

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Hisense USA Corporation

Petitioner,

v.

Brightplus Ventures LLC,

Patent Owner

Case No. IPR2023-01412

U.S. Patent No. 8,330,710

**PATENT OWNER'S CONTINGENT MOTION TO AMEND UNDER 37
C.F.R. § 42.121**

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I. INTRODUCTION

Patent Owner Brightplus Ventures LLC (“Brightplus” or “Patent Owner”) respectfully submits this contingent request to substitute challenged claims 1, 17, 47, and 48 of U.S. Patent No. 8,330,710 (the “’710 Patent”). In the instituted trial, the Petitioner Hisense USA Corporation (“Hisense” or “Petitioner”) has challenged the patentability of claims 1-2, 5, 11-13, 16-17, and 47-48 as obvious under 35 U.S.C. § 103, as follows:

- Claims 1-2, 5, 12, and 16-17 as obvious over Shteynberg, Arai, and Zhang in view of the Knowledge of a POSITA (Ground 1);
- Claim 11 as obvious over Shteynberg, Arai, Zhang, and Kobori in view of the Knowledge of a POSITA (Ground 2).
- Claims 47-48 as obvious over Shteynberg and Lee in view of the Knowledge of a POSITA (Ground 3).
- Claims 1-2, 5, 12, and 16-17 as obvious over Shteynberg, Arai, and Kawabata in view of the Knowledge of a POSITA (Ground 4);
- Claim 11 as obvious over Shteynberg, Arai, Kawabata, and Kobori in view of the Knowledge of a POSITA (Ground 5);
- Claim 13 as obvious over Shteynberg, Arai, Kawabata, and Lee in view of the Knowledge of a POSITA (Ground 6);

Patent Owner submits that this Motion satisfies the statutory and regulatory requirements for a motion to amend the claims under 35 U.S.C. § 316(d) and 37

C.F.R. § 42.121 because the proposed amendments: (i) do not enlarge the scope of the claims or introduce new subject matter; (ii) are responsive to at least one ground of patentability instituted in this proceeding; (iii) are supported by the disclosure of the originally-filed application; and (iv) are patentable over the closest known prior art Shteynberg, Arai, Zhang, Kobori, Kawabata, and Lee references asserted in the Petition.

II. MOTION TO AMEND IS CONTINGENT

Patent Owner submits that this Motion is contingent upon a finding in a final written decision that challenged claims 1, 17, 47, and 48 are unpatentable. Specifically, Patent Owner requests the following contingencies:

- if claims 1, 17, 47, and 48 are found to be unpatentable, substitute proposed amended claims 58, 59, 60, and 61.

III. MOTION TO AMEND PILOT PROGRAM

Patent Owner requests that this Motion be subject to the MTA Pilot Program (84 F.R. 9497). This proceeding was instituted on Apr 25, 2024, *see* Paper 7, and thus qualifies for the MTA Pilot Program effective on March 15, 2019. Patent Owner requests preliminary guidance from the Board on this Motion and whether to file a revised motion to amend. Patent Owner reserves its right to file a revised motion to amend subject to the Board's preliminary guidance.

IV. A REASONABLE NUMBER OF CLAIMS ARE AMENDED

Under 37 C.F.R. §42.121(a)(3), a motion to amend may propose a reasonable

number of substitute claims for each challenged claim. Generally, it is presumed “that only one substitute claim would be needed to replace each challenged claim,” but that presumption may be rebutted upon a showing of need. 37 C.F.R. § 42.121(a)(3); *Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 15 at 4-5 (PTAB Feb. 25, 2019). “An amendment under this subsection may not enlarge the scope of the claims of the patent or introduce new matter.” 35 U.S.C. § 316(d)(3); *Pulse Elecs., Inc. v. U.D. Elec. Corp.*, No. 3:20-cv-01676-BEN-DEB, 2021 U.S. Dist. LEXIS 69938, at *22 (S.D. Cal. 2021). Patent Owner submits that this Motion complies with the requirement because Patent Owner proposes 4 substitute claims for 4 original claims. None of the proposed substitute claims include new matter.

V. THE PROPOSED AMENDMENTS RESPOND TO A GROUND OF UNPATENTABILITY INVOLVED IN THIS TRIAL

Under 37 C.F.R. § 42.121(a)(2)(i), the amendment(s) to the claims must be responsive to at least one ground of unpatentability involved in the trial. In the Institution Decision, the Board determined—in regard to each respective Ground—that:

- (i) “In summary, we determine that Petitioner shows a reasonable likelihood that it would prevail in showing that claim 1 would have been obvious in view of Shtenyberg, Arai, and Zhang.” (Institution Decision at 24)
- (ii) “We find that Petitioner’s showing for [claims 2, 5, 6, and 17] sufficient for institution.” (Institution Decision at 24)

As set forth below, the amendments recited in proposed substitute claims 58, 59, 60, and 61 add further new limitations that render the claims patentable over the closest known prior art —the combination of Shteynberg with Arai, and Zhang, Shteynberg with Lee, and Shteynberg with Arai, and Kawabata cited in the Petition. Therefore, Patent Owner submits that the amendments recited in proposed substitute claims 58, 59, 60, and 61 are directly responsive to the grounds of unpatentability involved in the trial.

VI. THE PROPOSED AMENDMENTS DO NOT SEEK TO ENLARGE THE SCOPE OF THE CHALLENGED CLAIMS

The proposed amendments to the challenged claims of the '710 Patent are listed in Appendix A below. The proposed amendments are indicated with underlining for the additional limitations that have been added and strikethroughs for deletions. Under 35 U.S.C. § 316(d)(3) and 37 C.F.R. § 42.121(a)(2)(ii), a motion to amend may not seek to enlarge the scope of the challenged claims. This Motion satisfies the requirement because the amendments recited in proposed substitute claims 58, 59, 60, and 61 add further new limitations to the challenged claims and, thus, further narrows the scope of these claims.

With respect to substitute claim 58, independent claim 1 has been rewritten to include the addition of the following claim limitations “a backlight system for an LCD display”, “wherein the on-state drive current is individually determined for each string”, “the control system further being operable to determine the luminous intensity of each of the strings in the plurality of strings”, and “wherein the control

system is configured to receive a synchronizing signal from a display controller configured to a display and wherein the firing order of the plurality of strings and the luminous intensity of each string in the plurality of strings are synchronized with periodic operations of the display” which further limits the claim’s scope to require a backlight system for an LCD that incorporates a control system configured to receive a synchronizing signal from a display controller configured to a display and wherein the firing order of the plurality of strings and the luminous intensity of each of the strings in the plurality of strings are synchronized with periodic operations of the display.

With respect to substitute claim 59, independent claim 17 has been rewritten to include the addition of the following claim limitations “ a backlight system for an LCD display”, and “wherein the firing order and luminous intensity of each of the strings are synchronized with periodic operations of the display” which further limits the claim’s scope to require a backlight system for an LCD display that comprises a firing order and luminous intensity of each of the strings are synchronized with periodic operations of the display.

With respect to substitute claim 60, original claim 47 has been substituted with a dependent claim from proposed substitute independent claim 58. The limitation “wherein each drive current supplied to the plurality of strings comprises an independently determined PWM signal” further limits the claim’s meaning to require each drive current supplied to the plurality of strings to comprise an independently determined PWM signal.

With respect to substitute claim 61, original claim 48 has been substituted with a dependent claim from proposed substitute dependent claim 59. The limitation “wherein each drive current comprises an independently determined PWM signal” further limits the claim’s meaning to require each drive current supplied to the plurality of strings to comprise an independently determined PWM signal.

Patent Owner submits that the proposed amendments recited in substitute claims 58, 59, 60, and 61 further narrow the scope of original challenged claims 1, 17, 47, and 48, and therefore comply with the statutory and regulatory requirements of 35 U.S.C. § 316(d)(3) and 37 C.F.R. § 42.121(a)(2)(ii).

VII. THE PROPOSED AMENDMENTS DO NOT INTRODUCE NEW SUBJECT MATTER

Under 35 U.S.C. § 316(d)(3) and 37 C.F.R. § 42.121(a)(2)(ii), a motion to amend may not introduce new subject matter. Patent Owner submits this requirement is satisfied because the claim limitations recited in proposed substitute claims 58, 59, 60, and 61 find support in the specification of the ’710 Patent.

A. Proposed Substitute Claims 58 and 59 Are Supported by the Specification of the ’710 Patent

Support for the amendment in these proposed substitute claims can be found in the ’710 Patent at Figs. 2 and 14; 8:11-15; 9:33-47; 15:22-16:7; and dependent Claim 15. Specifically, the ’710 Patent demonstrates that the lighting system is directed towards a backlight for an LCD display. The ’710 Patent further illustrates that the control system can determine the luminous intensity of each string, is configured to receive a synchronization signal from a display controller configured

to a display, and that the firing order of the plurality of strings and the luminous intensity of each of the strings in the plurality of strings are synchronized with periodic operations of the display.

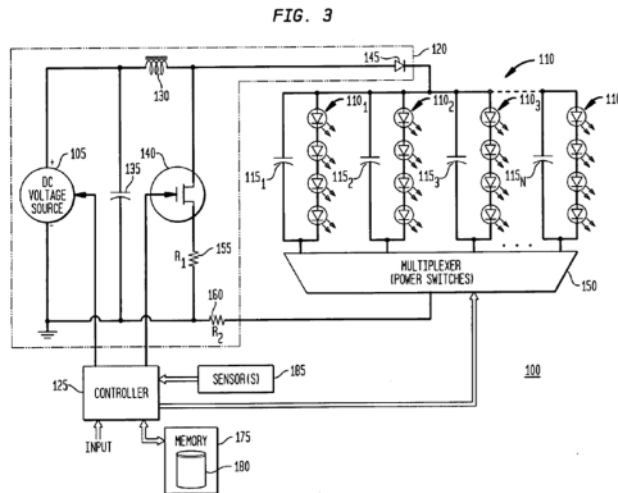
B. Proposed Substitute Claims 60 and 61 are Supported by the Specification of the '710 Patent

Proposed substitute claim 60 which depends from proposed substitution claim 58 includes the added claim limitation “wherein each drive current supplied to the plurality strings comprises an independently determined PWM signal.” Support for the additional limitation in claim 60 can be found in the '710 Patent at Fig. 4; 7:60-67; 9:33-47; and 10:44-50. Specifically, the '710 Patent demonstrates that the drive current supplied to the plurality of strings comprises an independently determined PWM signal. This disclosure also supports the limitation added in dependent claim 61.

VIII. THE PROPOSED SUBSTITUTE CLAIMS 58-61 ARE PATENTABLE

A. Claims 58 and 59 Compared to Shteynberg, Arai, Zhang, Kobori, Kawabata, and Lee

Shteynberg is a published U.S. Patent application titled “Time Division Modulation With Average Current Regulation For Independent Control of Arrays of Light Emitting Diodes.” Shteynberg is directed to converters and regulators used for driving and controlling arrays of light emitting diodes. EX 1007 at ¶0001.



As shown in Fig. 3 above, Shteynberg discloses sensors 185 that measure the actual voltage across each series of LEDs. EX 1007 at ¶0071.

Shteynberg is silent about a firing order and luminous intensity for each string that is synchronized with periodic operations of an LCD display. As shown in Fig. 3 above and in Shteynberg's disclosure, neither sensors 185 nor the input into controller 125 comprise a display controller that allows for controller 125 to synchronize a firing order or luminous intensity of the string to the periodic operations of a display. The sensors are intended to provide input to the controller 125 from each channel or from the lighting system environment EX 1007 at ¶0079. The disclosed embodiments do not teach a display controller in communication with controller 125.

This is the exact opposite of the invention of the '710 Patent, wherein the control system receives a synchronization signal from a display controller configured to a display and wherein the firing order and luminous intensity of each string is

synchronized with periodic operations of the display. *Id.*

Patent Owner submits that Shteynberg, by being wholly silent on a control system receiving a synchronization signal from a display controller configured to a display and a firing order and luminous intensity of the string being synchronized with periodic operations of the display, does not render obvious proposed substitute claims 58 and 59, which specifically recite those elements.

Arai is a published U.S. Patent application titled “Backlight Device.” Arai is directed to a backlight device using light emitting units in which a large number of light emitting diodes are mounted, which comprises a reflection plate comprising different surface reflection plates. EX 1008 at Abstract.

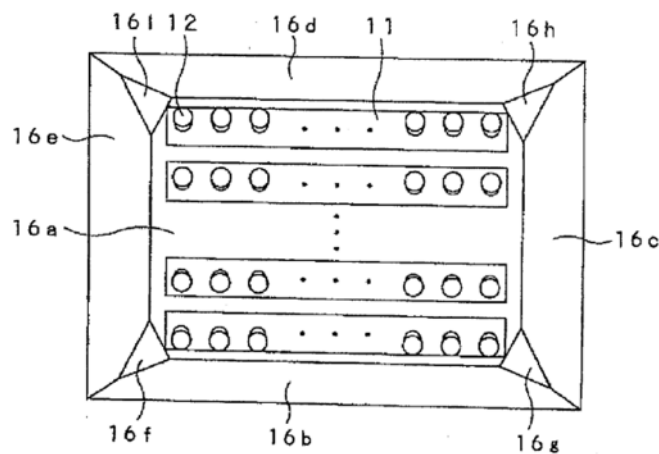


FIG.5

As shown in Fig. 5 above, Arai discloses LEDs 12 that are “two-dimensionally arranged.” EX 1008 at ¶0006.

Arai is silent about a firing order and luminous intensity for each string that is

synchronized with periodic operations of an LCD display. Arai does not teach the method of operation of the LEDs in the backlight device. This is the exact opposite of the invention of the '710 Patent, wherein the control system receives a synchronization signal from a display controller configured to a display and wherein the firing order and luminous intensity of each string is synchronized with periodic operations of the display. *Id.*

Patent Owner submits that Arai, by being wholly silent on a control system receiving a synchronization signal from a display controller configured to a display and a firing order and luminous intensity of the string being synchronized with periodic operations of the display, does not render obvious proposed substitute claims 58 and 59, which specifically recite those elements.

Zhang is a published Chinese Patent application titled “Adjustment Method for Backlight of Flat Panel Display.” Zhang is directed to a method changing the light emission sequence of backlight modules. EX 1010 at 1:6-9.

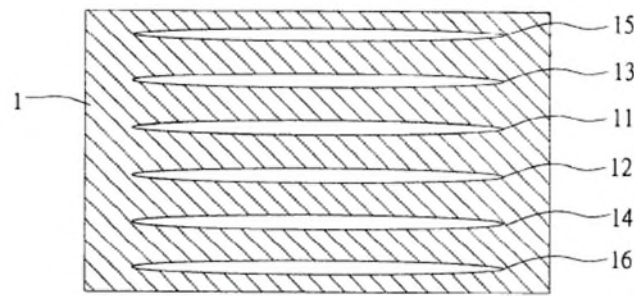


Figure 1A

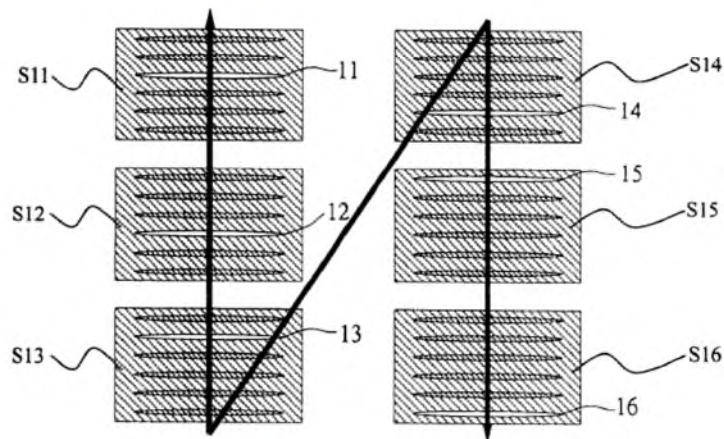


Figure 1B

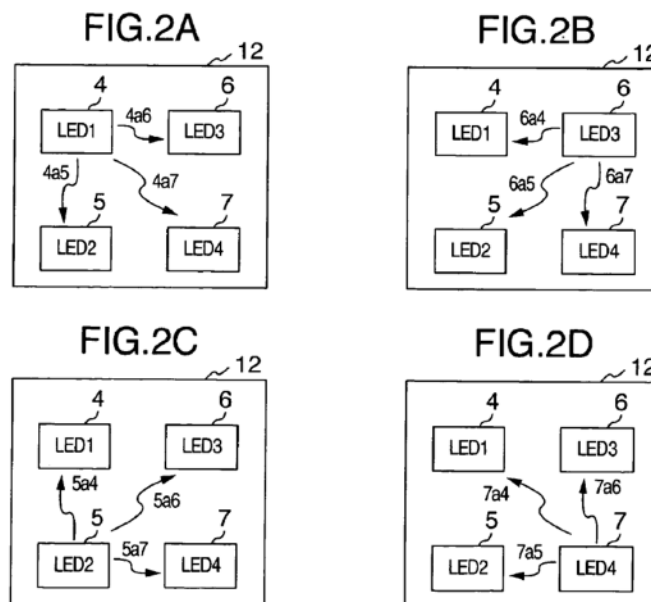
As shown in Fig. 1B above, Zhang discloses an illumination sequence of backlight modules in the display screen. *Id.* at 5:8-9.

Zhang is silent about a firing order and luminous intensity for each string that is synchronized with periodic operations of an LCD display. Zhang's sequence of illuminating the backlight modules does not take into account the operation of the LCD display. Zhang simply discloses that portions of the LCD are illuminated by a respective backlight module, but not that the backlight is synchronized with periodic operations of an LCD display. *Id.* Figs. 4A-4F. Additionally, Zhang does not describe adjusting a luminous intensity of the backlight modules. This is the exact opposite of the invention of the '710 Patent, wherein the control system receives a

synchronization signal from a display controller configured to a display and wherein the firing order and luminous intensity of each string is synchronized with periodic operations of the display. *Id.*

Patent Owner submits that Zhang, by being wholly silent on a control system receiving a synchronization signal from a display controller configured to a display and a firing order and luminous intensity of the string being synchronized with periodic operations of the display, does not render obvious proposed substitute claims 58 and 59, which specifically recite those elements.

Kobori is a published U.S. Patent application titled “Display System and Lighting Device Used Therein.” Kobori is directed to a drive circuit of light emission device arrays each having at least one light emission device. EX 1011 at Abstract.



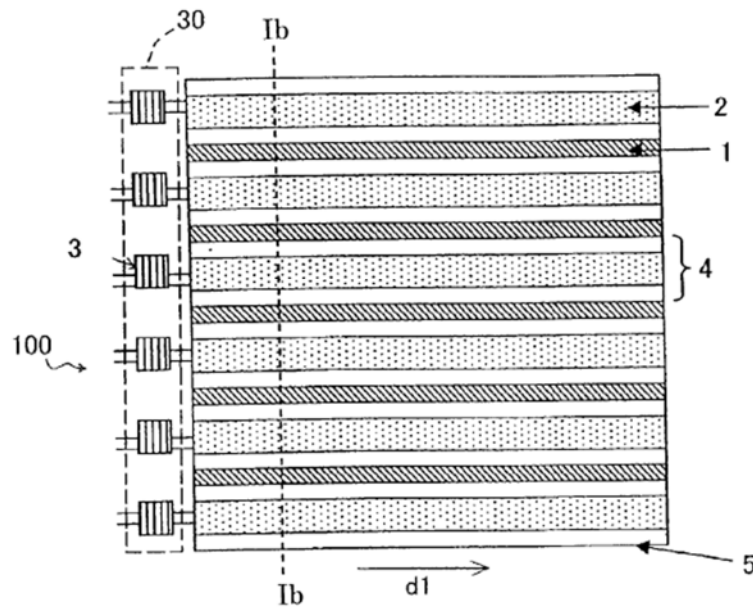
As shown in Figs. 2A-2D above, Kobori discloses a layout of LEDs which are set to a certain ON/OFF period. *Id.* at ¶0034.

Kobori teaches that “[t]he display panel 14 directly receives the light flux generated by the LEDs 4, 5, 6 and 7... and controls the transmission amount (or reflection amount) of the light flux in units of pixel in accordance with the video display signal. Thus, a video light is generated.” *Id.* ¶¶0040-0041. Kobori, however, is silent about a firing order and luminous intensity for each string that is synchronized with periodic operations of an LCD display. As illustrated above, Kobori only details the adjustment, either the transmission or reflection amount, of the pixels in the LCD display in accordance with a video display. This is the exact opposite of the invention of the ’710 Patent, wherein the control system receives a synchronization signal from a display controller configured to a display and wherein the firing order and luminous intensity of each string is synchronized with periodic operations of the display. *Id.*

Patent Owner submits that Kobori, by being wholly silent on a control system receiving a synchronization signal from a display controller configured to a display and a firing order and luminous intensity of the string being synchronized with periodic operations of the display, does not render obvious proposed substitute claims 58 or 59, which specifically recite those elements.

Kawabata is a published U.S. Patent application titled “Lighting Unit and Liquid Crystal Display Device Including the Lighting Unit.” Kawabata is directed to a lighting unit that includes reflector, a plurality of light emitting elements and a controller. EX 1012 at Abstract.

FIG. 1A



As shown in Fig. 1A above, Kawabata discloses cold cathode tube light elements 2. EX 1012 at ¶¶0060-0062.

Kawabata is silent about a firing order and luminous intensity for each string that is synchronized with periodic operations of an LCD display. Kawabata's vertical scanning period and on period of each lighting element are not synchronized with periodic operations of an LCD display. *Id.* Fig. 7. Additionally, Kawabata does not describe adjusting a luminous intensity of the backlight modules. This is the exact opposite of the invention of the '710 Patent, wherein the control system receives a synchronization signal from a display controller configured to a display and wherein the firing order and luminous intensity of each string is synchronized with periodic operations of the display. *Id.*

Patent Owner submits that Kawabata, by being wholly silent on a control system receiving a synchronization signal from a display controller configured to a

display and a firing order and luminous intensity of the string being synchronized with periodic operations of the display, does not render obvious proposed substitute claims 58 and 59, which specifically recite those elements.

Lee is a published U.S. Patent application titled “Surface Light Source Using LED and Backlight Unit Having The Surface Light Source.” Lee is directed to a surface light using LEDs. EX 1013 at Abstract.

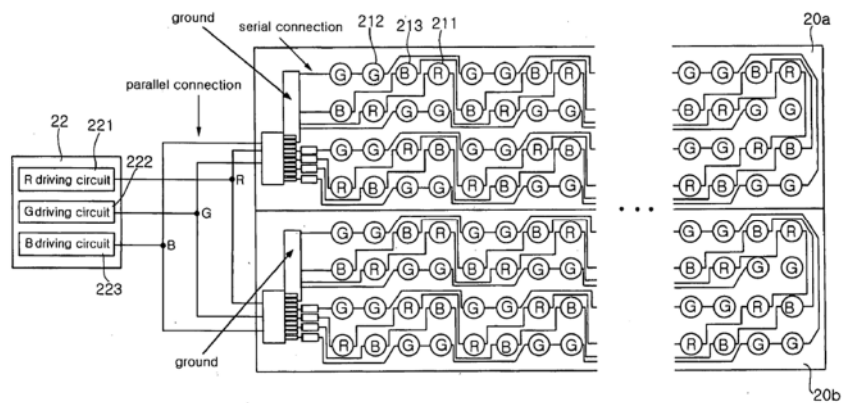


FIG. 3

As shown in Fig. 3 above, Lee teaches multiple series of LEDs connected to driving circuits 221, 222, or 223. EX 1013 at ¶0034.

Lee is silent about a firing order and luminous intensity for each string that is synchronized with periodic operations of an LCD display. This is the exact opposite of the invention of the '710 Patent, wherein the control system receives a synchronization signal from a display controller configured to a display and wherein the firing order and luminous intensity of each string is synchronized with periodic operations of the display. *Id.*

Patent Owner submits that Lee, by being wholly silent on a control system receiving a synchronization signal from a display controller configured to a display and a firing order and luminous intensity of the string being synchronized with periodic operations of the display, does not render obvious proposed substitute claims 58 and 59, which specifically recite those elements.

B. Claims 60 and 61 Compared to Shteynberg, Arai, Zhang, Kobori, Kawabata, and Lee

Shteynberg is discussed above, and the summary previously provided is incorporated by reference. Shteynberg specifically describes a method of to energize each series of LEDs “using time-division modulation (‘TDM’, or equivalently, time-division multiplexing).” EX 1007 at ¶0044. Shteynberg distinguished the invention disclosed therein, namely TDM, from pulse-width modulation, “Rather than changing a duty ratio of each switching cycle of a power converter 120, 220, as is done with pulse-width modulation, the time-division modulation may also be implemented in DCM by skipping cycles of the power converter 120, 220... In this embodiment, there are fewer switching events than a driver with standard PWM.” EX 1007 at ¶0115. In addition, the proposed amendments 60 and 61 depend from proposed amendments 58 and 59, respectively. Accordingly, the proposed dependent claims incorporate the additional limitations of proposed amendments 58 and 59, which Shteynberg does not disclose.

Patent Owner submits that Shteynberg, by not disclosing that each drive current supplied to the plurality of string comprises an independently determined

PWM signal and not teaching the limitations in proposed amendments 58 and 59, does not render obvious proposed substitute claims 60 and 61, which specifically recite those elements.

Arai is discussed above, and the summary provided is incorporated by references. Arai is silent about drive currents that each comprise an independently determined PWM signal. In addition, the proposed dependent claims incorporate the limitations of proposed amendments 58 and 59, which Shteynberg does not disclose. This is the exact opposite of the inventions of the '710 Patent, wherein each drive current supplied to the plurality of strings comprises an independently determined PWM signal. Patent owner submits that Arai, by being wholly silent on drive currents that comprise independently determined PWM signals and not teaching the limitations in proposed amendments 58 and 59, does not render obvious proposed substitute claims 60 and 61, which specifically recite those elements.

Zhang is discussed above, and the summary provided is incorporated by reference. Zhang is silent about drive currents that each comprise an independently determined PWM signal. In addition, the proposed dependent claims incorporate the limitations of proposed amendments 58 and 59, which Zhang does not disclose. This is the exact opposite of the inventions of the '710 Patent, wherein each drive current supplied to the plurality of strings comprises an independently determined PWM signal. Patent owner submits that Zhang, by being wholly silent on drive currents that comprise independently determined PWM signals and not teaching the limitations in proposed amendments 58 and 59, does not render obvious proposed substitute claims

60 and 61, which specifically recite those elements.

Kobori is discussed above, and the summary provided is incorporated by reference. The proposed dependent claims incorporate the limitations of proposed amendments 58 and 59, which Kobori does not disclose. Patent owner submits that Kobori, by not teaching the limitations in proposed amendments 58 and 59, does not render obvious proposed substitute claims 60 and 61, which specifically recite those elements.

Kawabata is discussed above, and the summary provided is incorporated by reference. Kawabata is silent about drive currents that each comprise an independently determined PWM signal. In addition, the proposed dependent claims incorporate the limitations of proposed amendments 58 and 59, which Kawabata does not disclose. This is the exact opposite of the inventions of the '710 Patent, wherein each drive current supplied to the plurality of strings comprises an independently determined PWM signal. Patent owner submits that Kawabata, by being wholly silent on drive currents that comprise independently determined PWM signals and not teaching the limitations in proposed amendments 58 and 59, does not render obvious proposed substitute claims 60 and 61, which specifically recite those elements.

Lee is discussed above, and the summary provided is incorporated by reference. Lee is silent about drive currents that each comprise an independently determined PWM signal. In addition, the proposed dependent claims incorporate the limitations of proposed amendments 58 and 59, which Lee does not disclose. This is the exact opposite of the inventions of the '710 Patent, wherein each drive current

supplied to the plurality of strings comprises an independently determined PWM signal. Patent owner submits that Lee, by being wholly silent on drive currents that comprise independently determined PWM signals and not teaching the limitations in proposed amendments 58 and 59, does not render obvious proposed substitute claims 60 and 61, which specifically recite those elements.

C. The Advantages of the Amendments Recited in Proposed Substitute Claims 58, 59, 60, and 61

There are many advantages to the features recited in the amendments set forth in this Motion. For example:

- One significant advantage of the amendment recited in claim 58 and 59 is that synchronization signal allows for the firing order and luminous level to be synchronized with the display, which ultimately improves display performance and prevents unwanted effects due to interference. (*See*, '710 Patent at 15:34-54)
- One significant advantage of the amendment recited in claims 60 and 61 is that each string receiving an independently determined PWM signal allows for better control of the backlight unit and thus improved display performance. (*See*, '710 Patent at 9:33-47).

IX. PRIORITY

All of the proposed substitute claims contain subject matter included in and supported by the original disclosure of the '710 Patent and, therefore, claim priority to the original disclosure.

X. REQUEST FOR PRELIMINARY GUIDANCE

As discussed in the call with the Board, Patent Owner requests preliminary guidance from the Board. Patent Owner understands this will be provided by a date four weeks after Due Date 2.

XI. CONCLUSION

For the reasons set forth herein, Patent Owner submits that proposed substitute claims 58, 59, 60, and 61 satisfy all of the statutory requirements for a motion to amend set forth in paragraphs (1) and (3) of 35 U.S.C. § 316(d) and paragraphs (a)(1), (a)(2), (a)(3), (b)(1) and (b)(2) of 37 C.F.R. § 42.121 and respectfully requests the Motion be granted contingent upon a finding that the challenged claims 1, 17, 47, and 48 are unpatentable.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that the above-captioned Mandatory Notice was served on counsel of record for the Petitioner by filing this document through the Patent Review Processing System as well as by delivering a copy via electronic mail to:

MFerrario@kilpatricktownsend.com (Lead Counsel)
MMorlock@kilpatricktownsend.com (Back-Up Counsel)

Dated April 23, 2024

/Neal Massand/
Neal Massand (Reg. No. 54,296)

APPENDIX A

(Proposed Amendments)

1.(original) A lighting system, comprising:

a plurality of strings of solid state lighting devices arranged in a first direction and positioned at intervals in at least one second direction;

a current supply circuit configured to selectively supply a plurality of on-state drive currents to the plurality of strings responsive to a plurality of control signals; and

a control system configured to receive a user input and to selectively provide control signals to the current supply circuit responsive to the user input to selectively drive the plurality of strings, the control system further including firing logic configured to determine a firing order of the plurality of strings.

17. (original) A method for controlling a plurality of strings of solid state lighting devices configured to extend in a first direction and to be arranged in substantially adjacent positions relative to one another in a second direction that is different from the first direction, the method comprising:

receiving an input from a user; and

supplying, based in part on the input from the user, a plurality of pulsed drive currents to the plurality of strings in a non-spatially-sequential firing order.

47. (original) A method for controlling a plurality of strings of solid state lighting devices configured to extend in a first direction and arranged substantially adjacent to one another, the method comprising supplying a plurality of pulsed drive currents to a plurality of groups of the plurality of strings.

48. (original) The method of claim 47, further comprising receiving a user input, Wherein supplying the plurality of pulsed drive currents is based on the user input.

58. (proposed substitute for Claim 1) A backlight lighting system for an LCD display, comprising:

a plurality of strings of solid state lighting devices arranged in a first direction and positioned at intervals in at least one second direction;

a current supply circuit configured to selectively supply ~~a plurality of an~~ on-state drive current to each of the plurality of strings responsive to a plurality of control

signals, wherein the on-state drive current is individually determined for each string; and

a control system configured to receive a user input and to selectively provide control signals to the current supply circuit responsive to the user input to selectively drive the plurality of strings, the control system further including firing logic configured to determine a firing order of the plurality of strings, the control system further being operable to determine a luminous intensity of each of the strings in the plurality of strings; and

wherein the control system is configured to receive a synchronizing signal from a display controller configured to a display and wherein the firing order of the plurality of strings and the luminous intensity of each of the strings in the plurality of strings are synchronized with periodic operations of the display.

59. (proposed substitute for Claim 17) A method for controlling a plurality of strings of solid state lighting devices in a backlight system for an LCD display configured to extend in a first direction and to be arranged in substantially adjacent positions relative to one another in a second direction that is different from the first direction, the method comprising:

receiving an input from a user; and

supplying, based in part on the input from the user, a plurality of pulsed drive currents to the plurality of strings in a non-spatially-sequential firing order, wherein the firing order and luminous intensity of each of the strings are synchronized with periodic operations of the display.

60. (proposed substitute for Claim 47) The backlight system of claim 58, wherein A method for controlling a plurality of strings of solid state lighting devices configured to extend in a first direction and arranged substantially adjacent to one another, the method comprising supplying a plurality of pulsed drive currents to a plurality of groups of the plurality of strings each drive current supplied to the plurality of strings comprises an independently determined PWM signal.

61. (proposed substitute for Claim 48) The method of claim 47/59, further comprising receiving a user input,

Wherein supplying the plurality of pulsed drive currents is based on the user input, wherein each drive current comprises an independently determined PWM signal.