

**UNITED STATES PATENT AND TRADEMARK OFFICE**

---

**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

---

LG ELECTRONICS, INC., LG ELECTRONICS U.S.A., INC., and VIZIO, INC.,  
Petitioners,

v.

MULTIMEDIA TECHNOLOGIES PTE. LTD.,  
Patent Owner.

---

IPR2024-00351<sup>1</sup>  
Patent No. 9,510,040 B2

---

**PETITIONER'S REPLY  
TO PATENT OWNER'S RESPONSE**

---

<sup>1</sup> VIZIO, Inc. filed a petition in IPR2024-00694 and was joined as Petitioner in this proceeding.

## TABLE OF CONTENTS

|                                                                                                                                                                       |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Petitioner’s Exhibit List .....                                                                                                                                       | 4  |
| I. Introduction.....                                                                                                                                                  | 6  |
| II. Claim Construction.....                                                                                                                                           | 6  |
| III. Ground 1: The Prior Art Renders Obvious Claims 1, 11, and 21 .....                                                                                               | 6  |
| A. Limitation [1.6] “ <i>at least one of the sources is highlighted as being associated with the first content information</i> ” is obvious.....                      | 6  |
| 1. There are reasons to combine. ....                                                                                                                                 | 9  |
| B. Limitations [1.5], [1.7] “ <i>sources of content</i> ” including “ <i>an electrical input associated with the television</i> ” are obvious.....                    | 11 |
| 1. There are reasons to combine. ....                                                                                                                                 | 16 |
| 2. There is a reasonable expectation of success.....                                                                                                                  | 17 |
| IV. Ground 1: The Prior Art Renders Obvious Claims 2 and 12 .....                                                                                                     | 19 |
| A. Limitation [2.1] “ <i>identifying a user associated with the received indication</i> ” is obvious.....                                                             | 19 |
| B. Limitation [2.2] “ <i>retrieving one or more settings associated with the identified user</i> ” is obvious.....                                                    | 21 |
| C. Limitation [2.3] “ <i>retrieving, from memory, content information associated with the identified user</i> ” is obvious.....                                       | 23 |
| V. Ground 1: The Prior Art Renders Obvious Claims 4 and 14 .....                                                                                                      | 24 |
| A. Limitation [4.2] “ <i>determining, based on the second indication, a source of content information to be displayed in the global panel based</i> ” is obvious..... | 24 |
| VI. Ground 1: The Prior Art Renders Obvious Claims 3, 5, 13, and 15 .....                                                                                             | 26 |

|       |                                                                                                                                                                                                 |    |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| VII.  | Ground 2: The Prior Art Renders Obvious Claims 2 and 12 .....                                                                                                                                   | 26 |
| A.    | Limitation [2.1] “ <i>identifying a user associated with the received indication</i> ” is obvious.....                                                                                          | 26 |
| B.    | Limitation [2.2] “ <i>retrieving one or more settings associated with the identified user</i> ” is obvious.....                                                                                 | 28 |
| VIII. | Ground 2: The Prior Art Renders Obvious Claims 3 and 13 .....                                                                                                                                   | 29 |
| IX.   | Ground 2: The Prior Art Renders Obvious Claims 6, 16, and 22 .....                                                                                                                              | 29 |
| A.    | Limitation [6.1] “ <i>identifying at least one of a content source and a content information currently being displayed via a television</i> ” is obvious. ....                                  | 29 |
| B.    | Limitation [6.2] “ <i>selecting a panel type based on the identified at least one of content source and content information currently being displayed via the television</i> ” is obvious. .... | 30 |
| X.    | The Cited Prior Art References are “Printed Publications” under 35 U.S.C. § 311(b).....                                                                                                         | 32 |
| XI.   | Conclusion .....                                                                                                                                                                                | 33 |
|       | Certificate of Word Count .....                                                                                                                                                                 | 34 |

**PETITIONER'S EXHIBIT LIST**

|                          |                                                                                                                                                                                                                                                                                    |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ex.1001                  | U.S. Patent No. 9,510,040 to Selim et al.                                                                                                                                                                                                                                          |
| Ex.1002                  | Prosecution History of U.S. 9,510,040                                                                                                                                                                                                                                              |
| Ex.1003                  | Declaration of Dr. Andrew Lippman under 37 C.F.R. § 1.68                                                                                                                                                                                                                           |
| Ex.1004                  | <i>Curriculum Vitae</i> of Dr. Lippman                                                                                                                                                                                                                                             |
| Ex.1005                  | U.S. Patent Pub. No. 2012/0054794 to Kim et al. ("Kim")                                                                                                                                                                                                                            |
| Ex.1006                  | U.S. Patent No. 9,008,190 to Lee et al. ("Lee-1")                                                                                                                                                                                                                                  |
| Ex.1007                  | U.S. Patent Pub. No. 2013/0057764 to Choi et al. ("Choi")                                                                                                                                                                                                                          |
| Ex.1008                  | Infringement Contentions, Appx E_US 9510040                                                                                                                                                                                                                                        |
| Ex.1009                  | PCMAG Encyclopedia                                                                                                                                                                                                                                                                 |
| Ex.1010                  | U.S. Patent No. 9,398,339 to Lee et al. ("Lee-2"),                                                                                                                                                                                                                                 |
| Ex.1011                  | U.S. Patent Pub. No. 2013/0176415                                                                                                                                                                                                                                                  |
| Ex.1012                  | Microcomputer                                                                                                                                                                                                                                                                      |
| Ex.1013                  | Chapter 1, Overview of Microprocessors                                                                                                                                                                                                                                             |
| Ex.1014                  | Notice of Sotera Stipulation of Defendants LG Electronics Inc. and LG Electronics USA, Inc.; <i>Multimedia Technologies PTE. LTD. v. LG Electronics Inc. and LG Electronics USA, Inc.</i> ; 2:22-CV-00494; U.S. District Court for the Eastern District of Texas Marshall Division |
| <b>Ex.1015<br/>(NEW)</b> | <b>Rajeev Surati, Ph.D., Deposition Transcript</b>                                                                                                                                                                                                                                 |
| <b>Ex.1016<br/>(NEW)</b> | <b>U.S. Patent No. 8,078,766</b>                                                                                                                                                                                                                                                   |

|                          |                                  |
|--------------------------|----------------------------------|
| <b>Ex.1017<br/>(NEW)</b> | <b>U.S. Patent No. 8,286,210</b> |
|--------------------------|----------------------------------|

## **I. Introduction**

Multimedia's Patent Owner Response ("Resp.," Paper 19) presents meritless arguments that rely on numerous unrecited and unsupported claim limitations. None of the facts developed since institution change the Board's original findings. For reasons discussed in the Petition ("Pet.," Paper 1) and as confirmed below, the Board should find all Challenged Claims unpatentable.<sup>2</sup>

## **II. Claim Construction**

Both Petitioner and Multimedia agree that the claims should be given their plain and ordinary meaning. *See* Resp., 8.

## **III. Ground 1: The Prior Art Renders Obvious Claims 1, 11, and 21**

### **A. Limitation [1.6] "*at least one of the sources is highlighted as being associated with the first content information*" is obvious.**

The Petition fully analyzed the obviousness of limitation [1.6]. Pet., 46-49. The Petition explained how each of Kim's card objects correspond to a "*content source*" and that the thumbnails and text correspond to "*content information*." Pet., 27-39. According to Kim, a card object "already displayed on the display 180 []

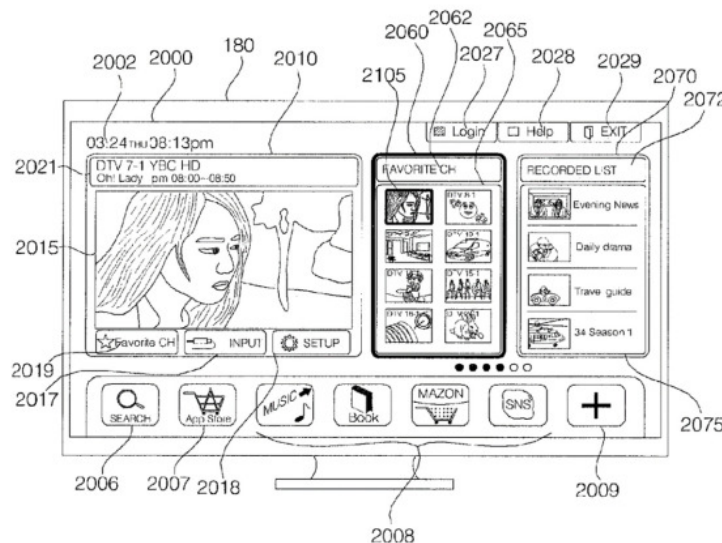
---

<sup>2</sup> Multimedia's assertion regarding wordcount lacks any evidence. Resp. 1.

Petitioner's Certificate of Word Count relies on Microsoft Word and properly complies with 37 C.F.R. § 42.24(d).

may be **highlighted**" so that it is distinguished. Pet., 46; Ex.1005, [0211]. This disclosure is consistent with Kim's other passage where active card objects are distinguished using "**color, tint, brightness, shading, fading, or another appropriate characteristic.**" Pet., 49; Ex.1005, [0228]. Although Kim's example is with respect to a phone card object, the Petition explained that it would have been obvious to a POSITA for another card object "to be highlighted so that it is distinguished from the other card objects and readily identified by the user." Pet., 46-47. As evidence, the Petition cited to Ex.1010, FIG. 33B, which illustrates that, just like the '040 patent, it was known to highlight with a box. Pet., 47-49.

FIG. 33B



**Ex.1010, Figs. 33B.**

Multimedia incorrectly argues that limitation [1.6] requires that a content source be "highlighted **because**" it corresponds to a program "being displayed on the right-hand side" and that Kim is distinguished because "object is highlighted

because the user selects it.” *See* Resp., 17-30. The Board already considered and was unpersuaded by this argument. Inst. Dec. 29. The Board was correct because there is no such requirement in the claim. The Board should again decline Multimedia’s invitation to redraft claims. *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1339 (Fed. Cir. 2011).

The Board was also correct because the ’040 patent’s highlighting is **not** because a content source corresponds to the displayed program but rather triggered when “[t]he user...move[es] the focus box.” Ex.1001, 32:35-43, FIG. 16 (illustrating that the highlighted source CNN News does not match the program Skyfall). As Multimedia’s expert conceded, in the ’040 patent, a program is only shown on the right panel if the user “select[s] another button...or loiter[s] the focus box...for a predetermined amount of time.” Ex.1001, 32:38-43; Ex.1015, 55:10-19; *see also* Ex.1015, 61:23-62:21, 64:18-65:14.

Multimedia’s expert also confirmed that he was uninformed, testifying that he had not considered the contrary embodiment in determining claim scope:

|    |                |                                                      |
|----|----------------|------------------------------------------------------|
| 16 | Q              | Do you see anything in the claims that would         |
| 17 |                | exclude that embodiment?                             |
| 18 | MR. SCHREINER: | Objection; form, scope.                              |
| 19 | THE WITNESS:   | I'd have to spend some time thinking                 |
| 20 | about that.    | <u>I didn't think about that</u> with regard to this |
| 21 |                | report.                                              |

Ex.1015, 66:16-21.

|    |                                                                   |
|----|-------------------------------------------------------------------|
| 19 | THE WITNESS: Yeah, I have an understanding of the                 |
| 20 | claims where I've made an opinion, but <u>you're asking me to</u> |
| 21 | <u>create -- to give it an initial opinion about a new, a</u>     |
| 22 | <u>new -- an embodiment that I haven't considered.</u> So it's    |
| 23 | not something I can just do on the fly.                           |

Ex.1015, 67:19-23; *see also* Ex.1015, 64:18-68:22, 84:16-89:19.

The Board should reject Multimedia's attempt to exclude the '040 patent's embodiment. *MBO Labs., Inc. v. Becton, Dickinson Co.*, 474 F.3d 1323, 1333 (Fed. Cir.2007); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583-84 (Fed. Cir. 1996). And Multimedia's uninformed expert declaration testimony, excluding an embodiment that he does not dispute in deposition is within the scope of the claims, should be given little to no weight. *See e.g.*, 37 CFR § 42.65 (a); *Vitronics* 90 F.3d 1583-84.

**1. There are reasons to combine.**

Multimedia incorrectly argues that there is no motivation to highlight Kim's card objects. Resp., 23-26. According to Multimedia, applying Kim's highlighting teachings to card objects (other than the phone) would not work because another card object "would be highlighted when an incoming call is detected" and "it would confuse the user." Resp., 22-23. This argument is baseless.

Multimedia's argument mischaracterizes the Petition, which did not argue that another card object would be highlighted when a phone call is received. The Petition explained that "[a]lthough Kim provides a highlighting example in the

context of [a phone card object], it would have been understood by a POSITA that this teaching generally applies to Kim's other card objects." Pet., 46. Reasons to highlight other card objects were articulated in the Petition, including that highlighting is beneficial because a card object "is distinguished from the other card objects and readily identified by the user." Pet., 47.

Multimedia's expert confirms that highlighting distinguishes and identifies active card objects, which is helpful:

|    |                |                                                         |
|----|----------------|---------------------------------------------------------|
| 19 | Q              | Okay. So making something in focus distinguishes        |
| 20 |                | an active content source from other content sources. Is |
| 21 |                | that what that means?                                   |
| 22 | MR. SCHREINER: | Objection; form.                                        |
| 23 | THE WITNESS:   | I'm sorry. I think in this context, the                 |
| 24 |                | way we're using the words, I think that's fair.         |

Ex.1015, 53:19-24.

|    |                |                                                   |
|----|----------------|---------------------------------------------------|
| 14 | Q              | Why is it important for a user to identify what's |
| 15 |                | currently active?                                 |
| 16 | MR. SCHREINER: | Objection; form.                                  |
| 17 | THE WITNESS:   | Well, it's helpful for them to                    |
| 18 |                | understand what's being displayed.                |

Ex.1015, 54:14-18.

Therefore, there is motivation to apply Kim's highlighting teachings to other card objects. *See Intel Corp. v. Qualcomm Inc.*, 21 F.4th 784, 797 (Fed. Cir. 2021). The evidence weighs solely in favor of obviousness.

**B. Limitations [1.5], [1.7] “sources of content” including “an electrical input associated with the television” are obvious.**

The Petition explained how the combination of Kim and Choi renders obvious these limitations. Pet., 39-45, 54-56. The Petition explained that Kim's EXTERNAL DEVICE card object 1380 illustrates one or more external devices that may be connected via an input port of external device interface 135. Pet., 54; Ex.1005, [0075]-[0078], [0210], Figs. 6, 9. Additionally, the Petition explained that it would have been obvious to implement Kim's EXTERNAL DEVICE card object 1380 to include icons representing external devices with specific symbols (or letters) that distinguish electrically connected devices from devices that are not connected to a port, as Choi teaches. Pet., 13-15, 41-45, 54-56.

Multimedia, incorrectly asserts that the claimed “*electrical input*” corresponds to “at least one **input port** that is a source of content for the television” and that the limitation requires showing “a **specific input port.**” Resp., 31-33. This is wrong. The claim broadly recites a nondescript “*electrical input*” and has no requirement that it be an “input port,” much less a “specific input port,” as Multimedia contends. The Board should reject Multimedia's invitation “to import into a claim limitations that are not part of the claim.” *Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875, 69 USPQ2d 1865, 1868 (Fed. Cir. 2004); *see also* *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374

(Fed. Cir. 2004); *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004).

Moreover, Multimedia's added requirements exclude numerous '040 patent examples, where an "input can be a device or devices (e.g., DVD, VCR, etc.) electrically connected to the television through a port (e.g., HDMI, video/audio inputs, etc.) or through a network (e.g., LAN WAN, etc.)" Ex.1001, 6:16-20. Multimedia's expert confirmed that in the '040 patent, an externally connected device (e.g., YBOX) corresponds to an electrical input content source:

|    |   |                                                          |
|----|---|----------------------------------------------------------|
| 9  | Q | So like in this example, <u>the externally connected</u> |
| 10 |   | <u>YBOX</u> ...                                          |
| 11 | A | Sorry.                                                   |
| 12 | Q | <u>Provides electrical input to a television and</u>     |
| 13 |   | <u>that's a content source</u> , correct?                |
| 14 | A | <u>I think that's fair.</u>                              |

Ex.1015, 25:9-14. Multimedia also excludes the '040 patent's embodiment where "the input could be configured as an electrical or physical connection to one or more devices." Ex.1001, 6:20-22. An example of such an implementation, as confirmed by Multimedia's expert, would be "port interface 352," which facilitates communication of electrical signals between the television and different connected devices. Ex.1001, 18:4-20.

|    |   |                                                         |
|----|---|---------------------------------------------------------|
| 7  | Q | Right. So the port interface allows external            |
| 8  |   | devices to be connected to it, and then it sends        |
| 9  |   | corresponding electrical inputs to device 100, correct? |
| 10 | A | <u>I think so.</u>                                      |

Ex.1015, 84:7-10. Multimedia's expert confirmed that he again failed to properly consider embodiments of the '040 patent to determine claim scope:

|    |              |                                                            |
|----|--------------|------------------------------------------------------------|
| 9  | THE WITNESS: | Yeah, I don't -- I mean, I didn't focus                    |
| 10 |              | on that paragraph when I was interpreting the claims. My   |
| 11 |              | report was about whether the -- whether the case that was  |
| 12 |              | made that there was prior art that made the claim,         |
| 13 |              | obvious, okay, so that -- I don't know that interpreting   |
| 14 |              | the claim with respect to a particular embodiment that     |
| 15 |              | you're discussing -- I didn't spend a lot of time thinking |
| 16 |              | about that.                                                |

Ex.1015, 85:9-16; *see also* Ex.1015, 85:21-86:6. Therefore, Multimedia's uninformed expert declaration testimony, now contradicted by his own deposition testimony, should be given little to no weight and Multimedia's attempt to add limitations that exclude embodiments should be rejected. *See e.g.*, 37 CFR § 42.65 (a).

Multimedia further incorrectly argues that the prior art “does not teach symbols that identify an input port.” Resp., 35-37. Multimedia's expert, however, conceded that both of Kim's and Choi's external device interface 135 (like the '040 patent's port interface 352) correspond to an input port that provides an electrical input to the television from a connected device:

|    |   |                                                                 |
|----|---|-----------------------------------------------------------------|
| 6  | Q | And by utilizing the AV input/output unit,                      |
| 7  |   | <u>external device interface unit 135 receives signals from</u> |
| 8  |   | <u>connected devices and provides corresponding electrical</u>  |
| 9  |   | <u>inputs to the smart TV 100, right?</u>                       |
| 10 | A | <u>I think that's fair.</u>                                     |

Ex.1015, 74:6-10. And when pressed, Multimedia's expert did not dispute that such a port interface would correspond to an "*electrical input*":

|    |                |                                                                |
|----|----------------|----------------------------------------------------------------|
| 22 | Q              | Sitting here today, <u>do you have any reason to</u>           |
| 23 |                | <u>dispute that Claim 1 of the '040 patent covers the port</u> |
| 24 |                | <u>interface 352 embodiment?</u>                               |
| 25 | MR. SCHREINER: | Objection; scope, legal conclusion,                            |
| 1  |                | asked and answered.                                            |
| 2  | THE WITNESS:   | Yeah, I don't -- today, <u>I don't have an</u>                 |
| 3  |                | <u>opinion either way.</u>                                     |

Ex.1015, 89:22-90:3. As explained in the Petition, in the combination of Kim and Choi, the "specific symbols 830a, 830b, and 830c" indicate that an external device is connected to a port of device interface 135 of Kim, which provides an electrical input associated with the television. Pet., 41-45. Accordingly, the prior art combination renders obvious this limitation, including Multimedia's added requirements.

Moreover, the Petition explained that Choi further teaches using "any one of letters, symbols" to designate that an external device is connected to an input port. Pet., 44-45; Ex.1007, [0250]. As also explained, "it was known in the art to present a specific input port description next to an external device connected thereto" and

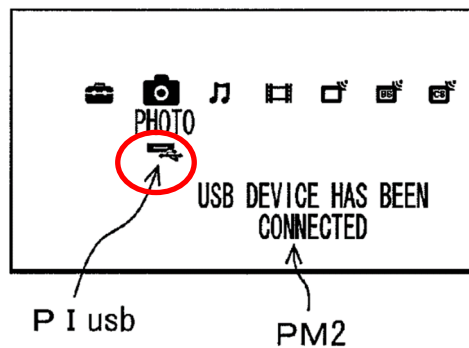
that “it would have been obvious to a POSITA to distinguish input port connected devices shown on the EXTERNAL DEVICE card object 1380 by identifying a corresponding input port, e.g., HDMI port, USB port, a CVBS port, etc., so that the user has an understanding of which device is connected to which port.” Pet., 45.

Multimedia contends that the cited evidentiary reference (Ex.1011) is insufficient to demonstrate that it was known in the art to display letters, e.g., “HDMI,” identifying a port. Resp., 43-45. Multimedia, however, ignores that its own submitted evidence (Ex.2016) demonstrates such knowledge in the art:

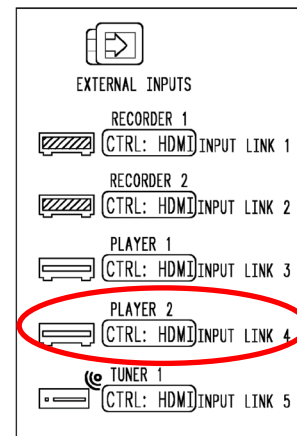


**Ex.2016, p. 12 (annotated).**

Additionally, other prior art references demonstrate that the general principle of displaying a specific input port, and its connected device, was known in the art:



Ex.1016, FIG. 3C (annotated).



Ex.1017, FIG. 10 (annotated).

These evidentiary prior art references show the knowledge that a skilled artisan would bring to bear, including to present a specific input port description next to an external device connected thereto, as analyzed in the Petition. Pet., 44-45. *See Anacor Pharms., Inc. v. Iancu*, 889 F.3d 1372, 1380 (Fed. Cir. 2018).

**1. There are reasons to combine.**

The Petition provided ample reasons to combine Choi with Kim. *See e.g.*, Pet., 13-15, 42-45. Multimedia contends that a POSITA would not be motivated to configure Kim's EXTERNAL DEVICE card object 1380 to illustrate a connected input port. Resp., 39, 46-47. This is false. As the Petition explained, a POSITA would have been motivated to combine the teachings of Kim and Choi to identify a corresponding input port, e.g., HDMI port, USB port, a CVBS port, etc., so that the user has an understanding of which device is connected to which port. Pet., 45; Ex.1003, ¶¶128-129. This information would be helpful because it would let the

user know which port on the television to check in case of communication failure or other problems. Pet., 14; Ex.1003, ¶58. Multimedia does not dispute this reason to combine. *See generally* Resp. The Petition also presented motivations to combine that do not require a benefit, which Multimedia also does not address. *See* Pet., 45; *generally* Resp. These are sufficient on their own. *See Intel Corp. v. Pact XPP Schweiz AG*, 61 F.4th 1373, 1381 (Fed. Cir. 2023) (no requirement to show a benefit in combining prior art references in a “categorical sense” in order to show a motivation to combine).

**2. There is a reasonable expectation of success.**

The Petition provided explanation of a reasonable expectation of success. Pet., 15. Multimedia's argument that the proposed combination “is not feasible” because “Kim's controller 170 is...not [capable of] detecting specific input ports” and that there is no “reasonable expectation of success,” is contradicted by its own expert. Resp., 40, 43.

|    |                                                               |
|----|---------------------------------------------------------------|
| 5  | Q I mean, <u>it was known in the art to identify a</u>        |
| 6  | <u>specific port that is connected to a device</u> , correct? |
| 7  | MR. SCHREINER: Objection; scope.                              |
| 8  | THE WITNESS: I mean, I'm not sure. I mean, I didn't           |
| 9  | spend a lot of time opining about that, but I would say       |
| 10 | that <u>I think it's fair</u> to say that there are pro AV    |
| 11 | technologies that would identify what port something's        |
| 12 | connected to.                                                 |

Ex.1015, 92:5-12. Multimedia's expert further testified that years before the '040 patent he sold products with such functionality:

|    |                |                                                            |
|----|----------------|------------------------------------------------------------|
| 8  | Q              | Did you have products available whereby if a               |
| 9  |                | specific device was connected to a specific port, you      |
| 10 |                | would be able to associate that device to that port to the |
| 11 |                | user?                                                      |
| 12 | MR. SCHREINER: | Objection; form.                                           |
| 13 | THE WITNESS:   | I mean, sure.                                              |

Ex.1015, 93:8-13; *see also* Ex.1015, 94:10-15, 96:2-6. Multimedia's expert further confirmed that HDMI and USB protocols (utilized by both Kim and Choi) enable such functionality. *See* Ex.1015, 79:9-21, 81:11-14. Accordingly, Multimedia's feasibility and expectation of success arguments are entirely baseless.

Multimedia further, incorrectly, contends that Kim's "display would become cluttered and confusing,"<sup>3</sup> which, allegedly, is contrary to Kim's purpose. Resp., 41-43 (citing Ex.1005, [0094]). The cited passage of Kim, however, does not convey any such purpose. Regardless, "[i]t's not necessary to show that a combination is the best option, only that it be a suitable option." *Intel Corp. v. Pact XPP Schweiz AG*, 61 F.4th 1373, 1380 (Fed. Cir. 2023). Multimedia also ignores

---

<sup>3</sup> Multimedia's argument about physical incorporation is incorrect. The Petition relied on the prior art teachings and not on physical incorporation and any annotated illustrations are merely exemplary. Pet., 10, n1.

the Petition, which explained that the combination may be implemented to show more or less content. Pet., 44-45; Ex.1003, ¶¶128-129. This is consistent with Kim's description of configuring objects size, shape, color, style, etc., and that by making the size of objects smaller additional information may be displayed in a single display. Ex.1005, [0194], [0277].

#### **IV. Ground 1: The Prior Art Renders Obvious Claims 2 and 12**

##### **A. Limitation [2.1] “*identifying a user associated with the received indication*” is obvious.**

The Petition fully addressed this limitation, explaining that in Kim a “**user may login**” via Login menu item 1327 and download user set applications and also that the “**users...[may be] pre-registered with the image display apparatus 100.**”<sup>4</sup> Pet., 56-58; Ex.1005, [0081], [0203], FIG. 19.

Multimedia incorrectly argues that “limitation 2.1 is only met if Kim identifies a user **based on the input of the home key/go-to-home screen.**” Resp., 49; *see also* Resp., 50 (making a similar argument). This is yet another improper attempt to add limitations and redraft the claims, which should be rejected. *See Rembrandt*, 641 F.3d at 1339; *Chef America, Inc.* 358 F.3d at 1374.

---

<sup>4</sup> Multimedia misquotes “Kim [0081]” to improperly **exclude** that the user is “pre-registered with the image display apparatus 100.” Resp. 51

But even if the claim had such a requirement (which it does not), Kim renders it obvious since an **already logged in or pre-registered** user may press the home screen button, as confirmed by Multimedia's expert:

|   |                |                                                    |
|---|----------------|----------------------------------------------------|
| 2 | Q              | Now, if I <u>press the home screen again</u> , I'm |
| 3 |                | <u>already logged in</u> , correct?                |
| 4 | MR. SCHREINER: | Objection; scope.                                  |
| 5 | THE WITNESS:   | <u>After you logged in, sure.</u>                  |

Ex.1015, 101:2-5. In such instances, the home screen would display content set by that identified user, including user set application items 1308, as Multimedia's expert confirms:

|    |   |                                                           |
|----|---|-----------------------------------------------------------|
| 7  | Q | After a point in time, <u>the user again selects the</u>  |
| 8  |   | <u>home screen button on the remote?</u>                  |
| 9  | A | Right.                                                    |
| 10 | Q | <u>And the home screen with -- after log in -- with</u>   |
| 11 |   | <u>the downloaded user set application menu items, is</u> |
| 12 |   | <u>presented to the user</u> , correct?                   |
| 13 | A | <u>Right.</u> I said right, sorry.                        |

Ex.1015, 104:7-13. Consistent with the Petition's analysis, it would have been obvious for Kim's controller 170 (which provides overall control) to identify the already logged in or pre-registered user based on pressing the home key/go-to-home screen, so that corresponding user settings may be retrieved from memory 140 to display user set application icons on the home screen. *See* Pet., 57-60; Ex.1003, ¶¶168-177.

**B. Limitation [2.2] “*retrieving one or more settings associated with the identified user*” is obvious.**

The Petition, after discussing the prior art, explained that “[i]t would have been obvious to a POSITA, for controller 170 to ‘*retrieve[]*’ from memory 140 the user’s settings for the application menu” so that the corresponding thumbnails may be subsequently displayed on the home screen. Pet., 58; Ex.1003, ¶¶170-172.

Multimedia argues that “limitation 2.2 requires retrieving user settings for the identified user **based on the ‘*received indication.*’**” Resp., 52-53. This argument compounds the above noted error for limitation [2.1] by improperly adding yet another requirement, which should be rejected. *See Rembrandt*, 641 F.3d at 1339; *Superguide*, 358 F.3d at 875; *Chef America, Inc.* 358 F.3d at 1374.

Regardless, as explained in the Petition and above for limitation [2.1], the already logged in or pre-registered user can access Kim’s home screen and in such instances it would have been obvious for Kim’s controller 170 (which provides overall control) to identify the already logged or pre-registered user based on pressing the home key/go-to-home screen, so that corresponding user settings may be retrieved from memory 140 to display user set application icons on the home screen. Pet., 58; Ex.1003, ¶¶170-172.

Multimedia further erroneously argues that there is no showing that Kim’s user-set applications or thumbnails are “associated with an ‘*identified user.*’”

Resp., 53-54. According to Multimedia, the prior art is deficient because Kim does not teach “that there are **different user-set applications for different users**” or that the user set application items 1308 are “**tied to a specific user.**” Resp., 54.

These arguments assume that the claim has such requirements. It does not.

Multimedia's attempt to redraft the claims should be rejected. Moreover,

Multimedia's argument is contradicted by the testimony of its own expert, who as cited above, testified that a user may login or be pre-registered, download user set application items 1308, and then access the home screen later. In that case, the user set application items 1308 are associated with that user.

Next, Multimedia contends that Kim's user settings are distinguished because they are “not **operational settings**...such as audio settings, picture/video settings....” Resp., 54. This is yet another improper attempt to argue illusory limitations and should be rejected. Regardless, if that is a requirement, as noted above, Kim's user may be logged in or pre-registered television and that Kim discloses that the user can “set...video settings, audio settings, screen settings....” Ex.1005, [0081], [0200].

Lastly, Multimedia argues that the Petition “does not clearly identify the user settings” and then asserts that Petitioner mapped the “user-set application themselves” to the “*settings.*” Resp., 54. This is wrong. The Petition explained that the “the user's settings for the application menu item 1308” correspond to the

claimed “*settings*.” Pet., 58. The applications on the home screen are rendered based on the user settings.

Also, Multimedia's expert confirmed that such user settings would be stored in Memory 140 and later recalled. Ex.1015, 150:11-15. And, as explained in the Petition and consistent with Kim's disclosure, the user settings are recalled “so that the corresponding application thumbnails would be [subsequently] retrieved from memory 140 and displayed on the home screen.” Pet., 58; *see also* Ex.1005, [0238] (“...menus may be selected **based on pre-stored settings**...”). The user settings inform which thumbnails for application menu item 1308 to retrieve from memory.

**C. Limitation [2.3] “*retrieving, from memory, content information associated with the identified user*” is obvious.**

Multimedia argues that “[f]or the same reasons explained for limitation 2.2, the thumbnails are not associated with ‘*the identified user*’ because...[they] are [not] specific to individual users.” Resp., This argument again adds limitations and should be rejected, as discussed above. Moreover, contrary to Multimedia's assertion, the thumbnails in application menu item 1308 are specific to the individual user that was logged or pre-registered.

**V. Ground 1: The Prior Art Renders Obvious Claims 4 and 14**

**A. Limitation [4.2] “*determining, based on the second indication, a source of content information to be displayed in the global panel based*” is obvious.**

The Petition explained how Kim's combined teachings regarding the “CHANNEL BROWSER card object 1340” and the “second card object” render obvious this limitation. Pet., 64-65. Multimedia contends that “a POSITA would not make the proposed modification...[because] the Channel Browser 1340 contains identification of available broadcast channels, not links to content stored on a content server.” Resp., 58-60. This argument ignores that the Petition did not rely on the CHANNEL BROWSER card object 1340 to teach the URL links but rather cited the “second card object” teachings where “at least one [URL] link corresponds to a channel in a broadcast signal.” Ex.1005, [0292]. Utilizing links to request a digital channel is consistent with Kim's digital broadcast teachings, as Multimedia's expert concedes. Ex.1005, [0067], [0114], [0285], Claims 9, 10, FIG. 1; Ex.1015, 123:15-17, 124:9-127:23, 150:19-151:19. Multimedia cannot establish nonobviousness by attacking the teachings individually where the Petition is based on the combination. *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Additionally, the Petition explained how Kim's combined teachings regarding the “MY MEDIA card object 1370” and the “third card object” render obvious this limitation. Pet., 65-67. Multimedia contends that a POSITA would

not combine the teachings because the “third card object” “passages do not even mention the My Media card object.” Resp., 60-61. Multimedia ignores that both card objects similarly facilitate displaying video and still images from a server (Ex.1005, [0209], [0293]) and that the Petition relied on the combined teachings. Pet., 63-67. This is yet another improper attempt to attack the teachings individually. *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Multimedia also incorrectly contends that “nowhere does Kim teach or suggest that information content from the My Media card 1370 can be played in the broadcast image 1315 window in the Broadcast card object 1310.” Resp., 61. This argument ignores that Kim uses the term “broadcast” generally to describe content from all content providers, as confirmed by its own expert during deposition. Ex.1005, [0031]-[0034], FIG. 1; Ex.1015, 122:12-20, 124:24-6, 133:7-19. Multimedia also ignores that Kim teaches that video content may be displayed “in the first card object” on the “home screen.” Ex.1005, [0287], [0293]; *see also* Ex.1005, Claims 15, 16. Multimedia's expert also confirms that Kim displays multimedia content (e.g., video) to the user. Ex.1015, 133:7-19; *see also* Ex.1015, 29:6-15, 128:1-18.

**VI. Ground 1: The Prior Art Renders Obvious Claims 3, 5, 13, and 15**

Multimedia does not present any new arguments for these claims. Resp., 56, 62, Therefore, for the same reasons discussed in the Petition and above, the claims are obvious.

**VII. Ground 2: The Prior Art Renders Obvious Claims 2 and 12**

**A. Limitation [2.1] “*identifying a user associated with the received indication*” is obvious.**

The Petition initially explained in Ground 1 that Kim's “**users...[may be] pre-registered with the image display apparatus 100.**” Pet., 56-57; Ex.1005. [0081]. The Petition also explained that Kim's “thumbnail images may correspond to **pre-stored user channels (e.g., favorite list).**” Pet., 78; Ex.1005, [0206]. Lee-2 complements this teaching, by identifying a user (e.g., “B user”) as having a favorite channel list (e.g., “Group B”). Pet., 78-79; Ex.1010, 41:47-55, FIG. 39B. The Petition also provided reasons to combine the teachings of Lee-2 and Kim. Pet., 77, 79-80.

Multimedia, erroneously, argues that “limitation 2.1 calls for **identifying a user based on the ‘received indication,’** which is the input of a home key button or go-to-home screen button to invoke the home screen,” and contends that the prior art does not meet this requirement. Resp., 64-65. As explained above for

Ground 1, Multimedia's improper attempt to add limitations should be rejected as a matter of law.

Even if the claims had such requirements, the prior art nonetheless renders it obvious. To display favorite channels on the home screen (see e.g., Ex.1010, FIG. 33B) when the user pressed the home screen button, the user would have already been logged in or pre-registered with the television and therefore identified such that "a user can easily identify favorite channels and thus user convenience is increased." Pet., 56-57, 79-80, 82-83; Ex.1005, [0081]; Ex.1010, 42:2-4.

Multimedia is also incorrect that the prior art "does not identify user B as required for limitation 2.1, nor does it identify the person who is operating the television." Resp., 65. Lee-2 plainly identifies the user by the pseudonym "**B user**" and Kim expressly teaches that the "**user**" may login and also "**pre-registered with the image display apparatus 100.**" Ex.1005, [0081].

Multimedia further incorrectly asserts that the prior art is deficient because, allegedly, "any of the user A-D" "can select any tab A-D to display the favorite channels." Resp., 65. This assertion relies on the testimony from its expert, which lacks any support, and should therefore be given no weight. *See e.g.*, 37 CFR § 42.65 (a). Multimedia's expert also admitted that in the '040 patent one user has access to another user's favorite channels. Ex.1015, 105:11-106:14. Multimedia's

argument is of no moment since the claims do not prohibit a user from selecting another users settings.

Multimedia further contends that “there would be no need to identify the user invoking the home screen” because “Kim’s only reference to favorite channels is to a single list.” Resp., 66. Multimedia again improperly argues the references individually instead of addressing the Kim and Lee-2 combination relied upon in the Petition. *See Game & Tech*, 942 F.3d at 1352. Multimedia also ignores the Petition’s articulated motivation to combine, including that Lee-2’s teaching allows “a user [to] easily identify favorite channels and thus user convenience is increased.” Pet., 77, 80; Ex.1010, 42:2-4. Lastly, Multimedia’s unsubstantiated assertions that there would be no “expectation of success,” fail to rebut Petitioner’s evidence. Resp., 66; Pet., 78, 80.

**B. Limitation [2.2] “*retrieving one or more settings associated with the identified user*” is obvious.**

The Petition fully addressed this limitation. Pet., 80-81. Multimedia does not address Petitioner’s analysis, but rather repeats its argument from Ground 1, limitation [2.2], arguing that the claimed user settings are “**operational settings** for the television, such as audio settings...” Resp., 67. The Board should reject this argument for the same reasons discussed above. Moreover, as discussed above, the prior art also teaches the same operational settings that are set the by a pre-

registered user. Multimedia's non-responsive arguments fail.

### **VIII. Ground 2: The Prior Art Renders Obvious Claims 3 and 13**

Multimedia does not specifically address these claims. Resp., 68, 62, Therefore, for the same reasons discussed in the Petition and above, the claims are obvious.

### **IX. Ground 2: The Prior Art Renders Obvious Claims 6, 16, and 22**

#### **A. Limitation [6.1] “*identifying at least one of a content source and a content information currently being displayed via a television*” is obvious.**

The Petition explained that Lee-2 discloses that “[a] channel that the user is watching may be included in the FAVORITE CH card object,” which is also displayed. Pet., 84; Ex.1010, 33:63-67. The Petition further explained that “[i]t would have been **obvious to a POSITA that the currently watched channel (e.g., DTV 7-1) is ‘identified’** so that it may be included in the FAVORITE CH card object 2060 as a corresponding highlighted thumbnail,” consistent with Figure 32B. Pet., 85; Ex.1003, ¶¶306-309. The Petition also provided reasons to combine the teachings of Lee-2 and Kim, which are not disputed. Pet., 77-8, 85-86.

Multimedia's argument that “Lee-2 does not state that the thumbnail [in Figure 32B] is highlighted,” misses the point, because the Petition did not rely on highlighting to meet this limitation. As explained, the Petition relies on the obviousness of “***identifying*” the currently watched channel** to meet limitation

[6.1]; highlighted a thumbnail of the currently watched channel in the FAVORITE CH card object 2060 is relied upon in limitation [6.2], *infra*. Moreover, Multimedia's own expert contradicts its position, testifying during deposition that highlighting is represented by item 2105 (which is also included in Figure 32B). Ex.1015, 138:22-139:8; *see also* Ex.1010, 31:14-20 ("...channel 7-1 that the user is watching may be indicated by a cursor 2105 or highlighted.").

Multimedia further incorrectly argues that Lee-2's "Favorite Channel card object 2060 includes the favorite channel thumbnails **because they were set by the user**, not because they correspond to a currently-viewed program." Resp., 71 (emphasis in original). To the contrary, Lee-2 plainly teaches that "the cursor 2105 of the remote controller 2100 may **automatically** be positioned on the thumbnail image of channel 7-1 that the user is watching." Ex.1010, 37:6-8; *see also* Ex.1010, 36:41-43. Therefore, Multimedia's argument that "Lee-2 does not teach or suggest that the currently-viewed channel is detected or identified so that it can be highlighted in the Favorite Channels object 2060," fails.

**B. Limitation [6.2] "*selecting a panel type based on the identified at least one of content source and content information currently being displayed via the television*" is obvious.**

The Petition explained Lee-2's "the FAVORITE CH card object 2060 is **selected to include a highlighted thumbnail** of the currently watched channel

(e.g., DTV 7-1).” Pet., 86; Ex.1005, [0206]. The Petition also provided reasons to combine the teachings of Lee-2 and Kim. Pet., 77, 87-88.

Multimedia argues that Lee-2 is insufficient because, “the alleged identification of the content source (e.g., channel) or content information (e.g., program name) **does not cause** the Favorite Channels object 2060 (alleged “panel type”) to be selected.” Resp., 72. Multimedia’s argument fails since the claim has no such causal relationship. The Board should reject Multimedia’s improper attempt to add limitations and redraft the claims. *See Rembrandt*, 641 F.3d at 1339; *Superguide*, 358 F.3d at 875; *Chef America, Inc.* 358 F.3d at 1374.

Multimedia also ignores the Petition which explained that the FAVORITE CH card object 2060 is **selected to include a highlighted thumbnail** of the currently watched channel (e.g., DTV 7-1). Pet., 86. In contrast, Lee-2’s other card objects do not have highlighting since their thumbnails do not correspond to the content source and content information currently displayed via the television. *See e.g.*, Ex.1010, FIG. 33B (card object for RECORDED LIST does not highlight thumbnails).

Therefore, the prior art performs “*selecting a panel type*” because it selects a FAVORITE CH card object 2060 with highlighting, which is “*based on the identified at least one of [a] content source and content information being*

*displayed via the television*, because the highlighting corresponds to the currently watched channel and its representative thumbnail.

**X. The Cited Prior Art References are “Printed Publications” under 35 U.S.C. § 311(b)<sup>5</sup>**

Choi is a published U.S. patent application and qualifies as prior art under pre-AIA 35 U.S.C. § 102(e)(1) because it was filed June 28, 2012, which is before the '040 patent's earliest provisional filing date of August 17, 2012. Multimedia's assertion that Choi is not “printed publication” because it was *published* after the priority date of the '040 patent fails for two reasons. Resp., 13-14.

First, Multimedia has not shown that the '040 patent is entitled to its earliest provisional date, even though it had the burden to do so. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1379 (Fed. Cir. 2015). Accordingly, this argument has been waived and the '040 patent must be given its filing date of August 24, 2015, which is **after** Choi's March 7, 2013, publication date.

Second, Multimedia's position is contrary to established law. The Office's briefing before the Federal Circuit recognizes that published patent applications

---

<sup>5</sup> Multimedia's assertion that “Ground 1 relies on Ex. 1011,” is wrong. Resp. 14; Pet., 10, (Ground 1 relying on Kim (Ex.1005), Lee-1 (Ex.1006), and Choi (Ex.1007)).

qualify as “printed publications” under pre-AIA § 102(e)(1) and AIA § 311(b) as of the applications’ **filing dates**, not their date of publication. Ex.1022 (Brief of U.S. Patent and Trademark Office), 2-3, 15-19. Per pre-AIA § 102(e)(1), Choi is a “printed publication” because it was “an application for patent, published under section 122(b), by another **filed** in the United States before the invention by the applicant for patent.” 35 U.S.C. § 102(e)(1); *see also Samsung Elecs Co., Ltd. v. Lynk Labs, Inc.*, IPR2022-00149, Paper 33 at 11 (June 26, 2023). Multimedia’s reliance on *Samsung Elecs. Co. v. Infobridge Pte. Ltd.*, 929 F.3d 1363, 1368, 1370 (Fed. Cir. 2019) (cited in Resp., 23) is inapposite, because *Infobridge* addresses standard-related submissions and not U.S. patent applications.

## **XI. Conclusion**

The Board should find Challenged Claims 1-6, 11-16, and 21-22 unpatentable.

Respectfully submitted,

Dated: December 3, 2024  
HAYNES AND BOONE, LLP  
2801 N. Harwood St., Suite 2300  
Dallas, Texas 75201  
Customer No. 27683

/David L. McCombs/  
David L. McCombs  
Registration No. 32,271  
Lead Counsel for Petitioner

**CERTIFICATE OF WORD COUNT**

Pursuant to 37 C.F.R. § 42.24(d), Petitioner hereby certifies, in accordance with and reliance on the word count provided by the word-processing system used to prepare this Reply, that the number of words in this paper is 5,089.

/David L. McCombs/

David L. McCombs

Registration No. 32,271

Lead Counsel for Petitioner

**CERTIFICATE OF SERVICE**

This will certify that pursuant to 37 C.F.R. § 42.6(e), a true and correct copy of the foregoing was served on Multimedia as detailed below:

*Date of service* December 3, 2024

*Manner of service* Electronic Mail to: [jim@carmichaelip.com](mailto:jim@carmichaelip.com),  
[schreiner@carmichaelip.com](mailto:schreiner@carmichaelip.com),  
[stevemcbride@carmichaelip.com](mailto:stevemcbride@carmichaelip.com), [mitch@carmichaelip.com](mailto:mitch@carmichaelip.com),  
[chris.gerson@srz.com](mailto:chris.gerson@srz.com), [patent@srz.com](mailto:patent@srz.com) and  
[MultiMediaTechnologiesIPRs@carmichaelip.com](mailto:MultiMediaTechnologiesIPRs@carmichaelip.com)

*Documents served* **PETITIONER'S REPLY TO PATENT OWNER'S  
RESPONSE; Ex.1015-1017**

*Persons served* James T. Carmichael  
Stephen Schreiner  
Stephen McBride  
Minghui Yang  
CARMICHAEL IP, PLLC  
8607 Westwood Center Drive, Suite 270  
Tysons, VA 22182

Christopher M. Gerson (*pro hac vice to be filed*)  
SCHULTE ROTH & ZABEL LLP  
919 Third Avenue  
New York, New York 10022

/David L. McCombs/  
\_\_\_\_\_  
David L. McCombs  
Registration No. 32,271  
Lead Counsel for Petitioner