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Paper 7
Date: August 11, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DISH NETWORK CORPORATION, DISH NETWORK L.L.C., and DISH NETWORK SERVICE L.L.C.,
Petitioner,

v.

ENTROPIC COMMUNICATIONS, LLC,
Patent Owner.

IPR2023-00392
Patent 7,542,715 B1

Before LYNNE H. BROWNE, PATRICK R. SCANLON, and JON M. JURGOVAN, *Administrative Patent Judges.*

SCANLON, *Administrative Patent Judge*.

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

I. INTRODUCTION

DISH Network Corporation, DISH Network L.L.C., and Dish Network Service L.L.C. (collectively, "Petitioner") filed a Petition (Paper 1, "Pet.") requesting an *inter partes* review of claims 1–19 of U.S. Patent No. 7,542,715 B1 (Ex. 1001, "the '715 patent"). Entropic Communications, LLC ("Patent Owner") filed a Preliminary Response (Paper 6, "Prelim. Resp."). Patent Owner also filed a statutory disclaimer of claims 1–8 and 13–19 of the '715 patent. Ex. 2001.

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). To institute an *inter partes* review, we must determine that the information presented in the Petition shows "a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). For the reasons set forth below, we determine that Petitioner has not demonstrated a reasonable likelihood that it would prevail with respect to at least one challenged claim. Accordingly, we do not institute an *inter partes* review of any challenged claim on any asserted ground.

II. BACKGROUND

A. Real Parties in Interest

Petitioner identifies DISH Network Corporation, DISH Network L.L.C., and Dish Network Service L.L.C. as its real parties in interest. Pet. 1–2. Patent Owner identifies itself as its real party in interest. Paper 4, 1.

B. Related Matters

The parties identify the following proceedings as related matters involving the '715 patent, U.S. Patent No. 7,130,576, and U.S. Patent

No. 8,792,008: *Entropic Communications, LLC v. DIRECTV, LLC*, No. 2:22-cv-07775-JWH-JEM (C.D. Cal.) and *Entropic Communications, LLC v. DISH Network Corporation*, No. 2:22-cv-07959-JWH-JEM (C.D. Cal.). Pet. 1; Paper 4, 1. According to Petitioner, No. 2:22-cv-07775 was transferred from No. 2:22-cv-75 (E.D. Tex.) on November 3, 2022 and consolidated from No. 2:22-cv-07959 on December 13, 2022. Pet. 1.

C. The '715 Patent

The '715 patent, titled "Signal Selector and Combiner for Broadband Content Distribution," issued June 2, 2009, with claims 1–19. Ex. 1001, codes (45), (54), 11:42–14:13. The '715 patent discloses a "channel selecting and combining solution" for use in a satellite receiving system in which program channels are selected from one or more broadband signals transmitted from an outdoor unit. *Id.* at code (57), 2:53–55. Figure 1 shows a prior art satellite TV installation and is reproduced below. *Id.* at 3:48–49.

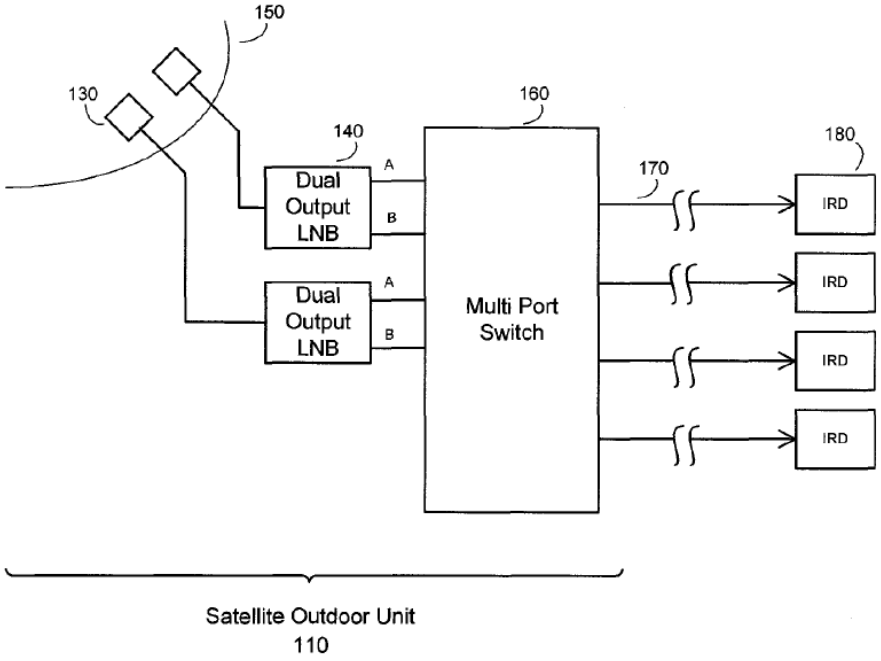

FIG. 1
Prior Art

Figure 1 shows a satellite TV installation having a satellite receiver outdoor unit ("ODU") 110 that comprises dish antenna 150, one or more feed horns 130, one or more low noise amplifier and block down converters ("LBNs") 140, and multiport cross point switch 160. Ex. 1001, 1:21–25.

Cross point switch 160 connects outdoor unit 110 to multiple integrated receiver decoders ("IRDs") 180, which are also commonly called set top boxes ("STBs") because they are often installed on top of TV sets. *Id.* at 1:30–35. LNBs 140 convert received satellite signals to a lower intermediate frequency suitable for transmission through cable inside a building. *Id.* at 1:35–38. Each IRD 180 tunes one transponder channel, demodulates the signal received from the LNB down to base band, provides channel selection, conditional access, decodes the digital data to produce a video signal, and generates an output to drive a television. *Id.* at 1:40–44.

According to the '715 patent, "[a] problem with the conventional approach to connecting an outdoor unit to IRDs is that multiple cables are required to be run from the outdoor unit: one cable for each room where an IRD is located." *Id.* at 1:56–59. Thus, another cable must be installed whenever a new IRD is added. *Id.* at 1:59–60. The '715 patent addresses this problem by using "only one cable wire to be routed from the outdoor unit to inside the building or to a gateway." *Id.* at 3:26–28. With this approach, "[a]dditional IRDs can be added without any installation effort needed on the outdoor unit. In certain configurations the invention eliminates the cross point switch." *Id.* at 3:28–30.

Figure 2 shows a satellite TV installation in accordance with the invention of the '715 patent and is reproduced below. *Id.* at 3:50–51.

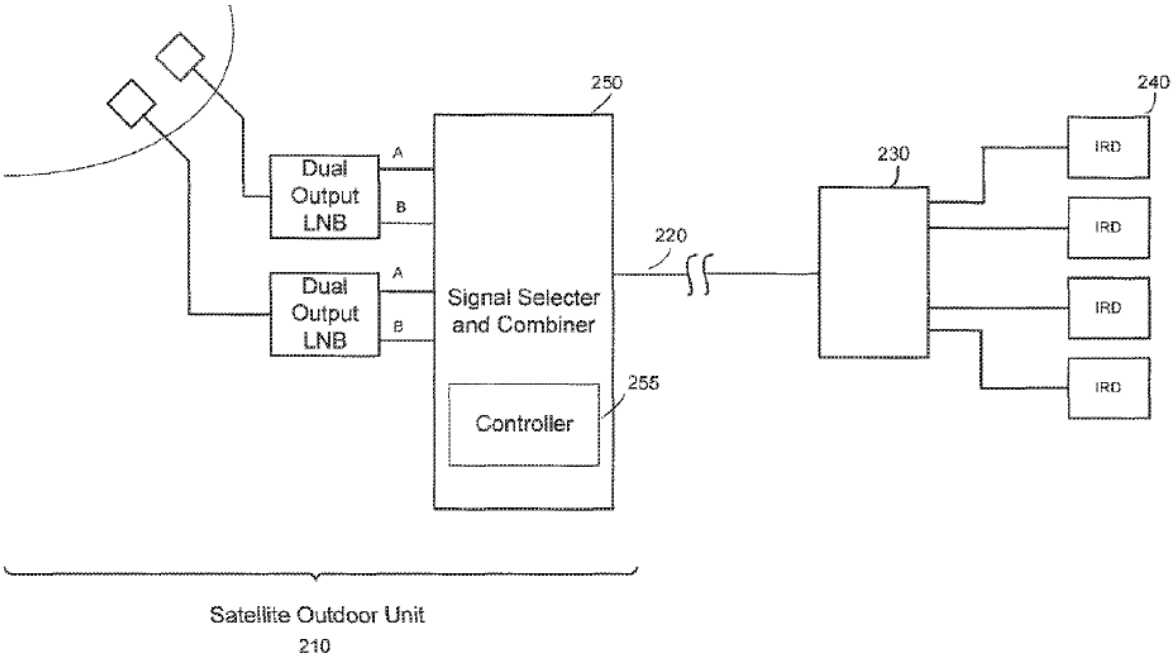

FIG. 2

Figure 2 shows a satellite TV installation in which outdoor unit 210 includes signal selector 250 that "extracts the needed transponder channels from each of the LNB outputs and combines the channels into one composite signal transmitted on cable 220." Ex. 1001, 4:27–31. Gateway 230 receives signals over cable 220 and distributes them to IRDs 240 located in the building. *Id.* at 4:32–33. Gateway 230 also passes signals containing channel selection information from IRDs 240 to ODU 210. *Id.* at 4:43–45.

D. Challenged Claims

As noted above, Petitioner challenges claims 1–19 of the '715 patent. Claims 1, 9, and 13 are independent. Claim 9 is illustrative of the claimed subject matter and is reproduced below (with bracketed labels as added by Petitioner for ease of reference):

9[pre]. A signal distribution system for distributing a plurality of low noise amplifier and block converter (LNB) output signals from a satellite outdoor unit (ODU) comprising:

[a] a gateway in communication with the ODU and at least one set top box (STB);

[b] a signal selector that receives a plurality of broadband LNB signals comprising a plurality of transponder signals, the signal selector is responsive to transponder select information transmitted by the gateway and selects a plurality of transponder signals from at least one broadband LNB signal based on the transponder select information;

[c] a frequency translator coupled to the signal selector that is capable of shifting the selected transponder signals to new carrier frequencies to produce RF signals; and

[d] a signal combiner coupled to at least one frequency translator capable of combining at least two RF signals to produce a composite signal;

[e] wherein the modulation of the composite signal is the same as the modulation of the broadband LNB signals and
[f] wherein the composite signal is transmitted to the gateway [g] and the gateway receives the composite signal, decodes specific programs, and distributes the programs over a digital local area network (LAN) to STBs.

Ex. 1001, 12:13–35; Pet. vi.

E. Asserted Grounds of Unpatentability

Petitioner contends that the challenged claims are unpatentable based on the following grounds:

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
9–12	103[1]	Fisk,[2] Carnero[3]
9–12	103	Green[4] Davis[5]
1–8	103	Fisk
13–19	103	Carnero

Pet. 5.[6] Petitioner relies on the Declaration of Dan Schonfeld, Ph.D. (Ex. 1002) to support its challenges.

III. ANALYSIS

A. Level of Ordinary Skill in the Art

In determining whether an invention would have been obvious at the time it was made, 35 U.S.C. § 103 requires us to resolve the level of ordinary skill in the pertinent art at the time of the invention. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). The person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). Factors that may be considered in determining the level of ordinary skill in the art include, but are not limited to, the types of problems

[1] The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"), amended 35 U.S.C. § 103. Because the '715 patent has an effective filing date before the effective date of the applicable AIA amendments, we apply the pre-AIA version of 35 U.S.C. § 103.
[2] WO 02/065771 A1, published August 22, 2002 (Ex. 1003).
[3] EP 0 740 434 A1, published October 30, 1996 (Ex. 1004).
[4] US 5,073,930, issued December 17, 1991 (Ex. 1005).
[5] US 2002/0154055 A1, published October 24, 2002 (Ex. 1006).
[6] For each of these grounds, Petitioner also cites "the general knowledge of a [person of ordinary skill in the art]." Pet. 5.

encountered in the art, the sophistication of the technology, and educational level of active workers in the field. *Id.* In a given case, one or more factors may predominate. *Id.*

Petitioner contends that a person having ordinary skill in the art would have had

> (i) a bachelor-level degree in electrical engineering, computer engineering, or a related field, and three or more years of experience working in television signal processing and satellite communications; (ii) a master's degree in electrical engineering, computer engineering, or a related field, and at least one year of experience in television signal processing and satellite communications; or (iii) a doctoral degree in electrical engineering, computer engineering, or a related field, and at least some experience in television signal processing and satellite communications.

Pet. 15–16 (citing Ex. 1002 ¶¶ 33–34). Petitioner adds that "[a]dditional education may substitute for professional experience, and significant work experience may substitute for formal education." *Id.* at 16 (citing Ex. 1002 ¶¶ 33–34). Patent Owner does not address the level of ordinary skill in the art in its Preliminary Response.

Based on our review of the record before us, we determine that Petitioner's stated level of ordinary skill in the art is reasonable because it appears consistent with the evidence of record, including the asserted prior art. Accordingly, for the purposes of this Decision, we adopt Petitioner's definition.

B. Claim Construction

In *inter partes* reviews, the Board interprets claim language using the district-court-type standard, as described in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b). Under that standard, we generally give claim terms their ordinary and customary

meaning, as would be understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1313–14. Although extrinsic evidence, when available, may also be useful when construing claim terms under this standard, extrinsic evidence should be considered in the context of the intrinsic evidence. *See id.* at 1317–19.

Petitioner contends that the claim terms should be given their plain and ordinary meaning at this stage of the proceeding. Pet. 13 (citing 37 C.F.R. § 42.100(b); *Phillips*, 415 F.3d at 1312–13). Patent Owner does not address claim construction in its Preliminary Response.

On the present record, we do not discern a need to construe explicitly any claim language because doing so would have no effect on our analyses below of Petitioner's asserted grounds and will not assist in resolving the present controversy between the parties. *See 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)).

C. Effect of Statutory Disclaimer on Asserted Grounds

As noted above, Patent Owner filed a statutory disclaimer of claims 1–8 and 13–19. Ex. 2001. In its Preliminary Response, Patent Owner argues that Ground 3 (which challenges only claims 1–8) and Ground 4 (which challenges only claims 13–19) are moot and the Board should not consider Grounds 3 and 4 when determining whether to institute an *inter partes* review. Prelim. Resp. 57–58 (citing *Samsung Elecs. Co., Ltd. v. Elm 3DS Innovations, LLC*, IPR2016-00389, Paper 14 at 14 (PTAB June 30,

2016); *Gen. Elec. Co. v. United Techs. Corp.*, IPR2017-00491, Paper 9 (PTAB July 6, 2017)).

Board rules provide that "[t]he patent owner may file a statutory disclaimer under 35 U.S.C. 253(a) in compliance with § 1.321(a) of this chapter, disclaiming one or more claims in the patent. No *inter partes* review will be instituted based on disclaimed claims." 37 C.F.R. § 42.107(e). Patent Owner's disclaimer complies with 37 C.F.R. § 1.321(a). Thus, we decline to institute *inter partes* review as to claims 1–8 and 13–19 pursuant to § 42.107(e). As such, we do not address Grounds 3 and 4, which pertain to only claims 1–8 and 13–19, and limit our analysis to Petitioner's challenges to the claims remaining at issue, claims 9–12 (i.e., Grounds 1 and 2).

D. Ground 1: Asserted Obviousness Based on Fisk and Carnero

Petitioner asserts that claims 9–12 are unpatentable based on Fisk and Carnero and the general knowledge of one of ordinary skill in the art. Pet. 27–50. Patent Owner provides arguments addressing this asserted ground of unpatentability. Prelim. Resp. 15–36.

1. Fisk

Fisk is entitled "System for and Method of Distributing Television, Video and Other Signals." Ex. 1003, code (54). Fisk "provides a system for distributing television/video signals to different locations (such as different rooms in a hotel, or different dwellings in a neighbourhood)." *Id.* at 2:13–15. The system comprises "a server capable of providing digital television/video signals for a plurality of programmes, a plurality of receivers each at a respective one of said locations, and a network connecting the server to the receivers." *Id.* at 2:15–17. Each receiver selects a program and communicates the selection to the server, and the server

transmits the digital television/video signal for the selected program to the receiver. *Id.* at 2:18–21.

Figure 5 is reproduced below.

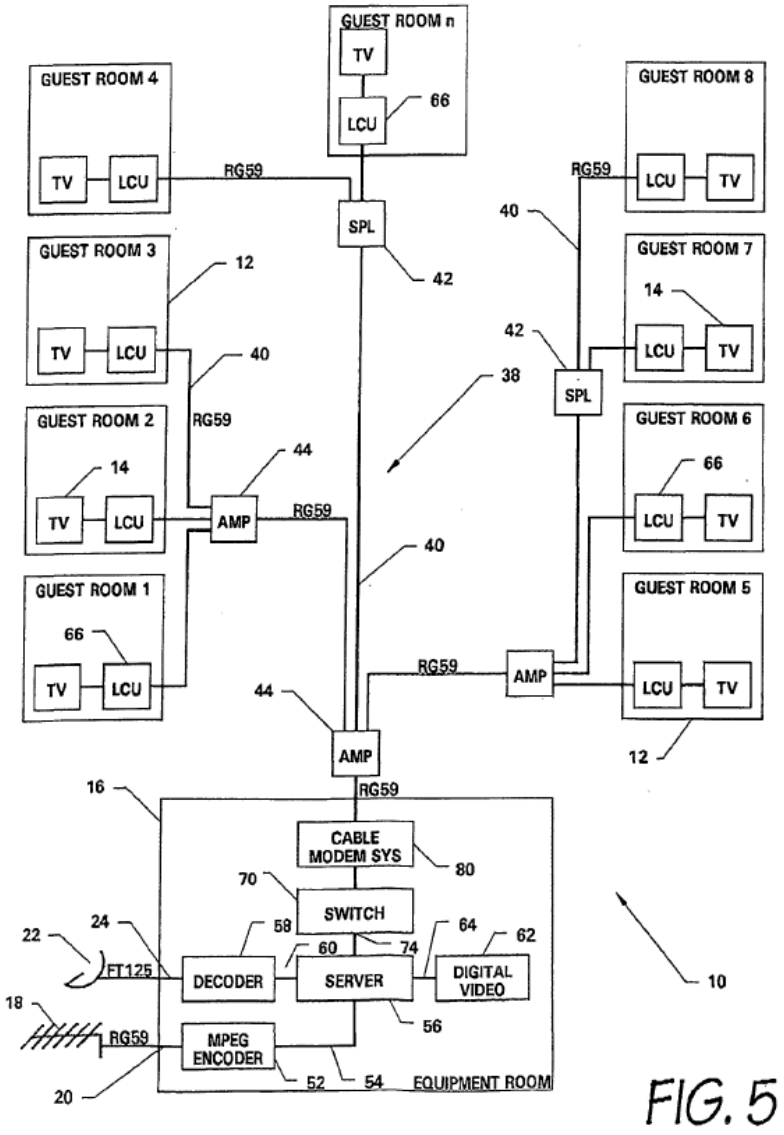

FIG. 5

Figure 5 is a block diagram of a hotel with a distribution system. Ex. 1003, 19:24–25. Hotel 10 includes a plurality of guest rooms 12, each with a television set 14, and an equipment room 16 that receives television signals from aerial 18 and satellite dish 24. *Id.* at 21:1–5, Fig. 5. Equipment room 16 includes server 56, decoder 58, switch 70, and cable modem termination system 80. *Id.* at 22:12–18, 28:4–6, Fig. 5. Downlead 24 feeds signals from

satellite dish 22 to decoder 58 which provides video streams 60 to server 56. *Id.* at 22:16–18. Server 56 selects which video streams are transmitted to which rooms. *Id.* at 22:20–21. In each room 12, television 14 is connected by network 38 to local control unit ("LCU") 66 that receives the video stream addressed to the room, decodes it, and supplies it to television 14. *Id.* at 22:22–25. "Each LCU 66 is also operable to send requests over the network 38 to the server 56, for example to change the television/video channel supplied to that LCU 66." *Id.* at 22:25–27.

2. Carnero

Carnero relates to a community antenna system for distributing television signals of different channels. Ex. 1004, code (57). Figure 3 of Carnero is reproduced below.

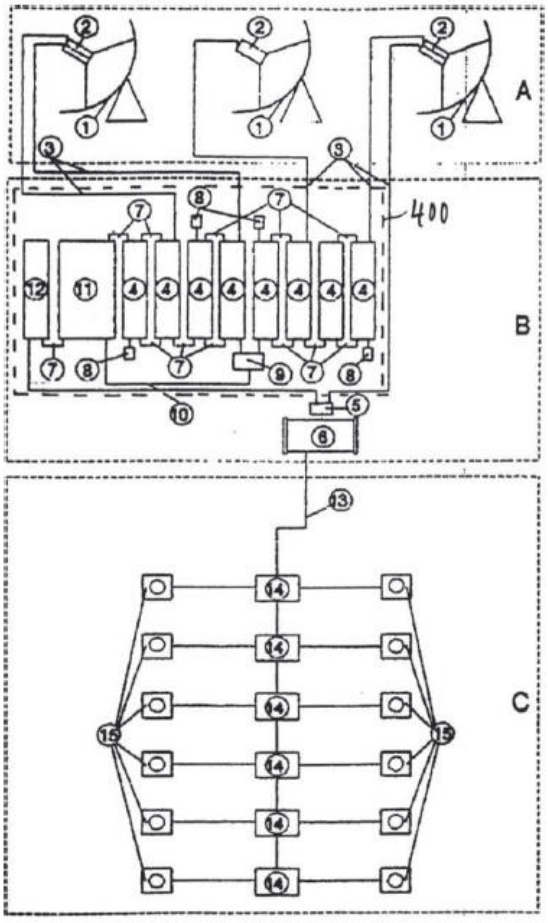

Figure 3

Figure 3 is a signal distribution system comprising signal generator block A, head device block B, and distribution block C. Ex. 1004, 4. Signal generator block A includes antennas 1 that receive television channel signals transmitted from satellites. *Id.* Antennas 1 can be parabolic antennas having down converters or LBNs 2. *Id.* Down converters 2 are connected via cables 3 to signal processing unit 400 of head device block B. *Id.*

Signal processing unit 400 includes a plurality of channel-specific converters 4 connected in a daisy-chain arrangement by bridges 7. *Id.* at 4–5. "[C]hannel-specific converters 4 receive on the input side the signals or channels in the intermediate frequency range, emitted by the down converters 2 and transmitted via the cables 3, and convert the signals or channels in the intermediate frequency range." *Id.* at 5. The output of signal processing unit 400 is fed to single distribution cable 13, though which the signals are transmitted to user outlets 15 via diverters 14. *Id.* at 4.

3. Independent Claim 9

Petitioner contends that the proposed combination of Fisk and Carnero discloses the limitations of independent claim 9. Pet. 30–46. Petitioner also asserts reasons to combine the relied-upon aspects of Fisk and Carnero with a reasonable expectation of success. *Id.* at 27–30. In particular, Petitioner contends that one of ordinary skill in the art "would have been motivated to employ the channel selection and combination system of Carnero to provide the input satellite signal for Fisk's signal distribution system via a server gateway." *Id.* at 29 (citing Ex. 1002 ¶ 103). Regarding the limitation 9[a] ("a gateway in communication with the ODU and at least one set top box (STB)"), Petitioner maps the gateway to Fisk's server 56, decoder 58, switch 70, and cable modem system 80. *Id.* at 33 (providing annotated version of Fisk's Figure 5). Petitioner contends that

server 56 is included in the gateway because it acts as a mediator between antenna 22 and LCUs 66 and gateways were known in the art as network intermediaries. *Id.* at 32 (citing Ex. 1002 ¶¶ 72–74, 111). The Petition does not explain why decoder 58, switch 70, and cable modem system 80 are included in the gateway. *Id.* at 32–35.

Next, Petitioner argues that the combination of Fisk and Carnero discloses limitation 9[b]. *Id.* at 35. Specifically, Petitioner first asserts that Carnero's signal processing unit 400 satisfies the first portion of limitation 9[b] ("a signal selector that receives a plurality of broadband LNB signals comprising a plurality of transponder signals.") *Id.* at 35–37 (citing Ex. 1004, 4, Figs. 3, 10; Ex. 1002 ¶ 117).

Petitioner then asserts that the combination of Fisk and Carnero meets the second portion of limitation 9[b] ("the signal selector is responsive to transponder select information transmitted by the gateway.") *Id.* at 37. According to Petitioner, Carnero's channel-specific converters 4 have an associated microprocessor that receives information from a converter-external input device, which may be a remote-controlled transmitter, to select a channel from the input LNB broadband signal. *Id.* (citing Ex. 1004, 3:48–53, 8:23–25; Ex. 1002 ¶ 119). Petitioner argues that this input information corresponds to the claimed transponder select information because Carnero uses it "to identify the transponder channel containing the requested television program." *Id.* at 38 (citing Ex. 1002 ¶ 119). Petitioner then argues that Carnero does not specify the source of the input information, but in the Fisk-Carnero combination, "the source ('transponder select information') to Carnero['s] signal processing unit 400 is provided by Fisk's server 56 (gateway) based on requests for programs it receives from the LCUs." *Id.* (citing Ex. 1002 ¶ 119).

Last, regarding the final portion of limitation 9[b] (the signal selector "selects a plurality of transponder signals from at least one broadband LNB signal based on the transponder select information"), Petitioner contends that "Fisk's server 56 receives requests from the LCUs for specific satellite television programs," and "[i]n the combined system of Fisk and Carnero, the server of Fisk directs the microprocessor of Carnero to select from the received broadband LNB signals each transponder signal containing the requested television programs." *Id.* (citing Ex. 1002 ¶¶ 120–121). Thus, in Petitioner's view, Carnero's signal selector unit 400 selects transponder signals having the requested television programs based on the transponder select information provided Fisk's server 56. *Id.* (citing Ex. 1002 ¶¶ 120–121).

Patent Owner argues that the combination of Fisk and Carnero does not teach or suggest selecting "a signal selector that 'is responsive to transponder select information transmitted by the gateway.'" Prelim. Resp. 28–31. We agree that the combination of Fisk and Carnero does not disclose this aspect of limitation 9[b] for the following reasons.

First, as discussed above, Petitioner's argument relies on its assertion that Carnero does not disclose the source of the information input into the microprocessor that allegedly causes the microprocessor to select a channel. *See* Pet. 38. We agree, however, with Patent Owner that Carnero does disclose its source of this information. *See* Prelim. Resp. 26–27 (citing Ex. 1004, 8:10–26, Fig. 7). Specifically, Carnero discloses that each converter 4 may include microprocessor 49 that determines the input and output frequencies of the converter, and input unit 16 that inputs the data of a pre-definable input and output frequency to microprocessor 49. Ex. 1004, 8:10–14, Fig. 7. Input unit 16 includes keyboard 161, control unit 162, and

display 163. *Id.* at 21. Display 163 shows data entered by keyboard 161, operator guidance information, and the state of the converter after being configured by the entered data. *Id.* at 21–23.

Thus, rather than filling a purported gap in Carnero's disclosure, Petitioner's proposed combination essentially requires replacing Carnero's input device 16 with Fisk's server 56. But neither the Petition nor Dr. Schonfeld explains sufficiently why one of ordinary skill in the art would have been led to use server 56 *instead of input unit 16* to input data into the microprocessors of converters 4. *See* Pet. 37–38; Ex. 1002 ¶ 119.

More importantly, setting aside the problem of replacing input unit 16 for the sake of argument, we disagree that one of ordinary skill in the art would have been led to use server 56 to input that frequency data into signal processing unit 400 "*based on requests for programs it receives from the LCUs*," as argued by Petitioner. *See* Pet. 38 (emphasis added). Rather, we agree with Patent Owner that the requests for programs generated by Fisk's LCUs are intended to select channels from a predetermined lineup of channels and are not disclosed as being able to change the channels in the predetermined lineup, such that server 56 "can only distribute the decoded programs it is fed." *See* Prelim. Resp. 20–21. By way of example, Patent Owner contends that Figure 6 of Fisk depicts server 56 as having three pre-programmed satellite decoders (SAT1, SAT2, and SAT3) that

> may be configured for television channels such as ESPN (*e.g.*, SAT1), Food Network (*e.g.*, SAT2), and The History Channel (*e.g.*, SAT3). These are choices made by the operator of the system, such as hotel management or the community TV provider. If an LCU **66** requests the server **56** "to change the television/video channel supplied to that LCU **66**," [Ex. 1003], 22:27, to ESPN (*e.g.*, SAT1), Food Network (*e.g.*, SAT2), or The

> History Channel (*e.g.*, SAT3), the server is capable of fulfilling that request. *Id.*, 22:22-25.

Prelim. Resp. 20–21. Conversely, Patent Owner argues, if a user desired another channel, such as HBO, server 56 could not provide it because HBO is not one of the predetermined choices. *Id.* at 21. Patent Owner asserts that an LCU can pick from the channels the server has but cannot ask the server to change what channels it receives. *Id.*

Based on our review of Fisk, we agree with Patent Owner's characterization of its disclosure. Namely, Fisk discloses that server 56 receives video streams 60 from satellite dish 22 via downlead 24 and decoder 58 and selects which of the video streams are transmitted to which room 12. Ex. 1003, 22:16–21, Figs. 4, 5. In each room, LCU 66 receives the video stream, decodes it, and feeds it to television 14. *Id.* at 22:22–25. "Each LCU 66 is also operable to send requests over the network 38 to the server 56, for example to change the television/video channel supplied to that LCU 66." *Id.* at 22:25–27. Fisk also discloses distributing television signals to different locations using "a server capable of providing digital television/video signals for a plurality of programmes," "a plurality of receivers each at a respective one of said locations," with "each receiver selecting a required one of the programmes and communicating the selection to the server." *Id.* at 6:7–12. As such, Fisk discloses that the LCUs or receivers select only from the channels available to the server. Furthermore, Petitioner does not direct us to any disclosure in Fisk suggesting that the LCU requests would change the lineup of available channels or programs. *See, e.g.*, Pet. 22 (citing Ex. 1003, 6:7–21) ("When server 56 receives a television channel request from an LCU 66 in a guest room, the server transmits the digital television signal over the network."), 34 (citing

Ex. 1003, 4:1–11, 22:22–27) ("Fisk teaches that server 56 receives channel request information from its LCUs and distributes selected programs to the LCUs.").

Given that Fisk does not teach or suggest that the LCU requests are intended to change the predetermined lineup, there is no reason for one of ordinary skill in the art to input the requests received by server 56 to signal processing unit 400.

For the above reasons, we are not persuaded that the combination of Fisk and Carnero teaches or suggests limitation 9[b]. Accordingly, we determine Petitioner has not met its burden to show a reasonable likelihood it would prevail with respect to the contention that claim 9 is unpatentable over the combination of Fisk and Carnero.

4. Dependent Claims 10–12

Claims 10–12 depend from claim 9 and, thus, contain all the limitations of claim 9. Petitioner's challenges to these dependent claims do not overcome the deficiencies discussed above with respect to independent claim 9. *See* Pet. 47–50. Accordingly, for the same reasons discussed above in connection with claim 9, we find Petitioner has not met its burden to show a reasonable likelihood that claims 10–12 are unpatentable over the combination of Fisk and Carnero.

E. Ground 2: Asserted Obviousness Based on Green and Davis

Petitioner asserts that claims 9–12 are unpatentable based on Green and Davis. Pet. 50–66. Patent Owner provides arguments addressing this asserted ground of unpatentability. Prelim. Resp. 36–57. In particular, Patent Owner argues that Davis does not qualify as prior art to the '715 patent. *Id.* at 54–57. We focus our analysis on this argument because it is dispositive with respect to this ground.

The '715 patent issued from U.S. Patent Application No. 11/553,456, which claims the benefit of three provisional applications including U.S. Provisional Application No. 60/345,965, filed on November 7, 2001. Ex. 1001, codes (21), (60), 1:6–17. Petitioner acknowledges that the '715 patent claims the benefit of the November 7, 2001, provisional filing date without contesting the propriety of the claim. Pet. 1, 13. Based on the current record, the effective filing date of the '715 patent for purposes of this Decision should be taken to be November 7, 2001.

Davis is a publication of U.S. Patent Application No. 10/123,383, which was filed on April 15, 2002 and claims the benefit of U.S. Provisional Application No. 60/284,593, filed on April 18, 2001 (Ex. 1029, "the Davis Provisional"). Ex. 1006, codes (21), (22), (60). Because Davis's filing date postdates the effective filing date of the '715 patent, Davis must be entitled to the benefit of the Davis Provisional filing date to qualify as prior art under 35 U.S.C. § 102(e).

Davis "relates generally to the connection of a satellite antenna to multiple indoor units (IDUs), and more specifically, to an interface which connects at least one satellite antenna to multiple indoor units by means of a local area network (LAN)." Ex. 1006 ¶ 2. Davis discloses a satellite communication system having an outdoor unit ("ODU") 10 that includes satellite antennas 11 for receiving signals transmitted by satellite 5. *Id.* ¶ 34. Each antenna comprises a dish that focuses received signals to feedhorn 12. *Id.* Feedhorn 12 directs the signals to one or more low noise block converters ("LBNs") 13. *Id.* Figure 2 is reproduced below.

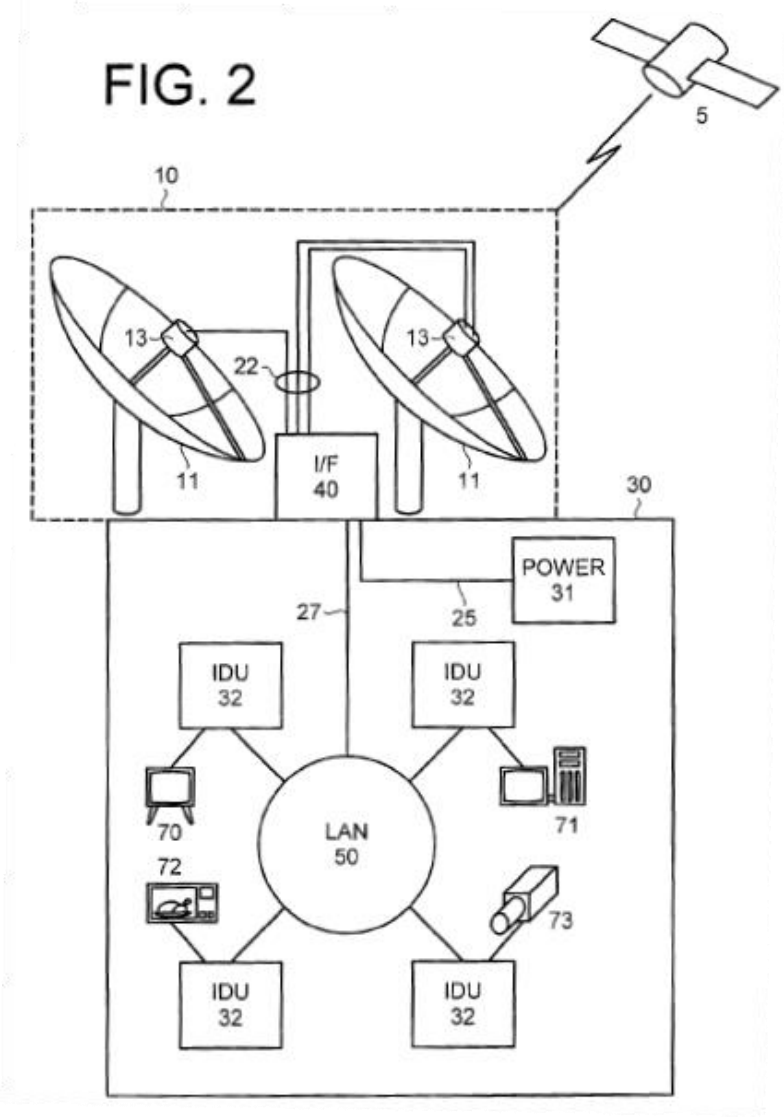

Figure 2 illustrates a satellite communication system in which interface device 40 connects to LBNs 13 of ODU 10 to several indoor units ("IDUs") 32 via wired LAN 50. Ex. 1006 ¶ 37.

A reference patent or published patent application can be entitled to the benefit of its provisional application's filing date for pre-AIA 35 U.S.C. § 102(e) prior art purposes if two conditions are met. First, the provisional application must provide sufficient support for at least one claim in the reference patent or published patent application. *See Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1382 (Fed. Cir. 2015) ("A

provisional application's effectiveness as prior art depends on its written description support for the claims of the issued patent of which it was a provisional."); *Ex parte Mann*, No. 2015-003571, 2016 WL 7487271, at *6 (PTAB Dec. 21, 2016) (discussing whether *Dynamic Drinkware* requires "support in the provisional . . . for all claims, any claim, or something in between" (emphases omitted)).

Second, the provisional application must provide sufficient support for the subject matter relied upon for prior art purposes in the reference patent or published patent application. *See In re Giacomini*, 612 F.3d 1380, 1383 (Fed. Cir. 2010) ("[A]n applicant is not entitled to a patent if another's patent discloses the same invention, which was carried forward from an earlier U.S. provisional application or U.S. non-provisional application."); *Dynamic Drinkware*, 800 F.3d at 1377, 1381–82 (acknowledging that the Board found the petitioner failed to show the provisional application supported subject matter relied upon in the asserted reference, and affirming the Board by also determining that "[n]owhere" does the petitioner show the provisional application supported claims of the asserted reference (i.e., the first condition discussed above)); *Ex parte Mann*, at *5 (explaining that "[t]his subject matter test is in addition to the comparison of claims required by *Dynamic Drinkware*," and that "absurd results would be reached if a subject matter test were not required"); *Comcast Cable Commc'ns, LLC v. Promptu Sys. Corp.*, IPR2018-00345, Paper 10 at 25–26 (PTAB July 2, 2018) (agreeing with the patent owner that the petitioner's "barebones analysis" in its petition is insufficient to show "how the [provisional underlying the asserted reference] provides support for the subject matter relied upon [in the asserted reference]"); *Forescout Technologies, Inc. v. Fortinet, Inc.*, IPR2021-01328, Paper 12 at 9–10 (PTAB Jan. 27, 2022)

("[the petitioner] has an initial burden, not just to compare the challenged claims with the disclosure in [the asserted reference], but to show that the subject matter that [the petitioner] relies on in [the asserted reference] is also found in the [provisional]").

This two-prong requirement to show entitlement to the benefit of a provisional application's filing date in the prior art context is expressly embodied in the MPEP. *See* MPEP § 2136(I)(B) (9th ed. rev. 10.2019 June 2020); *see also* MPEP § 2136.03(III) (explaining that prior art effect under § 102(e) requires (1) "at least one of the claims in the reference patent . . . is supported by the written description of the provisional application"; and (2) the "provisional application must also describe . . . the subject matter relied upon in the reference patent or publication to make the rejection"); MPEP § 2136, Examples 2, 4, and 7.

Relying on the testimony of Dr. Schonfeld, Petitioner argues that both of the above conditions are satisfied by the Davis Provisional. Pet. 25–27 (citing Ex. 1003 ¶ 96, Apps. B, C). Specifically, Petitioner argues that the written description of the Davis Provisional provides support for claim 1 of Davis and provides a table that correlates each limitation of Davis's claim 1 to the corresponding page number or numbers in the Davis Provisional alleged to support the limitation. *Id.* at 25–26 (citing Ex. 1003 ¶ 96, App. B). Petitioner also argues that the written description of the Davis Provisional provides support for the disclosures from Davis relied on in the Petition and provides a table that correlates each relied-on disclosure to the corresponding page number or numbers in the Davis Provisional alleged to support the disclosure. *Id.* at 26–27 (citing Ex. 1003 ¶ 96, App. C). In Appendices B and C of his declaration, Dr. Schonfeld provides tables that are substantially similar to the tables provided in the Petition, although

Dr. Schonfeld's tables include excerpts from the cited pages of the Davis Provisional. Ex. 1003, Apps. B, C.

Focusing on the second condition, Patent Owner argues that "[k]ey portions of Davis upon which the Petition relies were not disclosed in [the Davis Provisional] and therefore cannot be used to support an obviousness argument." Prelim. Resp. 54–55. In particular, Patent Owner argues that the Davis Provisional "fails to provide support for sending a request of paragraphs 55–56 [of Davis], much less transponder select information." *Id.* at 55. Patent Owner adds that Dr. Schonfeld's reliance on the table of Appendix C is a cursory analysis that fails to explain that the quoted excerpts support the disclosures in Davis relied on in the Petition. *Id.*

On this record, we agree with Patent Owner that neither the Petition nor Dr. Schonfeld have shown sufficiently that the subject matter of Davis relied upon is supported in the Davis Provisional. For example, Petitioner relies on paragraphs 55 and 56 of Davis to support the assertion that Davis's interface device 40 "receives request information from the IDUs for content." Pet. 53. Paragraph 55 of Davis reads:

> By utilizing the wired LAN 50 of the present invention, a plurality of IDUs 32 (PCs) configured for Satellite Internet Service can receive content from the same Satellite antenna 11 without requiring a plurality of cables running from the ODU 10 to the IDU. Further, each IDU 32 can transmit requests over the same cable connection, which connects the data bus of LAN 50 to the ISP.[7]

Ex. 1006 ¶ 55. The Petition and Dr. Schonfeld both point to pages 3, 5, and 7 of the Davis Provisional as providing written support for paragraph 55. Pet. 27; Ex. 1002, App. C. Dr. Schonfeld also identifies excerpts from pages

[7] "ISP" refers to Internet Service Provider. Ex. 1006 ¶ 53.

3, 5, and 7, but provides no explanation as to how these excerpts support the subject matter of paragraph 55. Ex. 1002, App. C. Based on our review of these excerpts, we are not persuaded that they support "each IDU 32 can transmit requests over the same cable connection, which connects the data bus of LAN 50 to the ISP." We note that the quoted excerpt from page 7 of the Davis Provisional ("Data to be transmitted over the satellite and control data for the receivers in this invention is sent over the LAN to the unit from the transmitting IDU. A cable connectin [sic] exists from this invention to the transmitter on the ODU, as is current practice.") could arguably be said to disclose transmitting data from an IDU to the ODU. We agree with Patent Owner, however, that this disclosure does not support the paragraph 55 disclosure of "each IDU 32 can transmit requests over the same cable connection, which connects the data bus of LAN 50 to the ISP" in the "full, clear, concise, and exact terms" required by the written description requirement of 35 U.S.C. § 112, ¶ 1. *See* Prelim. Resp. 56 (citing *Amgen Inc. v. Sanofi*, 872 F.3d 1367, 1380 (Fed. Cir. 2017)). Furthermore, although *in haec verba* recitation is not necessary to determine whether one disclosure supports another, the disclosure must do more than "merely render[] the invention obvious." *See Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351–52 (Fed. Cir. 2010) (en banc).

As another example, Petitioner heavily relies on Davis's Figure 2 in support of its arguments. *See, e.g.*, Pet. 24, 54. Yet, the Davis Provisional does not contain any drawing, let alone a drawing the same as or similar to Figure 2. Ex. 1029, 1–11. The Petition and Dr. Schonfeld both point to pages 3, 5, and 7 of the Davis Provisional as providing support for Figure 2, but do not specifically direct us to where the subject matter relied upon from Figure 2 is described on these pages. Pet. 26; Ex. 1002, App. C.

These are just some examples of the shortcomings of the Davis Provisional vis-à-vis the relied upon disclosures of Davis. In general, the Davis Provisional, which is identified as an "Invention Disclosure" form, appears to provide just a rudimentary description of the proposed invention.

In view of the above, we are not persuaded that Petitioner has shown adequately how the disclosure in the Davis Provisional supports the disclosures of Davis relied upon in the Petition. Furthermore, on the record before us, we are not persuaded that application of Davis contains or is amended to contain a specific reference to the provisional application, as required by pre-AIA 35 U.S.C. § 102(e)(1). For these reasons, Petitioner has not shown adequately that Davis qualifies as prior art with respect to the '715 patent. Accordingly, we determine Petitioner has not met its burden to show a reasonable likelihood it would prevail with respect to the contention that claim 9 is unpatentable over the combination of Green and Davis.

IV. CONCLUSION

For the foregoing reasons, we do not institute *inter partes* review.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is *denied* as to all challenged claims of the '715 patent; and

FURTHER ORDERED that no *inter partes* review is instituted.

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