

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TCL ELECTRONICS HOLDINGS LTD. (F/K/A TCL MULTIMEDIA
TECHNOLOGY HOLDINGS, LTD.),
TCL INDUSTRIES HOLDINGS CO., LTD.,
TCL INDUSTRIES HOLDINGS (H.K.) LIMITED,
TTE TECHNOLOGY, INC. (D/B/A TCL NORTH AMERICA),
TTE CORPORATION, TCL MOKA INTERNATIONAL LIMITED,
TCL MOKA MANUFACTURING S.A. DE C.V.,
TCL KING ELECTRICAL APPLIANCES (HUIZHOU) CO. LTD.,
MANUFACTURAS AVANZADAS S.A. DE C.V.,
TCL SMART DEVICE (VIETNAM) CO., LTD.,
SHENZHEN TCL NEW TECHNOLOGY CO., LTD.,
TCL OPTOELECTRONICS TECHNOLOGY (HUIZHOU) CO., LTD.,
TCL OVERSEAS MARKETING LTD., and
TCL TECHNOLOGY GROUP CORPORATION (F/K/A TCL CORP.),
Petitioner,

v.

LG ELECTRONICS INC.,
Patent Owner.

IPR2023-00238
Patent 10,334,311 B2

Before ROBERT J. WEINSCHENK, JOHN A. HUDALLA, and
GARTH D. BAER, *Administrative Patent Judges*.

WEINSCHENK, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background and Summary

TCL Electronics Holdings Ltd. (f/k/a TCL Multimedia Technology Holdings, Ltd.), TCL Industries Holdings Co., Ltd., TCL Industries Holdings (H.K.) Limited, TTE Technology, Inc. (d/b/a TCL North America), TTE Corporation, TCL Moka International Limited, TCL Moka Manufacturing S.A. de C.V., TCL King Electrical Appliances (Huizhou) Co. Ltd., Manufacturas Avanzadas S.A. de C.V., TCL Smart Device (Vietnam) Co., Ltd., Shenzhen TCL New Technology Co., Ltd., TCL Optoelectronics Technology (Huizhou) Co., Ltd., TCL Overseas Marketing Ltd., and TCL Technology Group Corporation (f/k/a TCL Corp.) (collectively, “Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting an *inter partes* review of claims 1–21 (“the challenged claims”) of U.S. Patent No. 10,334,311 B2 (Ex. 1001, “the ’311 patent”). LG Electronics Inc. (“Patent Owner”) filed a Preliminary Response (Paper 7, “Prelim. Resp.”) to the Petition.

An *inter partes* review may not be instituted unless “the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). We determine that Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that at least one of the challenged claims of the ’311 patent is unpatentable. Accordingly, the Petition is denied, and no trial is instituted.

B. Real Parties in Interest

The parties identify themselves as the only real parties in interest.

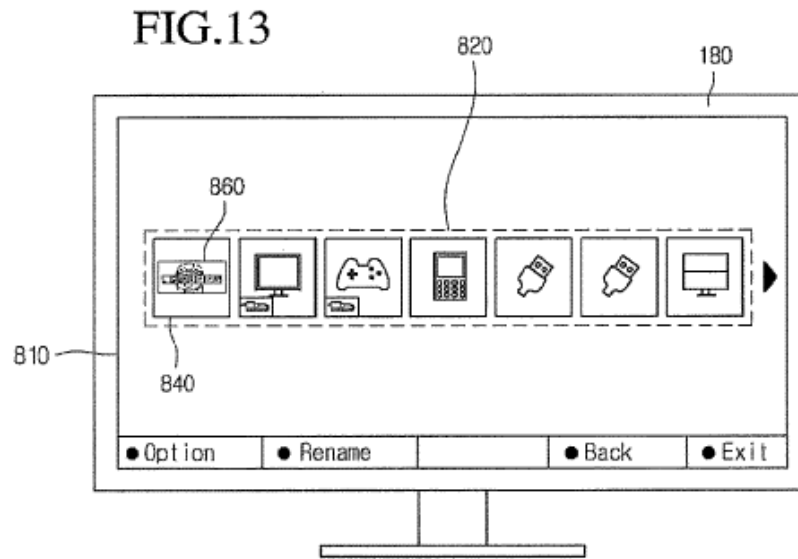
Pet. 1–2; Paper 5, 2.

C. Related Matters

The parties indicate that the '311 patent is the subject of the following district court cases: 1) *LG Electronics Inc. v. TCL Electronics Holdings Ltd. (f/k/a TCL Multimedia Technology Holdings, Ltd.)*, No. 2:22-cv-00122 (E.D. Tex.); and 2) *LG Electronics Inc. v. Hisense Electronics Manufacturing Company of America Corporation*, No. 2:19-cv-09474 (C.D. Cal.). Pet. 2; Paper 5, 2. The parties also indicate that the '311 patent is the subject of IPR2020-01513. Pet. 2; Paper 5, 2.

D. The '311 Patent

The '311 patent relates to “an image display device, and more particularly, to a method for providing a list of external devices thereof.” Ex. 1001, 1:21–23. The '311 patent states that “a plurality of external devices . . . connected to the image display device . . . may include a Digital Versatile Disc (DVD) player, a DVD recorder, a Blu-ray Disc (BD) player, a set top box, a digital TV, a personal computer (PC), a camera, a camcorder, an HDD player, and a memory card.” *Id.* at 20:26–31. Figure 13 of the '311 patent is reproduced below.



Id. at Fig. 13. Figure 13 shows display unit 180 with a plurality of external device icons 820 displayed on full screen 810. *Id.* at 20:35–37. Figure 13 also shows displaying image signal 860 related to first external device icon 840 on the area of first external device icon 840. *Id.* at 21:1–4.

E. Illustrative Claim

Of the challenged claims, claims 1 and 12 are independent. Claim 1 is reproduced below.

1. An image display device comprising:
 - a display;
 - a first external interface configured to receive a first image signal input from a first external device connected to the image display device;
 - a second external interface configured to receive a second image signal input from a second external device connected to the image display device; and
 - a controller coupled with the display, the first external interface and the second external interface, the controller configured to:

display a plurality of external device icons, on the display, wherein the plurality of external device icons include a first external device icon and a second external device icon, wherein a first default image corresponding to the first external interface is displayed on the first external device icon and a second default image corresponding to the second external interface is displayed on the second external device icon, and

change the first default image to a first image based on the first image signal in response to the first external device icon being selected if the first external device is connected to the image display device, and

change the first image to the first default image in response to the second external device icon being selected,

wherein the first image is displayed at a position corresponding to an area where the first external device icon is displayed.

Ex. 1001, 22:14–42.

F. Evidence

Petitioner submits the following evidence:

Evidence	Exhibit No.
Declaration of Immanuel Freedman (“Freedman Declaration”)	1003
Nobori, US 2005/0200811 A1, published Sept. 15, 2005 (“Nobori”)	1004
Kinoshita, US 2006/0158838 A1, published July 20, 2006 (“Kinoshita”)	1005
Young, US 2006/0230360 A1, published Oct. 12, 2006 (“Young”)	1006
Brown, US 2009/0201420 A1, published Aug. 13, 2009 (“Brown”)	1007

G. Asserted Grounds

Petitioner asserts that the challenged claims are unpatentable on the following grounds:

Claims Challenged	35 U.S.C. §	References/Basis
1–7, 9, 11–18, 21	103	Nobori, Kinoshita
8, 10, 19, 20	103	Nobori, Kinoshita, Brown
1–5, 7, 9, 11–16, 18, 21	103	Nobori, Young
8, 10, 19, 20	103	Nobori, Young, Brown
6, 17	103	Nobori, Young, Kinoshita

II. ANALYSIS

A. Level of Ordinary Skill in the Art

Petitioner argues that a person of ordinary skill in the art would have had “at least an undergraduate degree in electrical or computer engineering or closely related scientific field, or similar advanced post-graduate education, and at least two years of experience with graphical user interfaces.” Pet. 11 (citing Ex. 1003 ¶¶ 56–60). Patent Owner argues that a person of ordinary skill in the art would have had “an undergraduate degree in Computer Science (or a related scientific field) with at least two years of experience designing the user interface for display devices.” Prelim. Resp. 13 (citing Ex. 1008, 9:17–20). Petitioner’s description of the level of ordinary skill in the art is supported by the testimony of Petitioner’s declarant, Dr. Immanuel Freedman. Ex. 1003 ¶¶ 56–60. Patent Owner acknowledges that “none of the potential differences between Petitioner’s and Patent Owner’s proposed level of skill is relevant to the issues in th[e] Petition.” Prelim. Resp. 13. Thus, we adopt Petitioner’s description for purposes of this Decision.

B. Claim Construction

In an *inter partes* review proceeding, a patent claim is construed using the same standard used in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary

meaning of the claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b).

Petitioner proposes construing the terms “external device icon” and “select,” and Patent Owner proposes construing the phrases “displayed on” and “displayed at a position corresponding to an area.” Pet. 5–6; Prelim.

Resp. 13–15. We determine that no claim terms require express construction for purposes of this Decision.

C. Obviousness of Claims 1–7, 9, 11–18, and 21 over Nobori and Kinoshita

Petitioner argues that claims 1–7, 9, 11–18, and 21 would have been obvious over Nobori and Kinoshita. Pet. 22–44. For the reasons discussed below, Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that claims 1–7, 9, 11–18, and 21 would have been obvious over Nobori and Kinoshita.

1. Independent Claim 1

Claim 1 recites that “a first default image corresponding to the first external interface is displayed on the first external device icon and a second default image corresponding to the second external interface is displayed on the second external device icon.” Ex. 1001, 22:28–32. For this limitation, Petitioner relies on Nobori’s Figure 2, which is reproduced below.

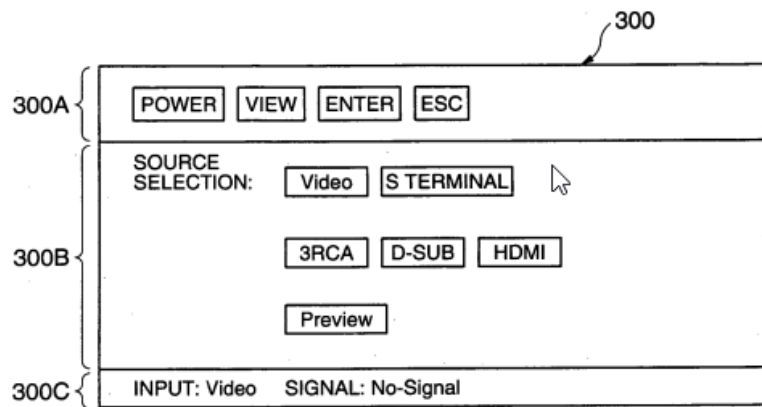
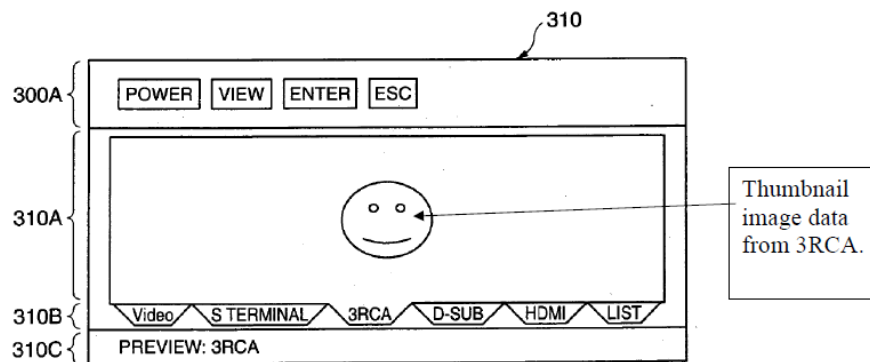


FIG. 2

Pet. 26. Nobori’s Figure 2 shows display screen 300 with operation screen 300A at the top, image input I/F display screen 300B in the middle, and type information display 300C at the bottom. Ex. 1004 ¶ 45. Petitioner identifies the “Video,” “S TERMINAL,” “3RCA,” “D-SUB,” and “HDMI” inputs on display screen 300B as the claimed external device icons. Pet. 25–26. Petitioner acknowledges that Nobori does not teach displaying a default image on the external device icons, but argues that “Kinoshita discloses square digital television terminal-shaped icons.” *Id.* at 26 (citing Ex. 1005 ¶¶ 32, 41). According to Petitioner, it would have been obvious that “the terminal images of Kinoshita may be used as the icons representing [Nobori’s] various devices.” *Id.* at 27 (citing Ex. 1003 ¶ 133).

Claim 1 recites a controller configured to “change the first default image to a first image based on the first image signal in response to the first external device icon being selected.” Ex. 1001, 22:33–35. For this limitation, Petitioner relies on an annotated version of Nobori’s Figure 3, which is reproduced below.



Ex. 1004 at FIG. 3 (annotated).

Pet. 29. Nobori's Figure 3 shows preview screen 310 with operation screen 300A at the top, image information 310A and image input I/F tabs 310B in the middle, and image input I/F selection screen 310C at the bottom. Ex. 1004 ¶¶ 49–51, Fig. 3. Figure 3 also shows that a user selected the 3RCA input tab, and image information 310A from the 3RCA input is displayed as a thumbnail image of a smiley face. *Id.* ¶ 49, Fig. 3.

Petitioner's annotation to Figure 3 shows an arrow pointing to the thumbnail image of a smiley face. Pet. 29. Petitioner identifies an image of the 3RCA input as the claimed first default image and the thumbnail image of a smiley face as the claimed first image. *Id.* at 26–27, 29–30 (“the thumbnail image is a ‘first image based on the first image signal’”).

Claim 1 further recites that the controller is configured to “change the first image to the first default image in response to the second external device icon being selected.” Ex. 1001, 22:37–39. Petitioner argues that Nobori teaches that “[w]hen an image input I/F other than ‘3RCA’ . . . is selected, a desired image input I/F is selected by selecting a tab for the desired image to be displayed.” Pet. 31 (citing Ex. 1004 ¶ 54). Petitioner contends that “[b]ecause the icon currently selected (e.g., in the form of a tab

hollow on an inverse background) and unselected icons (e.g., in the form of a closed tab) are displayed differently, Nobori teaches displaying the first default image (i.e., the image input I/F icon) when the second image input I/F icon is selected.” *Id.* (citing Ex. 1003 ¶ 140; Ex. 1004 ¶¶ 52, 54, Fig. 3). Specifically, according to Petitioner, “the combination of Nob[o]ri and Kinoshita teaches, changing the first image in the tab hollow back to the first default image with the 3RCA picture in the external device icon.” *Id.* at 31–32 (citing Ex. 1003 ¶ 140).

Patent Owner responds that Petitioner does not show sufficiently that the Nobori and Kinoshita combination teaches changing the first image to the first default image in response to the second external device icon being selected. Prelim. Resp. 30–33. Patent Owner argues that “[n]othing in either reference teaches or suggests changing Nobori’s image information 310A (the smiley face in Fig. 3, the alleged ‘first image’) to Kinoshita’s picture of the corresponding input terminal (the alleged default image).” *Id.* at 31. According to Patent Owner, Nobori instead “teaches that selecting another tab in its preview screen 310 changes the image information 310A to another image from the source corresponding to the selected tab.” *Id.* (citing Ex. 1004 ¶ 54).

On this record, Petitioner does not show sufficiently that the Nobori and Kinoshita combination teaches changing the first image to the first default image in response to the second external device icon being selected. As discussed above, Petitioner identifies the thumbnail image of a smiley face as the first image and an image of the 3RCA input as the first default image. Pet. 26–27, 29–30. Petitioner, however, does not present evidence showing that when a user selects another input, the thumbnail image of a

smiley face changes to an image of the 3RCA input. *See id.* at 31–32.

Rather, Petitioner acknowledges that when a user selects another input, the thumbnail image of a smiley face changes to a new thumbnail image based on information from the newly-selected input, not to an image of the 3RCA input. *Id.* at 37 (“Nobori teaches that when the user selects an image input I/F icon other than 3RCA, the input to the display changes to a thumbnail of the input from the second external device.”); Ex. 1004 ¶ 54.

Petitioner appears to argue that it would have been obvious for the 3RCA input tab in Nobori’s Figure 3 to include the text “3RCA” when a user selects that tab and change to an image of the 3RCA input when the user selects a different tab. Pet. 31–32. Petitioner’s argument is deficient for two reasons. First, as explained above, Petitioner identifies the thumbnail image in Figure 3 as teaching the first image, not the 3RCA input tab below that thumbnail image. *Id.* at 29–30. Thus, even if Petitioner is correct that the 3RCA input tab changes from the text “3RCA” to an image of the 3RCA input, Petitioner does not show that the first image (i.e., the thumbnail image) changes to an image of the 3RCA input.

Second, Petitioner does not explain specifically why it would have been obvious to modify Nobori so that the 3RCA input tab in Figure 3 includes text when a user selects that tab and then changes to an image when the user selects another tab. *See id.* at 31–32. As discussed above, Nobori teaches that the input tabs in Figure 3 include text, and Petitioner presents evidence that it would have been obvious to include Kinoshita’s images with Nobori’s text. *Id.* at 26–28 (“Kinoshita recognizes that a user may not recognize terminal names. . . . Kinoshita addresses this problem by providing images that ‘show shapes of the input terminals.’”). But Petitioner

does not provide any specific reason why it would have been obvious to alternate between Nobori's text and Kinoshita's image depending on whether a user has selected a particular input tab. *See id.* at 25–32.

For the foregoing reasons, Petitioner does not show sufficiently that the Nobori and Kinoshita combination teaches changing the first image to the first default image in response to the second external device icon being selected, as recited in claim 1.

2. Independent Claim 12

Claim 12 recites limitations similar to those discussed above for claim 1. Ex. 1001, 23:31–45. Petitioner asserts that claim 12 would have been obvious over Nobori and Kinoshita based on the same arguments and evidence discussed above for claim 1. Pet. 40–41. Thus, for the same reasons discussed above, Petitioner does not show sufficiently that the Nobori and Kinoshita combination teaches the limitations of claim 12.

3. Dependent Claims 2–7, 9, 11, 13–18, and 21

Claims 2–7, 9, 11, 13–18, and 21 depend from claims 1 or 12. Petitioner's arguments and evidence regarding these dependent claims do not compensate for the deficiencies discussed above for claims 1 and 12. *See* Pet. 34–39, 41–44. Thus, for the same reasons discussed above, Petitioner does not show sufficiently that the Nobori and Kinoshita combination teaches the limitations of claims 2–7, 9, 11, 13–18, and 21.

4. Summary

For the foregoing reasons, Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that claims 1–7, 9, 11–18, and 21 would have been obvious over Nobori and Kinoshita.

D. Obviousness of Claims 8, 10, 19, and 20 over Nobori, Kinoshita, and Brown

Petitioner argues that claims 8, 10, 19, and 20 would have been obvious over Nobori, Kinoshita, and Brown. Pet. 44–46. Claims 8, 10, 19, and 20 depend from claims 1 or 12. Petitioner’s arguments and evidence regarding these dependent claims do not compensate for the deficiencies discussed above for claims 1 and 12. *See id.* Thus, for the same reasons discussed above, Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that claims 8, 10, 19, and 20 would have been obvious over Nobori, Kinoshita, and Brown.

E. Obviousness of Claims 1–5, 7, 9, 11–16, 18, and 21 over Nobori and Young

Petitioner argues that claims 1–5, 7, 9, 11–16, 18, and 21 would have been obvious over Nobori and Young. Pet. 47–65. Petitioner’s arguments and evidence regarding this ground do not compensate for the deficiencies discussed above for the asserted ground based on Nobori and Kinoshita. *See id.* at 47–53. Petitioner argues that “Nobori teaches receiving inputs from multiple external devices, while previewing video from only one video input at a time, [and] Young provides the solution for extending the benefit of image preview to all available video input sources.” *Id.* at 51–52. But Petitioner relies on the same arguments and evidence discussed above for the asserted ground based on Nobori and Kinoshita to show that the Nobori and Young combination teaches changing the first image to the first default image in response to the second external device icon being selected. *Id.* at 53 (“This limitation is taught by Nobori for the reasons discussed above with respect to Ground 1.”). Thus, for the same reasons discussed above, Petitioner does not demonstrate a reasonable likelihood of prevailing in

showing that claims 1–5, 7, 9, 11–16, 18, and 21 would have been obvious over Nobori and Young.

F. Obviousness of Claims 8, 10, 19, and 20 over Nobori, Young, and Brown

Petitioner argues that claims 8, 10, 19, and 20 would have been obvious over Nobori, Young, and Brown. Pet. 65–67. Claims 8, 10, 19, and 20 depend from claims 1 or 12. Petitioner’s arguments and evidence regarding these dependent claims do not compensate for the deficiencies discussed above for claims 1 and 12. *See id.* Thus, for the same reasons discussed above, Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that claims 8, 10, 19, and 20 would have been obvious over Nobori, Young, and Brown.

G. Obviousness of Claims 6 and 17 over Nobori, Young, and Kinoshita

Petitioner argues that claims 6 and 17 would have been obvious over Nobori, Young, and Kinoshita. Pet. 67–73. Claims 6 and 17 depend from claims 1 or 12. Petitioner’s arguments and evidence regarding these dependent claims do not compensate for the deficiencies discussed above for claims 1 and 12. *See id.* Thus, for the same reasons discussed above, Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that claims 6 and 17 would have been obvious over Nobori, Young, and Kinoshita.

III. CONCLUSION

Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that at least one of the challenged claims of the ’311 patent is unpatentable.

IV. ORDER

It is hereby

ORDERED that the Petition is denied, and no trial is instituted.

IPR2023-00238
Patent 10,334,311 B2

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