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Paper 10
Entered: June 29, 2020

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LENOVO (UNITED STATES) INC., MOTOROLA MOBILITY LLC, DELL TECHNOLOGIES INC., and HP INC.,
Petitioner,

v.

NEODRON LTD.,
Patent Owner.

IPR2020-00682
Patent 8,502,547 B2

Before MIRIAM L. QUINN, PATRICK M. BOUCHER, and CHRISTOPHER L. OGDEN, *Administrative Patent Judges*.

BOUCHER, *Administrative Patent Judge.*

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314
Granting Motion for Joinder
35 U.S.C. § 315(c), 37 C.F.R. § 42.122

Lenovo (United States) Inc., Motorola Mobility LLC, Dell Technologies Inc., and HP Inc. (collectively, "Petitioner") filed (1) a Petition (Paper 5, "Pet.") to institute an *inter partes* review of claims 1–17 of U.S.

Patent No. 8,502,547 B2 (Ex. 1001, "the '547 patent"); and (2) a Motion for Joinder (Paper 6, "Mot.") with IPR2020-00192 ("the related IPR"), which was instituted on May 12, 2020. Neodron Ltd. did not file a Preliminary Response to the Petition, nor did it file an Opposition to Petitioner's Motion for Joinder.

Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we grant the Petition and institute an *inter partes* review. We also grant the Motion for Joinder, joining Petitioner as a party to the related IPR. The Board has not made a final determination regarding the patentability of any claim.

I. BACKGROUND

A. The '547 Patent

The '547 patent, titled "CAPACITIVE SENSOR," was filed on November 4, 2010, but claims the benefit of earlier applications under 35 U.S.C. §§ 119(e) and 120. Ex. 1001, codes (22), (60) (63), 1:5–16. In particular, the '547 patent is a continuation of U.S. Patent Appl. No. 12/317,305, filed on December 22, 2008 (Ex. 1015, "the '305 application"). *Id.* at code (63), 1:5–8. The '305 application is a continuation-in-part of U.S. Patent Appl. No. 11/868,566, filed on October 8, 2007 (Ex. 1014, "the '566 application"). *Id.* at code (63), 1:8–11. And the '566 application is a nonprovisional of U.S. Prov. Patent Appl. No. 60/862,358, filed on October 20, 2006 (Ex. 1013, "the '358 provisional application"). *Id.* at code (60), 1:11–16.

The '547 patent "relates to capacitive position sensors." *Id.* at 1:20. Figures 5A and 5B of the '547 patent, which are most relevant to the claims at issue, are reproduced below.

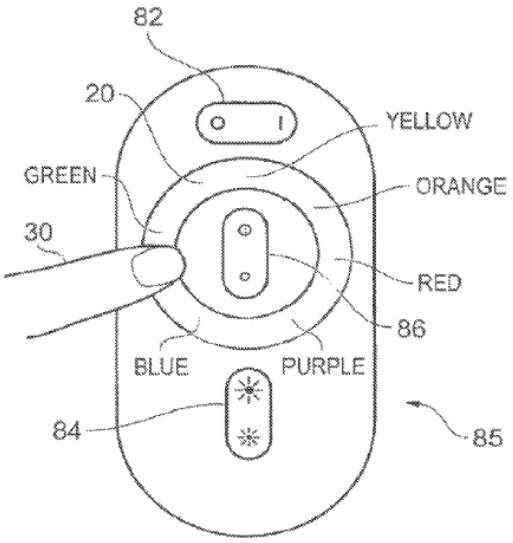

FIG. 5A

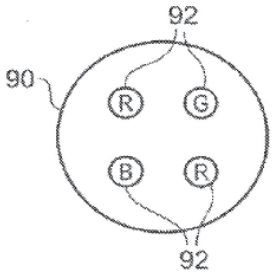

FIG. 5B

Figure 5A (upper) shows handheld lighting controller 85, and Figure 5B (lower) shows color light fitting 90 controllable by the lighting controller. *Id.* at 9:37–39. Light fitting 90 incorporates red, green, and blue light-emitting devices ("LEDs") 92. *Id.* at 9:39–40. "In the illustrated unit, there are two red LEDs, one green and one blue to provide equal maximum brightness of each color." *Id.* at 9:40–42. Lighting controller 85 has a

conventional built-in infrared or radio-frequency transmitter for wireless communication with light fitting 90. *Id.* at 9:42–45.

Controller 85 includes multiple capacitive sensors. For example, circular "wheel" rotary capacitive sensor 20, which is preferably recessed to accommodate a user's finger 30, may be used to select a color hue. *Id.* at 9:47–50, 9:66–10:1. "For example, blue-green as illustrated when a touch of the wheel is sensed at approximately 9 o'clock, purple at 5 o'clock etc." *Id.* at 10:1–3. In this first mode of operation, the selected color is achieved in light fitting 90 by appropriate driving of the LEDs. *Id.* at 10:3–5. A second mode of operation allows for refinement of the color with a sliding motion of the user's finger 30 around the sensor. *Id.* at 10:5–9.

Other capacitive sensors of controller 85 are provided as button pairs that allow control of other characteristics of the light produced by light fitting 90. For example, capacitive button sensors 82 function as on/off switches for the light. *Id.* at 9:51–54. Button pair 84 controls light brightness. *Id.* at 9:54–55. And button pair 86, located centrally within wheel 20, controls light saturation. *Id.* at 9:55–56. Button pairs 84 and 86 "are used to adjust the parameters of brightness and saturation over a linear range, with adjustment taking place within the allowed range according to the duration of a touch on either button of the pair." *Id.* at 9:56–60. Specifically, the upper button of button pair 84 increases brightness while the lower button decreases brightness. *Id.* at 9:60–62. The upper button of button pair 86 adjusts saturation towards pure color and the lower button towards white. *Id.* at 9:62–64.

B. Illustrative Claims

Independent claims 1, 14, and 17 are illustrative of the challenged claims and are reproduced below, with lettering added to identify individual claim elements in accordance with a scheme introduced by Petitioner. *See* Ex. 1030.

> 1[pre]. An apparatus comprising:
>
> [a] a first sensing element;
>
> [b] a sensing channel operable to generate a first signal indicative of a first capacitance between the sensing element and a system ground; and
>
> [c] a processor responsive to a change in the first capacitance between the first sensing element and ground, [d] the processor configured to adjust a value of a parameter based on a first duration of the change in the first capacitance.

Ex. 1001, 10:27–35

> 14[pre]. A system comprising: [a] color illumination device;
>
> [b] a controller configured to control the color illumination device, the controller including
>
> [c] a first sensing element; [d] a second sensing element; [e] a sensing channel, the sensing channel operable to generate a first signal indicative of a first capacitance between the sensing element and a system ground, and [f] operable to generate a second signal indicative of a second capacitance between the second sensing element and the system ground;
>
> [g] a processor, wherein the processor is responsive to a change in the first capacitance between the first sensing element and ground;
>
> [h] wherein the processor is configured to adjust a value of a parameter based on a first duration of the change in the first capacitance,
>
> [i] wherein the processor is responsive to a change in the second capacitance; and

[j] wherein the processor is configured to adjust the value of the parameter based on a second duration of the change in the second capacitance.

Id. at 11:7–12:3.

17[pre]. A method comprising:

[a] detecting a first touch of a first sensing element using a change in capacitance of the first sensing element;

[b] monitoring a first duration of the detected first touch;

[c] changing a value of a parameter if the first duration exceeds a first predetermined interval, wherein changing the value of the parameter includes increasing the value of the parameter if the first duration exceeds the first predetermined interval;

[d] detecting a second touch of a second sensing element;

[e] monitoring a second duration of the detected second touch;

[f] decreasing the value of the parameter if the second duration exceeds a second predetermined interval; and

[g] controlling an aspect of color of a color illumination device based on the value of the parameter.

Id. at 12:10–24.

C. Evidence

Petitioner relies on the following references:

Alameh	US 2005/0219228 A1	Oct. 6, 2005	Ex. 1005
Puolitaival	US 2009/0243790 A1	Oct. 1, 2009	Ex. 1006
De Goederen – Oei	US 2008/0259590 A1	Oct. 23, 2008	Ex. 1007
Grinshpoon	US 2006/0055679 A1	Mar. 16, 2006	Ex. 1008

In addition, Petitioner relies on a Declaration by Benjamin B. Bederson, Ph.D. Ex. 1002.

D. Asserted Grounds of Unpatentability

Petitioner challenges claims 1–17 on the following grounds. Pet. 6–7.

Claim(s) Challenged	35 U.S.C. §[1]	References
1–17	103(a)	Alameh, Puolitaival
1–17	103(a)	Alameh, De Goederen – Oei
1–14, 16, 17	103(a)	Grinshpoon, Puolitaival
15	103(a)	Grinshpoon, Puolitaival, De Goederen – Oei

E. Real Parties in Interest

In addition to themselves, Petitioner identifies Lenovo Group Ltd., Dell Inc., Dell Products LP, and Microsoft Corp. as real parties in interest "without admitting that those parties are in fact real parties-in-interest." Pet. 3. Patent Owner identifies only itself as a real party in interest. Paper 8, 1.

F. Related Matters

Both parties identify the following as proceedings in which Patent Owner has asserted the '547 patent against Petitioner or a party identified as a real party in interest: (1) *Neodron Ltd. v. Lenovo Group Ltd.*, No. 5:19-cv-05644-SI (N.D. Cal.); (2) *Neodron Ltd. v. Dell Technologies Inc.*, No. 1:19-

[1] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended various provisions of 35 U.S.C. Because the '547 patent was filed before March 16, 2013 (the effective date of the relevant amendment), the pre-AIA versions of those provisions apply.

cv-00819-ADA (W.D. Tex.); and (3) *Neodron Ltd. v. HP Inc.*, No. 1:19-cv-00873-ADA (W.D. Tex.); and (4) *Neodron Ltd. v. Microsoft Corporation*, No. 1:19-cv-00874-ADA (W.D. Tex.). Pet. 3–4; Paper 6, 2. Petitioner also identifies the following terminated proceedings in which Patent Owner asserted the '547 patent against Petitioner or a party identified as a real party in interest: (1) *Neodron Ltd. v. Lenovo (United States) Inc.*, No. 6:19-cv-00398-ADA (W.D. Tex.) (terminated); (2) *Neodron Ltd. v. Dell Technologies Inc.* No. 6:19-cv-00396-ADA (W.D. Tex.) (terminated); (3) *Neodron Ltd. v. HP Inc.*, 6:19-cv-00397-ADA (W.D. Tex.) (terminated); and (4) *Neodron Ltd. v. Microsoft Corporation*, 6:19-cv-00399-ADA (W.D. Tex.) (terminated). Pet. 3–4.

Patent Owner further identifies the following as proceedings in which Patent Owner has asserted the '547 patent: (1) *Neodron Ltd. v. Amazon.com, Inc.*, No. 1:19-cv-00898-ADA (W.D. Tex.); *Neodron Ltd. v. Samsung Electronics Co., Ltd.*, No. 1:19-cv-00903-ADA (W.D. Tex.). Paper 8, 2.

Petitioner identifies the following as related matters because they involve U.S. Patent No. 8,432,173 B2 (Ex. 1029), which Petitioner characterizes as "related" to the '547 patent: (1) *Neodron Ltd. v. Lenovo Group Ltd.*, 6:19-cv-00320-ADA (W.D. Tex.); (2) *Neodron Ltd. v. HP Inc.*, No. 6:19-cv-00319-ADA (W.D. Tex.); (3) *Neodron Ltd. v. Dell Technologies Inc.*, No. 6:19-cv-00318-ADA (W.D. Tex.); (4) *Neodron Ltd. v. Motorola Mobility LLC*, No. 6:19-cv-00322-ADA (W.D. Tex.); and (5) *In the matter of Certain Touch-Controlled Mobile Devices, Computers, and Components Thereof*, Inv. No. 337-TA-1162 (ITC). Pet. 4.

II. ANALYSIS

In the related IPR, we instituted an *inter partes* review of claims 1–17 on the bases set forth above. *Samsung Electronics Co., Ltd.*, IPR2020-00192, Paper 8, 37 (PTAB May 12, 2020). In this proceeding, Petitioner challenges the same claims as challenged in the related IPR on the same grounds of unpatentability. Pet. 6–7. Petitioner represents that the Petition "is a carbon copy of the original Samsung IPR petition in all material respects," and that "[t]he only substantive changes are in the introduction to identify the correct Petitioner and the mandatory notices under 37 C.F.R. § 42.8(b)." Mot. 2. Petitioner further represents that, in addition to challenging the same claims on the same grounds, it "rel[ies] on the same prior art and evidence, including a declaration identical in substance from the same expert." *Id.* at 2–3. As Petitioner represents, Dr. Bederson's Declaration "has been updated only to reflect retention by Petitioner and is otherwise identical to the declaration submitted in the [related] IPR." *Id.* at 3 n.1.

In light of these representations, and in view of the absence of any Preliminary Response or opposition to the Joinder Motion filed by Patent Owner, we conclude that the Petition warrants the institution of an *inter partes* review for the reasons set forth in the Institution Decision in the related IPR. *See Samsung*, IPR2020-00192, Paper 8.

Petitioner concedes to a number of limitations on its participation in the joined proceeding, and these limitations are relevant to our consideration of its Joinder Motion:

> Further, if joined, Petitioner agrees to adhere to all applicable deadlines in the Samsung IPR and coordinate all filings with the Samsung Petitioner in the Samsung IPR. The Samsung Petitioner will maintain the lead role in the proceedings so long as it is a party to the proceedings and is not estopped under § 315(e)(1). Petitioner will only assume the lead role in the proceedings if the Samsung Petitioner is no longer a party to the proceedings or is unable to advance arguments for one or more claims, or grounds, for example, because of § 315(e)(1). Petitioner agrees to consolidated filings for all substantive papers in the proceeding. The Samsung Petitioner and Petitioner will be jointly responsible for the consolidated filings. Absent a Board order precluding the Samsung Petitioner from making arguments that would otherwise be available to Petitioner, Petitioner will not advance any arguments separate from those advanced by the Samsung Petitioner in the consolidated filings. . . . Also, Petitioner will not seek additional depositions or deposition time, and will coordinate deposition questioning and hearing presentations with the Samsung Petitioner. Petitioner agrees to the foregoing conditions even in the event other IPRs filed by other, third-party petitioners are joined with the Samsung IPR.

Mot. 3–4; *see also id.* at 7–8 (additional summary of limitations on Petitioner's participation in the joined proceeding).

A party may be joined to an instituted *inter partes* review proceeding in accordance with the following statutory provision:

> (c) JOINDER.—If the Director institutes an inter partes review, the Director, in his or her discretion, may join as a party to that inter partes review any person who properly files a petition under section 311 that the Director, after receiving a preliminary response under section 313 or the expiration of the time for filing such a response, determines warrants the institution of an inter partes review under section 314.

35 U.S.C. § 315(c); *see* 37 C.F.R. § 42.122. As the moving party, Petitioner bears the burden of proving it is entitled to the requested relief. 37 C.F.R. § 42.20(c). In light of Petitioner's representations, the absence of any opposition by Patent Owner, and Petitioner's presentation of a Petition and evidence that warrant institution of an *inter partes* review, we grant the Joinder Motion. In doing so, we note our expectation, also expressed by Petitioner, that "joinder would not adversely impact the trial schedule, briefing, or discovery in the [related] IPR." Mot. 9.

III. ORDER

It is

ORDERED that, pursuant to 35 U.S.C. § 314(a), *inter partes* review is hereby instituted as to claims 1–17 of the '547 patent on all grounds set forth in the Petition;

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, commencing on the entry date of this Decision;

FURTHER ORDERED that Petitioner's Motion for Joinder is *granted* and that Petitioner is hereby joined as a party to IPR2020-00192;

FURTHER ORDERED that the Scheduling Order and any modifications thereto entered in IPR2020-00192 shall govern the schedule of the joined proceeding;

FURTHER ORDERED that the joined parties in IPR2020-00192 shall file all papers jointly in the joined proceeding as consolidated filings, and

will identify each such paper as "Consolidated," except for papers that involve fewer than all of the parties;

FURTHER ORDERED that a copy of this Decision shall be entered into the record of IPR2020-00192; and

FURTHER ORDERED that the case caption in IPR2020-00192 shall be modified in accordance with the attached example to reflect joinder of Petitioner.

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Paper XX
Entered: XX

Example Case Caption for Joined Proceeding

UNITED STATES PATENT AND TRADEMARK OFFICE

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SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG ELECTRONICS AMERICA, INC.,
LENOVO (UNITED STATES) INC., MOTOROLA MOBILITY LLC,
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