. THE '7907 PATENT

The '7907 patent concerns a video-on-demand (“VOD”) system that replaces a conventional, immobile, fixed bandwidth set-top box that does not include a display with a second communications system and display, such as a web browser running on a portable computer. See Ex. 1001, 1:17–55. Figure 1 shown below is a block diagram of a configuration an operating environment of such a system.

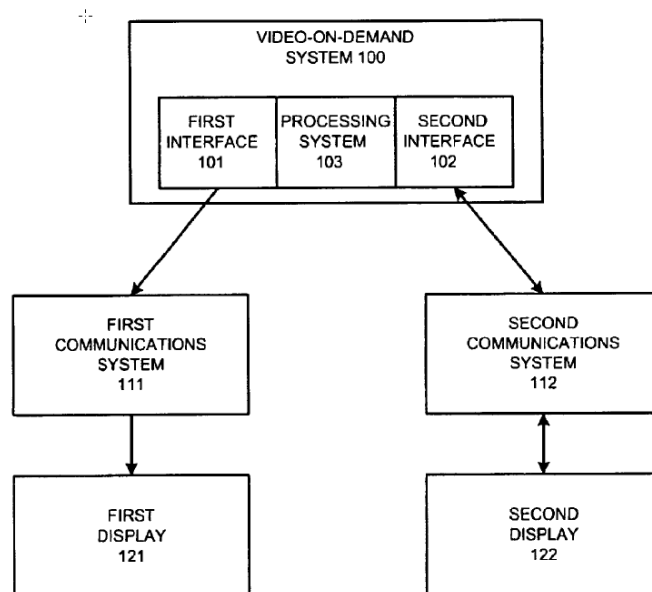


Figure 1 of the '7907 patent

As shown in Figure 1, VOD system 100 includes (i) a processing system 103, (ii) first communications interface 101 to first communications system 111, such as optical fiber or wire cable system that drives first display 121, e.g., a television, and (iii) second interface 102 such as the Internet (in particular, the World Wide Web, or the “web”), to second communications system 112 that uses less bandwidth than the first communications system and drives second display 122, e.g., a personal computer with a browser. *Id.* at 2:28–48. The VOD system may include a conventional computer platform with programmed software that directs processing system 103 to transfer a control screen signal to second communications system 112 for routing to second display 122 that displays the control screen. *Id.* at 2:51–60. The control screen may include subject matter, e.g., a video content menu, a preview selection, an order selection, or display characteristics, from which a user can make selections. *Id.* at 3:37–60. When a viewer makes a selection, a corresponding signal is returned by the second communications system to processor 103, which responds by implementing the selected function, e.g., fast forwarding the video transferred over communications system 111 to first display 121. *See id.* at 4:61–5:8.

Figure 6 shown below illustrates a web-based system configuration.

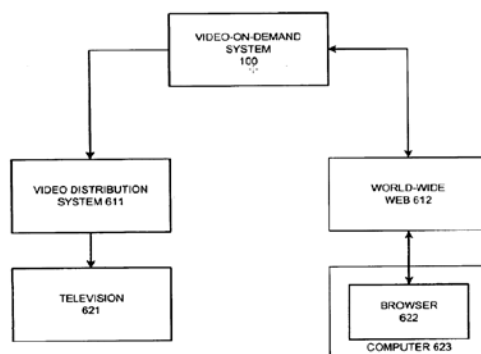


Figure 6 of the '7907 patent

In the configuration of Figure 6, in response to log in by browser 622, system 100 returns a web page from which the user can make a selection, e.g., to preview a video. *Id.* at 5:47–57. System 100 returns the video preview in MPEG I format to browser 622 for display. *Id.* at 5:52–57. After the video display, browser 622 transfers menu selections to system 100 for television 621 to display selected video content using MPEG II. *Id.* at 5:58–60. System 100 then transfers the MPEG II video to the television 621 and a web page to browser 622. As television 621 displays selected video content browser 622 transfers menu selections to system 100 for browser 622 to display selected content in MPEG I. *See id.* at 6:4–22.

V. ILLUSTRATIVE CLAIM

The '7907 patent includes three independent claims —claim 1 drawn to a video on demand system, claim 21 drawn to a method of operating a video on demand system, and claim 41 drawn to a processor-readable storage medium. Claim 1, reproduced below with Petitioner's paragraph designations, is representative of the subject matter of the '7907 patent:

1[Preamble]. A video-on demand system comprising:

- 1[A] a first communication interface configured to transfer first video signals to a first communication system using a first bandwidth;
- 1[B] a second communication interface configured to transfer a control screen signal and second video signals to a second communication system using a second bandwidth that is less than the first bandwidth; and
- 1[C] a processing system configured to transfer the control screen signal to the second communication interface, receive a viewer control signal from the second communication interface, and transfer the first video signals to the first communication interface if the first communication system is indicated by the viewer control signal or transfer the second video signals to the second

communication interface if the second communication system is indicated by the viewer control signal.

VI. ART CITED IN PETITIONER'S CHALLENGES

Petitioner cites the following references in its challenges to patentability:

Reference	Designation	Exhibit No.
U.S. Patent No. 6,496,122	Sampsell	Ex. 1005
European Patent No. EP 0 872 987 A2	Yosuke	Ex. 1006
WO 92/22983	Browne	Ex. 1007
U.S. Patent No. 6,182,094	Humpleman	Ex. 1009

VII. ASSERTED GROUNDS

Petitioner asserts that claims 1–53 would have been unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Basis
1–53	103	Sampsell, Yosuke
1–53	103	Sampsell, Yosuke, Brown
1–53	103	Sampsell, Yosuke, Humpleman

VIII. LEVEL OF ORDINARY SKILL IN THE ART

Petitioner defines a person of ordinary skill as having “held a bachelor’s degree in electrical engineering, computer science, or a related field with at least five years of experience or research in interactive systems applicable to digital television, including VOD for cable and Internet delivery.” Pet. 12–13 (citing Ex. 1002, Declaration of Dr. Kevin Almeroth (“Almeroth Dec.”)) ¶¶ 44–46. Patent Owner does not offer a definition of the level of ordinary skill, but reserves the right to dispute Petitioner’s assessment of the level of ordinary skill. Prelim. Resp. 20. Petitioner’s

undisputed definition of the level of ordinary skill appears to be commensurate with the subject matter for the '7907 patent, for purposes of this Decision we apply Petitioner's description of the level of ordinary skill.

IX. CLAIM CONSTRUCTION

The Petition has been accorded a filing date of May 30, 2019. For petitions filed on or after November 13, 2018, we interpret claims of an unexpired patent using the same standard applied by U.S. district courts, as announced in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See*, 83 Fed. Reg. 51340, 51345 (Oct. 11, 2018) (announcing amendment of 37 C.F.R. §§ 42.100(b), 42.200(b), and 42.300(b)). Under this standard, words of a claim are generally given their ordinary and customary meaning. *Phillips*, 415 F.3d at 1312 (“the words of a claim are generally given their ordinary and customary meaning”) (citations and internal quotation marks omitted). “[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Id.* at 1313. The person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification. *Id.* Any special definition for a claim term must be set forth in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

Petitioner notes that certain terms were construed by the court in *Comcast Cable Commc'ns, LLC v. Sprint Commc'ns Co., LP*, Case No. 2:12-cv-859-JD, Dkt. 162 (Aug. 15, 2014, E.D. Pa.) (“*Comcast Order*”). Petitioner states that the parties agreed on the following claim constructions: (1) “control screen signal” should be construed as “a signal that defines a

control screen” and (2) “implementing a viewer control selection” should be construed as “in response to the video control signal, implementing a viewer control selection.” Pet. 17 (citing *Comcast* Order at 42.)

Petitioner identifies additional terms construed by the district court, stating the Petitioner supports the district court’s constructions. Pet. 14–16. Patent Owner proposes no constructions and states that it disagrees with the district court’s constructions because they “violate several Federal Circuit principles, including, at least, reading in a negative limitation to a non-limiting term in the preamble.” Prelim. Resp. 20–21 n. 5. Petitioner contends that we need not resolve disputed claim constructions “because the claims read on the prior art under either [Patent Owner’s] proposed construction or the *Comcast* court’s construction.” Pet. 13. We now turn to Petitioner’s assertions concerning the terms construed by the *Comcast* court.

A. “A video-on demand system” (claim 1); “operating a video-on-demand system” (claims 1 and 41)

Petitioner notes that the *Comcast* court declined to adopt Patent Owner’s proposed construction, i.e., plain and ordinary meaning or “operating a system that provides video-on-demand” and instead construed “a video-on demand system” (claim 1) and “operating a video-on-demand system” to mean “operating a video-on-demand system without the use of a set top box for remote control of the video-on-demand system.” Pet. 14. Petitioner points out the court’s finding that the ’7907 patent disparages the use of a set-top box for remote control and disclaims systems that include a set top box for that purpose. *Id.* Petitioner contends that the outcome of this proceeding is not affected by the court’s construction because the cited prior art does not use a set-top box for remote control. *Id.* at 14–15. Neither the

parties nor the court’s construction addresses what constitutes “video-on-demand.”

As a general rule, preamble language is not treated as limiting. *Allen Eng’g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1346 (Fed. Cir. 2002). Nonetheless, the preamble may be construed as limiting “if it recites essential structure or steps, or if it is ‘necessary to give life, meaning, and vitality’ to the claim.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quoting *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)). A preamble is not regarded as limiting “when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention.” *Catalina*, 289 F.3d at 809. The preamble has no separate limiting effect if, for example, “the preamble merely gives a descriptive name to the set of limitations in the body of the claim that completely set forth the invention.” *IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1434 (Fed. Cir. 2000). The question whether we should “treat a preamble as a limitation is a determination ‘resolved only on review of the entire . . . patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim.’” *Catalina Mktg.*, 289 F.3d at 808, quoting *Corning Glass*, 868 F.2d at 1257.

As discussed below, in this case, the preamble is not merely a “descriptive name to the set of limitations in the body of the claim”—knowing that the claims are directed to a “video-on-demand” service breathes “life [and] meaning” into the claims, because it shows that the video control signal is a particular type of signal used to provide the video-on-demand services. *IMS Tech.*, 206 F.3d at 1434; *Catalina*, 289 F.3d at

808. That is, the claims are not “structurally complete” without understanding that the control signal is a control signal of a video-on-demand service. *Id.* at 809.

The ’7907 patent states that “[t]he video-on demand system offers an individual viewer various selections from a video content library for viewing on demand.” Ex. 1001, 1:24–27. The ’7907 patent explains “[t]he video-on-demand system receives a request from the viewer to view a particular selection from the video content library” and “[i]n response to the request the video-on-demand system transfers the selected video content over a communication system to the viewer’s display.” *Id.* at 1:30–34.

Recognizing set top box implementations of video-on-demand systems are not mobile and do not have a video display, the ’7907 patent “solves the above problems with a video-on-demand system that uses a second communications system and display” by transferring a control screen signal to the second communication system, and receiving a viewer control signal from the second communication system. *See, id.* at 1:45–57.

Having reviewed the claims and the specification of the ’7907 patent, we determine that the phrase “video-on-demand” in the preamble is necessary to give life and meaning to the claim. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999) (“[I]f the claim preamble is ‘necessary to give life, meaning, and vitality’ to the claim, then the claim preamble should be construed as if in the balance of the claim.”). The difference between watching television and watching a video on demand is a difference in kind, rendering a video-on-demand system different from a non-video-on-demand system. While a person watching television can change channels and thus in some sense selects video content, such video content is being distributed regardless of whether the user selects

it. Video-on-demand, by contrast, only is distributed when the user specifically selects it.¹ Because of that nature, the user also has control over the playback of the video content, such as pausing and stopping. Although the dependent claims more clearly demonstrate the on-demand nature of the video content (e.g., with the menu and control buttons), only the preamble in the independent claims provides the clue as to this context.² Thus, the preamble serves to provide the framework necessary to understand the body of the claims, and is limiting.

B. “Viewer control signal”

Petitioner notes that the district court declined to adopt Patent Owner’s proposed construction, i.e., plain and ordinary meaning or “*a signal reflecting viewer control*” and instead construed “view control signal” to mean “*a viewer control signal generated and processed without the involvement of a set-top box for remote control of the video-on-demand system.*” Pet. 15. Petitioner notes that the *Comcast* court found the ’7907 patent does not dispute the use of a set-top box for purposes other than remote control, e.g. for the purpose of decoding a video signal and presenting it to a television. *Id.* n. 3. Referring to Figure 1, the Specification states “[i]n response to viewer input to the control screen, the second display 122 transfers a corresponding viewer control signal to the second communication system 112,” the second communication system 112

¹ See, e.g., Ex. 1001, 1:17–33 (instructing that, with video-on-demand, the system receives a request to view a selection from the video content library, the video is played “[i]n response to the [user’s] request,” and the user is allowed “to immediately view [the] selected video content”).

² This is broadly recited in claim 12 to encompass the controls relevant to video-on-demand, e.g., play, pause, stop, etc. Limiting claim 1 to a video-on-demand system provides meaningful context.

transfers the viewer control signal to the second communications interface,” and “[t]he second communication interface 102 transfers the [viewer] control signal to the processing system 103.” Ex. 1001, 2:61–67. Thus, we understand the viewer control signal to be a signal generated in response to user input.

C. “transfer . . . the [first/second] video signal” (claim 1) / “transferring [first/second] video signals” (claims 21, 41)

Petitioner notes that the court declined to adopt Patent Owner’s proposed construction, i.e., plain and ordinary meaning or “sending [first/second] video signal” and instead construed “transfer . . . the [first/second] video signal” (claim 1) / “transferring [first/second] video signals” to mean “in response to the viewer control signal transferring [first/second] video signals.” Pet. 16. Petitioner points out that the court found no disagreement as to what it means to transfer a video signal, but in view of the description in the ’7907 patent, found that the video signals are transferred in response to the viewer control signal received from the computer. *Id.* at 16. Claim 1 explicitly recites the processing system transfers the video signals to the first communication interface if the first system is indicated by the viewer control signal or the second communication interface if the second communication system is indicated by the viewer control signal; we do not perceive a need to construe this term.

D. Control screen signal

Petitioner proposes that “control screen signal” should be construed as “a signal that defines a control screen.” Pet. 17. The independent claims recite steps for transferring the control screen and video content signals. The ’7907 patent’s specification is replete with instances describing the control screen as something other than video content. *See, e.g., id.* at 3:37–53

(noting the distinction drawn between the control screen and the menu it provides to allow the viewer to watch video content); 1:26–28 (describing various video content types), 1:64–2:3 (noting that the “video-on-demand system *implements* a viewer the control menu selections”) (emphasis added). As another example, the ’7907 patent describes the control screen as a webpage displaying a menu. Ex. 1001, 1:64, 2:60.

Reviewing the claims and specification, we determine that a “control screen signal” provides the user with controls that allow the user to control video content (e.g., by choosing which content to play or to control the playback of the content), whereas the “video content signals” are the actual media (movies, television shows, etc.) that are viewed by the user and controlled by the control signals.³

X. ANALYSIS

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) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

³ This construction is consistent with and informed by our construction of “video-on-demand” above.

A. *Claims 1–53 As Obvious Over Sampsell and Yousuke*

1. *Sampsell – Ex. 1005*

Sampsell discloses a remote control system for use with an image display device, e.g., a television or computer monitor, in which a transmitter sends a selected image signal to a remote control and the remote control displays a corresponding image that may be the same as or distinct from the image displayed on the display device. Ex. 1005, Abstract, 2:18–28. By permitting a user to view on the remote control channels not displayed on the display device, Sampsell avoids obscuring the television display, e.g., as in conventional picture-in-picture technology. *Id.* at 2:54–58. Sampsell also discloses a docking station connected to the TV by cables and to the video remote control by RF communication. *Id.*, Abstract. According to Sampsell “[d]igital command and information signals are exchanged between the docking station and video remote control to allow control from the remote control of the functions of the TV and other video devices. *Id.*

Figure 2 of Sampsell, reproduced below, is a prospective view:

Fig. 2

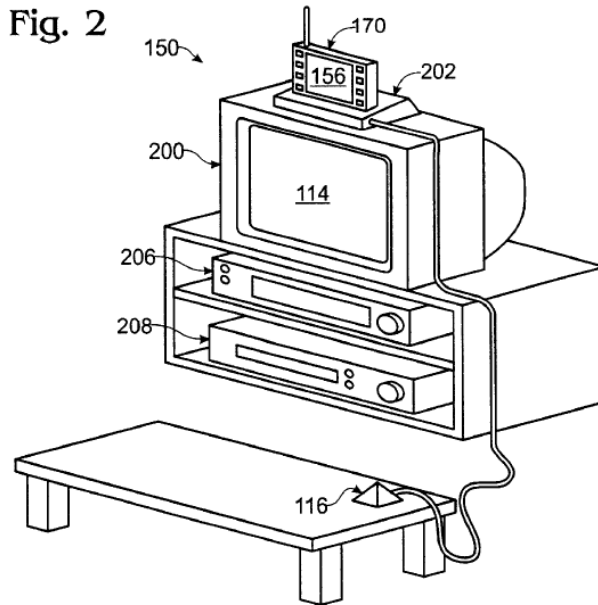


Figure 2 of Sampsell depicts remote control system 150, which includes remote control 170 that has image screen 156, and docking station 202. Ex. 1005, 7:32–36. In this embodiment, docking station 202 receives image signals from, e.g., VCR 206, laser disc player 208, or its own internal TV tuner. The purpose of this arrangement is to have an image display system capable of displaying two distinct images, e.g., one on television 114 and one on the remote control screen 156. *Id.* at 7:58–63, 3:45–48.

Figure 1 of Sampsell, reproduced below with added coloration, provides a schematic diagram of the functional components of remote control system 150:

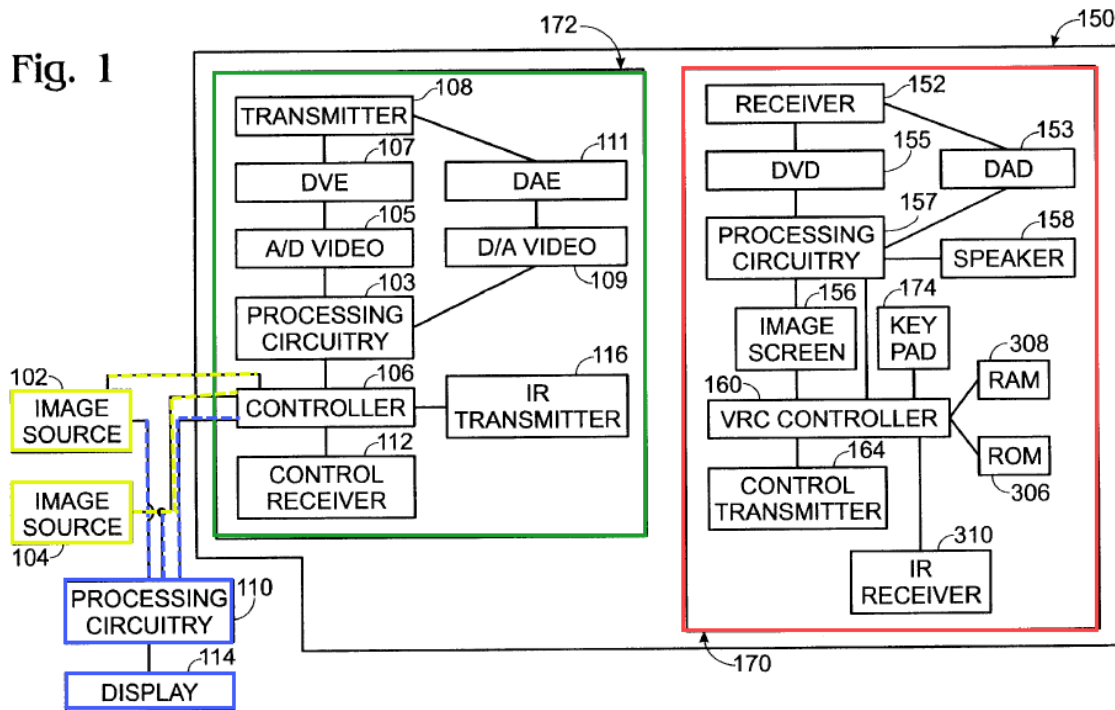


Figure 1 of Sampsell schematically shows the main components of: image processor 172 (within docking station 202) (green outline), external display (items 110, 114, e.g. such as in a TV) (blue outline), image sources 102 and 104 (yellow outline), and remote control 170 (red outline). Image processor 172 uses transmitter 108 to wirelessly send an image signal from image source 102 or 104 to receiver 152 of remote control 170. Ex. 1005, 4:43–47, 5:56–58. Receiver 152 of remote control 170 receives those image signals, decodes and processes them (using digital video decoder 155 and digital audio decoder 153), and displays them on image screen 156. *Id.* at 6:1–24. Remote control 170 also includes IR receiver 310 so that remote control 170 can be programmed by learning other remote control's IR signals. *Id.* at 8:10–20, 8:49–9:52.

Remote control 170 sends signals to docking station / image processor 172 using control transmitter 164. *Id.* at 7:9–18, 9:45–50. The signals sent by remote control 170 through control transmitter 164 may be used to select

a channel to view on image screen 156 of remote control 170, or may be used to control other devices using learned signals. *Id.* at 7:9–18, 7:65–8:3.

2. Yosuke – Ex. 1006

Yosuke discloses a system in which a client uses a browser to access an HTML document that includes a control code for controlling a video-on-demand server. Ex. 1006, Abstract. Yosuke's method

comprises the steps of receiving a demand for providing information from a client through a network, using the world wide web as a system for providing a link to information on the Internet, and sending information to the client through a transmission line different from the network in response to the received demand for providing information from the client.

Id. at 2:18–25. Figure 1 of Yosuke, shown below, is a block diagram of Yosuke's VOD system. *Id.* at 2:43–45.

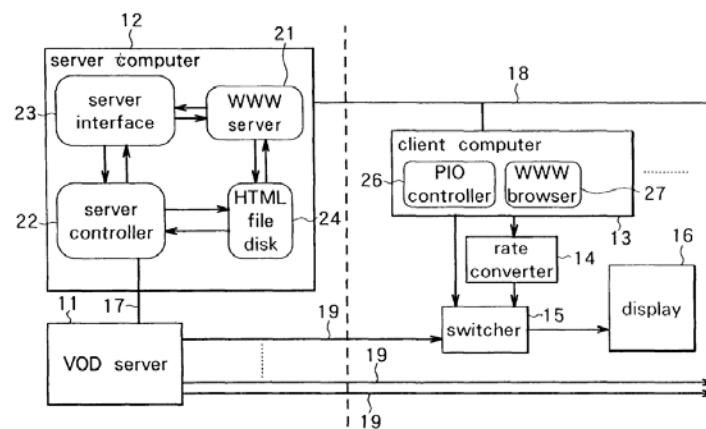


Figure 1 of Yosuke – Block Diagram of VOD System

VOD server 11 in Figure 1 of Yosuke stores information (audio and video data, referred to as AV data) to be provided to clients over a plurality of channels in response to instructions. *Id.* at 3: 23–29. Server controller 22 in server computer 12 controls VOD server 11 by sending commands through serial transmission line 17, e.g., an RS232C interface. *Id.* at 4:7–9. Server computer 12 and client computer 13 are connected through a network, such

as the Internet. *Id.* at 3:46–48. Client computer 13 includes parallel input/output (PIO) controller 26 and browser 27 for accessing a WWW server on the Internet. *Id.* at 4:38–40. PIO controller 26 controls switcher 15 at commands from WWW server 21. *Id.* at 4:47–49. File disk 24 stores HTML documents with control codes for implementing a user interface via WWW browser 27. When a control code for controlling VOD server 11 is included in an HTML document distributed via network 18 from WWW server 21, WWW browser 27 sends to WWW server 21 a request via network 18 for controlling VOD server 11. *Id.* at 4:55–5:2. WWW server 21 sends the control request to server interface 23; server 23 provides an instruction to server controller 22 for executing the control request; and server controller 22 sends a command to VOD server 11 through serial transmission line 17. *Id.* at 5:2–8.

3. *Analysis of Claim 1*

a. 1[Preamble] *A video-on demand system comprising*

Petitioner contends that Sampsell discloses a VOD system under Patent Owner’s claim construction because Sampsell discloses operating a system that provides video on demand. Pet. 28 (citing Ex. 1005, 4:29– 40 as describing video provided on demand including computer television, standard television or any other audio source, and 7:27– 8:9, as describing a remote control for controlling and providing video on demand). Petitioner further contends that Sampsell discloses a VOD system under the *Comcast* court’s construction because Sampsell’s docking station is not a set-top box that provides remote control of the VOD system. *Id.* at 27.

Petitioner further argues that to the extent Sampsell does not disclose a VOD system, Yosuke teaches this limitation. *Id.* at 28–29 (citing Ex.

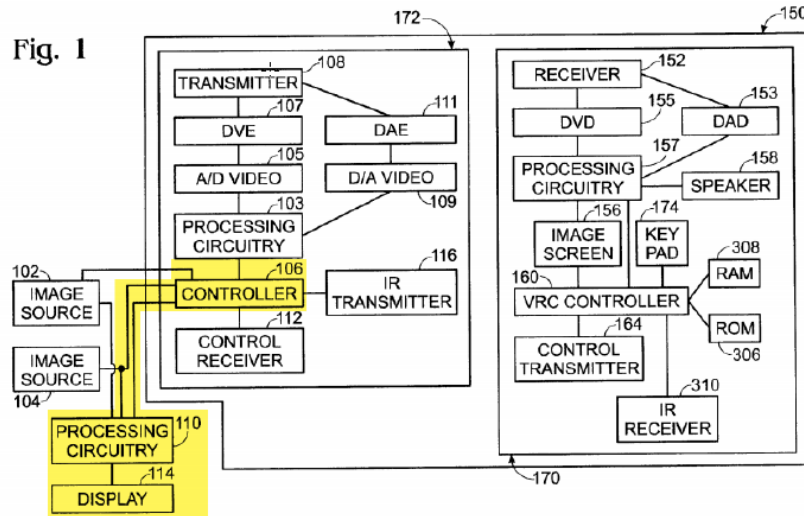
1006, 3:20–26). Yosuke explicitly states it “relates to an apparatus for providing specific information on demand” and discusses VOD systems. *See*, Ex. 1006, 1:6–2:36.

As discussed above, the expression “video-on-demand” in the preamble gives life and meaning to the claim and is limiting. Patent Owner does not dispute explicitly Petitioner’s characterization of Sampsell and Yosuke as VOD systems. It is not clear that Sampsell alone discloses a video-on-demand system. However, Yosuke expressly states it is a video-on-demand system. For purposes of institution, we are persuaded that Petitioner has demonstrated that the combination of Sampsell and Yosuke discloses a video on demand system.

b. 1[A] a first communication interface configured to transfer first video signals to a first communication system using a first bandwidth

Reproduced below is Figure 1 of Sampsell, as annotated in the Petition to show the elements in Sampsell Petitioner contends correspond to the claimed “first communication interface.” Pet. 29–30. According to Petitioner, the first communication interface “may include controller 106 and processing circuitry 100,”⁴ and the claimed “first communication system” “may include connections between controller 106, processing circuitry 110 and display 114.”

⁴ Petitioner’s textual reference to processing circuitry “100” appears to be a typographical error, as processing circuitry 110 is highlighted in Petitioner’s annotated Figure 1.



Pet. 29–30.

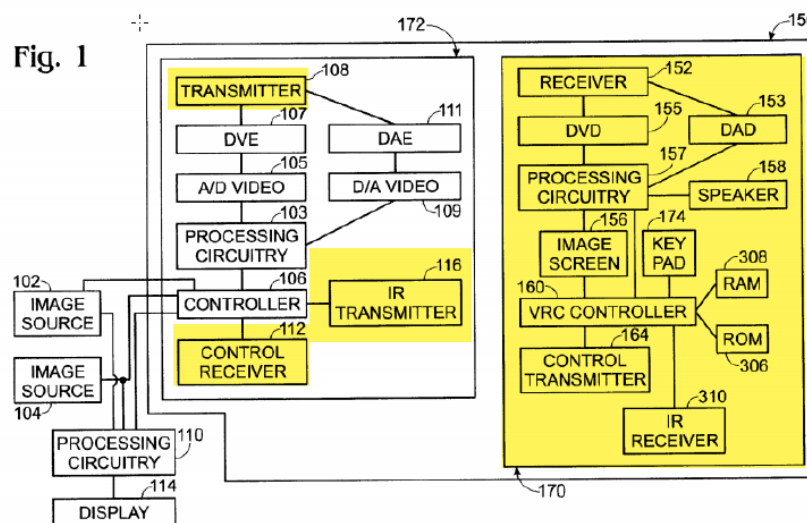
Petitioner argues Sampsell teaches that in response to a user control signal selected by VCR controller 160 that essentially determines the mode of operation of system 150, controller 106 selects image signals from image sources 102 and 104 and transmits these image signals to either transmitter 108 for display on image screen 156 or external processing circuitry 110 for display on display 114. Pet. 30– 31 (citing Ex. 1005, 4:43–49).

Petitioner also cites Yosuke as disclosing that a VOD server can transmit video signals, in response to instructions from a client, over a first transmission line 19 (the claimed “first communication system”) or a second transmission line 18 (the claimed “second communication system”). *Id.* at 31 (citing Ex. 1006, 3:26– 38, 12:34– 42, Fig. 1).

Patent Owner does not dispute explicitly Petitioner’s contention that the combination of Sampsell and Yosuke discloses claim element 1[A]. For purposes of institution, we are persuaded that Petitioner has demonstrated that the combination of Sampsell and Yosuke discloses claim element 1[A].

- c. 1[B] a second communication interface configured to transfer a control screen signal and second video signals to a second communication system using a second bandwidth that is less than the first bandwidth

Reproduced below is another annotated version from the Petition of Sampsell's Figure 1 showing the elements in Sampsell Petitioner contends correspond to the claimed "second communication interface" and "second communication system." Pet. 32.



Id. According to Petitioner the claimed "second communication interface" "may include transmitter 108, IR transmitter 116, and control receiver 112," and the claimed "second communication system . . . may include receiver 152, IR receiver 310, control transmitter 164." *Id.*

Petitioner repeats its assertion above that Sampsell discloses controller 106 is used to select image signals from image sources 102 and 104 in response to a user control signal selected by VCR controller 160 and transmit image signals from sources 102, 104 to either transmitter 108 for display on image screen 156 or external processing circuitry 110 for display on display 114. *Id.* As to the claimed "control screen signals," Petitioner

states “[t]he image sources in Sampsell provide control screen signals like ‘television-type tuners’ and ‘image data’ transferred to the remote control 170.” *Id.* at 31–32 (citing Ex. 1005, 7:46–60). Petitioner further contends that the image signals in Sampsell “define the control screen” because they are “displayed on the image screen.” *Id.* at 32 (citing Ex. 1005, 7:58– 59, Figs. 3–5). According to Petitioner, “Sampsell confirms the second communications interface is responsible for transferring the control screen signal to the second communication system, because image processor 172 outputs the control screen signal from image sources 102 and 104 to the VCR 170.” *Id.* (citing Ex. 1005, 4:12–16).

The subject matter cited by Petitioner refers to image sources that have television type tuners within them, e.g., television 200 and VCR 206. Ex. 101 7:45–47. A laser disc that generates image data it sends to television 200 or VCR 206 is another such image source. *Id.* at 7:47–50. Alternatively, the docking station may include its own tuner to provide the second image source. *Id.* at 52–54. Controller 106 can select the image sent to the remote control 170 and another image to be display on television 200. *Id.* at 7:54–62. Petitioner does not identify explicitly how either image source 102 or image source 104 produces a control screen signal.

Patent Owner contends that Petitioner fails to demonstrate Sampsell discloses the control signal limitations of claim elements 1[B] and 1[C]. Prelim. Resp. 26–31. Patent Owner disputes Petitioner’s assertion that the signals output by image sources 102 and 104 are the claimed control signals. *Id.* at 26. Patent Owner argues that, as the name implies, image sources 102, 104 generate “image signals,” but do not generate the control screen signals required by claim 1. *Id.* at 28–29. According to Patent Owner, to the extent Sampsell discloses a control screen in the form of soft key menus, the

signals that define the control screen originate and remain in remote control 170 and are not transferred to a second communication system as required by claim 1. *Id.* at 29–31 (citing Ex. 1005, 10:5—6, 18–21). Patent Owner points to Sampsell’s teaching that image screen 156 of remote control 170 displays a home menu with soft keys that users can select to display one of the image sources and that by pushing a button the user can control various display functions, e.g. the television volume. *Id.* at 29.

Quoting Sampsell, Petitioner notes “the image sources may be any type of image source capable of outputting image signals. For example, the image sources may be standard television receivers, cable television boxes, digital satellite hookups, or data hook-ups as required for a computer or computer television.” Pet. 18 (quoting Ex. 1005, 4:29–34). Although Sampsell’s disclosure that the image sources may include data hook ups as required for a computer or computer television, Petitioner does not identify any disclosure in Sampsell that the image sources can be used to provide control screen signals. Thus, we persuaded by Patent Owner’s arguments that Petitioner has failed to show that image signals from Sampsell’s image sources 102 and 104 include control signals.

Petitioner further asserts that because Sampsell discloses transmitter 108 transferring video signals to the second communication system over RF links that have narrower bandwidth than signals sent through hard-wired links to processing circuitry 110, Sampsell discloses the bandwidth features of claim element 1B. *Id.* at 33 (citing Ex. 1005, 4:53–58, 5:56–60, 8:21–35; Ex. 1002, Almeroth Decl. ¶¶ 84–88).

Petitioner cites Yosuke for the proposition that, to the extent that Sampsell is found not to disclose the bandwidth limitation of claim element 1[B], Yosuke discloses this feature. *Id.* at 34–35. Petitioner contends in

Yosuke “a VOD server can transmit video signals, in response to instructions from a client, over a first transmission line 19 (the claimed ‘first communication system’) or a second transmission line 18 (the claimed ‘second communication system’).” *Id.* at 34 (citing Ex. 1006, 3:26–38, 12:34–42, Fig. 1). According to Petitioner “bandwidth used to transfer video signals over the second transmission line 18 uses less bandwidth than the first bandwidth used to transfer video signals over the first transmission line 18 [sic].” *Id.* at 34.

Patent Owner argues Yosuke does not teach transferring second video signals to a second communication system using a bandwidth that is less than the first bandwidth because in Yosuke video signals are transferred to first communication system 19 and not to the second communication system, i.e., transmission line 18. Prelim. Resp. 31–32. On this point, we agree with Patent Owner. Although page 34 of the Petition quotes the following passage in Yosuke, Petitioner omitted the first several words (hi-lighted below) that provide context that is consistent with Patent Owner’s position.

The embodiment allows AV data to be sent from the VOD server 11 to the client's side through the transmission line 19 rather than the network 18. The transmission line 19 could be any high bandwidth transmission medium, for example, a coaxial cable, a fiber-optical cable, a microwave or satellite link, or the like. As a result, AV data is transferred at a higher rate without the restriction imposed by the more limited data transfer rate in the network 18.

Ex. 1006, 12:34–42.

In our view, when considered in the context, the subject matter Petitioner cites from Yosuke articulates the principle that network 18 is a narrowband network, as compared to transmission lines 19 that carry the

video. Petitioner does not identify specific video signals that are transmitted over network 18 in Yosuke.

For purposes of institution, we are not persuaded that Petitioner has demonstrated that the combination of Sampsell and Yosuke discloses claim element 1[B].

- d. *1[C] a processing system configured to transfer the control screen signal to the second communication interface, receive a viewer control signal from the second communication interface, and transfer the first video signals to the first communication interface if the first communication system is indicated by the viewer control Signal or transfer the second video signals to the second communication interface if the second communication system is indicated by the viewer control signal – Petitioner’s contentions*

Petitioner identifies Sampsell’s image processor 172 as corresponding to the claimed processing system. Pet. 36 (citing Ex. 1005, 6:53-57, 7:9-18, 8:36-48, 6:53-57). Petitioner identifies the control signal selected by VCR controller as the claimed viewer control signal. *Id.* (citing Ex. 1005, 7:9–18). Petitioner explains that if Sampsell’s control signal from VCR controller 160 indicates the user wishes to view video signals from the VCR, the video signals are transferred to the second communication interface, i.e., transmitter 108, IR transmitter 116 and control receiver 112, as discussed above; but if the control signal sent from VCR controller 160 indicates the viewer wishes to view signals from display 114, the video signals are transferred to the first communication interface (i.e., processing circuitry 110 and controller 106). *Id.* at 36–37.

Patent Owner contends that Petitioner failed to demonstrate the alleged viewer control signal in Sampsell indicates either of the

communication interfaces identified by Petitioner. Prelim. Resp. 24–25. According to Patent Owner, Sampsell discloses the control signal sent to controller 106 is used to select image signals from sources 102 and 104—but the control signal does not select the communication system to which those signals will be transferred or the communication interface. *Id.* at 25. Patent Owner further argues that Petitioner cannot rely on those systems and interfaces being implicitly inherent because Petitioner does not advance evidence that Sampsell’s control signal necessarily indicates a first or second communication interface or system. *Id.* at 26.

As discussed above, we are not persuaded Petitioner has demonstrated the image sources of Sampsell include control signals. Thus, for purposes of institution, we are persuaded that Petitioner has not demonstrated that claim element 1[C] is disclosed by the combination of Sampsell and Yosuke.

In consideration of the above, we are not persuaded that Petitioner has demonstrated a reasonable likelihood it will succeed in its challenge to claim 1 as unpatentable over the combined teachings of Sampsell and Yosuke.

B. Claim 1 As Obvious Over Sampsell, Yosuke and Browne

1. Petitioner’s Contentions Concerning Claim 1

Petitioner relies on Sampsell and Yosuke as discussed above, but argues to the extent Sampsell and Yosuke do not disclose claim limitation 1[B] and 1[C], Browne teaches this feature. Pet. 60.

2. Browne

Browne describes an audio/video recorder system that has a plurality of transmission input signals that can be stored, reconfigured, and output to various devices. Ex. 1007, code (57). Figure 1 of Browne, reproduced below, provides a schematic drawing of the system:

FIG. 1

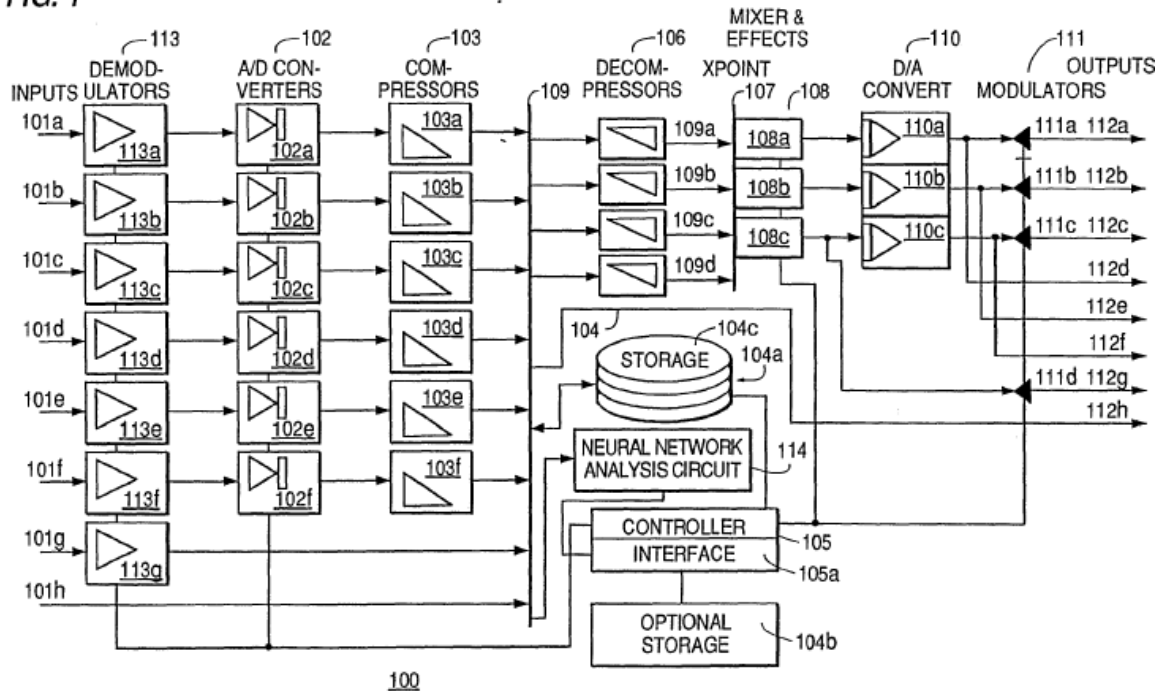


Figure 1 of Browne shows various inputs 101 connected to various signal processing elements (demodulators 113, A/D converters 102, compressors 109), storage 104c, mixer and effects components 108, and then various signal processing elements (D/A converters 110, modulators 111) to send a signal to outputs 112. Controller and interface 105 and 105a control the routing and processing of signals. Ex. 1007, 13.

3. Analysis

Petitioner identifies Browne's controller as the claimed second communication interface and Browne's high speed data bus as the claimed second communication system. Pet. 60. According to Petitioner, Browne's controller (the claimed second communication interface) generates a virtual control signal (the claimed control screen signal) that is transferred to the high speed data bus (the claimed second communication system) for display on any output monitor for a user to control playback. *Id.* Petitioner notes Browne teaches that when a control screen appears, the user selects the

output to which signals are to be sent and the types of signals to be sent, e.g., a control screen can include a list of programs stored and set for storing that may be viewed by choosing the stored program list option from the main user menu. *Id.* at 61.

Petitioner contends that to the extent Sampsell and Yosuke do not disclose the “processing system configured to transfer the control screen signal to the second communication interface” recited in claim element 1[C], Browne teaches this limitation. Pet. 61–62. Petitioner notes Browne discloses when a user chooses a stored program list option from the main menu a sorted program list is output by the controller to the output. *Id.* at 62. Petitioner argues that because the claimed control screen signal is transferred by digital cross-point 107 (the claimed processing system) to the recorder’s controller (the second communication interface), Browne discloses the processing system discloses the processing system transfers the control screen to the second communication interface, as claimed. *Id.*

Patent Owner notes that Petitioner cites Browne for limitations B and C relating to the control screen signal, but Patent Owner contends that Browne fails to disclose transferring a control screen signal to a second communication interface and a second communication system as claimed. Prelim. Resp. 37. Patent Owner argues that Petitioner fails to advance evidence that Brown’s digital cross-point 107 (the alleged processing system) is configured to transfer the alleged control signal (the main menu screen signal, stored program list menu signal, and/or routing control menu signal) to controller 105 (the alleged second communication interface). *Id.* at 38.

According to Patent Owner, Petitioner argues with respect to claim element 1[B] that controller 105 (the alleged second communication

interface) transfers the alleged control screen signal to the high speed data bus of cross-point 107, but that for claim element 1[C], Petitioner contends the opposite transfer occurs, i.e., that digital cross-point 107 transfers the stored program list (a control signal) to controller 105. Prelim. Resp. 38–39. Patent Owner points out Browne supports neither of neither of Petitioner’s contentions. *Id.* Petitioner notes that in Browne controller 105 generates a virtual control screen that may be placed on any screen (output monitor), but Browne never states that the control screen signal is transferred to cross-point 107. *Id.* at 40. Citing Figure 1 of Browne, Patent Owner notes there is no need for a transfer of signals to cross-point 107 because controller 105 may directly transfer signals to modulators 111 connected to outputs 112. *Id.*

Patent Owner acknowledges that in Browne controller 105 may output a selected “desired program” to decompression 106 and from there to digital cross-point 107, but emphasizes that because the “desired program” is not the alleged control signal (the “virtual control screen” or “stored program list”), Browne does not disclosed the transfer recited in claim element 1[B], i.e., the transfer of a control screen signal and second video signals to a second communication system. *Id.* at 40–41.

Patent Owner notes that Petitioner cites the same disclosure in Browne in support of its contentions concerning claim elements 1[B] and 1[C], but again argues those disclosures do not support Petitioner’s positions. Specifically, Patent Owner argues that Petitioner advances no evidence that Browne discloses digital cross-point 107 (identified by Petitioner as the claimed processing system) is configured to transfer the control screen signal to controller 105 (identified by Petitioner as the second communications interface).

Noting the configuration in Figure 1 in which the output from controller 105 is delivered directly to output 112, Patent Owner emphasizes that Brown does not disclose limitation 1[C]. We find Patent Owner's arguments that Petitioner has failed to demonstrate that Browne supplies the teachings lacking in Sampsell and Yosuke concerning claim elements 1[B] and 1[C] are persuasive. Thus, we find that Petitioner has not demonstrated a reasonable likelihood it will succeed in its challenge to claim 1 based on the combination of Sampsell, Yosuke and Browne.

In addition, with respect to all claims, we agree with Patent Owner that Petitioner has failed to explain adequately why a person of ordinary skill in the art would have combined the control menu features from Browne into the system of Sampsell. See Prelim. Resp. 41–46. Petitioner argues that Sampsell, Yosuke and Browne are in the same filed of endeavor, and are aimed at solving the same problem use similar techniques, would have been expected to succeed, yield no unexpected results, and would have been a predictable combinations. *Id.* at 55–59. Reviewing the Petition, it is not clear to us what would be the specific combination of features asserted by Petitioner to have been obvious. We recognize that a proposed combination is not a physical extraction of a component described in one reference grafted onto another component described in another reference. *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012) (“[i]t is well-established that a determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements”); *see also In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (en banc) (“[T]he criterion [is] not whether the references could be physically combined but whether the claimed inventions are rendered obvious by the teachings of the prior art as a whole.”). That said, the proposed combination must result in something

having all of the claimed features arranged as claimed. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) (“obviousness requires [a] showing that a person of ordinary skill . . . would have selected and combined those prior art elements . . . *to yield* the claimed invention) (emphasis added); *see also Orexo AB v. Actavis Elizabeth LLC*, 903 F.3d 1265, 1273 (Fed. Cir. 2018) (“The question is not whether the various references separately taught [the claimed] components . . ., but whether the prior art suggested the selection and *combination achieved*.”) (emphasis added). Similarly, we must have a sufficient idea of how and why the combination of teachings is applied in order to evaluate whether the changes necessary to arrive at the claimed invention would have been predictable and within the level of ordinary skill. *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359 (Fed. Cir. 2016) (“one must have a motivation to combine *accompanied by a reasonable expectation of achieving what is claimed* in the patent-at-issue”) (emphasis added). That is, the “factual inquiry” into the reasons for “combin[ing] references must be thorough and searching, and the need for specificity pervades.” *Nuvasive*, 842 F.3d 1376, 1381–82 (Fed. Cir. 2016) (internal quotations and citations omitted); *see also Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1066 (Fed. Cir. 2016) (“[T]he Board must [provide an] . . . explanation as to *how* or *why* the references would be combined to produce the claimed invention.”) (internal quotations and citations omitted).

Here, we begin with the video remote control of Sampsell. Base station 172 only transfers video content signals to remote control 170, and the menu that appears in remote control 170 is generated locally. Browne teaches a controller (105) that is able to create a menu for a display. It is not clear what Browne’s menu adds to Sampsell’s. Petitioner does not appear to

be proposing to incorporate somehow Browne's entire audio/video device, and absent adding such functionality, it is not apparent what Browne has to offer. As we stated above, Sampsell already has a menu for operating its controller. That does not mean that the menu could not be upgraded in some way, but Petitioner does not tell us what the upgrade is, such that we cannot evaluate whether such an upgrade would be obvious. Petitioner does not explain how to modify Sampsell's control signal to include a menu like Browne's, or why. Accordingly, we determine that Petitioner has not established sufficiently a reason with rational underpinning for combining the teachings of the references in this challenge.

C. Claims 1 As Obvious Over Sampsell, Yosuke and Humpleman

1. Petitioner's Contentions Concerning Humpleman

Petitioner cites Humpleman as disclosing a video-on-demand system where the controller can be in the form of a computer that generates a virtual control screen and allows a user to control playback and select different menu and video sources to display on the controller or television. Pet. 66–67 (citing Ex. 1009, Abstract, 7:18–23, 14:5–33, 15:25–47, 18:45–51). Petitioner relies on Sampsell and Yosuke as disclosing the preamble and claim element 1[A], i.e., the claimed first communication interface configured to transfer first video signals to a first communication system (hard wired or IR connections between controller 106, processing circuitry 110, and display 104). As discussed above, we are not persuaded the Petitioner has demonstrated the combination of Sampsell and Yosuke teaches claim elements 1[B] and 1[C]. Therefore, we analyze Petitioner's challenge as to claim elements 1[B] and 1[C].

2. Humpleman

Humpleman discloses a method and system for generating a program guide for a home network that includes a first multimedia device associated with the home network. Ex. 1007, Abstract, 2:31–35. Information about multimedia material on the first device is identified and used to generate an HTML page stored in an accessible area of the first device. *Id.* at Abstract, 2:35–39. A second, browser based home device may be connected to the home network to receive the HTML page and render it for display to a user. *Id.* at Abstract, 2:40–47.

Figure 1 of Humpleman is reproduced below.

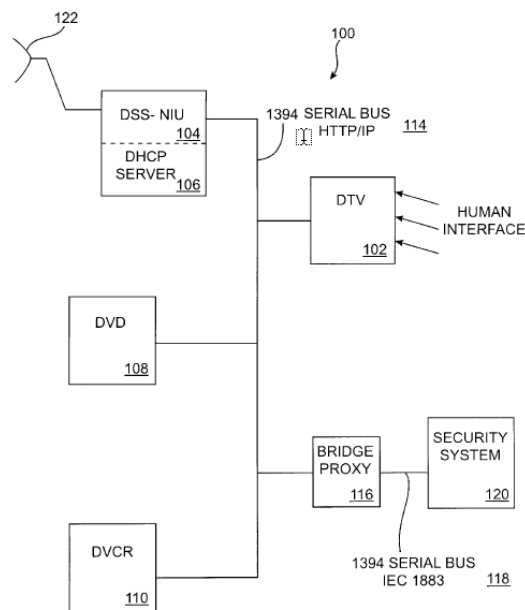


Figure 1 of Humpleman

In Figure 1 of Humpleman, shown above, in home network 100 digital television (DTV) 102 typically behaves as a client and home devices digital video cassette recorder (DVCR) 110, digital video device (DVD) 108, digital satellite services network interface unit (DSS-NIU) 104, and security system 120 behave as servers communicating over 1394 serial bus

114. Ex. 1009, 6:35–37. Each home device is associated with HTML files that control and command functions associated with a particular home device. *See, id.* at 5:27–6:37. Acting as a client, DVT 102 receives the HTML files associated with the servers. *Id.* at 6:43–47. The HTML files enable browser based DTV 102 to display graphically the command and control information to a user for any home device, without having to know the details of the particular home device. *Id.* at 6:56–64.

Any home device that can act as a client, i.e., a home device that can display HTML files on its display unit, may be designated as a session server. Ex. 1009, 18:45–48. A session server includes a software agent called a “session manager.” *Id.* at 18:48–49. A session manager provides the primary interface between the user and the home network by generating a session page that allows users to command and control home devices connected to the network to provide services, such as movie playback and television program recording. *See* Ex. 1009, 14:5–39. Each home device has a control application that handles its communication with the session manager. Ex. 1009, 19:34–41.

3. *Analysis*

Petitioner argues that to the extent Sampsell and Yosuke do not disclose claim element 1[B], Humpleman discloses this limitation. Pet. 64. Petitioner cites Humpleman as disclosing transferring a human interface for the network, e.g., a screen for displaying HTML pages, using HTML files that contain specific control and command information for a respective home device. Pet. 70. Petitioner also argues that Humpleman discloses using different bandwidths for video content and control screen signals by using different connections and because the home network is not restricted to a 1394 serial bus, but can be replaced with a bus that has less bandwidth,

e.g. a wireless bus. *Id.* at 71 (citing Ex. 1009, 5:29–37. This subject matter cited by Petitioner states that using an enhanced bandwidth 1394 serial bus as the physical layer allows all communications (i.e., command and control and audio/video streams) on the network to be transmitted over a single medium, but that other bus types may be used as the physical layer if they meet the particular throughput requirements of an individual home network. Ex. 1009, 5:27–38.

Petitioner argues Humpleman teaches the control application for the second home device (identified by Petitioner as the claimed second communication interface) is configured to transfer the signal that generates the control screen for the second home device (identified by Petitioner as the claimed control screen signal) and second video signals to or from the second home device (identified by Petitioner as the claimed second video signals), to a communication medium connecting the second home device to the home network (identified by Petitioner as the claimed second communication system) using, e.g., a wireless bus (identified by Petitioner as the claimed second bandwidth less than the first bandwidth of the 1394 enhanced serial bus)

Noting that the GUI for the control screen resides in a server, Petitioner cites the session manager in the server as the claimed processing system recited in claim element 1[C]. Pet. 72–73. Petitioner argues that Humpleman’s session manager (identified by Petitioner as the claimed processing system) is configured to transfer the signal that generates the control screen for the second home device (the claimed control screen signal) to the control application for the second device (the claimed second communication interface). *Id.* at 73.

Patent Owner contends that Petitioner has not shown Humpleman discloses transferring a control screen signal from a processing system to a second communication interface and to a second communication system, as claimed. Prelim. Resp. 42. Patent Owner acknowledges that Humpleman discloses home devices send HTML files over serial bus 114, but argues Humpleman does not disclose the HTML files are transferred by the alleged processing system, e.g., the session manager, and that Humpleman does not disclose transferring HTML files to a control application, i.e., the alleged second communication interface. *Id.* at 49–50.

Patent Owner notes that the subject matter of Humpleman cited by Petitioner discloses that the session manager is the primary interface between the user and the home network. *Id.* at 50. Patent Owner points out that the session manager (the alleged processing system) might receive information about a home device interface to display a home page for a device on the network, but the session manager would not transfer HTML files to the control application (the alleged second communication interface) associated with a device. Instead, the session manager would transfer to the control application commands it uses to control the home device. Thus, according to Patent Owner, Humpleman does not disclose claim element 1[C], i.e., a processing system configured to transfer the control screen signal to the second communication interface.

As to claim element 1[B] Patent Owner argues that the passages Petitioner cites from Humpleman concern the physical layer of the network, e.g., a 1394 serial bus, and how the HTML files are used by the receiving device. *Id.* at 51 (citing Pet. 70–72; Ex. 1009, 5:27–38, 5:60–63, 6:19–24, 6:55–63, 7:30–35 (also cited in Petition)). According to Patent Owner, the only evidence cited by Petitioner concerning the control application

demonstrates that the control application receives commands from the network and controls the home device hardware accordingly. *Id.* (citing Pet. 73 (citing Ex. 1009, 19:34–45); Ex. 1009 19:34–38). Patent Owner argues the subject matter cited by Petitioner does not suggest the control application transfers any HTML files to a second communication system (defined by Petitioner as the communication medium connecting the second home device to the network), as required by claim element 1[B]. *Id.*

We agree with Patent Owner that Humpleman does not teach the session manager (identified by Petitioner as the claimed processor) transferring HTML files to the medium that connects the second home device to the network (identified by Petitioner as the claimed second communication system). As Patent Owner points out, a control application in a home device transmits HTML files to a session manager to display a command and control screen, but the session manger returns only commands consistent with selections made by the user.

We are also persuaded by Patent Owner’s arguments that Petitioner has not shown a reason for combining the teachings of the references, for all claims. *See* Prelim. Resp. 51–55. Petitioner argues that Sampsell, Yosuke, and Humpleman are in the same filed of endeavor, and are aimed at solving the same problem use similar techniques, would have been expected to succeed, yield no unexpected results, and would have been a predictable combinations. *Id.* at 67–69. Petitioner has identified elements in Humpleman, but has not adequately explained the application of Humpleman’s teachings to Sampsell, or why it would have been obvious to do so. Petitioner states that using Humpleman’s menu would “allow for more diverse controls of the video content and screen” (Pet. 65), but is not clear what “diverse controls” are referenced or how Humpleman’s menu is

relevant in Sampsell's context. Humpleman's menu is predicated on special devices that provide remote controllable interfaces using HTML. By contrast, Sampsell's menu is merely to control video displayed on Sampsell's remote control, or to implement its learning remote-control features. *See, e.g.*, Ex. 1005, Figs. 4, 5. Even if we were to assume that it would have been obvious to modify all of Sampsell's devices (e.g., TV, VCR) to include HTML interfaces, it is not clear how the alleged second communication interface or device in Sampsell would be modified with respect to the control screen signal, because adding HTML interfaces to devices does not mean one has to also add a new control screen feature for the remote control. Reviewing the Petition, we determine that Petitioner has not sufficiently articulated a reason to combine the references in this challenge.

D. Independent Claims 21 and 41

Petitioner contends that because independent claim 21 is very similar to claim 1 and claim 41 differs from claim 1 only in the preamble, claims 21 and 41 are unpatentable over Sampsell and Yosuke for the same reasons that claim 1 is unpatentable. Pet. 53, 54. As we are not persuaded Petitioner has demonstrated claim 1 is unpatentable over the combined teachings of Sampsell and Yosuke, we conclude that Petitioner has not demonstrated a reasonable likelihood it will succeed in its challenge to claims 21 and 41. We are also not persuaded by Petitioners' arguments in support of its challenges to independent claim 1 as unpatentable over the further combinations with the teachings of Browne and Humpleman. For the same reasons, we are not persuaded the further combinations with Browne and Humpleman support Petitioners' challenge to independent claims 21 and 41.

E. Dependent Claims 2–20, 22–40, 42–53

Claims 2–20 depend directly or indirectly from claim 1; claims 22–40 depend directly or indirectly from claim 21; and claims 42–53 depend directly from claim 41. We conclude that Petitioner has not demonstrated a likelihood it will succeed in its challenges to claims 2–20, 22–40, and 42–53 for the same reasons we are not persuaded Petitioner has demonstrated a likelihood Petitioner will succeed in its challenges to the respective independent claims from which they depend.

XI. CONCLUSION

.For the reasons discussed above, we are not persuaded Petitioner has demonstrated a reasonable likelihood it will succeed on the challenges to patentability advanced in the Petition.

XII. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, the Petition is denied and that we do not institute a trial on the challenges to the claims of the '7907 patent advanced in the Petition.

IPR2019-01135
Patent 6,757,907 B1

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