

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LG ELECTRONICS, INC., LG ELECTRONICS U.S.A., INC.
Petitioner,

v.

MULTIMEDIA TECHNOLOGIES PTE. LTD.,
Patent Owner.

Case IPR2024-00353
U.S. Patent No. 9,055,254

PATENT OWNER'S RESPONSE PURSUANT TO 37 C.F.R. § 42.120

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Ex. 2010	Deposition Transcript of Dr. Andrew Lippman in IPR2024-00353 9/6/2024

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I. INTRODUCTION

U.S. Patent No. 9,055,254 (“the ’254 Patent”) is assigned to Multimedia Technologies Pte., Ltd. (“Multimedia” or “Patent Owner”). The ’254 Patent is generally directed to user interfaces for accessing functions and content on enhanced computer-implemented television devices.

Petitioner LG Electronics, Inc. and LG Electronics U.S.A., Inc. (“LG” or “Petitioner”) filed a Petition¹ asserting two grounds of unpatentability against Claims 1-4, 6, 8-10, 12-17, and 19 (the “Challenged Claims”). Pet., 13.

¹ Based on the Patent Owner’s count, the 108-page Petition exceeds the word limit, having a total of 14,636 words including 629 words added to various figures. See 37 C.F.R. § 42.24(a); Consolidated Trial Guide, 40. *Ericsson Inc. v. Elect. and Telecom. Research Inst.*, IPR2020-00239, Paper 8 at *4 (PTAB Jan. 31, 2020) (“the Petitions circumvent the word count limits ... by including numerous images with excessive wording.”). In view of this, the Patent Owner requests that the Board disregard the figures presented in the Petition. This is not a one-time occurrence. The Petitions submitted in related IPR2024-00351 and -00352 were also well over the word limit. See IPR2024-00351, Paper 19, POR, 1 n.2; IPR2024-00352, Paper 19, POR, 1 n.2

Each of Petitioner's Grounds 1-2 fails to meet multiple limitations of the Challenged Claims. The Patent Owner demonstrates herein that the combination of references in each ground fails to teach the limitations, and that there was no reason for a POSITA to combine the references as proposed.

For the reasons set forth below, the Board should confirm each of the Challenged Claims as patentable.

II. THE GROUNDS AT ISSUE

The Petition challenges the claims as obvious under these grounds:

- Ground 1 challenging Claims 1-4, 8-10, and 13-17 (relying on Kim, WD-Manual, and Bae), and
- Ground 2 challenging Claims 6, 12, and 19 (relying on Kim, WD-Manual, Bae, and Coburn).

See Pet., 13.

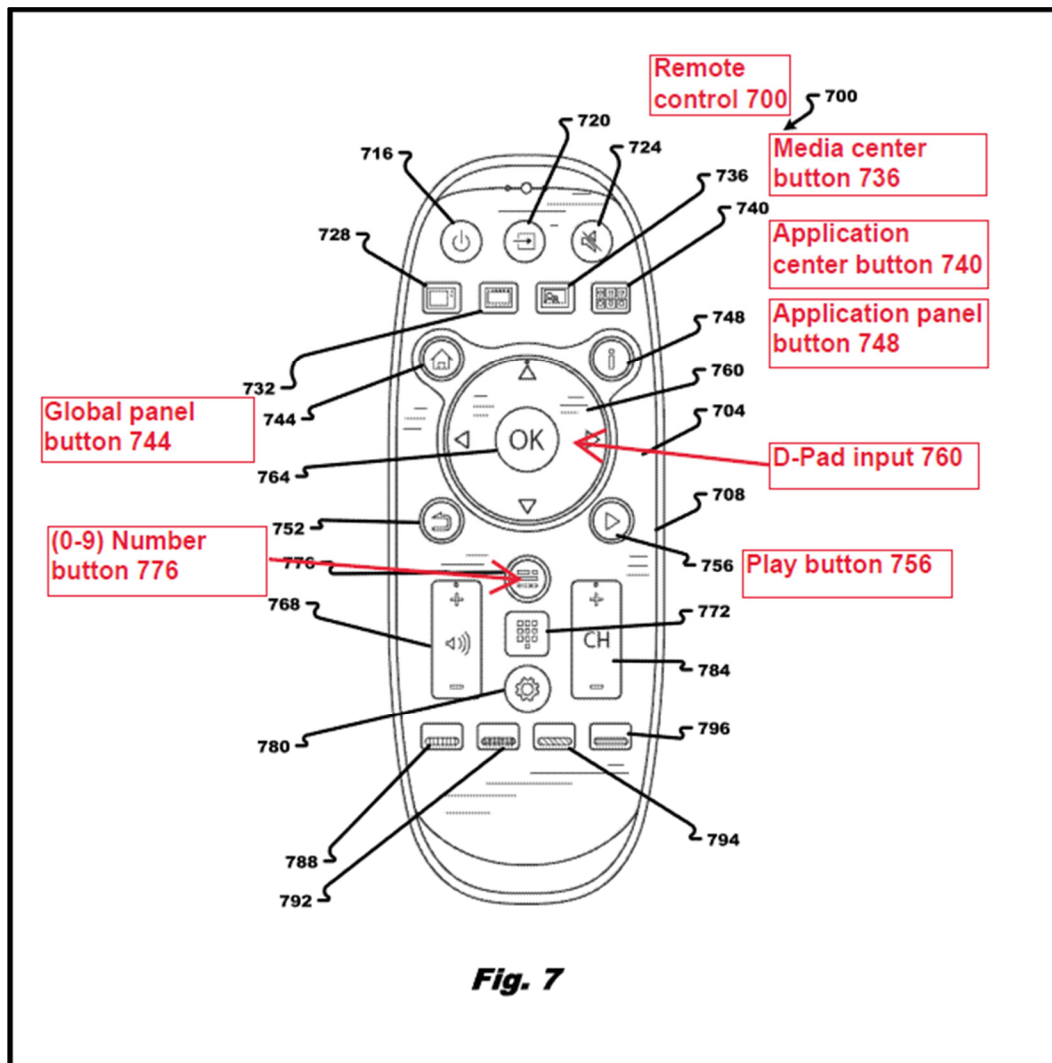
III. THE '254 PATENT

A. Overview of the '254 Patent

The '254 Patent addresses the need for improved user interfaces for complex computer-implemented television devices, such as Smart TVs and Intelligent TVs, which provide access to various functions and multiple different sources of content. Ex. 1001 ('254 Patent), 1:39-66; Ex. 2008 [Dr. R. Surati Decl.], ¶¶ 46-47 ("Surati declaration" or "Surati Decl.").

The '254 Patent discloses a novel “on screen channel changer” (OSCC) includes a number input bar (with digits 0-9) and an EPG. The remote control is used to select digits for the desired channel by, for example, moving the cursor or pointer to focus on the numbers 0-9 on the number input bar. The EPG can display program listings for channels/programs corresponding to the digits that are selected. The OSCC enables the user to select and change a channel without entering the channel number using digit keys on the remote control. Indeed, the remote control can be simplified so that it does not have numeric keys for 0-9. See '254 Patent, 2:5-3:24, 36:12-64, 39:41-43, 52-54, 61-64, Figs. 20, 26-27. Surati Decl., ¶ 50.

The on screen channel changer can be controlled using a novel remote control 700 with specialized keys, including a media center button 736, an application center button 740, an application panel button 748, and a global panel button 744. There is also a (0-9) number button 776 for invoking the on screen channel changer. The '254 Patent explains that in this embodiment “the remote control does not have number keys but rather a 0-9 (number) button 776, which, if selected, reveals an on screen channel changer 2000 shown in FIG. 20.” '254 Patent, 32:51-54, Fig. 20. Surati Decl., ¶¶ 51-52.



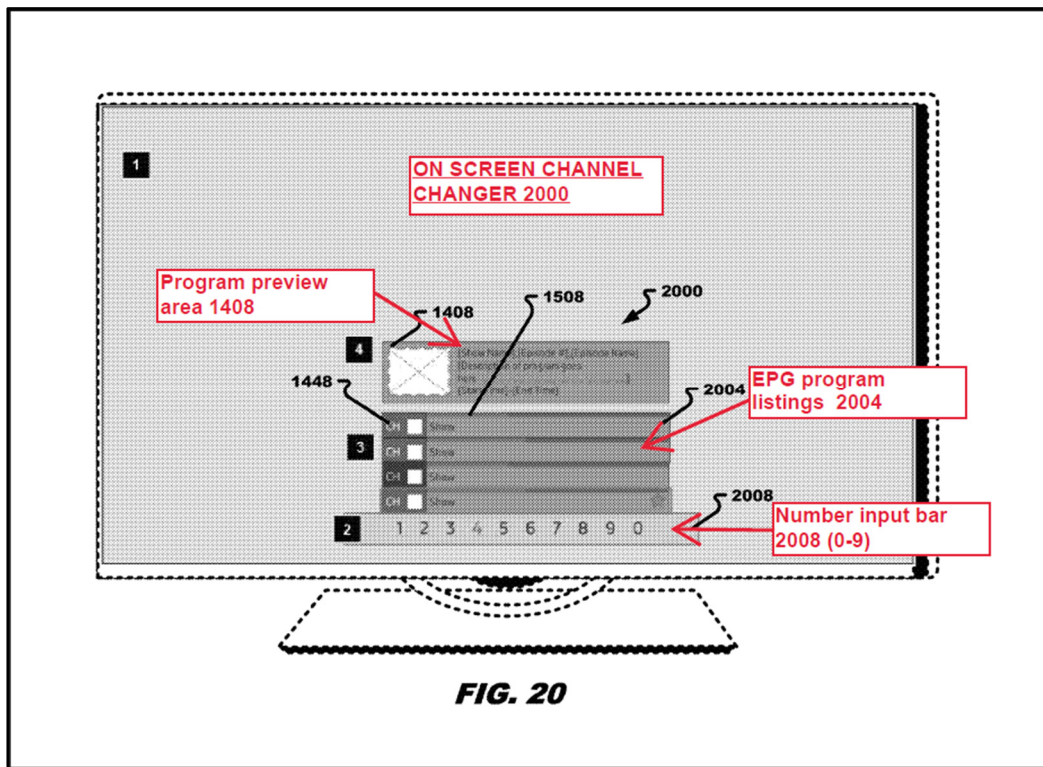
'254 Patent, Fig. 7 (annotated). '254 Patent, 22:57-23:27, 24:5-17, 24:17-45, 24:56-25:10. See Surati Decl., ¶¶ 51-69.

In one embodiment, the on screen channel changer display includes a number input bar (with digits 0-9) and a mini-EPG. The user uses the remote control to select digits for the desired channel by selecting the numbers 0-9 on the number input bar. The mini-EPG can display program listings for channels/programs corresponding to

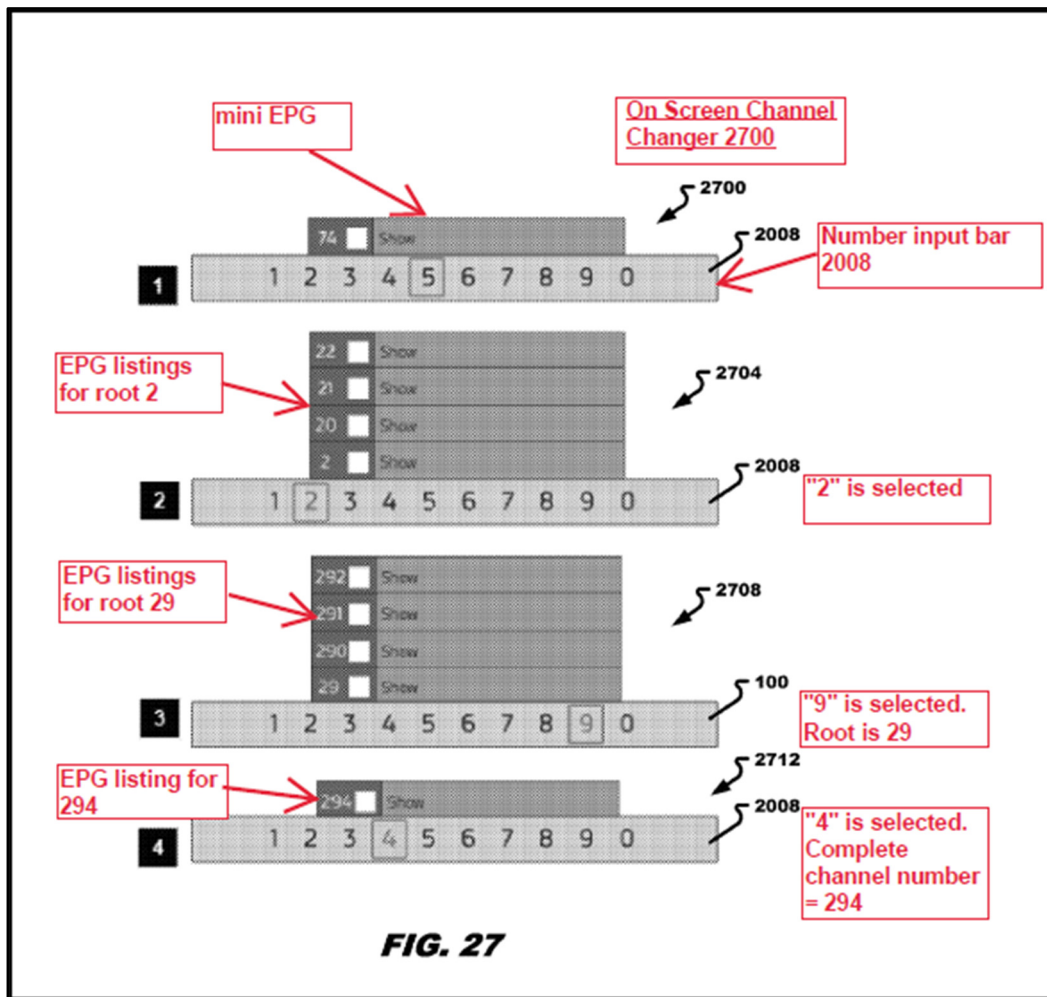
the digits selected at a given point. For example, if the user makes 2 in-focus² by selecting it on the number input bar, then the mini-EPG may display program listings for available channels 2XX (e.g., 22, 21, 20, 2). After the user makes 9 in-focus, the mini-EPG may display program listings for available channels 29X (e.g., 292, 291, 290, 29). If the user inputs the final channel number, such as by making 4 in-focus, the mini-EPG may display the remaining program listing, which is for channel 294. '254 Patent, 2:5-3:24, 36:12-64, 39:41-64. Figs. 26-27. At any point, selecting an available channel on the mini-EPG will automatically change the channel and dismiss the on screen channel changer. *Id.* at 36:41-43, 36:52-54, 36:61-64. Surati Decl., ¶¶ 61-74.

Examples of the on screen channel changer are provided in Figures 20 and 27 of the '254 Patent:

² The '254 Patent refers to the digits entered so far as the “root number.” '254 Patent, 32:62-64, 33:15-18.



'254 Patent, Fig. 20 (annotated). '254 Patent, 31:58-63, 32:51-33:21, Fig. 20. Surati Decl., ¶¶ 67-74.



'254 Patent, Fig. 27 (annotated). See '254 Patent, 36:12-64, Fig. 26. Surati Decl., ¶¶ 67-74.

B. The Claimed Invention

According to independent Claim 1, the invention provides a method comprising displaying an on screen channel changer comprising EPG information

and a number input bar comprising digits, wherein the digits range from 0 to 9, coupled with a remote control device having multiple special function buttons.³

IV. RELEVANT LEGAL STANDARDS

A finding of obviousness requires a showing that as of the date of the invention (a) the prior art teaches or suggests each of the limitations of the claim; (b) there exists an apparent reason to combine and/or modify the prior art as proposed; and (c) a person of ordinary skill would have a reasonable expectation of success that the proposed combination and/or modification of the prior art would operate for its intended purpose. See *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007); *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007); *Regents of Univ. of California v. Broad Institute, Inc.*, 903 F.3d 1286, 1291 (Fed. Cir. 2018).

V. LEVEL OF ORDINARY SKILL IN THE ART AND PRIORITY DATE

For purposes of this response, the Patent Owner accepts the Petitioner’s definition of the POSITA as one who “would have had a bachelor’s degree in

³ The Patent Owner has numbered the limitations consistent with the numbering provided in the Petition. A copy of the Challenged Claims is provided in the Claims Appendix of Section XII. Ex. 2007 also provides the annotated Challenged Claims.

Electrical Engineering, Software Engineering, or Computer Engineering, or equivalent training, and approximately two years of experience working in the field of television systems and networking, human-computer interaction, or related technologies.” Pet, 10; Ex. 1003 (Lippman Decl.), ¶ 19. The Patent Owner and its expert Dr. Surati find that definition to be reasonable. Ex. 2008 (Surati Decl.), ¶¶ 40-44.

The parties agree that the priority date for the ’254 Patent is August 17, 2012. Pet., 10; Lippman Decl., ¶ 19; Ex. 2008 (Surati Decl.), ¶ 40.

VI. CLAIM CONSTRUCTION

The claims should be construed starting with the ordinary and customary meaning as understood by the person of ordinary skill in the art and considering the intrinsic evidence consisting of (1) the claim language, (2) the specification, and (3) the prosecution history. *David Netzer Consulting Eng’r LLC v. Shell Oil Co.*, 824 F.3d 989, 993-94 (Fed. Cir. 2016); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-15 (Fed. Cir. 2005). 37 C.F.R. § 42.100(b).

For purposes of the institution stage, the Board found that there was no need to provide express constructions of any claim terms. Instn. Dec., Paper 11, 14.

The Patent Owner and its expert, Dr. Rajeev Surati, have applied the ordinary and customary meaning of the claim terms as understood in the context of the ’254 Patent, except for the term “pre-installed [software] applications.” In the ’254 Patent,

that term is defined to mean pre-installed applications that “cannot be removed by the user or manually updated.” ’254 Patent, 24:18-21. The ’254 Patent distinguishes between such “pre-installed applications” and “downloaded applications.” *Id.* This construction is consistent with the determination in the related litigation that the term refers to “pre-installed software applications (that cannot be removed by the user or manually updated).” Ex. 2020 (Markman Order dtd 6/30/2024), 43. Ex. 2008 (Surati Decl.), ¶ 79.

VII. SUMMARY OF THE PRINCIPAL APPLIED REFERENCES

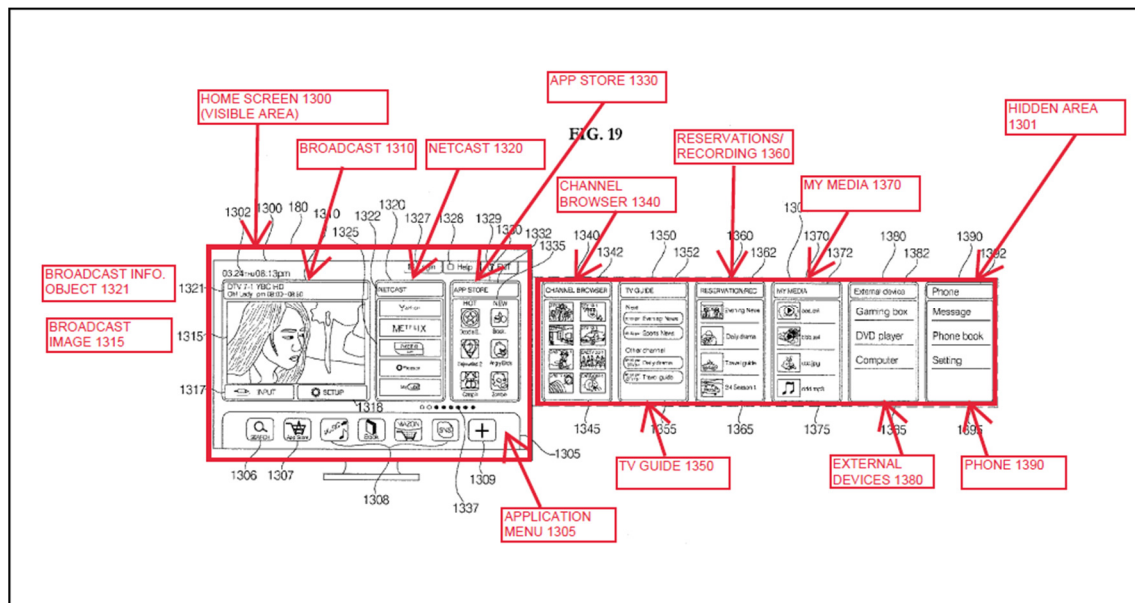
A. Kim (Ex. 1005)

Kim, entitled “Image Display Apparatus System and Method for Operating the Same,” generally discloses an image display apparatus (e.g., television) having a user interface in the form of a “home screen” having a series of graphical “card objects” (windows) representing different “source[s] or type[s]” of content. Kim, [0193], [0194] (“card object may be a window having a predetermined configuration”). The home screen may be displayed upon the user selecting a home key or providing a “go-to-home” input on the remote control device. A card object can be selected to provide a full-screen view of the card object. In certain card objects, an object (thumbnail or listing) can be selected to change a channel or otherwise access content for display. Kim, [0192], [0094]. Surati Decl., ¶ 80.

As illustrated in Figure 19, the home screen 1300 includes the:

- (1) Channel Browser card object 1340 with thumbnails representing different broadcast channels;
- (2) TV Guide card object 1350 with descriptive text for a program list of available programs;
- (3) App Store card object 1330 including text and thumbnails for a list of software applications available for downloading; and
- (4) an Application menu 1305 that includes mandatory applications, such as Appstore 1307 (which takes the user to AppStore 1330 to view available software applications for download), and optional applications 1308, such as Music, Book, Mazon, and SNS.

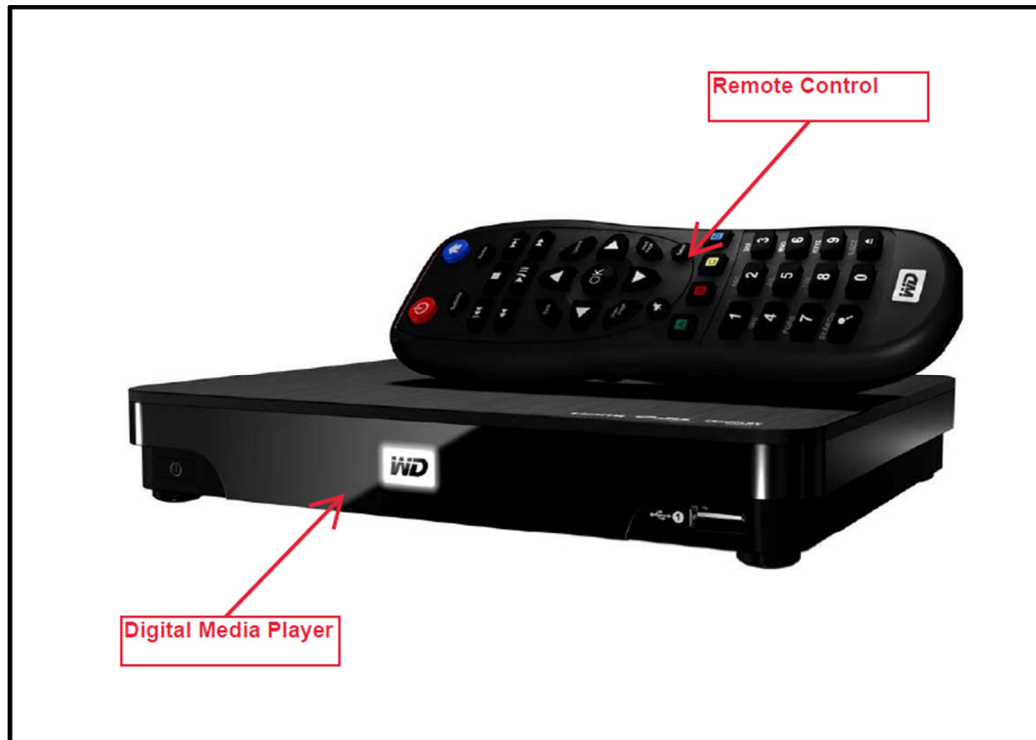
'040 Patent, [0094], [0193]-[0216]. Surati Decl., ¶¶ 81-100.



Kim, Fig. 19 (annotated). See Surati Decl., ¶¶ 81-100.

B. WD-Manual (Ex. 1006)

The WD-Manual pertains to the WD TV Live Hub Media Center, which has (1) a digital media player (set-top-box) for playing content stored on its hard drive or received over the Internet, and (2) a multi-function remote control:



Ex. 1006 (WD-Manual), cover page (annotated). Surati Decl., ¶ 101.

The WD Media Center has a hard drive that can store and categorize a user's home movies, photos, and music. It can access content from Internet sources such as Netflix and Blockbuster On Demand. The remote control has various keys, including a home key and shortcut keys A-D. WD-Manual, 5-7, 11, 25-26. The shortcut keys can be reprogrammed for different functions, such as "display mode,

filter menu, Music, Video, Service, Setup.” WD-Manual 138. Surati Decl., ¶¶ 102-109-113.

When the user selects the home button, the Home screen is presented. WD-Manual, 28. The Home screen is depicted below:

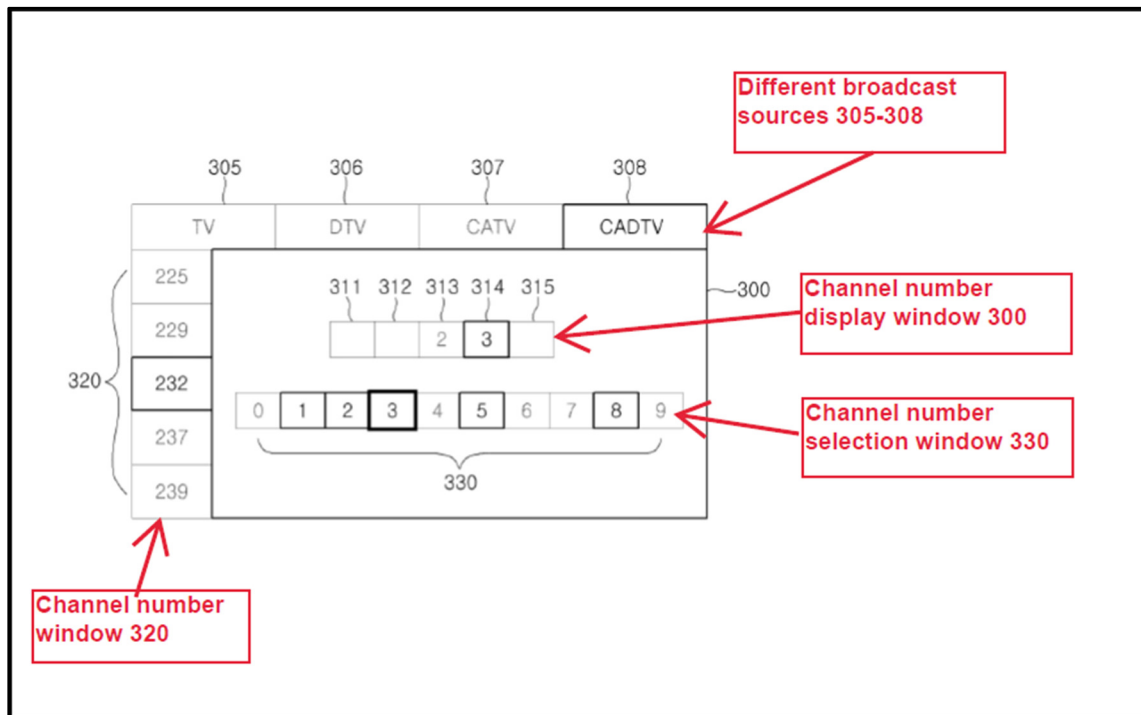


WD-Manual, 28. Surati Decl., ¶¶ 113-115. The Home screen options are Videos, Music, Photos, and Services. WD-Manual, 28. Selection of any of these options leads to a new submenu screen (e.g., a Videos menu screen, Music menu screen, Photos menu screen, Services menu screen).

C. Bae (Ex. 1008)

Bae is generally directed to a user interface to make a channel selection using on-screen graphic objects, including a mechanism for using a remote control to

select digits to change channels. Bae, [0011], [0014], [0016]-[0017], Figs. 1, 3. Surati Decl., ¶¶ 116-118. Bae depicts a user interface for inputting a channel number, including a channel number selection window 330 and a channel number display window 300 as depicted in Figure 3:



Bae, Figure 3 (annotated). See Bae, [0020]-[0027]; Surati Decl., ¶¶ 119-122.

D. Coburn (Ex. 1009)

Coburn, entitled “Systems and Methods for Graphical Control of Symbol-Based Features in a Television Receiver,” is generally directed to on-screen displays for use with a set-top-box receiving content from a satellite content delivery system. Coburn, [0016]-[0017], [0041]-[0050], Fig. 3. See Surati Decl., ¶¶ 123-126.

**VIII. THE WD-MANUAL IS DISQUALIFIED AS A PRIOR ART
“PRINTED PUBLICATION” UNDER 35 U.S.C. § 311(B) (GROUNDS
1-2).**

Independent Claims 1, 8, and 14 are patentable because the WD-Manual (Ex. 1006) is not a “printed publication” under 35 U.S.C. § 311(b). Independent Claims 1, 8, and 14 (and their dependent claims) are patentable because both grounds are based on the WD-Manual.

**A. The Petition Does Not Assert that the WD-Manual is a Prior Art
“Printed Publication.”**

The Petition should be denied because it does not establish that the WD-Manual is a “prior art ... patent[] or printed publication[]”, as required under 35 U.S.C. § 311(b). The WD-Manual is plainly not a patent. The Petition does not even assert that the WD-Manual is a “printed publication.” See Pet., 14 (only alleging that the WD-Manual is “at least prior art under (pre-AIA) 35 U.S.C. § 102(a) and/or (b).”).

Nowhere does the Petition even use the term “printed publication.” The vague statement that the WD-Manual is “at least prior art under (pre-AIA) 35 U.S.C. § 102(a) and/or (b)” (Pet., 14) is not an assertion that it is a prior art printed publication. Pre-AIA 35 U.S.C. § 102(a) and (b) includes many different of categories of prior art including: (1) “known [] by others,” (2) “used by others,” (3) “in public use,” (4) “on sale,” and (5) “patented,” and (6) “printed publication.” Pre-AIA 35 U.S.C. §§

102(a)-(b). The broadbrush assertion that the WD-Manual is prior art under 102(a) and/or (b) is not an assertion that it is a printed publication, as required by 35 U.S.C. § 311(b).

The petition—not the reply—must make an assertion that each reference is a “patent[] or printed publication[.]” The failure of this Petition to assert the WD-Manual is a “printed publication” is fatal to the grounds. *SAS Institute Inc. v. Iancu*, 138 S.Ct. 1348, 1355 (US 2008) “Congress chose to structure a process in which it’s the petitioner ... who gets to define the contours of the proceeding.”); 35 U.S.C. § 312 (the petition must identify “with particularity . . . the grounds on which the challenge to each claim is based”); 37 C.F.R. § 42.104(b)(2), (b)(4).

B. The Petition Does Not Establish that the WD-Manual is a Prior Art Printed Publication By Virtue of Actual Dissemination or Public Accessibility.

1. The Petitioner’s Three-Sentence Allegation of Public Availability Relying On Documents Incorporated by Reference is Insufficient.

The Petition does not present “with particularity” evidence that the reference is a printed publication. *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 (PTAB Dec. 20, 2019) (precedential), at 13; 2019 WL 7000067 (2019), at *5 (“Thus ... **the petition** must establish ‘with particularity, evidence’ that the reference is a printed publication) (emph. added). *See Medtronic, Inc. v. Barry*, 891 F.3d 1368, 1380 (Fed. Cir. 2018) (“Medtronic, the patent challenger,

bears the burden of establishing that a particular document is a printed publication”); *Nobel Biocare Servs. AG v. Intradent USA, Inc.*, 903 F.3d 1365, 1375 (Fed. Cir. 2018).

The three-sentence allegation of public availability in the Petition relying on documents incorporated by reference does not establish that the WD-Manual is a printed publication. See Pet., 14. The Petition alleges public availability in a conclusory manner with general reference to the declaration from the Internet Archive and other documents without providing any reasoning and analysis and without citing any specific pages in the documents. See Pet., 13-14. Such a conclusory assertion made without any explanation of the declaration and documents should be given no weight. *Vivint, Inc. v. SB IP Holdings LLC*, IPR2022-00814, Paper 15 (PTAB Oct. 16, 2023), 2023 WL 6878619 at *5 (“What a petitioner may not do is to simply state conclusions in the petition, and rely on the expert declaration to provide all of the reasoning, explanation, and analysis”); 37 C.F.R. § 42.6(a)(3).

The Federal Circuit has rejected arguments not made in the petition but instead relying on documents incorporated by reference. *3M Co. v. Evergreen Adhesives, Inc.*, 860 Fed.Appx. 724, 725-727 (Fed. Cir. 2021) (The Board is not to be forced to “play archeologist with the record” for arguments made outside the parties’ briefing). See also, e.g., *Medtronic, Inc. v. Teleflex Life Sciences Ltd.*, 2023 WL 7800137 (Fed. Cir. Nov. 16, 2023) at *4 (rejecting incorporation by reference as

violative of word limits); *Microsoft Corp. v. DataTern, Inc.*, 755 F.3d 899, 910 (Fed. Cir. 2014) (rejecting incorporation by reference as “fundamentally unfair”).

2. The Petitioner Does Not Provide Evidence Establishing that the WD-Manual is a Printed Publication.

The Petition also does not establish any of the requirements for the WD-Manual to qualify as a printed publication. The touchstone for determining whether a reference is a printed publication is “public accessibility.” *Nobel BioCare*, 903 F.3d at 1375; *In re Bayer*, 568 F.2d 1357, 1359 (C.C.P.A. 1978). A document is a printed publication only if it was “[1] disseminated or [2] otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it.” *Acceleration Bay LLC v. Activision Blizzard Inc.*, 908 F.3d 765, 772 (Fed. Cir. 2018) (citing *In re Wyer*, 655 F.2d 221, 226 (C.C.P.A. 1981) (brackets added).

As for actual dissemination, the Petition does not allege or provide any evidence that the WD-Manual was disseminated (distributed) to interested persons. See Pet., 13-14. *In re Cronyn*, 890 F.2d 1158, 1160 (Fed. Cir. 1989) (availability to three persons is insufficient because the proponent must establish is “that the public concerned with the art would know” of the reference); *In re Bayer*, 568 F.2d 1357, 1360, 1361 (C.C.P.A. 1978) (availability of three copies is insufficient).

The Petitioner does not establish (or even allege) that the WD-Manual purportedly located at the website

www.wdc.com/wdproducts/library/UM/ENG/4779-705046.pdf

was publicly accessible such that persons of interest in the '254 Patent's field of user interfaces with EPGs could locate the reference exercising reasonable diligence. Pet., 13-14; Ex. 1012 (Internet Archive Decl.). The mere "technical accessibility" of the reference on the Internet does not establish public accessibility. *Acceleration Bay*, 908 F.3d at 773.

The declaration submitted by the Internet Archive is at most probative of authentication. It provides no evidence that the WD-Manual at the www.wdc.com website was publicly accessible. See Ex. 1012 (Internet Archive Decl.), 1-2. The Internet Archive declaration does not provide any evidence that the WD-Manual (or any other document referenced in the Internet Archive declaration) was disseminated or publicly accessible such that persons interested in the '254 Patent's field of user interfaces including EPGs could locate the document exercising reasonable diligence. *Acceleration Bay LLC v. Activision Blizzard Inc.*, 908 F.3d 765, 772 (Fed. Cir. 2018).

Moreover, the author of the Internet Archive declaration, Mr. Nathaniel Frank-White, is a Records Request Processor who is not qualified to provide evidence (which he did not) as to the accessibility of documents in the field of user

interfaces including EPGs. See Ex. 1012, 1 (“I am a Records Request Processor at the Internet Archive.”).

Moreover, there is no evidence that the www.wdc.com website would have been known to persons interested in the field of the ’254 Patent. There is also no evidence that the www.wdc.com website was meaningfully indexed or otherwise searchable such that a POSITA would locate the WD-Manual reference exercising reasonable diligence. *Acceleration Bay*, 908 F.3d at 773-74; *Blue Calypso v. Groupon, Inc.* 815 F.3d 1331, 1349 (Fed. Cir. 2016) (no evidence that a POSITA in the field would have been aware of the website in the first instance).

In deposition, the Petitioner’s expert—who is allegedly more than a POSITA in the field of the ’254 Patent—testified that prior to this IPR he had never seen or heard of the WD-Manual or the WD TV Live system it purportedly describes. Ex. 2010 (Dep. Trans. Lippman), 71:10-72:10, 73:1-9, 159:5-11.

The complete absence of **any expert evidence** from the Petitioner showing the WD-Manual was publicly accessible confirms that this document is not a prior art printed publication. *Acceleration Bay*, 908 F.3d at 773.

3. The Collateral Documents Do No Establish That the WD-Manual is a Printed Publication.

The Petitioner refers to several collateral documents that purportedly reference the WD TV Live Hub product discussed in the WD-Manual reference.

None of these documents establishes that the WD-Manual was publicly accessible at the time of the invention in 2012.

For example, the Petition asserts that the WD TV product, allegedly “including the WD-Manual,” was available for purchase by the public by October 2010. Pet., 14 (referencing Ex. 1020 and Ex. 1024). The Internet Archive declaration provides screenshots of various archived web pages. See Ex. 1012.

There is no evidence that the WD-Manual was included with the WD TV Live Hub product as sold. See Pet., 13-14. On the contrary, Petitioner’s Ex. 1023 (alleged product review) complained “there’s no manual in the box.” Ex. 1023, 3.

Ex. 1020 is purportedly a press release from October 2010 introducing the WD TV Live Hub system. The document does not reference the WD-Manual. This document does not establish that the WD-Manual reference was publicly accessible or actually disseminated. There is no evidence that Ex. 1020 was itself publicly accessible.

As discussed previously, the screenshots of archived webpages provided in the Internet Archive declaration for Exhibits 1020-1024 do not establish public accessibility for the relevant persons of interest in the field.

Ex. 1024 is allegedly a web page from the B&H Photo website. For the same reasons set forth for Ex. 1020, immediately above, the web page from the www.bhphotovideo.com website does not establish that the WD-Manual is a printed

publication. The B&H webpage does not reference the WD-Manual, let alone establish that it was disseminated or publicly accessible. There is no evidence that Ex. 1024 itself was publicly accessible.

As to the web page of Ex. 1022, there is no evidence that persons interested in the field of the '254 Patent would have sought out documents on the www.wdc.com website. There is no evidence that Ex. 1022 was disseminated or publicly accessible such that persons of interest and skill in the '254 Patent's field could locate Ex. 1022 exercising reasonable diligence. There is no showing that the webpage of Ex. 1022 was viewed or downloaded by such interested persons.

There is no evidence that the www.wdc.com website at which Ex. 1022 was purported located was meaningfully indexed or otherwise searchable such that a POSITA would locate the WD-Manual or Ex. 1022 exercising reasonable diligence. *Acceleration Bay*, 908 F.3d at 773-74; *Blue Calypso*, 815 F.3d at 1349 (no evidence that a POSITA in the field would have been aware of the website in the first instance).

Ex. 1023 is purportedly a product review of the WD TV product at the www.photographybay.com website. Nothing in Ex. 1023 authenticates the WD-Manual or establishes that it was publicly accessible. Indeed, Ex. 1023 complains "there's no manual in the box." Ex. 1023, 3. As explained above for Ex. 1020, there is no evidence that the webpage of Ex. 1023 was disseminated or that it was publicly

accessible such that persons of interest and skill in the '254 Patent's field of could locate it exercising reasonable diligence. There is no evidence that persons having interest in the '254 Patent field of user interfaces with EPGs would have sought out the www.photographybay.com website. There is also no evidence that the www.photographybay.com website was meaningfully indexed or otherwise searchable such that a POSITA would locate Ex. 1023 or the WD-Manual exercising reasonable diligence. *Acceleration Bay*, 908 F.3d at 773-74; *Blue Calypso*, 815 F.3d at 1349 (no evidence that a POSITA in the field would have been aware of the website in the first instance).

For at least the above reasons, the WD-Manual of Ex. 1006 is not a permissible printed publication.

IX. CLAIMS 1-4, 8-10, AND 13-17 ARE PATENTABLE OVER THE COMBINATION OF KIM, WD-MANUAL, AND BAE (GROUND 1).

A. Independent Claims 1, 8, and 14 are Patentable Over Kim, WD-Manual, and Bae.

The combination of references fails to teach or suggest at least the following limitations of Claim 1:

- Limitation 1.2: “*displaying, by a microprocessor executable application framework and on a television screen, an on screen channel changer, the displayed on screen channel changer comprising electronic program*”

guide (‘EPG’) information and a number input bar comprising digits, wherein the digits range from 0 to 9,”

- Limitation 1.5.2: “*an application center button that, when selected, provides, by the television screen, displayed information regarding pre-installed and downloaded software applications,”* and
- Limitation 1.5.3: “*an application panel button that, when selected, displays, by the television screen, an application panel, wherein the application panel comprises an information panel regarding a selected (pre-installed or previously downloaded) application icon.”*

Surati Decl., ¶ 128.

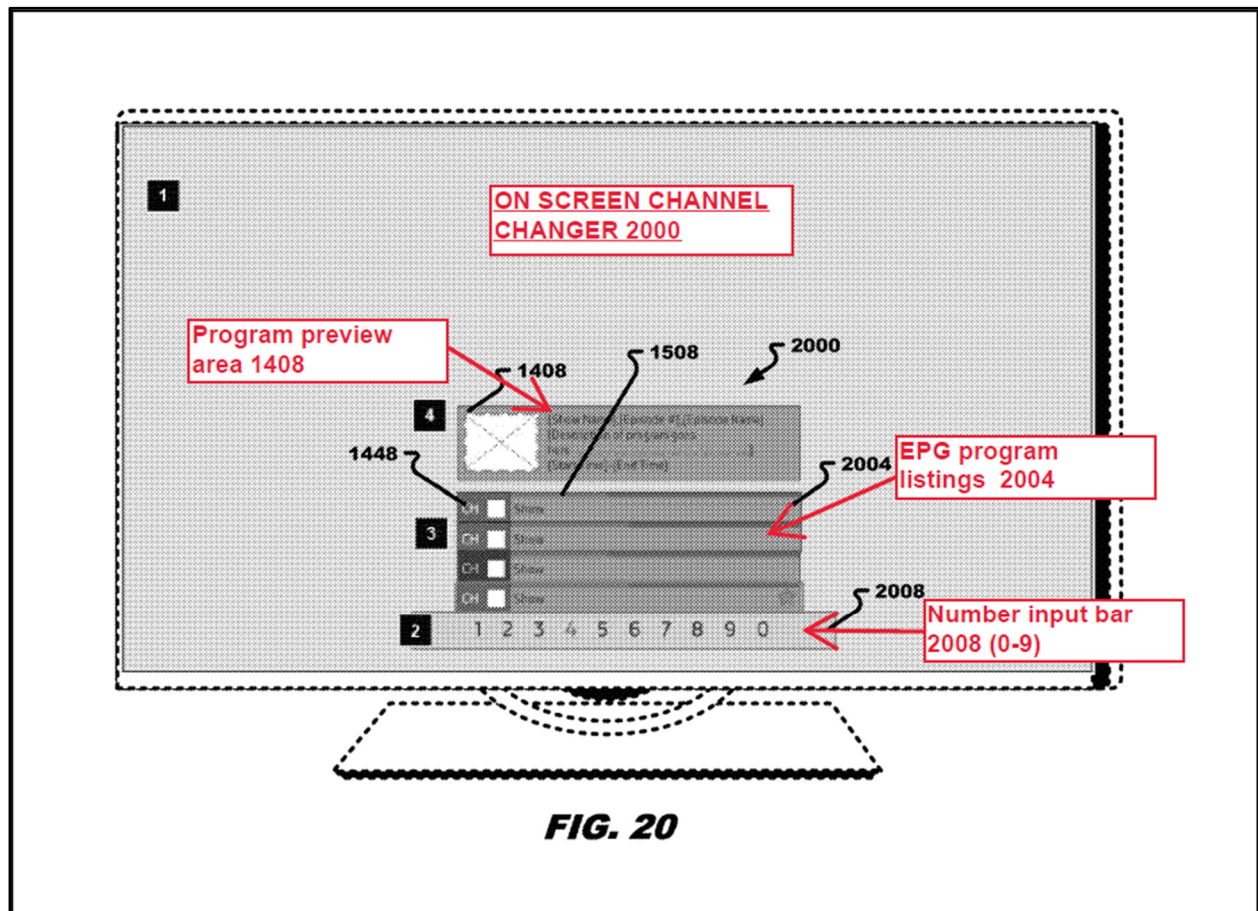
Independent Claims 8 and 14 have limitations similar to Claim 1 and are patentable for at least the same reasons. Surati Decl., ¶ 129.

B. The Kim/WD-Manual/Bae Combination Fails to Teach or Suggest Limitation 1.2 for “Displaying ... [an] On Screen Channel Changer Comprising Electronic Program Guide (EPG) Information and a Number Input Bar.”

Limitation 1.2 recites “*displaying ... an on screen channel changer, the displayed on screen channel changer comprising electronic program guide (“EPG”) information and a number input bar comprising digits, wherein the digits range from 0 to 9.”* ’254 Patent, Cl. 1.

1. Disclosure in the '254 Patent

The '254 Patent discloses multiple embodiments of a user interface having an on screen channel changer including EPG information and a number input bar having digits. For example, Figure 20 depicts an on screen channel changer including EPG program listings 2004 and a number input bar 2008 with digits 0-9:

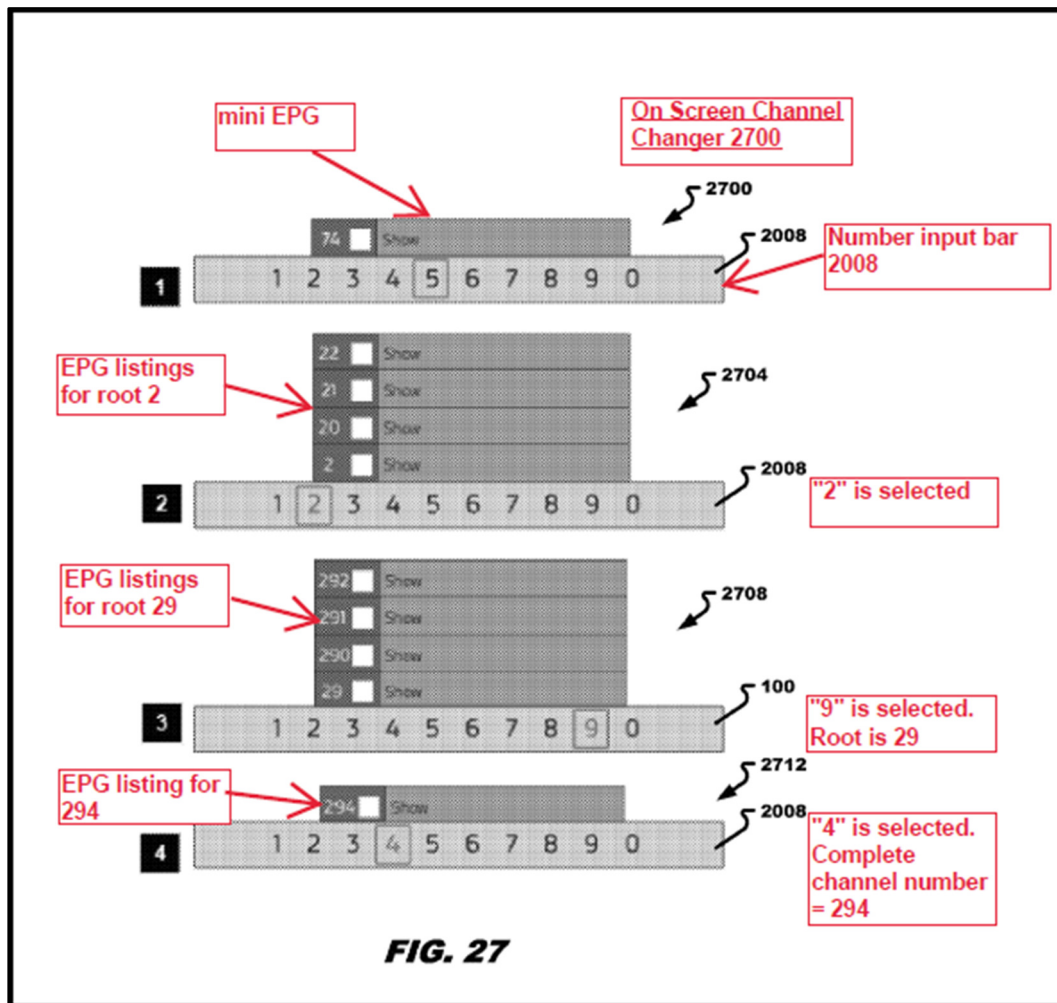


'254 Patent, Fig. 20 (annotated). Surati Decl., ¶¶ 131-135.

The user can use non-numeric keys on a remote control to select digits 0-9 on the number input bar. As each digit is selected by the user, the EPG 2004 is updated to display program listings corresponding to the digits the user has entered so far.

For example, after the user enters a highest-order digit (e.g., 2) the EPG will present program listings for channels corresponding to the root number 2XX. When the user next enters digit number 9 (e.g., the root value is 29X), the EPG will present program listings for channels corresponding to the root number 29X. At any time, the user can use the remote control to select an in-focus program listing on the EPG (e.g., using the OK or play button) to cause the channel to be changed and the program to be displayed. '254 Patent, 32:51-33:21, 36:12-64, Figs. 20, 26, 27. Surati Decl., ¶¶ 132-135.

Figure 27 of the '254 Patent depicts another embodiment of an on screen channel changer including EPG information and a number input bar:



'254 Patent, Fig. 27 (annotated). Surati Decl., ¶¶ 133-135.

2. The Combination of Kim and Bae Fails to Meet Limitation 1.2 for “Displaying ... On a Television Screen... [an] On Screen Channel Changer Comprising Electronic Program Guide (EPG) Information and a Number Input Bar.”

The Petition relies on the combination of Kim with Bae to meet limitation 1.2 for “displaying ... [an] on screen channel changer comprising electronic program guide (EPG) information and a number input bar.” See Pet., 29-39; Ex. 1003 (Lippman Decl.), ¶¶ 99-104, 116-124. Surati Decl., ¶ 136.

a. According to the Petitioner, the Claimed “On Screen Channel Changer” is the Channel Browser Object and/or the TV Guide Object in Kim.

Regarding the claimed “*on screen channel changer*,” the Petitioner and its expert rely solely on the Kim reference. They assert that it is met by Kim via the:

(1) Channel Browser card object 1340 (see Kim, Figs. 19, 22), and/or the

(2) TV Guide card object 1350 (see Kim, Figs. 19, 22).⁴

Pet., 29-31; Lippman Decl., ¶¶ 101-104.⁵ The Petitioner’s expert confirmed this in deposition. Ex. 2010 (Dep. Trans. Lippman), 135:24-136:11. Surati Decl., ¶ 137.

⁴ The Petitioner later references Figure 38 of Kim. Pet., 23. However, Figure 38 of Kim is a Search Window, not part of the home screen of Figures 19 and 22 that has the Channel Browser and TV Guide card objects that are the basis for the Petitioner’s obviousness theory. See Kim, [0266]-[0267] (“display a search window” allowing entry of a “keyword”). The Petitioner’s expert agreed. Ex. 2010 (Dep. Trans. Lippman), 141:15-19.

⁵ The Petition and the Lippman declaration reference passages in Kim regarding generic on-screen displays (OSDs), but those passages do not refer in any way to an “*on screen channel changer*.” The Petitioner and its expert do not assert those passages teach or suggest that claimed “*on screen channel changer*.” See Pet.

Indeed, the Petitioner alleges that “Kim teaches an on screen channel changer ... that allows a user to search for and switch to a desired program or channel via a remote control, such as ‘a CHANNEL BROWSER card object 1340 which may provide a thumbnail list of broadcast channels [and] a TV GUIDE card object 1350 which may provide a program list.’” Lippman Decl., ¶ 78, 103-104; Pet., 22. The Petitioner’s expert states: “Thus, Kim’s card object area that displays either or both of a CHANNEL BROWSER card object and TV GUIDE card object teaches an on screen channel changer.” Lippman Decl., ¶ 104 (emph added); Pet., 31 (*verbatim*). Surati Decl., ¶¶ 138-142.

An expanded view of the Channel Browser card object 1340 of Kim is presented below:

29-30; Lippman Decl., ¶¶ 99-100 (citing Kim at [0060], [0090, [0133], [0137], [0193], Figs. 5-6. A POSITA would understand that generic references to an on-screen display or a card object generator do not teach or suggest the claimed “*on screen channel changer*.” Surati Decl., ¶ 137 n.3.



Fig. 22 (excerpted Channel Browser 1340). Surati Decl., ¶ 143.

In the Lippman declaration, the Petitioner's expert also identifies the TV Guide card object 1350 as also allegedly meeting the "*on screen channel changer*" element of limitation 1.2. Lippman Decl., ¶¶ 103-104 (citing [0196], [0207]; Pet., 22-23, 30-31. Surati Decl., ¶ 146.

The TV Guide card object in Figures 19 and 22 (see above) is a card object having program listings representing different broadcast programs. A user can select a program listing in the TV Guide card object to cause the channel to be changed to display the selected program. Surati Decl., ¶¶ 147-148.

An expanded view of the TV Guide card object 1350 is presented below:

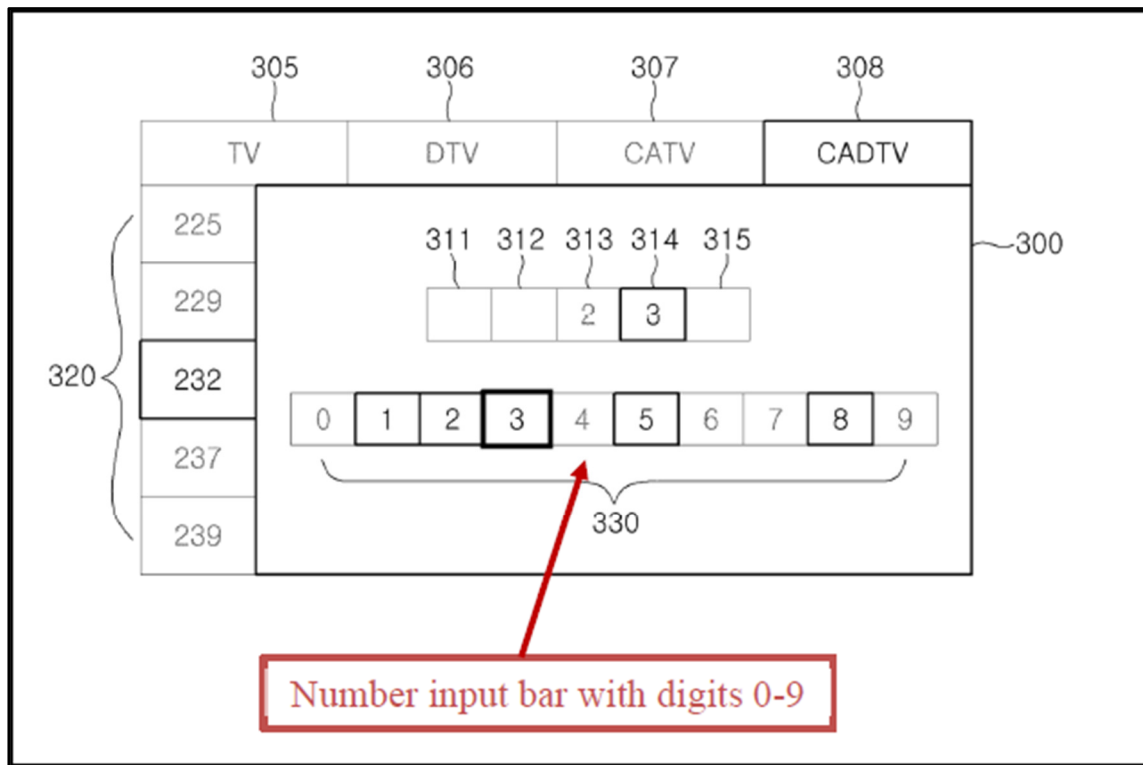


Kim, Fig. 22 (TV Guide card object 1350 excerpted). Surati Decl., ¶ 149.

It is undisputed that a remote control can be used to select a program listing in the TV Guide card object or to select a thumbnail in the Channel Browser card object to cause the channel to be changed. “If a program is selected from the program list 1355 [in the TV Guide card object], a broadcast image of the selected program (e.g., currently being broadcast) ... may be displayed on the display 180.” Kim, [0206]-[0207]. Surati Decl., ¶¶ 144-145, 150-151.

b. Combining Bae’s Channel Number Selection Window With the Alleged “On Screen Channel Changer” of Kim Does Not Meet Limitation 1.2.

The Petitioner relies solely on Bae (Ex. 1008) for the claimed “*number input bar*.” Pet., 37-39; Lippman Decl., ¶¶ 121-124. Specifically, the Petitioner alleges that the claimed “*number input bar*” is met by the “channel number selection window” 330 in Bae, as depicted in the Petitioner’s annotated version of Bae:



Pet., 38 (Petitioner’s annotated version of Fig. 3 of Kim). Surati Decl., ¶ 152.

But the Petitioner proposes that Bae be combined with Kim *in the abstract*. Pet. 38 (“Adding Bae’s number input bar to Kim’s on screen channel changer”). The Petitioner fails to explain what combination results from the application of Bae’s teaching of a channel number display window (330) to Kim’s on screen channel changer (1340, 1350). Pet., 38. Surati Decl., ¶¶ 153, 157.

Instead of explaining the resulting combination so that a POSITA can determine whether it meets limitation 1.2, the Petitioner repeats its theories for a motivation to combine:

Kim teaches a **known method** for displaying an on screen channel changer that allows a user to select a channel thumbnail/program listing

and/or enter a search keyword. Adding Bae's number input bar to Kim's on screen channel changer would have **predictably resulted** in an on screen channel changer that additionally includes a number input bar allowing the user to directly enter a specific channel number.

Pet., 38 (emph. added). See Lippman Decl., ¶¶ 123-124. Surati Decl., ¶ 154.

However, the requirement to show there is a reason to combine is separate from the requirement to show that the claim limitation is met. The Petitioner must first establish that the proposed combination meets each limitation. *See KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007); *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007); *Regents of Univ. of California v. Broad Institute, Inc.*, 903 F.3d 1286, 1291 (Fed. Cir. 2018).

The Petitioner's assertion that "Kim's teaching of displaying an on screen channel changer ... where the on screen channel changer includes EPG information for browsing channels/programs and searching for programs, in combination with Bae's technique of displaying a number input bar that displays digits 0-9 within an on screen channel changer renders obvious this limitation" is a pro forma, conclusory statement. Pet., 38-39, Lippman Decl., ¶ 124. It is little more than the template: "The combination of prior art A and prior art B renders the claim limitation obvious." The Petitioner does not explain the proposed combination and how that combination works to meet the limitation. Upon inspection, the combination of Bae

with Kim does not meet limitation 1.2 of Claim 1 of the '254 Patent. Surati Decl., ¶ 156.

The Petitioner's obviousness case must provide a reasoned analysis explaining **how the references are combined** and **how the proposed combination works** to meet the claim limitation. Surati Decl., ¶ 162. *Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1066 (Fed. Cir. 2016) (“explanation as to *how...* the references would be combined to produce the claimed invention”) (original italics); *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1368 (Fed. Cir. 2012) (must be an “explanation as to how ... the references would be combined to produce the claimed invention.”); *Power-One, Inc. v. Artesyn Techs., Inc.*, 599 F.3d 1343, 1351-52 (Fed. Cir. 2010) (obviousness requires some teaching of how the references could be combined to work together). *See Provisur Technologies, Inc. v. Weber, Inc.*, 50 F.4th 117, 124 (Fed. Cir. 2022) (reversal because the Board did not sufficiently explain its finding “on how the two [references] would be combined”); *Metalcraft of Mayville, Inc. v. The Toro Co.*, 848 F.3d 1358, 1367 (Fed. Cir. 2017) (no “explanation as to how ... the references would be combined to arrive at the claimed invention”); *Innogenetics, N.V. v. Abbott Laboratories*, 512 F.3d 1363, 1374 n.3 (Fed. Cir. 2008) (an “explanation as to how or why the references would be combined to produce the claimed invention”).

The Federal Circuit has explained the requirement for the challenger to explain how the references are combined and how the combination works:

Indeed, [] nowhere [was it] clearly explained, or [was there] cited evidence showing, how the combination of the two references was supposed to work.

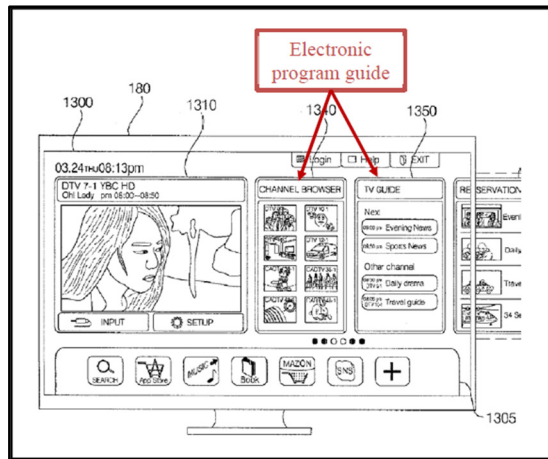
Pers. Web Techs., LLC v. Apple, Inc., 848 F.3d 987, 993-994 (Fed. Cir. 2017).

The Board has repeatedly held that the Petitioner must explain how the references are combined and how the combination works to meet the limitation. *See, e.g., LG Electronics, Inc. v. Constellation Designs, LLC*, IPR2023-00228, Paper 10 (PTAB July 11, 2023) at *6, 2023 WL 5173678 (“lacks sufficient reasoning that would inform how [the proposed combination] would have resulted in the claim limitation,” citing *Pers. Web Techs.* 848 F.3d at 994); *Roku, Inc. v. Universal Electronics, Inc.*, IPR2019-01595, Paper 15 (PTAB May 13, 2021), at *6, 2021 WL 1933680 (“nowhere clearly explained, or cited evidence showing, *how the combination of the two references was supposed to work*,” citing *Pers. Web Techs.* 848 F.3d at 994) (orig. italics); *Ex parte King*, App. No. 2019-02542 (App. No. 14/706,587), (PTAB Mar. 11, 2020) at *3, 2020 WL 1286071 (obviousness must “clearly explain[] ... how the combination of the two references was supposed to work”); *Emerson Electric Co. v. Sipco, LLC*, IPR2019-00545, Paper 36 (PTAB Aug. 27, 2020) at *29-30, 2020 WL 5078566, *aff’d on appeal*, 2022 WL 1311708 (Fed.

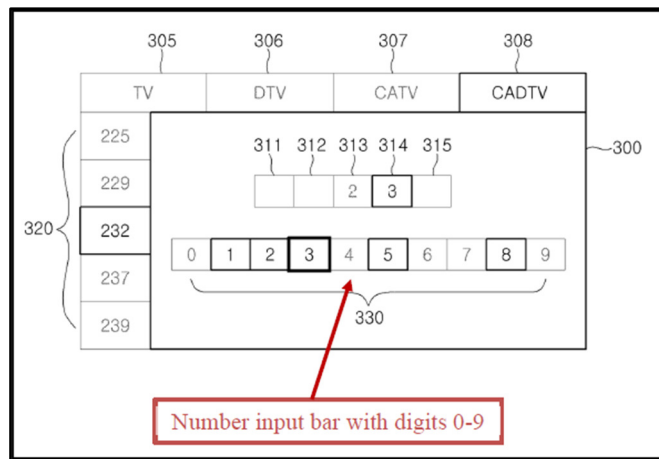
Cir. 2022) (failure to explain how the combination works to meet the limitation); *Apple, Inc. v. UUSI, LLC*, IPR2019-00359, Paper 27 (PTAB Aug, 4, 2020) at *35, 2020 WL 4542561 (“it was incumbent on Petitioner to explain how the [element from the first reference] would have been replaced with [the elements from the second reference], and how the circuit of the proposed combination would have worked,” citing *Pers. Web Techs.* 848 F.3d at 994); *Schlumberger Technology Corp. v. Integrated Drive Systems, LLC*, IPR2018-00604, Paper 8 (PTAB Sept. 5, 2018) at *4, 2018 WL 4232394 (“Petitioner must explain how the proposed combinations of prior art” work to meet the limitation); *Apple, Inc. v. UUSI, LLC*, IPR2019-00356, Paper 14 (PTAB Jul. 22, 2019) at *8-9, 2019 WL 3294136 (“it was incumbent on Petitioner to explain how [element from first reference] would have been combined with the [elements from the second reference],” citing *Pers. Web Techs.* 848 F.3d at 994); *Spring Spectrum L.P. v. Intellectual Ventures II, LLC*, IPR2018-01765, Paper 11 (PTAB May 6, 2019) at *9, 2019 WL 2004048 (same).

Here, the Petitioner relies on a **first user interface** from Figure 22 of Kim allegedly having the “*on screen channel changer*” based on the Channel Browser card object and/or the TV Guide card object. Pet., 23; Lippman Decl., ¶ 78. The Petitioner then relies on a **second user interface** from Figure 3 of Bae as allegedly having a “*number input bar*” based on the channel number window. Pet., 37-39; Lippman Decl., ¶¶ 121-122. The relied-upon user interfaces are presented below:

Kim



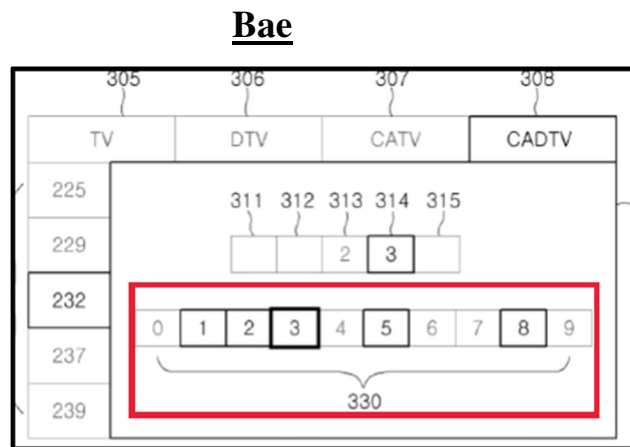
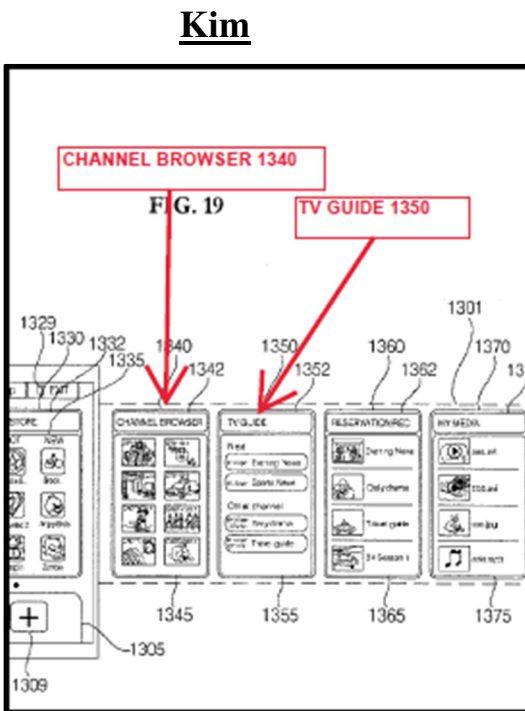
Bae



See Pet., 23, 38 (Petitioner's annotation of Kim, Fig. 19 and Bae, Fig. 3). Surati Decl., ¶ 159.

The Petitioner fails to explain how the features from the two user interfaces are combined and how the combined user interface works to meet the limitation of “displaying ... [an] on screen channel changer comprising electronic program guide (‘EPG’) information and a number input bar comprising digits.” *Kinetic Concepts, Inc.*, 688 F.3d at 1368. Specifically, the Petitioner never addresses how the cited features from Bae (channel number selection window) would be implemented in Kim according to the mappings to the Channel Browser and TV Guide card objects. The Petitioner provides no explanation of the combination other than the conclusory assertion that Kim would be modified to include a channel number selection window from Bae. Pet., 38-39; Lippman Decl., ¶¶ 123-124. Surati Decl., ¶ 160.

Moreover, the channel number selection window of Bae cannot be combined with the Channel Browser card object or TV Guide card object (allegedly the “*on screen channel changer*”) of Kim:



Kim, Fig. 19 (excerpted, annotated); Bae, Fig. 3 (excerpted, annotated). Surati Decl., ¶ 161.

The channel selection window, as taught by Bae, cannot be integrated with either the Channel Browser or the TV Guide card objects of Kim. As described previously, the Channel Browser functions to present thumbnails of broadcast channels that can be selected to change channels. The TV Guide functions to present program listings that can be selected to change channels. A POSITA would understand that neither card object of Kim could be modified to include the channel

selection window of Bae. Indeed, attempting to apply the channel selection window of Bae with either card object of Kim would result in an inoperative user interface that would be contrary to the principle of Kim. Surati Decl., ¶ 162. *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984); *Ex parte Derek J. Webb*, 2012 WL 417450 at *3-4 (BPAI: Feb. 07, 2012) (“proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose”; “if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims” obvious) (citing *In re Ratti*, 270 F.2d 810, 813 (C.C.P.A. 1959)); *see also McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1354 (Fed. Cir. 2001) (“If references taken in combination would produce a ‘seemingly inoperative device,’ . . . such references . . . cannot serve as predicates for a prima facie case of obviousness.”).

The Patent Owner is not making an improper bodily incorporation attack because it is the Petitioner who identifies the combination as modifying the Channel Browser object and/or TV Guide card object of Kim (alleged “*on screen channel changer[s]*”) with the channel number selection window of Bae (alleged “*number input bar*”). Pet., 38 (“Adding Bae’s number input bar to Kim’s on screen channel changer would have predictably resulted in an on screen channel changer that additionally includes a number input bar allowing the user to directly enter a specific

channel number.”); Lippman Decl., ¶ 123. Thus, the Patent Owner’s argument is not based on an improper bodily incorporation of the references. *See Facebook Inc. v Windy City Innovations, LLC*, 973 F.3d 1321, 1343 (Fed. Cir. 2022) (citing *In re Keller*, 642 F.2d 413, 425 (C.C.P.A. 1981)). Surati Decl., ¶ 163.

In sum, for the reasons explained above, the combination of Kim and Bae (along with the WD-Manual) fails to satisfy limitation 1.2 of Claim 1 of the ’254 Patent. Surati Decl., ¶ 167.

c. In Deposition, the Petitioner’s Expert Could Not Explain How Bae and Kim Are Combined and How the Combination Works.

As discussed above, the Petitioner’s expert’s declaration does not explain how the Kim and Bae references are combined and how the combination works. See Lippman Decl., ¶¶ 75-83, 99-124. In deposition, the Petitioner’s expert indicated that he had no opinion as to how the teachings from the reference were to be combined and how that combination would work to meet limitation 1.2. Despite being asked repeatedly, the expert obfuscated and declined to explain the configuration and workings of the combination. Ex. 2010 (Dep. Trans. Lippman), 130:21-131:25, 132:2-12. Surati Decl., ¶ 165.

Further, the expert’s deposition testimony is at odds with his declaration, which clearly states that Kim’s Channel Browser 1340 and/or TV Guide 1350 (alleged “*on screen channel changer*”) would (somehow) be combined with or

modified by the channel selection window of Bae. Lippman Decl., ¶¶ 102-103, 117, 121-124. He states: “Thus, Kim’s card object area that displays either or both of a CHANNEL BROWSER card object and TV GUIDE card object teaches an on screen channel changer.” *Id.*, ¶ 104. He then states: “[I]t would have well within the skillset of a POSITA to further include the number input bar of Bae into the on screen channel changer [Channel Browser object or TV Guide object] of Kim with respect to Kim’s known method for displaying an on screen channel changer.” Lippman Decl., ¶ 123 (“adding the number input bar of Bae into ... Kim’s on screen channel changer”). Surati Decl., ¶ 166.

During continued questioning, the Petitioner’s expert declined to provide an explanation of the combination and how it works:

Q: “In your proposed combination of Kim and Bae, what does the channel browser 1340 look like?”

A: “You would choose to display EPG information either the way Kim does or an altered way that Kim does using the teachings of Kim so that you would end up with an artful and usable user interface with Bae added to it.”

Q: “So you’re saying in your proposed combination of Kim and Bae, the channel browser object 1340 could look and operate exactly the same way as in Kim. Correct?”

A: “It’s conceivable that it could. It might not, but it is the entirety of the interface that would change.”

Q: “And as for the TV guide card object 1350, what would it look like pursuant to your proposed combination of Bae with Kim?”

A: “I don’t think that I need to propose a specific graphic design. What I propose is the admixture of those two techniques for changing channel, one of them being Kim’s, and the other -- which allows you to scroll and select and the other -- from EPG information, and the other direct selection by specifying a channel number.”

Ex. 2010 (Dep. Trans. Lippman), 152:21-154:2. The expert later repeated that he had no particular design in mind for the combined user interface, instead, he was just proposing an “admixture of the two technologies.” Ex. 2010 (Dep. Tr. Lippman), 155:9-12. Surati Decl., ¶ 167.

The expert’s own characterization of his proposed combination as being an “admixture” of technologies from Bae and Kim illustrates that there is no explanation of what is being combined and how the combination works. The expert confirmed that his declaration does not provide an explanation of the combination of Bae and Kim and how it works. Ex. 2010 (Dep. Tr. Lippman), 157:13-18. Surati Decl., ¶ 168. The proposed combination is no more than an abstraction.

Accordingly, limitation 1.2 is not satisfied.

d. Limitation 1.2 is Not Satisfied Because a POSITA Would Not Combine Bae with Kim.

i. The Argument that a POSITA Would be Unable to Implement Kim’s Remote Control is Without Merit.

The Petitioner argues that a POSITA would be motivated to make the combination because Kim allegedly does not provide sufficient details for a POSITA to implement Kim’s remote control that issues channel switch commands. Lippman Decl., ¶¶ 79-80 (“Kim, however, does not otherwise expand on how channel switch commands or channel selection commands may be entered into its on screen channel changer via the remote control, leaving the implementation details to a POSITA. Bae discloses a known technique for receiving channel selection commands from a remote control.”), Pet., 24 (“Kim, however, does not otherwise expand on how the user can enter channel switch commands through its on screen channel changer to select a desired channel via the remote control, leaving the implementation details up to a POSITA.”). Surati Decl., ¶ 170.

First, it is surprising that the Petitioner and its expert are arguing that LG’s own patent reference is non-enabling. See Ex. 2016 (Assignment of Kim reference to LG Electronics), 1-2. Nor is that assertion credible under the circumstances. Surati Decl., ¶ 171.

Second, the Petitioner's assertion that a POSITA viewing Kim would need to refer to Bae to implement remote control issued channel switch commands is not credible at all. A POSITA would be readily able to implement a remote control that issues channel switch commands to change channels based on Kim and the POSITA's background knowledge in the art. Surati Decl., ¶ 172.

Indeed, Kim discloses multiple mechanisms for the remote control to issue channel switch commands to change channels, including a "channel selection signal," "channel selection command," and a "channel switch command." Kim, [0059], [0086], [0090], [0127], [0174]. The Petitioner's expert concedes that Kim discloses the remote control issuing the aforementioned channel switch commands to change channels. Lippman Decl., ¶ 77. Surati Decl., ¶ 173.

The Petitioner and its expert are incorrect in asserting that a POSITA would not know how to implement Kim's remote control issuing channel switch commands. Figure 14 of Kim is a detailed block diagram of a remote control 200, including a user input circuit 235 for receiving user inputs and an RF module 225 for transmitting commands such as channel switch commands. Kim, Fig. 14, [0172]-[0181]. A POSITA would have been able to implement remote control issued channel switch commands based on Figure 14 of Kim and the background knowledge in the art. Surati Decl., ¶ 174. Indeed, the Petitioner's expert agreed in deposition that a POSITA would have been able to implement Kim's remote control

of Figure 14 that issues channel switch signals. Ex. 2010 (Dep. Trans. Lippman), 111:5-113:13.

Not only does Kim disclose a remote control issuing channel switch commands, but it was notoriously well known in the art that set-top-box (STB) devices like Kim included remote control devices for issuing channel switch commands to change channels. Ex. 2011 (Liebhold assigned to Thomson), [0005], [0013], [0020], [0029], Fig. 1 (remote control with channel number inputs); Ex. 2012 (Lakin assigned to Arria), 2:26-27, 5:6-17, 5:45-50, Fig. 2 (user channel control interface), Fig. 3 (request for channel change); Ex. 2013 (Hearn assigned to Lucent), [0006], [0024], Fig. 2; Ex. 2015 (Boyce assigned to Thomson), 2:59-67 (channel change requests), 3:25-30, Figs. 1, 5-6 (channel change requests); Ex. 2018 (Russ to Scientific-Atlanta), 9:21-31, 15:50-65 (channel change control signal), Fig. 2; Ex. 2019 (Chan to Scientific-Atlanta), 11:28-34, Fig. 4 (subscriber commands). Surati Decl., ¶¶ 175-176.

There is another reason the Petitioner and its expert are incorrect in asserting that a POSITA would be unable to implement Kim's remote control device. Kim discloses that the user can use the remote control to select thumbnails in the Channel Browser card object to cause it to change channels. Kim, [0206]. Additionally, Kim discloses that the user can use the remote control to select a program listing in the TV Guide card object to cause it to change channels. Kim, [0207]. Accordingly, Kim

discloses that the remote control can be used to issue channel change commands to the Channel Browser and the TV Guide card objects. Surati Decl., ¶¶ 177-178.

In deposition, the Petitioner's expert admitted that a POSITA would understand how Kim's remote control would issue channel change commands by using its pointer 205 to select an object (thumbnail or program listing) in the Channel Browser and the TV Guide card objects to change the channel. Kim, [0167]-[0171], Fig. 13. See Ex. 2010 (Dep. Trans. Lippman), 104:3-110:17. The Petitioner's expert made the same admissions in his declaration. Lippman Decl., ¶ 78. Surati Decl., ¶ 178.

Accordingly, the Petitioner's assertion that a POSITA would be motivated to combine Bae into Kim because a POSITA would be unable to implement Kim's remote control is contradicted by Kim, common knowledge in the art, and the Petitioner's own expert. A POSITA would not have reason to refer to Bae to implement Kim for the reasons set forth above. Surati Decl., ¶ 179.

**ii. The Petitioner's Other Arguments on
Motivation to Combine Bae with Kim Are
Without Merit.**

The Petitioner's other arguments on whether there is an apparent reason to combine Bae with Kim are without merit. For example, the Petitioner argues that the combination would provide the additional functionality of "enabl[ing] a user to identify a specific channel number." Lippman Decl., ¶¶ 81-82 Pet., 24. However, as

discussed in the section immediately above, a POSITA would understand that Kim's remote control already has the functionality to issue channel switch commands identifying a specific channel number. See e.g., Kim [0090] ["a specific channel selection command"]. Additionally, Kim's device can be a set-top-box (see Kim, Fig. 7, set-top-box 250), and it was well understood at the time that a remote control could input specific channel numbers to change channels on a set-top-box. Surati Decl., ¶ 176. Furthermore, a POSITA would understand that Kim enables direct selection of thumbnails/program listings identifying specific channels in the Channel Browser/TV Guide card objects. Surati Decl., ¶ 180. Thus, a POSITA would not have reason to refer to Bae because Kim already provides for the identification of a specific channel number.

The Petitioner references "a remote control without a keypad" (Lippman Decl., ¶ 82; Pet., 24) in Bae as a rationale. But Kim discloses a remote control without a keypad, so there would be no reason to apply Bae. See Kim, Fig. 13 (remote control 200 without keypad), [0167]-[0171]. Surati Decl., ¶ 181.

The Petitioner argues there is a reason to combine because it would "allow[] the user to switch channels on Kim's television with different types of remote controls, including those without numeric keys." Lippman Decl., ¶ 82; Pet., 24. However, a POSITA would readily understand that Kim's apparatus could be operated using a remote control without numeric keys (see Kim, Fig., 13, remote

control 200) as well as a remote control having numeric keys. See Kim, [0112]-[0113], [0122], [0150], [0172]-[0181] (“The user input device 235 may include a keypad, a plurality of buttons.”), Fig. 14. Surati Decl., ¶ 182.

Finally, the Petitioner argues that Bae’s channel number selection window is a “known technique” applied to Kim’s “known” image display apparatus to provide a predictable result. Lippman Decl., ¶¶ 82-83, 123; Pet., 24-25, 38. However, the mere fact that two references were “known” does not establish that a POSITA would combine their teachings. *Virtek Vision Int’l ULC v. Assembly Guidance Systems, Inc.*, 97 F.4th 882, 887 (Fed. Cir. 2024). Surati Decl., ¶ 183. The fact that the Petitioner and its expert are unable to explain the combination and how it works demonstrates there is no predictable result. See Section IX.B.2.(b)-(c).

To the contrary, a POSITA would not have reason to apply Bae to Kim for the reasons explained above in Section IX.B.2.(b). There is also no reasonable expectation of success because the Petitioner and its expert are incapable of explaining how the references are combined and how the combination works. There is also no reasonable expectation of success because the combination would not work. See Section IX.B.2(b)-(c). Accordingly, the proposed combination of Bae and Kim does not meet limitation 1.2 of Claim 1 of the ’254 Patent. Surati Decl., ¶ 184.

C. The Kim/WD-Manual/Bae Combination Fails to Teach or Suggest Limitation 1.5.2 for a Remote Control including “An Application Center Button that ... Display[s] Information Regarding Pre-Installed and Downloaded Software Applications.”

Limitation 1.5.2 provides for a remote control including “*an application center button ... that display[s] information regarding pre-installed and downloaded software applications.*” ’254 Patent, Cl. 1.

As discussed in Section VI above, “pre-installed ... software applications” is understood pursuant to its definition in the ’254 Patent as pre-installed software applications that “cannot be removed by the user or manually updated.” ’254 Patent, 24:18-21. The ’254 Patent distinguishes between such “pre-installed applications” and “downloaded applications.” *Id.* This construction aligns with the determination in the related litigation that the term means “pre-installed software applications (that cannot be removed by the user or manually updated).” Ex. 2020 (Markman Order dtd 6/30/2024), 43. Surati Decl., ¶ 186.

The Petition and its expert employ a shotgun approach by identifying an array of embodiments in Kim and the WD-Manual as alleged candidates for limitation 1.5.2. The Petitioner and its expert argue that limitation 1.2 is met by any one of:

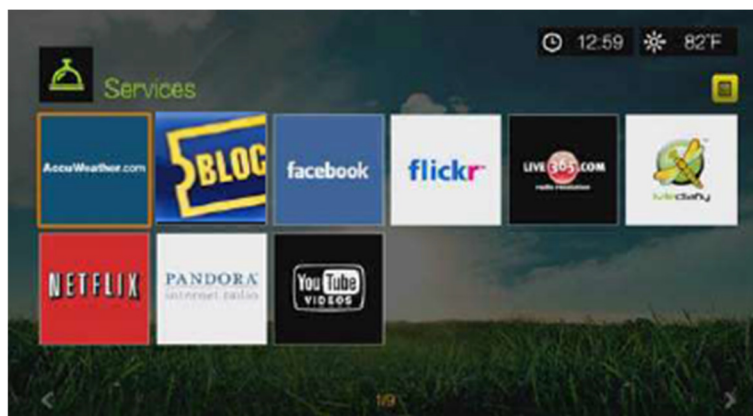
- (1) WD-Manual’s Services menu displaying Internet Services;
- (2) Kim’s “list of applications” for Figure 6 and the “application menu” for Figure 34;

(3) Kim’s “application list view menu” for Figure 16 and Kim’s “application layer 550” for Figure 12.

Lippman Decl., ¶¶ 185-196; Pet., 69-74. Surati Decl., ¶ 187.

1. WD-Manual: “Services menu” display of “Internet Services”

The Petitioner and its expert argue that the Services menu in the WD-Manual meets limitation 1.5.2 for “*an application center button ... that display[s] information regarding pre-installed and downloaded software applications.*” The Services menu in the WD TV system can be accessed from the Home screen, and it provides this display:



Ex. 1006 (WD-Manual), 77.⁶ Surati Decl., ¶ 188.

⁶ Like the Petitioner, the Patent Owner references the original pagination of the WD-Manual.

The WD-Manual describes the above Services menu as providing a “**list of Internet services.**” WD-Manual, 77 (emph. added). Nowhere does the WD-Manual teach or suggest that the thumbnail images (Netflix, Facebook, Live365.com, etc.) are “*downloaded software applications,*” as claimed. Surati Decl., ¶¶ 189-191.

Further, the WD-Manual does not remotely teach or suggest that the “Internet services” display includes “*pre-installed ... software applications*” and “*downloaded software applications,*” per limitation 1.5.2. See WD-Manual, 76-77. Surati Decl., ¶¶ 190-192. Significantly, the Petitioner and its expert nowhere argue, let alone provide evidence, that the thumbnails are “*pre-installed ... software applications*” and “*downloaded software applications*” per limitation 1.5.2.

Indeed, the purported product support page for WD TV refers to downloading **media**, not downloading software applications. Ex. 1021, 1. The sales webpage on the B&H Photo website references “the ability to access many popular websites—including Facebook, YouTube, and Flickr” without making any reference to downloading software applications. Ex. 1024, 1. Surati Decl., ¶ 193.

Chapter 13 of the WD-Manual for “Setup and Advanced Features” makes no reference to downloading software applications. WD-Manual, 127-143. If the WD system allowed for downloading of software applications to be made available on the Services menu (see WD-Manual, 76-77), as the Petitioner alleges, the set-up chapter would have certainly addressed the subject. The Index of the WD-Manual

refers to Netflix, Facebook, Flickr, and Pandora, but makes no reference to downloading. WD-Manual, 160-164. Surati Decl., ¶ 194.

A POSITA would understand the reference to locating iTunes or Winamp by “search[ing] the internet with your browser” as using a web browser (e.g., Chrome or Internet Explorer) **on a user’s separate computer** to download those applications onto the user’s computer, not downloading them onto the WD set-top-box. See WD-Manual, 150. Indeed, that passage proceeds to discuss copying music files “to **your computer**” by opening iTunes, not copying the music files to the WD set-top box. Notably, the display of “Internet services” on the Services menu (e.g., Netflix, Facebook, etc.) does not include any thumbnail icon for iTunes or Winamp. WD-Manual, 77. Accordingly, a POSITA would understand that the WD-Manual does not disclose or suggest the downloading and display of thumbnail images onto the WD set-top-box for an iTunes application or a Winamp application. Surati Decl., ¶¶ 195-196.

For the reasons set forth above, limitation 1.5.2 is not met by the Services menu of the WD-Manual or other referenced sections in the WD system. Surati Decl., ¶ 197.

2. Kim: The “list of applications” for Figure 6 and the “application menu” for Figure 34 (First example in Kim)

The Petition uses Kim as a back-up argument for limitation 1.5.2. The Petition references a “first example” based on Kim’s “list of applications” in connection with Figure 6. See Lippman Decl., ¶ 189; Pet., 71-72 (citing Kim, [0099]). Paragraph [0099] of Kim pertains to the image display apparatus of Figure 6 that includes a controller 170 and a display 180. It states that “controller 170 may control display of applications or a list of applications that are available in the image display apparatus or downloadable from an external network.” Kim, [0099]. A list of applications “available in the image display apparatus” does not teach or suggest the claimed “*displayed information regarding pre-installed and downloaded software applications.*” For example, the passage does not teach or suggest that the applications are pre-installed and cannot be removed or manually updated, per limitation 1.5.2 (“*preinstalled ... software applications*”). The passage also does not teach or suggest an “*application center button*” that invokes the display of the “list of applications” referenced in [0099] of Kim, per limitation 1.5.2. Surati Decl., ¶ 198.

Figure 34 of Kim is a different embodiment unrelated to Figure 6 and paragraph [0099]. Figure 34 of Kim depicts a full-screen display 2100 of the application menu 1305 when it is selected from the home screen of Figure 19. See

Kim, Fig. 19 (application menu 1305), Fig. 34, [0257] (“full screen ... in the application menu 1305 of FIG. 19 using the pointer.”), [0263]. Figure 34 provides a list of applications, but there is no teaching or suggestion of applications corresponding to the claimed “*preinstalled ... software applications*” of limitation 1.5.2 that are not removable or manually updatable. See Kim, [0256]-[0265]. The Petitioner and its expert do not even assert that the “application menu” of Figure 34 displays the claimed “*preinstalled ... software applications*.” See Lippman Decl., ¶ 189; Pet., 71-72. Surati Decl., ¶ 199.

Further, the Petitioner and its expert do not argue or provide evidence that a POSITA would combine the embodiments of Figure 6 and Figure 34 of Kim. See Lippman Decl., ¶¶ 185-196; Pet., 69-74. Surati Decl., ¶ 200.

In sum, Kim’s “list of applications” related to Figure 6 and the “application menu” for Figure 34 do not teach or suggest limitation 1.5.2. Surati Decl., ¶ 201.

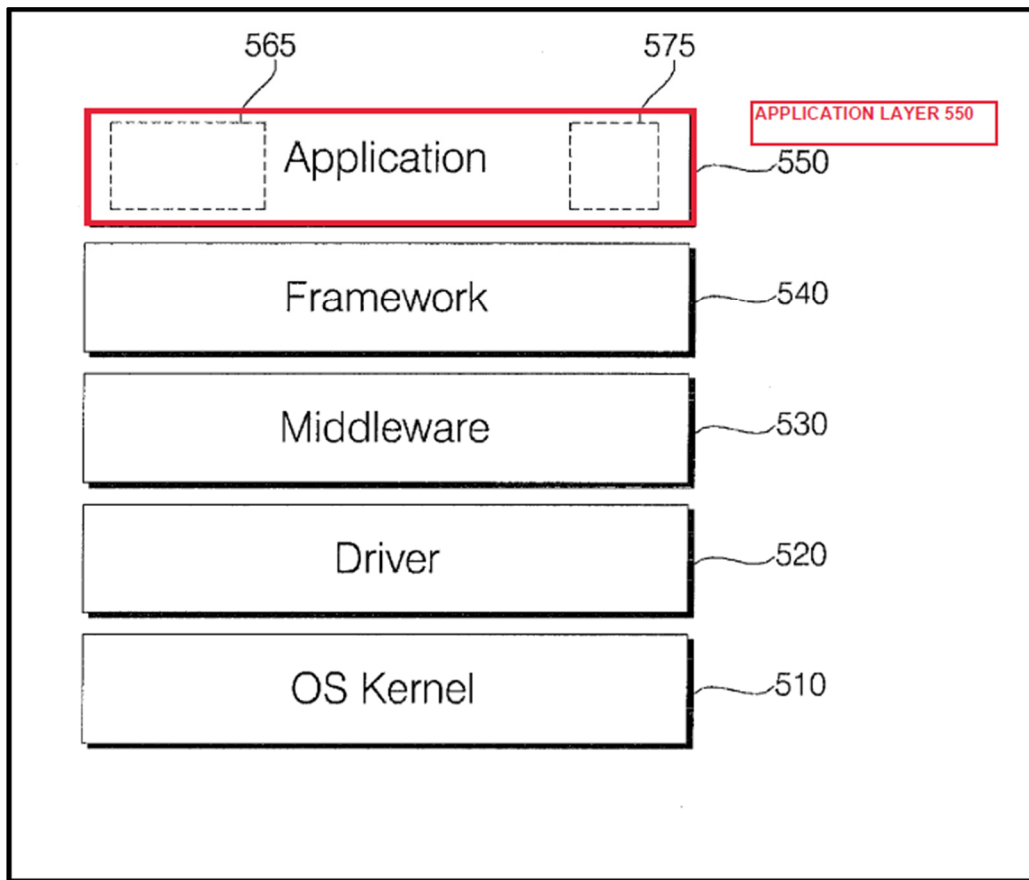
3. Kim: The “application list view menu” for Figure 16 and Kim’s “application layer 550” for Figure 12 (Second example in Kim)

The Petitioner asserts there is a “second example” in Kim based on the “application list view menu” of Figure 16. See Lippman Decl., ¶¶ 190; Pet., 72-73. Figure 16 depicts an “application list menu” that may display “a list of applications 660 stored in the image display apparatus.” Kim, [0184], Fig. 16. “The application lists 610 or 660 may display icons representing both applications available over the

network as well as application available locally.” Kim, [0185], Fig. 16. “In this embodiment, the icons or the descriptions may include additional indicia to differentiate the remote and local applications ... the description may include a network address for the corresponding application.” Kim, [0185]. Surati Decl., ¶ 202.

Figure 16 and associated passages [0184]-[0187] do not remotely teach or suggest the application center button of limitation 1.5.2 that “*display[s] information regarding pre-installed and downloaded software applications.*” At most, these passages describe software applications stored on Kim’s image display apparatus. They do not describe them as being “*downloaded applications.*” They do not remotely teach or suggest they are “*pre-installed ... software applications*” that are not removable and not manually updatable per limitation 1.5.2. Notably, neither the Petitioner nor its expert assert these passages teach the “*pre-installed and downloaded software applications*” of limitation 1.5.2. See Lippman Decl., ¶¶ 190; Pet., 72-73. Surati Decl., ¶ 203.

The Petitioner and its expert also reference the software applications in the application layer 550 of the software architecture depicted in Figure 12 of Kim:



Kim, Fig. 12 (annotated). Surati Decl., ¶¶ 204-206.

Kim describes application layer 550 as comprising software applications that may be user-deletable or user-undeletable:

[0163] In the application layer 550, applications may be categorized into user-undeletable applications 565 that are stored in the image display apparatus and user-installable or user-deletable applications 575 that are downloaded from an external device or a network and stored in the image display apparatus.

Kim, [0163].

First, a POSITA would not understand that “user-installable or user-deletable applications” teaches or suggests “*pre-installed and downloaded software applications.*” Second, Kim does not teach or suggest that the “user-installable or user-deletable applications” in storage are “*displayed ... on a television screen*” per limitation 1.2. Surati Decl., ¶ 206.

Third, Kim does not link the application layer 550 of Figure 12 to the application list view menu of Figure 16. Figure 16 is not described as presenting a list of software applications from the application layer 550 of Figure 12. Kim does not remotely teach or suggest that the user-undeletable and user-deletable applications in application layer 550 are presented in the application list of Figure 16. See Kim, Fig. 12, [0160]-[0166]. Neither the Petitioner nor its expert argue or provide evidence that a POSITA would combine the embodiment of Figure 12 with the embodiment of Figure 16 of Kim. See Lippman Decl., ¶¶ 191-194; Pet., 73-74. Surati Decl., ¶¶ 207-208.

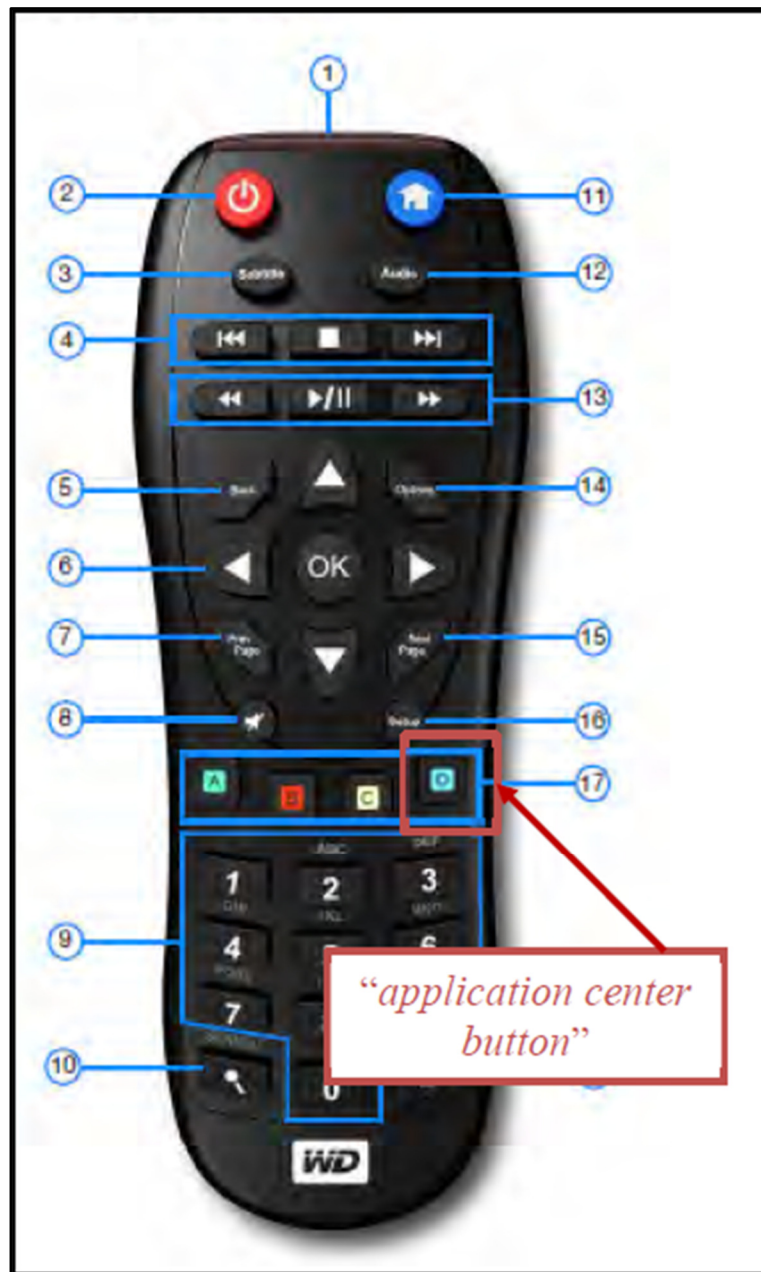
Accordingly, Kim’s application menu of Figure 16 and the application layer of Figure 12 do not teach or suggest limitation 1.5.2.

4. The Combination Fails to Teach the Claimed “Application Center Button” that Invokes the Displayed Information on Software Applications.

The proposed combination of the WD-Manual with Kim also fails to teach the claimed “*application center button*” that invokes the displayed information about

software applications. The Petitioner and its expert fail to identify a button on the remote control in the WD-Manual, Kim, or the combination that is the claimed “*application center button*.” See Lippman Decl., ¶¶ 62-74, 185-196; Pet., 18-21, 69-74. Surati Decl., ¶ 209.

As discussed above in Section IX.C.1, the Petitioner’s theory for limitation 1.5.2 focuses on the WD-Manual’s “Services menu.” Lippman Decl., ¶ 187. Surati Decl., ¶ 210. For the claimed button, the Petitioner and its expert make a general reference to the shortcut function keys A-D on the WD remote control. Lippman Decl., ¶ 188; Pet., 70-71. They assert that the shortcut function key D is the alleged “*application center button*”:



Pet., 71 (annotated page 11 of WD-Manual); Lippman Decl., ¶ 188. Surati Decl., ¶ 211.

However, shortcut function key D is preprogrammed to “activate[] the dashboard menu,” not to invoke the Services menu. WD-Manual, 26. Therefore, the

Services menu allegedly corresponding to the “*displayed information*” about software applications per limitation 1.5.2 is **not** invoked by selecting shortcut key D. The WD-Manual describes that the shortcut function keys can be reprogrammed for other functions (WD-Manual, 138), but the Petitioner and its expert do not articulate an obviousness case based on reprogramming function key D to invoke the Services menu, as their theory would require. Lippman Decl., ¶¶ 185-196; Pet., 69-74. Surati Decl., ¶ 212.

The Petitioner’s and its expert’s arguments on reasons to combine are not tied to the combination, which would be modifying the remote control in the WD-Manual by reprogramming a shortcut function key to invoke the Services menu. Lippman Decl., ¶¶ 62-74; Pet., 18-21. Surati Decl., ¶ 213. These arguments for a reason to combine are generic and not tied to the proposed combination of embodiments alleged to meet the claim limitation. [*Intel Corp. v. Qualcomm Inc.*, 21 F.4th 784, 797 \(Fed. Cir. 2021\)](#) (“generic” analysis is insufficient when it bears “no relation to any specific combination of prior art elements ... from specific references”) (quoting [*ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1328 \(Fed. Cir. 2012\)](#)); *Forest Laboratories, LLC v. Sigmapharm. Labs., LLC*, 918 F.3d 928, 935 (Fed. Cir. 2019) (generic analysis does not provide “a motivation to combine these particular prior art elements”); *Pers. Web Techs., LLC v. Apple, Inc.*, 848 F.3d 993-994 (Fed. Cir. Feb. 14, 2017) (motivation to combine

must be directed to the embodiments in the references being combined; conclusory reasoning not addressing the specific combination of embodiments in the references is insufficient); *Purdue Pharma L.P. v. Depomed, Inc.*, 643 Fed.Appx 960, 965 (Fed. Cir. 2016) (“Indeed, it remains ‘important to identify a *reason* that would have prompted a person of ordinary skill in the relevant field to combine the elements *in the way* the claimed new invention does.’”) (orig. italics). Surati Decl., ¶¶ 213-214.

The proposed combination fails to meet the “*application center button*” on a remote control pursuant to limitation 1.5.2.

D. The Kim/WD-Manual/Bae Combination Fails to Teach or Suggest Limitation 1.5.3 for a Remote Control including “An Application Panel Button that ... Display[s] An Application Panel Compris[ing] an Information Panel Regarding a Selected (Pre-Installed or Previously Downloaded) Application Icon.”

Limitation 1.5.3 provides for a remote control including “*an application panel button that ... display[s] an application panel compris[ing] an information panel regarding a selected (pre-installed or previously-downloaded) application icon.*” ’254 Patent, Cl. 1. ’254 Patent, 24:56-25:10, 25:25-30, 28:6-9, 29:48-49, Fig. 7. Surati Decl., ¶¶ 215-217.

1. As with Limitation 1.5.2, Kim and the WD-Manual Do Not Teach or Suggest Pre-Installed and Downloaded Software Applications Per Limitation 1.5.3.

Limitation 1.5.3 recites an “*application panel button*” that when invoked leads to the display of information regarding pre-installed or downloaded software

applications, similar to limitation 1.5.2. As explained in Sections IX.C.1-C.3, the WD-Manual and Kim, considered alone or together, fail to teach or suggest the display of information regarding pre-installed and downloaded software applications. For this reason, limitation 1.5.3 is not satisfied by the proposed combination of Kim and the WD-Manual. Surati Decl., ¶ 218.

The Petitioner points to the discussion of iTunes and Winamp applications in the WD-Manual. As explained above in Section IX.C.1, a POSITA would understand the WD-Manual to be disclosing downloading these applications onto **the user's computer**, not onto the WD media set-top-box that provides the Services menu that is the basis for the Petitioner's obviousness theory. See WD-Manual, 77. Surati Decl., ¶ 227.

Even if iTunes was displayed on the Services menu (it is not), the Services menu would not provide for the selection of an iTunes thumbnail to display information about the iTunes application, as limitation 1.5.3 would require. See WD-Manual, 77. Instead, the WD-Manual discloses that selecting a thumbnail and entering OK causes that Internet service to be accessed, not that information about a selected software application is displayed per limitation 1.5.3. WD-Manual, 77. Surati Decl., ¶ 228.

2. The Options Button in the WD-Manual Does Not Teach the Claimed “Application Panel Button.”

The Petitioner and its expert provide a lengthy and at times confusing description of different items from the WD-Manual and Kim that allegedly might meet the “*application panel button*” for limitation 1.5.3 of Claim 1 of the ’254 Patent. See Lippman Decl., ¶¶ 213-240; Pet., 77-90.

The Petitioner and its expert first rely on the Options button in the WD-Manual. Lippman Decl., ¶¶ 213, *et seq.*; Pet., 77, *et seq.* For the “*information panel regarding selected (pre-installed or previously downloaded) application[s]*” of limitation 1.5.3, the Petitioner and its expert rely on the same “Services menu” displaying “Internet services” that the Petitioner relied upon for limitation 1.5.2. Lippman Decl., ¶¶ 216-217; Pet., 79-80. See Section IX.C.1 above.



Lippman Decl., ¶ 217; Pet., 79-80 (annotated WD-Manual, 11, 77). Surati Decl., ¶¶ 220-221.

But the Options button does not invoke the Services menu in the WD system, as the Petitioner’s theory would require. Instead, the Options button provides “playback options” and “more service options.” WD-Manual, 25. A POSITA would understand that “more service options” is a generic reference to options that may be available for a given “online content media screen.” WD-Manual, 25. A POSITA would understand that “more service options” does not refer to the Services menu that is the basis for the Petitioner’s obviousness theory. In sum, the Options button does not connect to the Services menu that is the basis for the Petitioner’s theory. Surati Decl., ¶ 221.

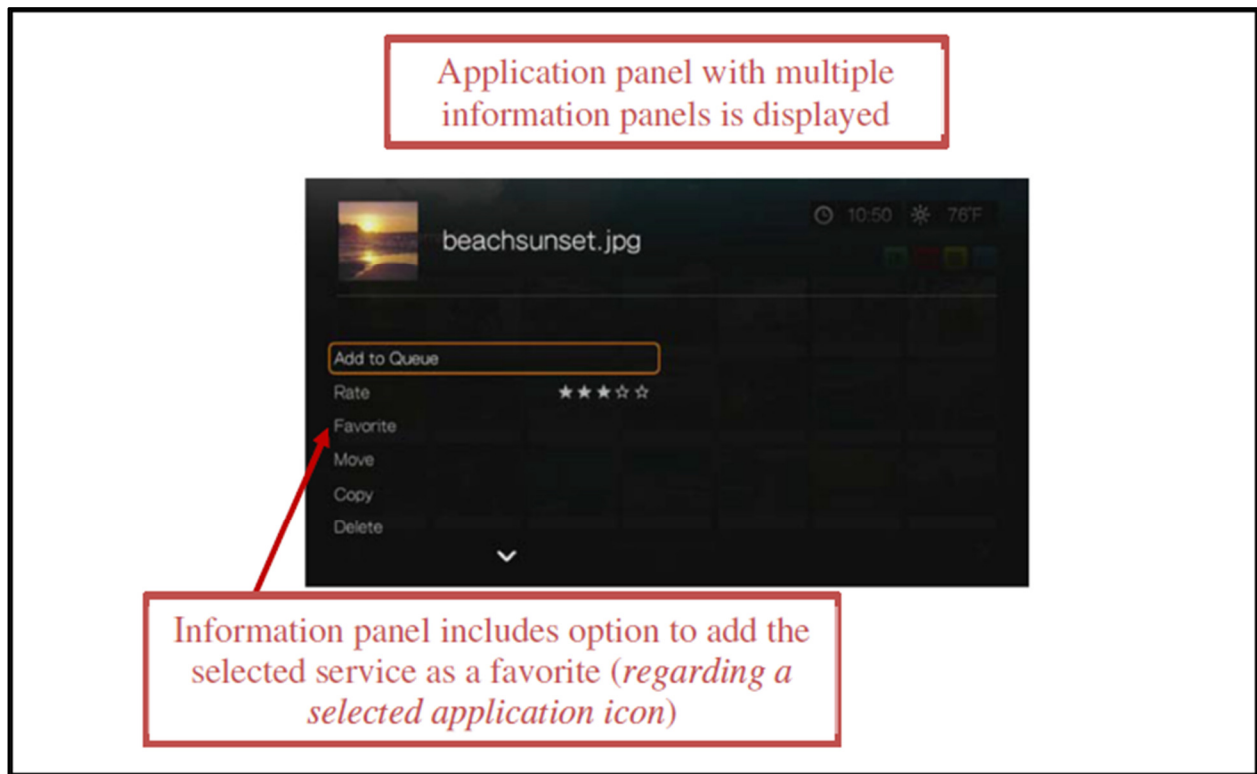
Further, the WD-Manual discloses that the Services menu is accessed by entering the OK button, not the Options button. WD-Manual, 76 (“Navigate to the Home/Services menu bar and press OK.”). Nowhere does the WD-Manual teach or suggest that the Services menu is invoked by the Options button, as required by the Petitioner’s obviousness theory. See WD-Manual, 25, 76-77. The Petitioner’s argument that the Options button meets limitation 1.5.3 is without merit. Lippman Decl., ¶ 224; Pet., 82-83. Surati Decl., ¶ 222.

When the user is already at the Services menu, the user can press the left/right arrow keys “to make a selection [of an ‘Internet service’], then press OK.” WD-

Manual, 77. Thus, once the user is in the Services menu, the OK button—not the Options button—is used to access the thumbnail “Internet services” (Netflix, Facebook, Flickr, etc.). Surati Decl., ¶ 222. The Petitioner’s theory that the Options button corresponds to the claimed “*application panel button*” is contradicted by the reference.

The Petitioner and its expert also discuss the feature for adding an Internet service (e.g., Facebook) to the favorites list. Lippman Decl., ¶ 218; Pet., 80-81. If a service like Facebook is made a favorite, it will be shown on the Home screen. WD-Manual, 77, 28 (Home screen). This is accomplished by the user selecting a thumbnail (e.g., Facebook) on the Services menu and using the Options button to add it as a favorite. WD-Manual, 77 (“In the Services screen, press [left/right arrow keys] to select a service [Facebook] you want to favorite, then press Options.”). Thus, the Options button can be used to make an Internet service such as Facebook a favorite, **not to provide information about a selected software application icon** per limitation 1.5.3. Selecting the Options button does not provide an information panel with information about the selected Facebook service per limitation 1.5.3. Surati Decl., ¶ 223.

The Petitioner and its expert proceed to improperly conflate the Photos menu screen with the Services menu screen. See WD-Manual, 55-57 (Photos menu), 76-77 (Services menu):



Lippman Decl., ¶ 219; Pet., 81. Surati Decl., ¶ 224.

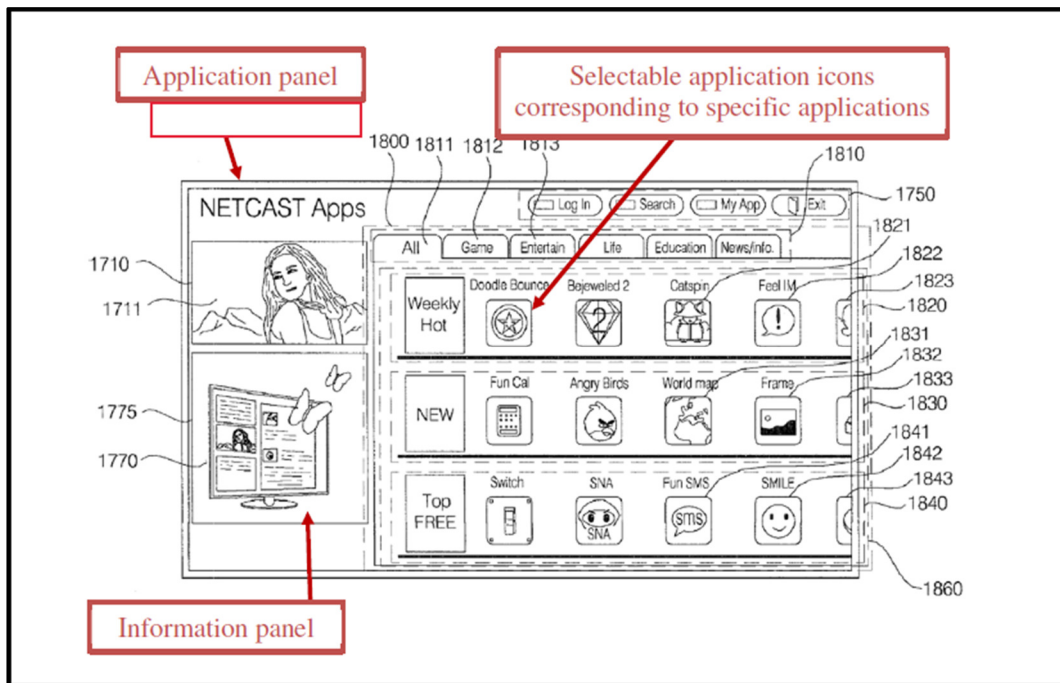
A POSITA would readily understand that the above Individual Photo screen displays information about a selected photo file, beachsunset.jpg. WD-Manual, 57. The Individual Photo screen is unrelated to the Services menu displaying Internet services. When the user is “in the main photo screen, [the user can] press Options” to present the Individual Photo screen. WD-Manual, 57. In this case, the Options button is not being used to display information about a selected software application icon, per limitation 1.5.3. Rather, it is used to display information about the jpeg photo file. Surati Decl., ¶¶ 225-226.

Thus, the WD-Manual does not teach or suggest the “*application panel button*” as claimed in limitation 1.5.3.

3. Kim’s AppStore Display Does Not Display Information on a Pre-installed or Previously Downloaded Software Application Stored on the Device.

The Petitioner presents a back-up argument for limitation 1.5.3 based on the full-screen AppStore display in Figures 24-25 of the Appstore card object. See Kim, Figs. 19, 24-28. For example, Kim discloses that the user makes a “go-to-app store input,” which brings up the full-screen AppStore display of Figure 25. Kim, [0235]-[0236]. Surati Decl., ¶ 229.

The Petitioner and its expert focus on the display of information about a selected icon in third area 1370 of Figure 25, allegedly an “*information panel*.” Kim, [0247]. Lippman Decl., ¶ 233, Pet., 86-87.



Lippman Decl., ¶ 233, Pet., 87 (Petitioner’s annotated Fig. 25 of Kim). Surati Decl., ¶ 230.

However, the AppStore 1330 of Figure 25 is not a list of previously downloaded or pre-installed applications stored on Kim’s image display apparatus per limitation 1.5.3. Rather, it is a display showing **applications stored on a website** that are *available* for download to the image display apparatus. Kim states that “[t]he [App Store] card object 1330 may include a card object name 1332 [] and an application list 1335 ... [that] may display a plurality of icons representing **applications available on a server ... for download or purchase.**” Kim, [0202] (emph. added). Accordingly, the passages and figures relied upon by the Petitioner and its expert do not provide for the display of information regarding a “(*preinstalled*

or previously downloaded) application” on the microprocessor executable application framework per limitation 1.5.3. Surati Decl., ¶ 231.

The Petitioner and its expert also reference the “My App” tab in Figure 25 of Kim. Lippman Decl., ¶ 234, Pet., 88. However, Kim does not provide any description of the My App tab. The Petitioner and its expert cite no passages from Kim or provide any other evidence on the My App tab. There is nothing in Kim suggesting that My App presents a list of software applications (pre-installed or previously downloaded) stored on Kim’s image display apparatus. A POSITA might speculate that My App is a list of items the user has flagged for possible purchase, similar to a shopping cart. But My App does not teach or suggest the display of information about pre-installed or downloaded software applications per limitation 1.5.3. Surati Decl., ¶ 232.

The Petitioner’s and its expert’s arguments regarding the application list for Figure 12 and the separate embodiment in the application list of Figure 16 do not meet the claim limitation for substantially the same reasons set forth above in Section IX.C.3. See Lippman Decl., ¶ 236, Pet., 88-89. Surati Decl., ¶ 233.

For the reasons set forth in this Section IX.D, the combination of the WD-Manual and Kim fails to teach limitation 1.5.3.

E. All Dependent Claims Are Patentable

All dependent claims including Claims 2-4, 9-10, 13, and 15-17 are patentable for at least the reasons set forth above for the independent claims in Section IX.A-D.

X. CLAIMS 6, 12, AND 19 ARE PATENTABLE OVER THE COMBINATION OF KIM, WD-MANUAL, BAE, AND COBURN (GROUND 2).

For Ground 2, the Petitioner proposes modifying the Kim, Bae, and WD-Manual combination to further include teachings from Coburn. As explained in Section IX.B.2(b)-(c), the Petitioner and its expert have failed to explain how the Kim, Bae, and WD-Manual references are combined, and how the combination would work, to meet limitation 1.2. Turning to Coburn, the Petitioner and its expert once again fail to articulate how the teaching of Coburn (updating a channel indicator window 126 as digits are entered into keypad 122 in Figure 3) would be applied to the unspecified Kim/Bae/WD-Manual combination, and how that updated combination would work. See Lippman Decl., ¶¶ 350-383, Pet., 120-130. Surati Decl., ¶ 236. For this reason, the claims are patentable.

According to the Petitioner's analysis of limitation 1.2, the claimed "*electronic program guide (EPG) information*" is met by Kim's disclosure of thumbnails indicating broadcast channels in the Channel Browser object 1340 and the program listings in the TV Guide object 1350. See Section IX.B.2. The Petitioner

did not rely on Bae for the claimed “*electronic program guide (EPG) information.*”
Surati Decl., ¶ 239.

Claim 6 calls for “*updat[ing] the EPG information*” as the user enters digits, meaning that the thumbnails in the Channel Browser object and/or the program listings in TV Guide object of Kim must be updated to meet the claim limitation. However, the Petitioner and its expert make no showing that the thumbnails in the Channel Browser object and/or the program listings in TV Guide object of Kim would be updated based on the combination. Instead, the Petitioner and its expert reference the updating of a channel indicator window 126 in Coburn, as reflected by HBO-1, HBO-2, CNBC, and FOX. See Lippman Decl., ¶¶ 368-369 (citing Coburn, [0046]), Pet., 124-125. Surati Decl., ¶ 239. For this additional reason, Claims 6, 12, and 19 are patentable.

The Petitioner’s expert’s assertion provides no reasoning as to how the references would be combined and how that combination would work to meet limitation 6.1. Lippman Decl., ¶ 370. Indeed, the combination could not meet limitation 6.1 because the EPG information (thumbnails in the Channel Browser object or the program listings in the TV Guide object) in Kim would not be updatable because a POSITA would understand that these card objects are not filtered or searched using user-input digits. Surati Decl., ¶¶ 240-241.

Finally, the Petitioner references Figure 38 of Kim, which depicts a Search Window into which a user can enter a search keyword (“Shutter Island”) to produce search results including thumbnails identifying matching programs. Kim, [0265]-[0275], Figs. 36-41. This Search Window is not an on screen channel changer. Kim does not disclose that it can change channels. Kim, [0265]-[0275], Figs. 36-41. Also, this Search Window is a different embodiment from the Channel Browser card object 1340 and the TV Guide card object 1350 of Figure 22 that the Petitioner and its expert applied to limitation 1.2. See Section IX.B.2. Accordingly, the Petitioner’s reliance on the Search Window for Claim 6 is misplaced. Surati Decl., ¶ 237.

Claims 6, 12, and 19 are patentable for at least the above reasons.

XI. CONCLUSION

For the foregoing reasons, the Challenged Claims should be confirmed as patentable.

Respectfully submitted,

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Date: September 17, 2024

XII. CLAIMS APPENDIX

Claim 1

[1.0]. 1. A method, comprising:

[1.1] receiving, wirelessly by at least one of an infrared and radio frequency module of a television and from a remote control, a request to change a programming channel;

[1.2] displaying, by a microprocessor executable application framework and on a television screen, an on screen channel changer, the displayed on screen channel changer comprising electronic program guide (“EPG”) information and a number input bar comprising digits, wherein the digits range from 0 to 9;

[1.3] receiving, by the application framework and from the remote control, a channel selection based on digits selected by a user using the remote control and the number input bar of the on screen channel changer, wherein the user selects the digits using non-numeric keys of the remote control; and

[1.4] changing, by the application framework, to the selected channel,

[1.5] wherein the remote control comprises:

[1.5.1] a media center button that, when selected, provides, by the television screen, displayed information regarding one or more of groupings of music, groupings of videos, groupings of photographs, and internal and external

computational devices, the computational devices comprising one or more of personal computers, laptops, tablet computers, wireless phones, and removable computer readable media;

[1.5.2] an application center button that, when selected, provides, by the television screen, displayed information regarding pre-installed and downloaded software applications,

[1.5.2.1] wherein the downloaded software applications comprise one or more of a web browser, settings control, and content search algorithms;

[1.5.3] an application panel button that, when selected, displays, by the television screen, an application panel, wherein the application panel comprises an information panel regarding a selected (pre-installed or previously downloaded) application icon; and

[1.5.4] a global panel button that, when selected, provides the user, via one or more panels or windows displayed by the television screen, with access to one or more of silos, notifications, a web browser system settings, and information associated therewith.

Claim 2

[2.0] 2. The method of claim 1,

[2.1] wherein the EPG information corresponds to multiple programs and/or channels, wherein the EPG information comprises, for each program, airtime, program name, program channel, and program description.

Claim 3

[3.0] 3. The method of claim 1,

[3.1] wherein each of the digits are selected using one or more arrow keys and a select button and

[3.2] wherein the information panel comprises one or more of identify the selected application, provide a description of the functionality of the selected application, user ratings and/or degree of other user downloading of the selected application, an option to launch, remove, update, and add to favorites the selected application, and provide a listing of selectable links of other (not yet downloaded) recommended applications that provide similar functionality to the selected application.

Claim 4

[4.0] 4. The method of claim 1,

[4.1] wherein the remote control does not have a key corresponding to each of the digits.

Claim 6

[6.0] 6. The method of claim 1,

[6.1] wherein, as the user selects each digit, the application framework updates the EPG information to include only those programs and/or channels selectable from the selected digits and

[6.2] wherein the remote control further comprises a moveable joystick that, when manipulated by the user, causes a displayed image on the screen to be displaced a proportional amount.

Claim 8

[8.0] 8. A television, comprising,

[8.1] a television screen;

[8.2] at least one of an infrared and radio frequency module configured to receive wirelessly requests from a remote control of a user, the requests comprising a selected channel or program from a displayed listing; and

[8.3] a microprocessor executable application framework configured to:

[8.4] receive a request to change a programming channel, display, on the television screen, an on screen channel changer, the on screen channel changer comprising electronic program guide

(“EPG”) information and a number input bar comprising digits, wherein the digits range from 0 to 9,

[8.5] receive, from the remote control and using the on screen channel changer, a channel selection of a user based on digits in the number input bar, wherein the

user selects the digits from the number input bar using non-numeric keys on the remote control, and

[8.6] change to the selected channel,

[8.7] wherein the remote control comprises:

[8.7.1] a media center button that, when selected, provides, by the television screen, displayed information regarding one or more of groupings of music, groupings of videos, groupings of photographs, internal computational devices, and external computational devices, the computational devices comprising one or more of personal computers, laptops, tablet computers, wireless phones, and removable computer readable media;

[8.7.2] an application center button that, when selected, provides, by the television screen, displayed information regarding pre-installed and downloaded software applications, wherein the downloaded software applications comprise one or more of a web browser, settings control, and content search algorithms;

[8.7.3] an application panel button that, when selected, displays, by the television screen, an application panel, wherein the application panel comprises an information panel regarding a selected application icon; and

[8.7.4] a global panel button that, when selected, provides the user, via one or more panels or windows displayed by the television screen, with access to one or more

of silos, notifications, a web browser, system settings, and information associated therewith.

Claim 9

[9.0] 9. The television of claim 8,

[9.1] wherein each of the digits are selected using one or more arrow keys and a select button,

[9.2] wherein the selected is associated with a pre-installed or previously downloaded application icon,⁷ and

[9.3] wherein the information panel comprises one or more of identify the selected application, provide a description of the functionality of the selected application, user ratings and/or degree of other user downloading of the selected application, an option to launch, remove, update, and add to favorites the selected application, and provide a listing of selectable links of other (not yet downloaded) recommended applications that provide similar functionality to the selected application.

Claim 10

[10.0] 10. The method of claim 8,

⁷ The June 9, 2015, Certificate of Correction inserted “wherein the” before “selected” in limitation 9.2.

[10.1] wherein the remote control does not have a key corresponding to each of the digits.

Claim 12

[12.0] 12. The television of claim 8,

[12.1] wherein, as the user selects each digit, the application framework updates the EPG information to include only those programs and/or channels selectable from the selected digits and

[12.2] wherein the remote control further comprises a moveable joystick that, when manipulated by the user, causes a displayed image on the screen to be displaced a proportional amount.

Claim 13

[13.0] 13. The television of claim 8,

[13.1] wherein the EPG information corresponds to multiple programs and/or channels, wherein the EPG information comprises, for each program, airtime, program name, program channel, and program description,

[13.2] wherein the remote control comprises a media center button that, when selected, provides, by the television screen, displayed information regarding groupings of music, videos, and/or photographs, and/or internal and external computational devices, the computational devices comprising one or more of

personal computers, laptops, tablet computers, wireless phones, and removable computer readable media.

Claim 14

[14.0] 14. A tangible and non-transient computer readable medium, comprising microprocessor executable instructions that, when executed, are configured to perform operations comprising:

[14.1] instructions to receive, from a remote control of a user, a request to change a programming channel;

[14.2] instructions to display, on a television screen, an on screen channel changer, the displayed on screen channel changer comprising electronic program guide (“EPG”) information and a number input bar comprising digits, wherein the digits range from 0 to 9;

[14.3] instructions to receive, from the remote control, a channel selection based on digits selected by a user using the remote control and the number input bar of the on screen channel changer, wherein the user selects the digits using nonnumeric keys of the remote control; and

[14.4] instructions to change to the selected channel,

[14.5] wherein the remote control comprises:

[14.5.1] a media center button that, when selected, provides, by the television screen, displayed information regarding one or more of groupings of music,

groupings of videos, groupings of photographs, internal computational devices, and external computational devices, the computational devices comprising one or more of personal computers, laptops, tablet computers, wireless phones, and removable computer readable media;

[14.5.2] an application center button that, when selected, provides, by the television screen, displayed information regarding pre-installed and downloaded software applications;

[14.5.3] an application panel button that, when selected, displays, by the television screen, an application panel; and

[14.5.4] a global panel button that, when selected, provides the user, via one or more panels or windows displayed by the television screen, with access to one or more of silos, notifications, a web browser, system settings, and information associated therewith.

Claim 15

[15.0] 15. The computer readable medium of claim 14,

[15.1] wherein the EPG information corresponds to multiple programs and/or channels, and wherein the EPG information comprises, for each program, airtime, program name, program channel, and program description.

Claim 16

[16.0] 16. The computer readable medium of claim 14,

[16.1] wherein the downloaded software applications comprise one or more of a web browser, settings control, and content search algorithms,

[16.2] wherein the application panel comprises an information panel regarding a selected (pre-installed or previously downloaded) application icon,

[16.3] and wherein the information panel comprises one or more of identify the selected application, provide a description of the functionality of the selected application, user ratings and/or degree of other user downloading of the selected application, an option to launch, remove, update, and add to favorites the selected application, and provide a listing of selectable links of other (not yet downloaded) recommended applications that provide similar functionality to the selected application.

Claim 17

[17.0] 17. The method of claim 14,

[17.1] wherein the remote control does not have a key corresponding to each of the digits.

Claim 19

[19.0] 19. The computer readable medium of claim 14,

[19.1] wherein, as the user selects each digit, the application framework updates the EPG information to include only those programs and/or channels selectable from the selected digits and

[19.2] wherein the remote control further comprises a moveable joystick that, when manipulated by the user, causes a displayed image on the screen to be displaced a proportional amount.

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

This Patent Owner Response (the “POR”) consists of 13,379 words, excluding table of contents, table of authorities, certificate of service, this certificate, or table of exhibits. The POR complies with the type-volume limitation of 14,000 words as mandated in 37 C.F.R. § 42.24. In preparing this certificate, counsel has relied on the word count of the word-processing system used to prepare the paper (Microsoft Word).

Respectfully submitted,

/Stephen T. Schreiner/

Date: September 17, 2024

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The undersigned hereby certifies that the following documents were served
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