

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROKU, INC.,
Petitioner,

v.

UNIVERSAL ELECTRONICS, INC.,
Patent Owner.

IPR2021-00261
Patent 7,969,514 B2

Before MINN CHUNG, SHARON FENICK, and RUSSELL E. CASS,
Administrative Patent Judges.

Opinion for the Board filed by Administrative Patent Judge CHUNG.

Opinion Dissenting in Part filed by Administrative Patent Judge FENICK.

CHUNG, *Administrative Patent Judge.*

JUDGMENT
Final Written Decision
Determining All Claims Unpatentable
Granting in Part and Denying in Part Patent Owner's
Revised Motion to Amend
35 U.S.C. § 318(a)

I. INTRODUCTION

In this *inter partes* review (“IPR”), instituted pursuant to 35 U.S.C. § 314, Roku, Inc. (“Petitioner”) challenges the patentability of claims 1–6 and 18–20 of U.S. Patent No. 7,969,514 B2 (Ex. 1001, “the ’514 patent”), owned by Universal Electronics, Inc. (“Patent Owner”). Also pending before us is Patent Owner’s Revised Non-Contingent Motion to Amend. Paper 25. This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed below, Patent Owner’s Revised Non-Contingent Motion to Amend is granted-in-part as to the cancellation of claims 1, 2, and 4, and denied-in-part as to revised proposed substitute claims 21–23. As for the remaining original challenged claims, we determine Petitioner has shown by a preponderance of the evidence that claims 3, 5, 6, and 18–20 of the ’514 patent are unpatentable.

II. BACKGROUND

A. Procedural History

Petitioner filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–6 and 18–20 of the ’514 patent. Patent Owner did not file a Preliminary Response. On July 9, 2021, applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we instituted an *inter partes* review of all challenged claims of the ’514 patent based on all grounds presented in the Petition. Paper 9 (“Inst. Dec.”), 45.

After institution, Patent Owner filed a Non-Contingent Motion to Amend, cancelling claims 1, 2, and 4 and proposing substitute claims 21–23.

Paper 17, 2–4 (“MTA”).¹ Petitioner filed an Opposition to the MTA. Paper 20. After considering Patent Owner’s MTA and Petitioner’s Opposition, we issued Preliminary Guidance on Patent Owner’s Non-Contingent Motion to Amend, determining, based on the record at the time, Petitioner had shown a reasonable likelihood that proposed substitute claims 21–23 are unpatentable. Paper 24. Patent Owner then filed a Revised Non-Contingent Motion to Amend (Paper 25, “RMTA”), cancelling claims 1, 2, and 4 and proposing revised substitute claims 21–23. Petitioner filed an Opposition to the RMTA (Paper 28, “Opp. RMTA”). Patent Owner subsequently filed a Reply to the Opposition to the RMTA (Paper 32, “Reply RMTA”), in response to which Petitioner filed a Sur-reply (Paper 35, “Sur-reply RMTA”).

Although Patent Owner did not file a Patent Owner Response, Petitioner filed a Reply (Paper 21, “Pet. Reply”) in response to our Institution Decision. Patent Owner did not file a Sur-reply to Petitioner’s Reply. An oral hearing was held on May 9, 2022, and a copy of the hearing transcript has been entered into the record. Paper 40 (“Tr.”).

B. Related Matters

According to the parties, the ’514 patent has been asserted in the following ITC proceeding: *Certain Electronic Devices, Including Streaming Players, Televisions, Set Top Boxes, Remote Controllers, and Components Thereof*, Inv. No. 337-TA-1200 (USITC) (pending) (“related ITC proceeding”). Pet. 86; Paper 5, 1. Patent Owner additionally identifies the

¹ Patent Owner acknowledges that it filed the MTA in lieu of a Patent Owner Response. Tr. 32:3–9.

following district court cases as related matters: *Universal Electronics, Inc. v. Roku, Inc.*, No. 8:18-cv-01580 (C.D. Cal.); *Universal Electronics, Inc. v. Roku, Inc.*, No. 8:20-cv-00701 (C.D. Cal.); *Universal Electronics, Inc. v. TCL Electronics Holdings Ltd.*, No. 8:20-cv-00704 (C.D. Cal.); *Universal Electronics, Inc. v. Hisense Co.*, No. 8:20-cv-0696 (C.D. Cal.); *Universal Electronics, Inc. v. Funai Electric Co.*, No. 8:20-cv-0700 (C.D. Cal.).
Paper 5, 1.

C. The '514 Patent

The '514 patent issued June 28, 2011 from U.S. Patent Application No. 12/768,325, filed April 27, 2010 (“the '325 application”). Ex. 1001, codes (21), (22), (45). The '325 application is a continuation of U.S. Patent Application No. 11/515,962, filed on September 5, 2006 (“the '962 Application,” issued as U.S. Patent No. 7,907,222). *Id.* at code (63). The '514 patent also claims the benefit of U.S. Provisional Patent Application No. 60/715,229, filed on September 8, 2005. *Id.* at code (60).

The '514 patent describes a system and method for setting up and configuring a universal remote control to command functions of one or more types of remotely controllable appliances, such as televisions, video cassette recorders (VCRs), cable boxes, and digital video recorders (DVRs). *Id.* at 1:15–22; Abstr.

Figure 4 of the '514 patent is reproduced below.

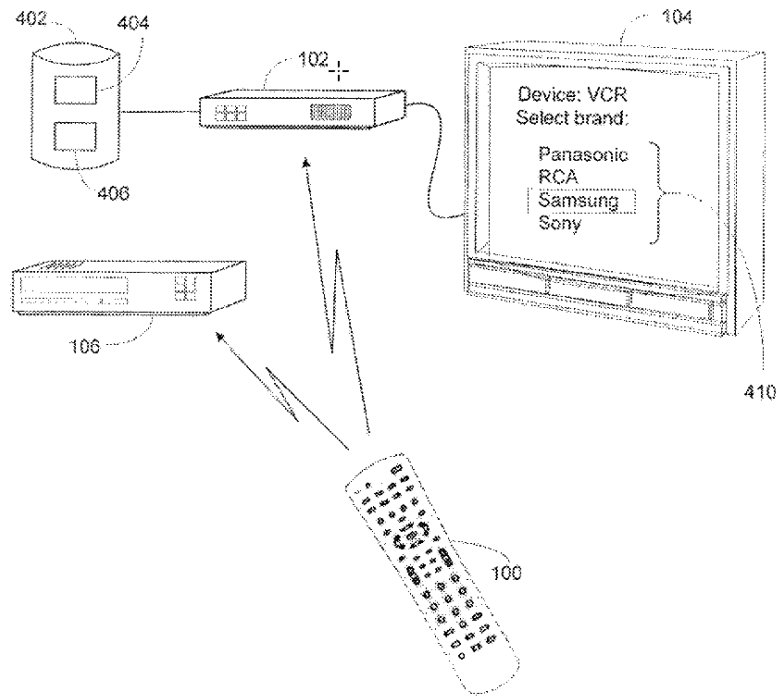


FIGURE 4

Figure 4 illustrates an exemplary embodiment where remote control 100 may be used with set top box (STB) 102 to command the functions of various appliances, such as TV set 104 and VCR 106. *Id.* at 4:1–7.

To facilitate setting up remote control 100 to command operation of appliances, STB 102 may be equipped with data 404 and application program 406, preferably stored locally within STB 102 on mass storage 402 or other storage device accessible to STB 102. *Id.* at 4:7–12. During the user set up process, application 406 is responsive to IR (infrared) signals issued by remote control 100. *Id.* at 4:32–33. For example, when the user presses and holds setup key 208 of remote control 100, the remote control enters a Setup Mode and transmits to STB 102 a specific “setup” IR code,

which is interpreted as a command to initiate “Remote Setup/Help” application 406 at STB 102. *Id.* at 4:35–42.

Upon initiation, STB application 406 may display on TV 104 a user prompt, such as “What device do you want to setup for control?” together with a list of valid device types, e.g. “TV,” “VCR,” “Receiver,” etc. *Id.* at 4:62–65. The user may then select, using navigation keys 214 of remote control 100, a desired device type from the displayed list, for example, “VCR.” *Id.* at 5:4–6. Application 406 may respond by displaying on TV 104 a confirmation of the selected device type together with scrollable list 410 of valid brand names for that device type, as illustrated in Figure 4 reproduced above. *Id.* at 5:10–13. The brand names that comprise this list are obtained from data file 404. *Id.* at 5:13–14. The user may then select (once again via use of keys 214) a desired brand name, and application 406 may respond by displaying the remote control setup code number most likely to result in selection of an infrared code set which will operate appliances of the type and manufacture indicated. *Id.* at 5:20–25. The user may enter the remote control setup code number into remote control 100 by using digit entry keys 204 on the remote control. *Id.* at 5:32–34.

In another embodiment, certain subsets of the keys of remote control 100 may be configured to always transmit command codes corresponding to a specific device. *Id.* at 6:21–30. In this embodiment, certain remote control keys have a fixed assignment to always transmit the same code regardless of the currently selected device. *Id.* at 6:30–32.

D. The Challenged Claims

Original challenged claims 1, 2, and 4 are cancelled as we grant in part Patent Owner’s RMTA as to the cancellation of claims 1, 2, and 4.

Among the remaining original challenged claims, dependent claim 3 and independent claims 18 and 20 are representative of the claimed subject matter and are reproduced below (together with claim 1 from which claim 3 depends).²

1. A method for providing interactive instructions to a user to set up a controlling device used to command a plurality of controllable appliances, the method comprising:

- [1.1] providing on a first controllable appliance programming for the display of instructions to the user in response to input from the user via the controlling device;
- [1.2] providing input by the user to the first controllable appliance via the controlling device indicating that the controlling device is to be set up to command a second controllable appliance;
- [1.3] accessing instruction data associated with the second controllable appliance by the programming provided on the first controllable appliance; and
- [1.4] in response to input by the user via the controlling device, displaying the instruction data by the programming provided on the first controllable appliance for use by the user in setting up the controlling device to command the second controllable appliance.

Ex. 1001, 8:29–46.

3. The method as recited in claim 1 wherein the instruction data is provided automatically to the first controllable device by a remote source.

Id. at 8:51–53.

18. A method for configuring a controlling device having a plurality of keys, the method comprising:

- [18.1] receiving an input into the controlling device via an actuation of one or more of the plurality of keys where the

² The listed claims include bracketing used by Petitioner.

input functions to configure the controlling device whereupon a future activation of one or more function keys of the plurality of keys will cause a transmission of one or more commands to command functional operations of at least one intended target controllable appliance;

[18.2] transmitting from the controlling device to a receiving device data indicative of the input received via actuation of the one or more of the plurality of keys; and

[18.3] using at the receiving device the transmitted data to cause an echoing of one or more of the plurality of keys actuated to provide the input used to configure the controlling device;

[18.4] wherein the receiving device is in communication with a display device and echoing of one or more of the plurality of keys actuated to provide the input used to configure the controlling device comprises displaying a representation on the display device of the one or more of the plurality of keys being echoed.

Id. at 10:14–36.

20. A method for configuring a controlling device having a plurality of keys, the method comprising:

[20.1] receiving an input into the controlling device via an actuation of one or more of the plurality of keys where the input functions to configure the controlling device whereupon a future activation of one or more function keys of the plurality of keys will cause a transmission of one or more commands to command functional operations of at least one intended target controllable appliance;

[20.2] transmitting from the controlling device to a receiving device data indicative of the input received via actuation of the one or more of the plurality of keys; and

[20.3] using at the receiving device the transmitted data to cause an automatic progression through a sequence of displayed setup prompts.

Id. at 10:40–55.

III. ORIGINAL CHALLENGED CLAIMS

We address Petitioner’s challenges to remaining original claims 3, 5, 6, and 18–20 before turning to Patent Owner’s RMTA. Patent Owner did not file a Patent Owner Response and does not dispute Petitioner’s arguments and evidence regarding unpatentability of original claims 3, 5, 6, and 18–20. *See* Tr. 32:3–9. Petitioner asserts that, by not filing a Patent Owner Response, Patent Owner has “waived all arguments regarding the obviousness challenges to claims 1-6 and 18-20 set forth in the Petition.” Pet. Reply 1–3. Patent Owner did not file a Sur-reply to Petitioner’s Reply and does not dispute Petitioner’s contention that Patent Owner waived arguments regarding patentability of the original challenged claims. Based on the full record, we agree with Petitioner and find that Patent Owner has waived all arguments regarding the patentability of remaining original challenged claims 3, 5, 6, and 18–20.

A. Instituted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability with respect to remaining original challenged claims 3, 5, 6, and 18–20. Pet. 2–3.

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
3, 5, 6, 20	103(a) ³	Seidel, ⁴ Caris ⁵
18, 19	103(a)	Seidel, Caris, O'Donnell ⁶
3, 6, 20	103(a)	Lee ⁷
3	103(a)	Lee, Seidel
5	103(a)	Lee, Caris
18, 19	103(a)	Lee, O'Donnell

Petitioner supports its challenge with a declaration from John Tinsman (Ex. 1003, “Tinsman Declaration”).

B. Relevant Principles of Law

To prevail in challenging Patent Owner's claims, Petitioner must demonstrate by a preponderance of the evidence that the claims are unpatentable. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). “In an [*inter partes* review], the petitioner has the burden from the onset to show with

³ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. § 103 effective March 16, 2013. Because the '514 patent has an effective filing date prior to the effective date of the applicable AIA amendment, we refer to the pre-AIA version of § 103.

⁴ U.S. Patent No. 7,671,758 B1, filed Oct. 4, 2004, issued Mar. 2, 2010 (Ex. 1005, “Seidel”).

⁵ U.S. Patent No. 7,562,128 B1, filed Sept. 1, 2000, issued July 14, 2009 (Ex. 1006, “Caris”).

⁶ U.S. Patent No. 6,650,248 B1, filed Dec. 22, 1999, issued Nov. 18, 2003 (Ex. 1009, “O'Donnell”).

⁷ U.S. Patent No. 9,792,133 B2, filed May 3, 2012, issued Oct. 17, 2017 (Ex. 1016, “Lee”).

particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). This burden never shifts to Patent Owner. See *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)) (discussing the burden of proof in *inter partes* review).

A 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 the 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 skill in the art; and (4) where in evidence, so-called secondary considerations.⁸ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Additionally, the obviousness inquiry typically requires an analysis of “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”)); see *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688

⁸ Patent Owner does not assert or rely on objective evidence of nonobviousness in this case.

F.3d 1342, 1366–67 (Fed. Cir. 2012) (holding that “some kind of motivation must be shown from some source, so that the [trier of fact] can understand why a person of ordinary skill would have thought of either combining two or more references or modifying one to achieve the patented [invention]”)). Petitioner cannot satisfy its burden of proving obviousness by employing “mere conclusory statements.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

We analyze Petitioner’s asserted grounds based on obviousness with the principles identified above in mind.

C. Level of Ordinary Skill in the Art

We begin our analysis by addressing the level of ordinary skill in the art. Supported by the testimony of Mr. Tinsman, Petitioner proposes that a person of ordinary skill in the art “would have had a Bachelor’s degree in electrical engineering or equivalent degree with at least two years of relevant industry experience, including in consumer electronics, graphical user interfaces, cable or satellite television systems, set-top boxes, multimedia systems, or programmable remote controls.” Pet. 15 (citing Ex. 1003 ¶¶ 40–42).

Although Patent Owner did not file a Patent Owner Response, in its MTA and RMTA, Patent Owner asserts that, citing the testimony of its declarant, Dr. Rosenberg, a person of ordinary skill in the art “would have been a person possessing a bachelors degree in electrical engineering, mechanical engineering, computer science, or equivalent degree with two years of work experience relating to communications or consumer electronics.” MTA 8 (citing, *inter alia*, Ex. 2003 ¶¶ 36–37); RMTA 15 (citing, *inter alia*, Ex. 2003 ¶¶ 36–37; Ex. 2005 ¶¶ 29–33).

We find that the parties’ proposals are not materially different despite minor differences in wording between them (e.g., “at least two years” of “industry experience, including in consumer electronics, graphical user interfaces, cable or satellite television systems, set-top boxes, multimedia systems, or programmable remote controls” under Petitioner’s proposal, as opposed to “two years” of “work experience relating to communications or consumer electronics” under Patent Owner’s proposed definition). See Pet. 15; MTA 8; RMTA 15. For purposes of this Final Written Decision, we find no meaningful differences between the parties’ respective definitions that would materially alter the outcome of this Decision. These proposals are similar for all purposes relevant to this Final Written Decision, and both are consistent with the level of ordinary skill in the art reflected in the disclosure of the ’514 patent and the prior art of record. See *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995).

Nonetheless, for this Final Written Decision, we adopt Patent Owner’s definition of a person of ordinary skill in the art at the time of the claimed invention. Our analysis and conclusions in this Final Written Decision would be the same regardless of whether Petitioner’s or Patent Owner’s definition of the level of ordinary skill in the art is adopted.

D. Claim Construction

In an *inter partes* review, we apply the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b), following the standard articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). 37 C.F.R. § 42.100(b) (2020). In applying such standard, claim terms are generally given their ordinary and customary

meaning, as would be understood by a person of ordinary skill in the art, at the time of the invention and in the context of the entire patent disclosure. *Phillips*, 415 F.3d at 1312–13. “In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17).

Petitioner states that no construction is necessary in this proceeding. Pet. 15. Based on the full record, for purposes of this Final Written Decision, we determine no claim terms require express construction. See *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (holding that only terms that are in controversy need to be construed, and “only to the extent necessary to resolve the controversy”); see also *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (applying *Vivid Techs.* in the context of an *inter partes* review).

E. Scope and Content of the Prior Art

1. Overview of Seidel (Ex. 1005)

Seidel describes programming a remote control using a set-top control unit and a display, such as a TV. Ex. 1005, Abstr., 1:20, 11:56–13:31.

Figure 1 of Seidel is reproduced below.

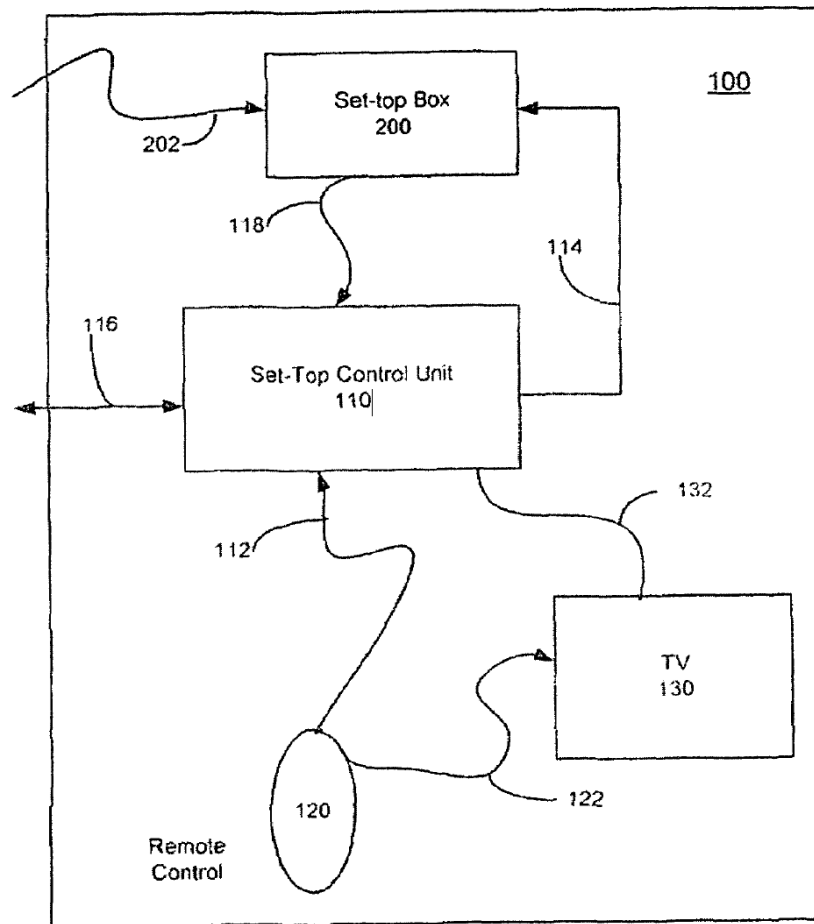


Figure 1 depicts a system controlling a set-top box in an exemplary embodiment. *Id.* at 2:66–67.

Seidel describes various embodiments for programming a remote control. *Id.* at 11:56–15:47. For example, the remote control may be programmed using a mode code. *Id.* at 11:56–13:21. In an embodiment, when an input signal is received at set-top control unit 110, e.g., as the result of a user pressing a button on remote control 120, set-top control unit 110 compares the received input signal to information stored in a control data store to match known signals from a specific remote control and determine a particular mode code associated with the remote control. *Id.* at 12:22–46. In

another embodiment, set-top control unit 110 may display instructions on the TV to instruct the user on how to program the remote control using the mode code. *Id.* at 12:63–65. For example, when the user enters the mode code into the remote control using the keys on the remote control, the target remote control is programmed to emulate the specific remote control functionality indicated by the mode code. *Id.* at 12:65–13:5.

In yet another embodiment, set-top control unit 110 may display information on a display (such as TV 130) that instructs the user to select a brand of the device the user wishes to control with the remote control. *Id.* at 13:54–58. For example, set-top control unit 110 may display a list of brands on TV 130, and the user may use the remote control to select one of the brands. *Id.* at 13:58–60. Once set-top control unit 110 receives an input signal from a remote control that identifies a selected brand, the set-top control unit may narrow its search of potential mode codes that correspond to that brand. *Id.* at 13:60–64.

2. Overview of *Caris* (Ex. 1006)

Caris describes programming a remote control using a set top box connected to a server. Ex. 1006, Abstr., 5:38–58.

Figure 1 of Caris is reproduced below.

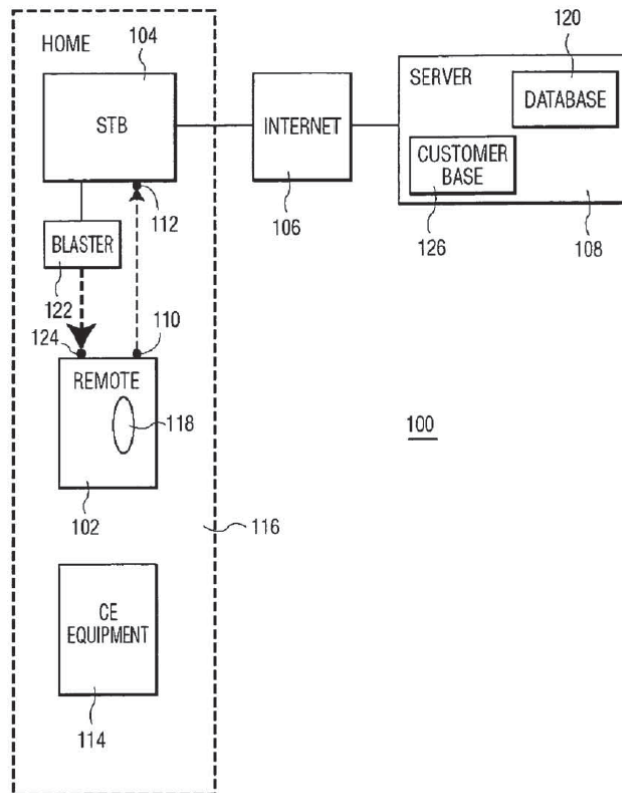


FIG. 1

Figure 1 is a block diagram of system 100, which includes remote control device 102, appliance 104 (which is connected to Internet 106), and server 108. *Id.* at 5:25–30.

In this example, appliance 104 comprises a set top box (STB) purchased by a consumer in combination with remote control device 102 for operating appliance 104 via, e.g., infrared transmitter 110 and receiver 112. *Id.* at 5:30–33. Remote control device 102 has hard buttons (such as dedicated button 118) or a touch screen, and “is programmable in order to adopt control codes for other IR- or RF-controllable equipment, e.g., appliance 114, that the consumer has installed or will install in his/her home 116.” *Id.* at 5:27–29, 5:34–37. “The IR or RF code transmitted by

remote 102 upon the consumer activating button 118 is interpreted by [set top box] 104 as a request to send a message to server 108.” *Id.* at 5:46–49. Server 108 has database 120, which “relates types, versions and brands of apparatus to their individual command control code sets and [user-interface] aspects.” *Id.* at 5:58–60. Remote control device 102 may be programmed via infrared or radio-frequency blaster 122 connected to appliance 104. *Id.* at 6:4–5. When positioned close to, and with input 124 facing, blaster 122, remote control device 102 receives and processes an incoming stream of data that comprises the control codes and user-interface data requested from server 108, and potentially also certain user customizations. *Id.* at 6:5–12.

Caris describes an alternative embodiment using a look-up table. *Id.* at 6:53–7:8. Figure 2 of Caris is reproduced below.

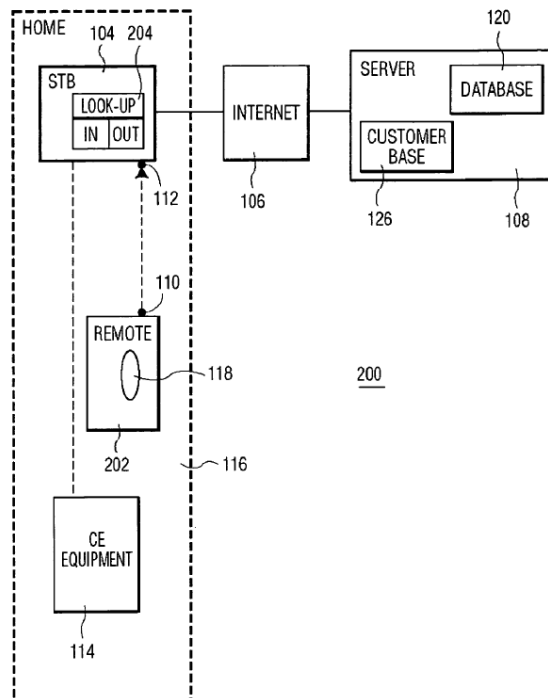


FIG. 2

Figure 2 illustrates a system in which remote control device 202 is preprogrammed. *Id.* at 6:53–55.

In this embodiment, remote control device 202 uses a fixed protocol to communicate with set-top box 104 for controlling apparatus 114. *Id.* at 6:55–57. In response to activating dedicated hard button 118 on remote control device 202, set-top box 104 connects to a server on the Internet, downloads “data representative of a control code for control of apparatus 114,” and stores the data in look-up table 204 that associates an input received from remote 202 with an output as programmed. *Id.* at 6:58–7:4. The output is now the data for the control command required for control of apparatus 114 via STB 104. *Id.* at 7:4–5. Specific codes are then retrieved when receiving subsequent inputs from remote control device 202. *Id.* at 7:2–5.

3. Overview of *O’Donnell* (Ex. 1009)

O’Donnell describes a “method, apparatus, and system for allowing a user to program a universal remote control transmitter device by presenting interactive display menus.” Ex. 1009, Abstr. In an embodiment, the menus are displayed on a television. *Id.* at 1:52–53.

O’Donnell describes that “[p]ressing the appropriate button” on the URC (universal remote control) “leads to a menu” displayed on the TV displaying “appropriate instructions . . . as to how to cause the URC to enter the program mode for a desired type of appliance, e.g., for VCR’s.” *Id.* at 1:59–66. After the user selects an appliance, the URC enters the “program” mode, the TV displays “an acknowledgement 11 that the URC programming routine has been entered successfully and the TV enters its URC routine 12 for the selected device, for example, VCRs.” *Id.* at 1:66–2:5.

O’Donnell further describes that “[t]he next menu . . . may prompt the user to select the brand of the VCR by navigating through a list of possible

VCR brands.” *Id.* at 2:5–7. According to O’Donnell, “[o]nce the brand has been selected, the URC sends a confirmation of the sequence of codes back to the receiver, which acknowledges with an ON SCREEN DISPLAY message. For example, ‘you have selected a Sony brand VCR.’” *Id.* at 2:44–47.

F. Obviousness over Seidel and Caris

Petitioner contends that claims 3, 5, 6, and 20 are unpatentable under § 103(a) over the combination of Seidel and Caris. Pet. 16–48. Petitioner provides detailed explanations and specific citations to the prior art indicating where in the references the claimed features are disclosed or explaining how the differences between the claimed subject matter and the prior art are such that the subject matter would have been obvious to a person of ordinary skill in the art. *Id.* at 20–48. In addition, Petitioner relies upon the Tinsman Declaration (Ex. 1003) to support its positions. *Id.* As noted above, Patent Owner did not file a Patent Owner Response and does not dispute Petitioner’s arguments and evidence regarding obviousness of claims 3, 5, 6, and 20 over the combination of Seidel and Caris.

1. Claim 3

Claim 3 depends from claim 1 and, therefore, includes all recitations of independent claim 1, although claim 1 is cancelled. *See* 35 U.S.C. § 112, ¶ 4 (“A claim in dependent form shall be construed to incorporate by

reference all the limitations of the claim to which it refers.”).⁹ Petitioner challenges claims 1 and 3 as unpatentable under 35 U.S.C. § 103(a) over the combination of Seidel and Caris. Pet. 23–33, 36–37. Because claim 3 includes all recitations of claim 1, we discuss Petitioner’s argument and evidence directed to recitations of claim 1 before addressing Petitioner’s challenge to claim 3.

In addressing the recitations of claim 1, Petitioner draws a correspondence between (1) the recited “controlling device” and Seidel’s remote control 120; (2) the recited “first controllable appliance” and Seidel’s set-top control unit 110; and (3) the recited “second controllable appliance” and Seidel’s consumer electronics devices, including TV 130. Pet. 23–25 (citing Ex. 1005, 3:54–58, 12:63–65, 13:48–64, 15:20–27, Fig. 1). In making these correspondences or mappings, Petitioner relies generally on Seidel’s described functionality of configuring a remote control using a mode code to meet the limitations from claim 1 requiring “providing on a first controllable appliance programming for the display of instructions to the user,” “providing input by the user to the first controllable appliance via the controlling device,” “accessing instruction data associated with the second controllable appliance,” and “displaying the instruction data by the programming provided on the first controllable appliance.” *Id.* at 24–33. In addition, Petitioner relies on Caris’s disclosure of a dedicated button on a remote control used for initiating programming of the remote control to meet

⁹ Section 4(c) of the AIA re-designated 35 U.S.C. § 112, ¶ 4, as 35 U.S.C. § 112(d). Because the ’514 patent has a filing date prior to September 16, 2012, the effective date of § 4(c) of the AIA, we refer to the pre-AIA version of 35 U.S.C. § 112. See AIA § 4(e).

the limitation from claim 1 requiring providing programming and “displaying the instruction data . . . in response to input from the user via the controlling device.” *Id.* at 20–21, 27–28.

Petitioner asserts that Seidel teaches “[a] method for providing interactive instructions to a user to set up a controlling device used to command a plurality of controllable appliances,” as recited in the preamble of claim 1, because Seidel discloses a “method and apparatus for programming a remote control.” Pet. 23 (citing Ex. 1005, Abstr.). As discussed above, Petitioner contends that Seidel’s “remote control” is the claimed “controlling device” recited in the claims. *Id.* According to Petitioner, Seidel also describes setting up a remote control to command a plurality of controllable appliances because in Seidel the user is able to “make full use of the programmable universal remote control, as it may control any device in a home entertainment center or a device outside of [an] entertainment center, such as multiple consumer electronics devices.” *Id.* (citing Ex. 1005, 15:20–27). Petitioner further asserts that Seidel teaches “providing interactive instructions to a user to set up a controlling device” because Seidel discloses displaying interactive instructions on a display “to walk the user through all parts and aspects of the [programming] process.” *Id.* at 23–24 (citing Ex. 1005, 3:54–58, 12:63–65, 13:48–50, 13:54–60).

Based on the complete record and for the reasons explained by Petitioner, we find that Petitioner has demonstrated sufficiently Seidel teaches the preamble of claim 1.¹⁰

¹⁰ Because Petitioner has shown that the recitations in the preamble are satisfied by Seidel, we need not determine whether the preamble is limiting. *See Vivid Techs.*, 200 F.3d at 803.

Petitioner identifies as claim element [1.1] the limitation of claim 1 reciting “providing on a first controllable appliance programming for the display of instructions to the user in response to input from the user via the controlling device.” Pet. 24. Petitioner asserts that Seidel teaches “providing on a first controllable appliance programming for the display of instructions to the user” recited in claim element [1.1] because Seidel’s set-top control unit 110 may “***display instructions on the TV to instruct the user*** on how to program target remote control using the mode code.” *Id.* at 25 (quoting Ex. 1005, 12:63–65). Petitioner also points to Seidel’s disclosure that set-top control unit 110 displays instructions that prompt the user to select a brand of the device the user wishes to control during the process of programming the remote control using mode code. *Id.* (citing Ex. 1005, 13:48–64). According to Petitioner, this way, Seidel’s set-top control unit 110 may “*interact with the user* to improve the accuracy, efficiency and/or simplicity of detecting the particular mode code.” *Id.* at 24 (quoting Ex. 1005, 13:48–50).

Petitioner further contends that Seidel in combination with Caris teaches the display of instructions “in response to input from the user via the controlling device,” as recited in claim 1. Pet. 27–28 (citing Ex. 1005, 12:30–35, 12:67–13:2; Ex. 1006, 5:17–24, 5:47–6:3; Ex. 1003 ¶¶ 137–139). Although Petitioner asserts that Seidel’s disclosure of “remote control-specific key presses (used to configure the target remote control with the mode code)” suggests using remote control key presses to initiate the remote control programming process (*id.* at 27 (citing Ex. 1005, 12:67–13:2)), Petitioner acknowledges that “Seidel does not explicitly describe the process for initializing the target remote control for programming” (*id.* at 20). Citing

the testimony of Mr. Tinsman, Petitioner contends that a person of ordinary skill in the art would have known that “one of the most common ways to initialize the target remote control would have been to press a dedicated button on the target remote control, such as a setup button.” *Id.* (citing Ex. 1003 ¶ 120). According to Petitioner, Caris explicitly discloses such a button (*id.*) by describing a remote control with a “dedicated button” used to initiate a remote control set-up process (*id.* at 27 (citing Ex. 1006, 5:17–24)).

Petitioner contends that “[i]n response to pressing this dedicated button, Caris’s STB connects to a server, which displays prompts instructing the user to specify consumer electronic equipment to control.” Pet. 27–28 (citing Ex. 1006, 5:17–24). Petitioner further asserts that in Caris, “[s]imilar to Seidel, the user is instructed to provide information such as the brand and type of the device, which is thereafter used to configure the remote to control said devices.” *Id.* at 28 (citing Ex. 1006, 5:47–6:3).

Petitioner identifies as claim element [1.2] the limitation of claim 1 reciting “providing input by the user to the first controllable appliance via the controlling device indicating that the controlling device is to be set up to command a second controllable appliance.” Pet. 28. Petitioner asserts that Seidel teaches claim element [1.2] because Seidel describes that “the user may use the ‘target remote control’ to select a particular brand for the device to be controlled, which indicates that the user wishes to set-up the remote control to control the particular device.” *Id.* (citing Ex. 1005, 13:48–64). According to Petitioner, in Seidel “[o]nce the set-top control unit 110 receives an input signal from a remote control that identifies a selected brand, the set-top control unit 110 may narrow its search of potential mode codes that correspond to that brand” and “[i]n response to this selection, the

set-top control unit displays the ‘particular mode code on a display to allow the user to manually program a target remote control with the particular mode code.’” *Id.* at 28–29 (citing Ex. 1005, 13:48–64, Abstr.).

Petitioner identifies as claim element [1.3] the limitation of claim 1 reciting “accessing instruction data associated with the second controllable appliance by the programming provided on the first controllable appliance.” Pet. 30. Petitioner contends that Seidel discloses “accessing instruction data associated with the second controllable appliance” because Seidel describes that set-top control unit 110 accesses a specific mode code and subsequently displays the mode code with corresponding instructions to instruct a user to program the remote control. *Id.* (citing Ex. 1005, 12:60–13:5). According to Petitioner, Seidel describes set-top unit 110 accessing “control data store 700” to determine the particular mode code corresponding to the device to be controlled, where “[c]ontrol data store 700” includes data that “map[s] one or more user button presses to a set of mode codes” as well as “information that maps mode codes to a brand of the target devices controlled by the mode codes.” *Id.* at 31 (citing Ex. 1005, 12:1–11, 12:38–51, Fig. 6).

Petitioner identifies as claim element [1.4] the limitation of claim 1 reciting “in response to input by the user via the controlling device, displaying the instruction data by the programming provided on the first controllable appliance for use by the user in setting up the controlling device to command the second controllable appliance.” Pet. 32. Petitioner asserts that Seidel teaches claim element [1.4] because Seidel describes, in response to receiving the input from the user, determining and displaying a mode code

with instructions instructing the user to program the target remote control with mode code. *Id.*

Citing Figure 6 of Seidel, Petitioner asserts that step 640 shown in Figure 6 depicts the displaying of the mode code for the user to use in setting up the remote control. Pet. 32–33 (citing Ex. 1005, Fig. 6). According to Petitioner, Seidel describes the “set-top control unit 110 displays the particular mode code determined in step 630 on a display, such as TV 130.” *Id.* at 33 (quoting Ex. 1005, 12:60–13:5). Petitioner further argues that Seidel’s set-top control unit 110 also displays “instructions on the TV to instruct the user on how to program target remote control using the mode code” and that after the user enters the mode code, “the target remote control is programmed to emulate the specific remote control functionality indicated by the mode code.” *Id.* (quoting Ex. 1005, 12:60–13:5).

Claim 3 depends from claim 1 and further recites “wherein the instruction data is provided automatically to the first controllable device by a remote source.” Ex. 1001, 8:51–53. Petitioner asserts that both Seidel and Caris describe downloading instruction data from a server (i.e., a remote source) and also suggest that “this may occur automatically.” Pet. 36 (citing Ex. 1003 ¶ 158). According to Petitioner, Seidel describes, “[c]ontrol data may be populated in control data store [700] by a variety of means, e.g., it may be stored at time of manufacture[...] or may be **loaded into control data store [700] over a network connection** (not shown).” *Id.* at 36–37 (citing Ex. 1005, 11:21–29). Petitioner argues that a person of ordinary skill in the art would have understood that “loading” the instruction into the set top control unit 110 would have rendered obvious the process of automatically providing instruction data to the first controllable device. *Id.*

at 37 (citing Ex. 1003 ¶ 159). Petitioner asserts that in Seidel a user need not manually load the instruction data; rather, a server may load the data over a network connection. *Id.* (citing Ex. 1003 ¶ 159).

Petitioner contends that Caris also discloses automatically identifying and providing instruction data. Pet. 37. According to Petitioner, Caris describes the download and “automatic installation” of new software from a server over a network, such as the Internet. *Id.* (citing Ex. 1006, 1:34–51, 1:65–2:4). Petitioner argues that a person of ordinary skill in the art would have understood that this automatic installation would have also been used with Seidel to automatically download the mode code data. *Id.* (citing Ex. 1003 ¶ 160). Petitioner further asserts that “[t]he automatic installation of new code data would have been desirable to further provide an easier process for the user to program the remote control and to minimize frustration—goals explicitly stated in Seidel.” *Id.* (citing Ex. 1005, 3:54–58; Ex. 1003 ¶¶ 160–161).

Regarding the rationale to combine Seidel with Caris, Petitioner contends, citing the testimony of Mr. Tinsman, that a person of ordinary skill in the art would have been motivated to combine Seidel with Caris because Seidel suggests using remote control key presses to initiate the remote control programming process and a person of ordinary skill in the art would have looked to Caris for its explicit description of a remote control with a “dedicated button” used to initiate a remote control set-up process. Pet. 20–21 (citing Ex. 1003 ¶¶ 119–126; Ex. 1005, 12:30–35, 12:67–13:2, 13:48–64; Ex. 1006, 5:17–24, 5:47–6:3). Petitioner further contends that a person of ordinary skill in the art would have recognized that implementing the dedicated button would have provided the user with a simple and efficient

way to initiate the remote control programming process. *Id.* at 22 (citing Ex. 1003 ¶ 123). According to Petitioner, combining Caris’s dedicated button with Seidel would have furthered “Seidel’s express goals of facilitating the ease of programming and minimizing user frustration” and “enabling the set-top control unit 110 to ‘*interact with the user* to improve the accuracy, efficiency and/or simplicity of detecting the particular mode code.’” *Id.* (citing Ex. 1005, 3:54–58, 13:48–50; Ex. 1003 ¶ 123).

In addition, Petitioner asserts that a person of ordinary skill in the art would have had a reasonable expectation of success in combining Seidel with Caris because “[b]oth Seidel and Caris use common and similar remote controls to perform similar operations.” Pet. 21 (citing Ex. 1003 ¶¶ 124–126). Petitioner further argues that it would have been obvious to combine Caris’s remote control having a dedicated button with Seidel because “combining Seidel with Caris would have resulted in merely combining known elements to yield predictable results.” *Id.* at 22 (citing Ex. 1003 ¶¶ 124–126).

Based on the complete record and for the reasons explained by Petitioner, we find that Petitioner has demonstrated sufficiently the combination of Seidel and Caris teaches all recitations of claim 3. We also find that Petitioner articulates sufficient rationale for combining the respective teachings of Seidel and Caris in the manner proposed by Petitioner to arrive at the subject matter recited in claim 3. Having weighed each of the *Graham* factors, including the scope and content of the prior art and the differences between the prior art and the challenged claim, we determine that Petitioner has demonstrated by a preponderance of the

evidence that claim 3 is unpatentable under 35 U.S.C. § 103(a) over the combination of Seidel and Caris.

2. Claim 5

Claim 5 depends from claim 1 and further recites “wherein the programming is provided automatically to the first controllable appliance by a remote source.” Ex. 1001, 8:57–59. Petitioner addresses claim 5 by referencing its arguments and evidence directed to claim 4, which depends from claim 1 and similarly recites “wherein at least a portion of the programming provided on the first controllable appliance is provided from a remote source” (*id.* at 8:54–56). Pet. 38–39. In the context of addressing claim 4, Petitioner contends that Seidel describes communication with a remote server over a network and a person of ordinary skill in the art would have looked to references like Caris to provide an upgradable set-top control unit 110 to allow for continued programming and updating of universal remote controls as described in Seidel. *Id.* at 37–38 (citing Ex. 1005, 2:50–58; Ex. 1003 ¶¶ 162–163). According to Petitioner, Caris’s STB “can be upgraded through software” to enhance its functionality. *Id.* at 38 (citing Ex. 1006, 6:21–24). Petitioner argues that a person of ordinary skill in the art would have understood that Caris’s upgradable software being received from a server over the Internet discloses the programming being provided from a remote source. *Id.* (citing Ex. 1003 ¶¶ 162–163).

Addressing claim 5, Petitioner additionally points to Caris’s disclosure that if a new software feature becomes available, “it can be downloaded via the network for preferably automatic installation” in the STB. *Id.* at 38–39 (citing Ex. 1006, 1:41–47; Ex. 1003 ¶ 164). Thus, Petitioner asserts that the combination of Seidel and Caris teaches “the

programming is provided automatically to the first controllable appliance by a remote source,” as recited in claim 5. *Id.* at 39.

Based on the complete record and for the reasons explained by Petitioner, we determine that Petitioner has demonstrated by a preponderance of the evidence that claim 5 is unpatentable under 35 U.S.C. § 103(a) over the combination of Seidel and Caris.

3. Claim 6

Claim 6 depends from claim 1 and further recites “wherein the instructions include a series of navigable menus from which the user can select the device type and brand of the second controllable appliance.” Ex. 1001, 8:60–63. Petitioner asserts that the combination of Seidel and Caris teaches the additionally recited limitation of claim 6. Pet. 39–41.

Petitioner contends that Seidel discloses displaying instructions on a display device to guide the user through the remote control configuration process (Pet. 39 (citing Ex. 1005, 3:54–58)), including displaying a “list of brands on TV 130” to prompt the user to select one of the listed brands using the target remote control (*id.* (citing Ex. 1005, 13:54–60)). According to Petitioner, in Seidel the user navigates this list of brands in order to “select one of the brands,” which discloses a navigable menu. *Id.* (citing Ex. 1005, 13:54–60; Ex. 1003 ¶ 166). Petitioner also points to Caris’s disclosure of “pages” in an “on-screen Setup Menu” used to identify the “proper brand, type, and version” for a particular device to be controlled. *Id.* (citing Ex. 1006, 3:30–37). Based on these disclosures, Petitioner argues that a person of ordinary skill in the art would have understood that the Seidel-Caris combination would instruct the user to supply device type and brand

information using a series of navigable menu. *Id.* at 39–40 (citing Ex. 1003 ¶ 167).

Petitioner further argues that a person of ordinary skill in the art would have been motivated to combine Seidel and Caris because she would have understood that adding prompts with instructions to select the type/brand of device would aid in eliminating improper mode codes from a set to facilitate easier programming and to minimize user frustration. Pet. 40 (citing Ex. 1003 ¶ 168).

Based on the complete record and for the reasons explained by Petitioner, we determine that Petitioner has demonstrated by a preponderance of the evidence that claim 6 is unpatentable under 35 U.S.C. § 103(a) over the combination of Seidel and Caris.

4. Independent Claim 20

Petitioner challenges claim 20 as unpatentable under 35 U.S.C. § 103(a) over Seidel and Caris. Pet. 41–48. In addressing the recitations of claim 20, Petitioner draws a correspondence between (1) the recited “controlling device having a plurality of keys” and Seidel’s remote control 120; (2) the recited “receiving device” and Seidel’s set-top control unit 110; and (3) the recited “target controllable appliance” and Seidel’s consumer electronic devices. *Id.* at 41–42 (citing Ex. 1005, 12:65–13:5, 15:20–27), 44. In addition, Petitioner cites and relies on much of its analysis of claim 1 as obvious over Seidel and Caris discussed above. Pet. 42–44 (citing Pet. §§ VIII.C, VIII.D). For example, citing its analysis of claim 1, Petitioner similarly relies on Seidel’s disclosure of configuring a remote control using a mode code and combines that teaching with Caris’s teaching of initiating a

process of remote control configuration using a dedicated hard button. *Id.* at 42 (citing Pet. §§ VIII.C, VIII.D.3, VIII.D.4–5).

Petitioner asserts that Seidel teaches “[a] method for configuring a controlling device having a plurality of keys,” as recited in the preamble of claim 20, because Seidel’s Figure 5 depicts hand held remote control 120 with a plurality of keys. Pet. 41 (citing Ex. 1005, Fig. 5). According to Petitioner, to program the remote control, Seidel describes entering “the digits of the mode code in conjunction with other remote control-specific **key presses** (used to configure the target remote control with the mode code).” *Id.* at 42 (citing Ex. 1005, 12:65–13:5; Ex. 1003 ¶¶ 172–174).

Based on the complete record and for the reasons explained by Petitioner, we find that Petitioner has demonstrated sufficiently Seidel teaches the preamble of claim 20.¹¹

Petitioner identifies as claim element [20.1] the limitation of claim 20 reciting “receiving an input into the controlling device via an actuation of one or more of the plurality of keys where the input functions to configure the controlling device whereupon a future activation of one or more function keys of the plurality of keys will cause a transmission of one or more commands to command functional operations of at least one intended target controllable appliance.” Pet. 42. Petitioner contends that Seidel’s programming of the remote control using mode code discloses “configure[ing] the controlling device whereupon a future activation of one or more function keys of the plurality of keys will cause a transmission of

¹¹ Because Petitioner has shown that the recitations in the preamble are satisfied by Seidel, we need not determine whether the preamble is limiting. *See Vivid Techs.*, 200 F.3d at 803.

one or more commands to command functional operations of at least one intended target controllable appliance,” as recited in claim element [20.1]. *Id.* at 42–43. In addition to citing its discussion with respect to claim 1 of Seidel’s disclosure of configuring a remote control using a mode code (*id.* at 42 (citing Pet. §§ VIII.D.4–5; Ex. 1005, 12:60–13:5)), Petitioner asserts that in Seidel, after the mode code is entered, the target remote control is programmed to transmit “IR codes” to control a corresponding appliance device. *Id.* (citing Ex. 1005, 12:3–11, 12:60–13:5). Petitioner further explains that after programming, Seidel’s remote control “may control any device in a home entertainment center or a device outside of [an] entertainment center, such as multiple consumer electronics devices, motorized blinds and remotely dimmable lights.” *Id.* (quoting Ex. 1005, 15:20–27, 14:39–41).

As discussed above, citing its analysis of claim 1, Petitioner similarly relies on Caris’s disclosure of a remote control with a “dedicated button” used to initiate a remote control set-up process to teach “receiving an input into the controlling device via an actuation of one or more of the plurality of keys where the input functions to configure the controlling device,” as recited in claim 20. Pet. 43 (citing Pet. §§ VIII.D.2–3; Ex. 1006, 5:17–24). Petitioner further explains that actuation of Caris’s “dedicated button” causes Caris’s STB to begin its configuration process and display prompts to the user, allowing the user to specify a particular consumer electronic appliance to control. *Id.* (citing Ex. 1006, 5:47–60).

Petitioner identifies as claim element [20.2] the limitation of claim 20 reciting “transmitting from the controlling device to a receiving device data indicative of the input received via actuation of the one or more of the

plurality of keys.” Pet. 43. Petitioner contends that the combination of Seidel and Caris teaches this limitation because Caris describes that when a user presses Caris’s dedicated button to initiate a remote control configuration process, the remote control transmits data to its STB in response to the user activating the button. Pet. 43–44 (citing Ex. 1006, 5:17–24, 5:47–60). According to Petitioner, in Caris, the pressing of the dedicated button causes the remote to transmit an IR or RF code to the STB, which is “*interpreted by STB 104* as a request to send a message to server 108. Server 108 presents a web site on a TV display monitor . . . that guides the consumer to providing certain information.” *Id.* at 44 (quoting Ex. 1006, 5:44–51). Petitioner argues that “[i]n this manner, the ‘IR or RF code’ discloses the claimed data, which is transmitted from the remote control to the STB (the claimed ‘receiving device’) in response to a user pressing button 118.” *Id.* (citing Ex. 1003 ¶¶ 182–184).

Petitioner identifies as claim element [20.3] the limitation of claim 20 reciting “using at the receiving device the transmitted data to cause an automatic progression through a sequence of displayed setup prompts.” Pet. 44. Petitioner contends that the combination of Seidel and Caris teaches this limitation. *Id.* Citing Figure 6 of Seidel, Petitioner asserts that Seidel depicts several steps that are automatically carried out in response to communications from the target remote control. *Id.* at 44–45 (citing Ex. 1005, Fig. 6). According to Petitioner, Seidel discloses that at step 630, “set-top control unit 110 is configured to compare the received input signal . . . to information stored in control data store 700,” and to identify a particular mode code among the plurality of mode codes stored in control data store 700. *Id.* at 45 (quoting Ex. 1005, 12:38–46). Petitioner asserts

that, as part of this process, Seidel's set-top control unit 110 displays "instructions and/or assistance on a display, such as a television, to walk the user through all parts and aspects of the process" and that the "set-top control unit 110 may display information on a display (such as TV 130) that instructs a user to select a brand of the device the user wishes to control with the target remote control." *Id.* at 45–46 (quoting Ex. 1005, 3:54–58, 13:54–58). Petitioner argues that, subsequently, the "set-top control unit 110 may display instructions on the TV to instruct the user on how to program target remote control using the mode code." *Id.* at 46 (quoting Ex. 1005, 12:63–67).

Petitioner further contends that "an automatic progression through a sequence of displayed setup prompts" recited in claim 20 would have been obvious over Seidel and Caris because Caris describes guiding a consumer via an automatic progression of prompts to provide information such as the "brand, type, serial number" of the consumer's appliance. Pet. 46 (citing Ex. 1006, 5:51–58). According to Petitioner, Caris describes that in response to a setup request from the remote control device 102, the "[s]erver 108 presents a web site on a TV display monitor [] connected to STB 104 that guides the consumer to providing certain information," such as the "brand, type, serial number" of the device (e.g., appliance 114 in Caris's Figure 1) the user wishes to control with the remote 102. *Id.* (citing Ex. 1006, 5:41–58). Petitioner argues that Caris additionally describes "pages" displayed in an "on-screen Setup Menu" used to identify the "proper brand, type, and version" for a particular device to be controlled. *Id.* at 46–47 (citing Ex. 1006, 3:30–37).

Petitioner asserts that a person of ordinary skill in the art would have been motivated to combine Seidel and Caris to provide an automatic progression through a sequence of displayed prompts to “assist the determination of step 630 by eliminating one or more mode codes from the set of candidate mode codes being considered” (Pet. 47 (citing Ex. 1005, 13:48–64; Pet. § VIII.I)) because doing so would have furthered Seidel’s express goal of allowing the user to “configure the target remote control with greater ease and efficiency over prior approaches . . . thereby reducing both the potential for frustration and the time required in configuring target remote control 120” (*id.* (quoting Ex. 1005, 13:22–31)).

Based on the complete record and for the reasons explained by Petitioner, we find that Petitioner has demonstrated sufficiently the combination of Seidel and Caris teaches all recitations of claim 20. We also find that Petitioner articulates sufficient rationale for combining the respective teachings of Seidel and Caris in the manner proposed by Petitioner to arrive at the subject matter recited in claim 20. Having weighed each of the *Graham* factors, including the scope and content of the prior art and the differences between the prior art and the challenged claim, we determine that Petitioner has demonstrated by a preponderance of the evidence that claim 20 is unpatentable under 35 U.S.C. § 103(a) over the combination of Seidel and Caris.

G. Obviousness over Seidel, Caris, and O’Donnell

In this asserted ground of obviousness, Petitioner adds the teachings of O’Donnell to the basic combination of Seidel and Caris to challenge claims 18 and 19 as obvious over the combination of Seidel, Caris, and O’Donnell. Pet. 48–57. As noted above, Patent Owner did not file a Patent

Owner Response and does not dispute Petitioner's arguments and evidence regarding obviousness of claims 18 and 19 over the combination of Seidel, Caris, and O'Donnell.

1. Independent Claim 18

Claim 18 is similar to claim 20 in that claim element [18.1] (“receiving an input into the controlling device via an actuation of one or more of the plurality of keys where the input functions to configure the controlling device whereupon a future activation of one or more function keys of the plurality of keys will cause a transmission of one or more commands to command functional operations of at least one intended target controllable appliance”) and claim element [18.2] (“transmitting from the controlling device to a receiving device data indicative of the input received via actuation of the one or more of the plurality of keys”) are essentially identical to claim elements [20.1] and [20.2] discussed above, respectively. *Compare* Ex. 1001, 10:14–26, with *id.* at 10:40–52. Addressing the recitations of claim elements [18.1] and [18.2], Petitioner presents essentially the same analysis as its analysis for claim elements [20.1] and [20.2] discussed above, arguing that the combination of Seidel and Caris teaches claim elements [18.1] and [18.2]. Pet. 50–54.

Claim 18, however, diverges from claim 20 in the claim language recited in claim element [18.3] (“using at the receiving device the transmitted data to cause an *echoing* of one or more of the plurality of keys actuated to provide the input used to configure the controlling device”) and claim element [18.4] (“wherein the receiving device is in communication with a display device and *echoing* of one or more of the plurality of keys actuated to provide the input used to configure the controlling device

comprises displaying a representation on the display device of the one or more of the plurality of keys being *echoed*”). Ex. 1001, 10:27–36 (emphases added).

Addressing these limitations, Petitioner contends that O’Donnell teaches “echoing of one or more of the plurality of keys actuated to provide the input used to configure the controlling device . . . wherein . . . echoing of one or more of the plurality of keys . . . comprises displaying a representation on the display device of the one or more of the plurality of keys being echoed,” as recited in claim 18, because, in O’Donnell, “[t]he television screen . . . acknowledges the particular button pressed by displaying a message such as ‘you have selected a Sony brand VCR.’” Pet. 54–55 (citing Ex. 1009, 2:45–48, 2:64–3:3). Petitioner argues that O’Donnell’s display of acknowledgment message (e.g., “you have selected a Sony brand VCR”) satisfies the “echoing” recited in claim 18 because “[t]his is the same echoing as a ‘visual verification’ described in the ’514 patent.” *Id.* at 55 (citing Ex. 1001, 6:10–20).

The passage from the Specification of the ’514 patent cited by Petitioner is reproduced below.

By way of example only, application 406 may be configured to monitor command data transmitted from remote control 100 in order to *echo key presses* on the TV screen *as a means of visual verification* to the user that a setup code was entered correctly, ***or to present prompts*** such as “Did your DVD player respond to the Power On command? Press ‘1’ for yes, or press ‘0’ for no” whereupon receipt of either the “1” or “0” key command data will cause application 406 to proceed automatically to another instruction or prompt in the setup procedure.

Ex. 1001, 6:10–20 (emphases added). In the Institution Decision, we stated that a plain reading of this passage indicates that presenting prompts is an

alternative use of command data transmitted from remote control 100 (“to echo key presses . . . or to present prompts”), not an example of “echo[ing] key presses . . . as a means of visual verification to the user.” Inst. Dec. 31. Based on the limited record available at the time, we expressed reservations about whether Petitioner explained adequately in the Petition how O’Donnell teaches “echoing” of key presses or how O’Donnell’s display of acknowledgment message (e.g., “you have selected a Sony brand VCR”) satisfies “displaying a *representation . . . of the . . . keys being echoed*,” as recited in claim 18. *Id.* We nonetheless invited the parties to address claim elements [18.3] and [18.4] further in their papers during trial, including proper interpretations of the terms “echoing of one or more of the plurality of keys” and “representation . . . of the one or more of the plurality of keys being echoed” and whether, under such interpretations, the combination of Seidel, Caris, and O’Donnell teaches, suggests, or renders obvious claim elements [18.3] and [18.4]. *Id.* at 32.

Although Patent Owner did not file a Patent Owner Response, Petitioner filed a Reply to respond to this issue discussed in the Institution Decision—how O’Donnell discloses the “echoing” limitation in claim 18. Pet. Reply 3 (citing Consolidated Trial Practice Guide 73 (“[T]he Board will permit the petitioner, in its reply brief, to address issues discussed in the institution decision.”); 37 C.F.R. § 42.23(b) (“A reply may only respond to arguments raised in the corresponding opposition, patent owner preliminary response, patent owner response, or *decision on institution*.” (emphasis added))).

In the Reply, Petitioner asserts that the passage from the Specification of the ’514 patent cited in the Petition and reproduced above shows that the

claimed “echoing” is satisfied “when a visual verification of a pressed key is displayed.” Pet. Reply 4 (citing Pet. 55; Ex. 1003 ¶ 209). Petitioner further asserts that O’Donnell’s display of the words “you have selected a Sony brand VCR” teaches the claimed “echoing” in claim element [18.3] and “displaying a representation” of an echoed key in claim element [18.4], as argued in the Petition, because “[t]hese words”—i.e., “you have selected a Sony brand VCR”—are “a visual verification of a button pressed by a user.” *Id.* at 5 (citing Pet. 54–55; Ex. 1009, 2:45–48; Ex. 1003 ¶¶ 207–209, 212–213).

According to Petitioner, O’Donnell describes displaying a screen asking a user to select a brand by pressing a button on a remote control. Pet. Reply 5–6 (citing Ex. 1009, 2:28–44; Pet. 54; Ex. 1003 ¶ 208). The user then selects a brand by pressing the button on the remote control. *Id.* at 6 (citing Ex. 1009, 2:45–48). For example, if the “1” button is assigned to a Sony brand VCR, when the user presses the “1” button on the remote, O’Donnell generates an “ON SCREEN DISPLAY message” that states “you have selected a Sony brand VCR.” *Id.* (citing Ex. 1009, 2:45–48).

Petitioner asserts that “[t]his on screen display message is not a prompt, but rather a visual verification of the button that the user has already pressed” (Pet. Reply 6 (citing Pet. 54–55; Ex. 1003 ¶ 209)) because O’Donnell transmits the indication of the pressed button to cause the display to change and verify the button pressed (i.e., “you have selected a Sony brand VCR”) (*id.* (citing Ex. 1009, 2:45–48)). Petitioner argues that O’Donnell, therefore, teaches causing an echoing of the pressed key by displaying a representation of the pressed key as recited in claim elements [18.3] and [18.4]. *Id.* (citing Pet. 54–55; Ex. 1003 ¶¶ 207–209).

Based on the full trial record, we are persuaded by Petitioner’s arguments and evidence. First, we agree with Petitioner’s implicit claim interpretation that “echoing of one or more of the plurality of keys actuated” recited in claim 18 is broader than and not limited to displaying the exact keys pressed. Beginning with the claim language, claim element [18.4] recites “*echoing of one or more of the plurality of keys actuated . . . comprises displaying a representation on the display device of the one or more of the plurality of keys being echoed.*” Ex. 1001, 10:32–36 (emphases added). Claim 18 does not recite that “echoing of one or more of the plurality of keys actuated” comprises displaying the exact keys actuated, but rather recites that the “echoing” displays “*a representation of the keys being echoed.*” Because the claim term “representation of the keys being echoed” should be given meaning, we determine that, at least based on the claim language, “echoing of one or more of the plurality of keys actuated” recited in claim 18 is broader than displaying or repeating the exact keys pressed. *See Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.” (citations omitted)).

Turning to the Specification, we do not discern anything in the Specification that would limit the recited “echoing of one or more of the plurality of keys actuated” to displaying the exact keys pressed. On the contrary, Petitioner argues that the Specification shows that the claimed “echoing” is satisfied “when a visual verification of a pressed key is displayed.” Pet. Reply 4 (citing Pet. 55; Ex. 1003 ¶ 209); Pet. 55 (citing Ex. 1001, 6:10–20). Regardless of whether we agree with Petitioner’s seemingly broad reading of the cited passages in the Specification

(reproduced above), there is nothing in the cited portion of the Specification that would require the recited “echoing of one or more of the plurality of keys actuated” be limited to displaying the exact keys pressed. *See SuperGuide Corp. v. DirecTVEnters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004) (“a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment” (citation omitted)); *GE Lighting Sols., LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) (“the specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal”) (citation omitted).

Thus, based on the complete record, we determine that “echoing of one or more of the plurality of keys actuated” recited in claim 18 is broader than displaying the exact keys pressed.

Under this interpretation, we are persuaded by Petitioner’s argument and evidence that O’Donnell’s display of the words “you have selected a Sony brand VCR” teaches the claimed “echoing” in claim element [18.3] and “displaying a representation” of an echoed key in claim element [18.4], as “a visual verification of a button pressed by a user.” Pet. Reply 5 (citing Pet. 54–55; Ex. 1009, 2:45–48; Ex. 1003 ¶¶ 207–209, 212–213).

Addressing the motivation to combine, Petitioner asserts that a person of ordinary skill in the art would have been motivated to combine O’Donnell with Seidel and Caris to provide a process for verifying that the correct code was used to program the remote control. Pet. 55 (citing Ex. 1003 ¶¶ 210–211). Petitioner further argues that a person of ordinary skill in the art would have combined O’Donnell’s echoing and acknowledgment of a pressed key with the teachings of Seidel and Caris for similar reasons—e.g.,

acknowledging the key pressed on the remote would aid the user in more accurately providing inputs and rectifying mistakenly pressed buttons. *Id.* (citing Ex. 1003 ¶¶ 210–211).

Based on the complete record and for the reasons explained by Petitioner, we find that Petitioner has demonstrated sufficiently the combination of Seidel and Caris teaches all recitations of claim 18. We also find that Petitioner articulates sufficient rationale for combining the respective teachings of Seidel, Caris, and O’Donnell in the manner proposed by Petitioner to arrive at the subject matter recited in claim 18.

Having weighed each of the *Graham* factors, including the scope and content of the prior art and the differences between the prior art and the challenged claim, we determine that Petitioner has demonstrated by a preponderance of the evidence that claim 18 is unpatentable under 35 U.S.C. § 103(a) over the combination of Seidel, Caris, and O’Donnell.

2. *Dependent Claim 19*

Claim 19 depends from claim 18 and further recites “wherein the receiving device comprises a set top box and the display device comprises a television.” Ex. 1001, 10:37–39. Petitioner contends that Seidel teaches the additionally recited limitation of dependent claim 19 because Seidel teaches a receiving device comprising a set top box and Seidel’s “television 130” discloses the display device being a television. Pet. 57 (citing Pet. § IX.B.5; Ex. 1005, 13:35–47, Fig. 6).

Based on the complete record and for the reasons explained by Petitioner, we determine that Petitioner has demonstrated by a preponderance of the evidence that claim 19 is unpatentable under 35 U.S.C. § 103(a) over the combination of Seidel, Caris, and O’Donnell.

H. Remaining Grounds

In the remaining grounds of unpatentability, Petitioner contends that claims 3, 6, and 20 are unpatentable under 35 U.S.C. § 103(a) over Lee (Pet. 57–77), claim 3 is unpatentable under § 103(a) over Lee and Seidel (*id.* at 78–79), claim 5 is unpatentable under § 103(a) over Lee and Caris (*id.* at 81), and claims 18 and 19 are unpatentable under § 103(a) over Lee and O’Donnell (*id.* at 82–85).

Because we conclude Petitioner has shown that all remaining challenged original claims are unpatentable on other grounds, we do not reach the merits of these remaining grounds. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359 (2018) (holding that a petitioner “is entitled to a final written decision addressing all of the claims it has challenged”); *Bos. Sci. Scimed, Inc. v. Cook Grp. Inc.*, 809 F. App’x 984, 990 (Fed. Cir. 2020) (non-precedential) (recognizing that the “Board need not address issues that are not necessary to the resolution of the proceeding” and, thus, agreeing that the Board has “discretion to decline to decide additional instituted grounds once the petitioner has prevailed on all its challenged claims”).

IV. REVISED MOTION TO AMEND

In an *inter partes* review, amended claims are not added to a patent as of right, but rather must be proposed as a part of a motion to amend. 35 U.S.C. § 316(d). As discussed above in Section II.A, Patent Owner filed a Non-Contingent Motion to Amend, cancelling claims 1, 2, and 4 and proposing substitute claims 21–23. MTA. After we issued Preliminary Guidance on the MTA, Patent Owner filed a Revised Non-Contingent Motion to Amend, cancelling claims 1, 2, and 4 and proposing revised substitute claims 21–23. RMTA 1, App. A. The RMTA was accompanied

by a Second Declaration of Dr. Craig Rosenberg. Ex. 2005 (“Second Rosenberg Declaration”); RMTA iv. Petitioner’s Opposition to the RMTA was accompanied by a Declaration of John Tinsman. Ex. 1044 (“Second Tinsman Declaration”).

The RMTA is granted in part as to the cancellation of claims 1, 2, and 4. For the reasons explained below, the RMTA is denied in part as to revised proposed substitute claims 21–23.

A. Revised Proposed Substitute Claims

Pursuant to the requirement that “[a] motion to amend claims must include a claim listing” (37 C.F.R. § 42.121(b)), the RMTA lists revised proposed substitute claims 21–23. RMTA App. A (“LISTING OF REVISED PROPOSED SUBSTITUTE CLAIMS”). In particular, Patent Owner lists claim element 21[f] of revised proposed substitute claim 21 as follows:

wherein the displayed instruction data comprises interactive instructions for the user to test at least one controllable function of the second controllable appliance by transmitting a command from the controlling device using a codeset under test and to indicate whether the test was successful in controlling at least one controllable function of the second controllable appliance by transmitting a command from the controlling device to the first controllable appliance using a **third codeset corresponding with** the first controllable appliance;

Id. App. A, i–ii (bold emphasis added).

B. Patent Owner’s Request to Amend Revised Proposed Substitute Claim 21

More than five weeks after the filing of the RMTA¹² and three business days before the due date of Petitioner’s Opposition to the RMTA, on March 16, 2022, Patent Owner contacted the Board by email, seeking to amend claim element 21[f] of revised proposed substitute claim 21 by replacing the phrase “third codeset corresponding with” with “command corresponding to.” Ex. 3002. As discussed below, we deny Patent Owner’s request mainly because of the unreasonably late timing of the request within the already-compressed time schedule of the Second Revised Scheduling Order (Paper 26), which was issued as the result of Patent Owner’s filing of the RMTA under the Revised Motion to Amend (RMTA) Pilot Program.

As an initial matter, we agree with Petitioner that Patent Owner’s proposed change “materially . . . changes the scope of” revised proposed substitute claim 21. Opp. RMTA 2. Patent Owner does not argue otherwise—that is, Patent Owner does not argue that its proposed amendment does not materially change the scope of revised proposed substitute claim 21. See Reply RMTA 10–12. As discussed above, amended claims must be proposed as a part of a motion to amend. 35 U.S.C. § 316(d). Thus, the relief Patent Owner seeks is permission to file another revised motion to amend or a third motion to amend.

According to Patent Owner, 37 C.F.R. § 42.121(c) provides that additional motions to amend may be permitted when there is a good cause showing. Reply RMTA 11 (citing *Activision Blizzard Inc. v. Acceleration Bay, LLC*, IPR2015-01951, Paper 70 at 6 (PTAB Nov. 8, 2016)) (“[A]

¹² Patent Owner filed the RMTA on February 7, 2022. RMTA 27.

[second] motion to amend . . . only may be authorized for ‘good cause.’”)). Patent Owner asserts that there is good cause to allow another revised motion to amend because (1) the “correct version” of revised proposed substitute claim 21 (i.e., the version with the “command corresponding to” claim language) was included in the Second Rosenberg Declaration (Ex. 2005), (2) the “command corresponding to” claim language was mentioned in the body of the RMTA in distinguishing revised proposed substitute claim 21 from prior art,¹³ and (3) Petitioner will not be prejudiced by the proposed change. Reply RMTA 10, 12. Patent Owner argues that Petitioner will not be prejudiced because Patent Owner notified Petitioner about the error before Petitioner filed its Opposition. *Id.* at 12.

Petitioner asserts that allowing the claim amendment sought by Patent Owner would be prejudicial to Petitioner because Petitioner “when preparing its opposition” “properly relied on the claim listing” provided in the RMTA, as required by 37 C.F.R. § 42.121(b). Sur-reply RMTA 2–3. Petitioner argues that “the mere presence of alternative claim language in the body of the RMTA or in Dr. Rosenberg’s declaration does not suggest or provide a basis for it being the ‘correct’ claim language that a Petitioner must analyze.” *Id.* at 3. Petitioner further asserts that allowing “yet another claim amendment” sought by Patent Owner would “would significantly and materially impact [Petitioner’s] opposition,” and that Patent Owner notified

¹³ In the RMTA, Patent Owner argues that “Patent Owner has further revised substitute claim 21” to distinguish O’Donnell by adding the requirement that “the user indicate success of a test ‘by transmitting a command from the controlling device to the first controllable appliance using a command corresponding to the first controllable appliance.’” RTMA 20–21; Reply RMTA 10 (citing RTMA 21).

Petitioner about the proposed change only “**three business days** prior to [Petitioner’s] opposition filing deadline.” *Id.* at 2.

We agree with Petitioner that Petitioner reasonably relied on the claim listing provided in Appendix A of the RMTA. Indeed, during the hearing, Patent Owner acknowledged that there isn’t “something completely inherently wrong” with claim element 21[f] presented in Appendix A of the RMTA. Tr. 39:15–19. Furthermore, upon being questioned by the panel whether Petitioner should have known that the version of claim element 21[f] in the Second Rosenberg Declaration was the right one, Patent Owner stated “I don’t think [Petitioner] could have figured out what was right -- which one was right without asking [Patent Owner] for clarification.” *Id.* at 42:17–43:9.

In our view, granting Patent Owner’s request for another revised motion to amend under the facts and circumstances of this case would raise concerns of notice and opportunity to respond for Petitioner under the Administrative Procedure Act (APA). *See Yeda Rsch. v. Mylan Pharms. Inc.*, 906 F.3d 1031, 1040 (Fed. Cir. 2018) (when new evidence is introduced by a party during an *inter partes* review trial proceeding, the opposing party must be given “notice of the evidence and an opportunity to respond to it” to satisfy the procedural requirements of the APA) (citing *Genzyme Therapeutic Prod. Ltd. P’ship v. Biomarin Pharm. Inc.*, 825 F.3d 1360, 1366 (Fed. Cir. 2016)); *SAS Inst., Inc. v. ComplementSoft, LLC.*, 825 F.3d 1341, 1351 (Fed. Cir. 2016) (a petitioner in an instituted *inter partes* review proceeding is entitled to the procedural protection under the APA), *rev’d and remanded on other grounds sub nom. SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348 (2018). Because, for the reasons discussed above, Petitioner

reasonably relied on the claim listing provided in Appendix A of the RMTA, Petitioner did not have notice of Patent Owner's allegation that revised proposed substitute claim 21 included in the Second Rosenberg Declaration is the "correct version" until Patent Owner contacted the Board and Petitioner on March 16, 2022. And, Patent Owner's notice three business days before Petitioner's Opposition to RMTA is due, did not provide a meaningful opportunity for Petitioner to respond.

Petitioner asserts that in order to "fully address" the amendment sought by Patent Owner, Petitioner would need another deposition of Dr. Rosenberg, another opposition, and possibly another declaration in support of that opposition. Tr. 11:9–12:2. For purposes of this Final Written Decision, we need not decide exactly what Petitioner needs or would have needed to have a fair opportunity to respond because, due to the unreasonably late timing of Patent Owner's request—more than five weeks after filing of the RMTA—there is and would have been insufficient room within the already-compressed time schedule under the RMTA Pilot Program to allow a second RMTA, additional round of briefing, and possibly another deposition of Dr. Rosenberg, and still leave sufficient time to prepare and issue a final written decision before the statutory deadline.

Patent Owner's citation of a prior Board decision that purportedly granted "[t]he relief Patent Owner seeks" is not persuasive. See Reply RMTA 12 (citing *Volusion Inc. v. Versata, Inc.*, CBM2013-00018, Paper 31 (Apr. 4, 2014) ("*Volusion*"). *Volusion* was decided before the introduction of the Board's MTA Pilot Program or the introduction of Revised Motions to Amend. In *Volusion*, the Board allowed a second motion to amend to revise the proposed substitute claims upon showing of good cause.

Volusion, Paper 31, 3–4. Here, Patent Owner already had an opportunity to file a second motion to amend in the form of the RMTA under the MTA Pilot Program and RMTA Pilot Program. As discussed above, the relief Patent Owner seeks in this proceeding is permission to file another revised motion to amend or a third motion to amend. More importantly, Patent Owner raised its request for a third motion to amend far too late in the compressed schedule of the RMTA Pilot Program.

In consideration of the foregoing and based on the full record, we determine that Patent Owner does not demonstrate good cause for its belated request to file another revised motion to amend or a third motion to amend under the particular facts and circumstances of this case. Accordingly, Patent Owner’s request is denied.

In what follows, we consider revised proposed substitute claims 21–23, as presented in Appendix A of the RMTA, to determine whether the RMTA should be granted as to those revised proposed substitute claims.

C. No New Matter / Written Description Requirement

“Before considering the patentability of any substitute claims, . . . the Board first must determine whether the motion to amend meets the statutory and regulatory requirements set forth in 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121.” *See Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 15 at 4 (PTAB Feb. 25, 2019) (precedential). Patent Owner bears the burden of persuasion to show, by a preponderance of the evidence, that the RMTA meets those requirements. 37 C.F.R. § 42.121(d)(1).

The motion to amend “may not enlarge the scope of the claims of the patent or introduce new matter.” 35 U.S.C. § 316(d)(3). New subject matter is any addition to the claims that lacks sufficient support in the subject

patent's original disclosure. *See TurboCare Div. of Demag Delaval Turbomach. v. Gen. Elec. Co.*, 264 F.3d 1111, 1118 (Fed. Cir. 2001) (“When [an] applicant adds a claim . . . , the new claim[] must . . . find support in the original specification.”). Corresponding Rule 42.121 requires a motion to amend to “set forth: (1) The support in the original disclosure of the patent for each claim that is added or amended; and (2) The support in an earlier-filed disclosure for each claim for which benefit of the filing date of the earlier filed disclosure is sought.” 37 C.F.R. § 42.121(b). “A motion to amend may be denied where . . . [t]he amendment seeks to . . . introduce new subject matter.” 37 C.F.R. § 42.121(a)(2)(ii).

In the RMTA, Patent Owner lists citations to the '962 Application (Ex. 1011) as supporting each claim element of revised proposed substitute claims 21–23. RMTA 5–6. In Opposition to the RMTA, Petitioner contends that the portions of the '962 Application cited by Patent Owner do not support using a “third codeset” to communicate with a first controllable appliance, as required by claim element 21[f] of revised proposed substitute claim 21 presented in Appendix A of the RMTA. Opp. RMTA 5–6 (citing Ex. 1011, 11:1–4, 14:7–15:23; Ex. 1044 ¶¶ 71–74, 79–90).

In its Reply to the Opposition to the RMTA, Patent Owner focuses on the claim language included in the Second Rosenberg Declaration and does not address the issue of whether claim element 21[f] of revised proposed substitute claim 21, as presented in Appendix A of the RMTA, is supported by the '962 Application. *See* Reply RMTA 10–12; Sur-reply RMTA 5. During the hearing, when questioned by the panel whether Patent Owner waived arguments about why claim element 21[f] in Appendix A is

supported by the original specification, Patent Owner acknowledged, “We did not -- we did not put those -- put in papers on that issue.” Tr. 45:10–14.

Sufficiency of a specification’s written description is a fact question, and “the test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharm., Inc. v. Mass. Inst. of Tech.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). “And while the description requirement does not demand any particular form of disclosure, or that the specification recite the claimed invention *in haec verba*, a description that merely renders the invention obvious does not satisfy the requirement.” *Id.* at 1352 (internal citations omitted).

When an explicit limitation in a claim “is not present in the written description whose benefit is sought it must be shown that a person of ordinary skill would have understood, at the time the patent application was filed, that the description *requires* that limitation.” *Hyatt v. Boone*, 146 F.3d 1348, 1353 (Fed. Cir. 1998) (emphasis added). In other words, where the written description fails to disclose an element *explicitly*, “the applicant must show that *any absent text* is *necessarily* comprehended in the description provided and would have been so understood at the time the patent application was filed.” *Hyatt*, 146 F.3d at 1354–55 (emphases added).

We have reviewed the portions of the ’962 Application cited by Patent Owner as supporting claim element 21[f] of revised proposed substitute claim 21 (RMTA 5 (citing Ex. 1011, Figs. 6, 7, Abstract, 11:1–4; 14:14–18; 14:7–15:23)) and do not find in the cited portions any explicit description of “transmitting a command from the controlling device to the first controllable

appliance using a third codeset corresponding with the first controllable appliance,” as recited in claim element 21[f].

Because Patent Owner did not present any arguments or explanations why claim element 21[f] in Appendix A is supported by the ’962 Application, Patent Owner does not provide sufficient explanations or evidence to show why “a person of ordinary skill would have understood, at the time the patent application was filed,” that the cited description in the ’962 Application “*requires*” “transmitting a command from the controlling device to the first controllable appliance using a third codeset corresponding with the first controllable appliance,” as recited in claim element 21[f]. *See Hyatt*, 146 F.3d at 1353 (emphasis added). Thus, Patent Owner does not satisfy its burden to show, by a preponderance of the evidence, that the RMTA meets the no new matter / written description requirements under 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121.

Accordingly, the RMTA is denied in part as to revised proposed substitute claim 21 and revised proposed substitute claims 22 and 23, which depend from revised proposed substitute claim 21.

V. CONCLUSION¹⁴

For the foregoing reasons, we conclude that Petitioner has met its burden of proof, by a preponderance of the evidence, in showing that claims 3, 5, 6, and 18–20 of the ’514 patent are unpatentable. Patent Owner’s RMTA is granted in part as to Patent Owner’s request to cancel claims 1, 2, and 4, and denied in part as to revised proposed substitute claims 21–23. Our conclusions are summarized below.

¹⁴ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this Decision, we draw Patent Owner’s attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
3, 5, 6, 20	103(a)	Seidel, Caris	3, 5, 6, 20	
18, 19	103(a)	Seidel, Caris, O'Donnell	18, 19	
3, 6, 20	103(a)	Lee ¹⁵		
3	103(a)	Lee, Seidel ¹⁶		
5	103(a)	Lee, Caris ¹⁷		
18, 19	103(a)	Lee, O'Donnell ¹⁸		
Overall Outcome			3, 5, 6, 18–20	

¹⁵ As explained above in Section III.H, because we conclude Petitioner has shown that all remaining challenged original claims are unpatentable on other grounds, we do not reach the merits of the ground based on Lee.

¹⁶ As explained above in Section III.H, because we conclude Petitioner has shown that all remaining challenged original claims are unpatentable on other grounds, we do not reach the merits of the ground based on Lee and Seidel.

¹⁷ As explained above in Section III.H, because we conclude Petitioner has shown that all remaining challenged original claims are unpatentable on other grounds, we do not reach the merits of the ground based on Lee and Caris.

¹⁸ As explained above in Section III.H, because we conclude Petitioner has shown that all remaining challenged original claims are unpatentable on other grounds, we do not reach the merits of the ground based on Lee and O'Donnell.

Motion to Amend Outcome	Claims
Original Claims Cancelled by Amendment	1, 2, 4
Substitute Claims Proposed in the Amendment	21–23
Substitute Claims: Motion to Amend Granted	
Substitute Claims: Motion to Amend Denied	21–23
Substitute Claims: Not Reached	

VI. ORDER

In consideration of the foregoing, it is
ORDERED that claims 3, 5, 6, and 18–20 of the '514 patent are
determined to be unpatentable;

FURTHER ORDERED that Patent Owner's Revised Motion to
Amend is granted in part as to Patent Owner's request to cancel claims 1, 2,
and 4, and denied in part as to revised proposed substitute claims 21–23; and

FURTHER ORDERED that, because this is a Final Written Decision,
a party to the proceeding seeking judicial review of the Decision must
comply with the notice and service requirements of 37 C.F.R. § 90.2.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROKU, INC.,
Petitioner,

v.

UNIVERSAL ELECTRONICS, INC.,
Patent Owner.

IPR2021-00261
Patent 7,969,514 B2

Before MINN CHUNG, SHARON FENICK, and RUSSELL E. CASS,
Administrative Patent Judges.

FENICK, *Administrative Patent Judge*, dissenting in part.

I join in all portions of the majority’s decision except those relating to claims 18 and 19, from which I respectfully dissent. As discussed in the Decision at Section III.G.1, claim elements [18.3] and [18.4] of claim 18 relate to “caus[ing] an echoing of one or more of the plurality of keys actuated to provide the input used to configure the controlling device” and specify that this echoing comprises “displaying a representation on [a] display device of the one or more of the plurality of keys being echoed.” Ex. 1001, 10:27–36.

Petitioner argues that this is taught in O'Donnell's brand selection screen, in which a button on the remote control is selected and the corresponding brand is displayed on a display to "acknowledge" the selection. Pet. 54–56 (citing Ex. 1009, 2:2–5, 2:23–48, 2:58–62, 2:64–3:3, 3:23–33; Ex. 1003 ¶¶ 207–209, 212–213). Petitioner argues that "O'Donnell *provides a visual verification* of the pressed key and *therefore discloses the claimed 'echoing.'*" *Id.* at 55 (emphasis added) (citing Ex. 1001, 6:10–20). Petitioner's implicit argument in the Petition that the '514 patent equates "echoing" with all forms of visual verification is made explicit in its Reply, in which it reproduces the '514 patent's discussion of echoing as providing a means of visual verification, and argues that "[a]s seen from this passage, the claimed 'echoing' is satisfied when a visual verification of a pressed key is displayed." Pet. Reply 4–5. Petitioner argues that "by repeating and displaying the selection chosen based on the specific key pressed by the user, O'Donnell discloses echoing the particular key being actuated and providing a visual verification of the pressed key." *Id.* at 5.

But the '514 patent does not equate echoing of keys actuated with "visual verification," rather it describes "echo[ing] key presses on the TV screen" as "*a means of visual verification.*" Ex. 1001, 6:11–15 (emphasis added). Thus, although the '514 patent states that echoing key presses is a visual verification, it does not state the converse: that all visual verifications constitute echoing of key presses. Claim 18 specifies that echoing "comprises displaying a representation on the display device of the one or more of the plurality of keys being echoed." *Id.* at 10:34–36. Petitioner argues that "you have selected a Sony brand VCR" is a representation of a

numeric key between 1 and 9 on a remote control. Pet. 54–55; Pet. Reply 6; see Ex. 1009, 2:28–48. Petitioner’s declarant opines that “an acknowledgment *corresponding to* the pressed key” is a *representation of* a pressed key. Ex. 1003 ¶ 209. I cannot agree. It may be that a visual verification is accomplished and that a result of a key’s actuation may be reflected in a message on a display device in O’Donnell, but, on this record, I would not find Petitioner has sufficiently proven that O’Donnell teaches a representation of an actuated key is displayed on the display device, as required in claim 18.

In our Institution Decision, we preliminarily determined that Petitioner had not demonstrated a reasonable likelihood of showing that O’Donnell’s acknowledgement message teaches echoing comprising “displaying a representation on the display device of the . . . keys being echoed” and invited the parties to address this issue. Inst. Dec. 29–32. While only Petitioner has taken us up on this invitation, the burden from the onset of showing unpatentability is a petitioner’s and never shifts to the patent owner. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016); *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). Petitioner relies on O’Donnell for these limitations in both the asserted ground of unpatentability of claims 18 and 19 as obvious in view of the combination of Seidel, Caris, and O’Donnell and the asserted ground of unpatentability of claims 18 and 19 as obvious in view of the combination of Lee and O’Donnell. Pet. 48–57, 82–85. I do not think Petitioner has met its burden with respect to the “echoing” limitations of claim 18 and thus would not find claims 18 or 19 unpatentable under either ground.

IPR2021-00261
Patent 7,969,514 B2

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