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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 14/460,129 | 08/14/2014 | MyeongSu KIM | KORY03566 US | 9068 |
| 90323 | 7590 | 01/02/2020 | EXAMINER | |
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| | | | ART UNIT | PAPER NUMBER |
| | | | 2691 | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 01/02/2020 | ELECTRONIC |

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MYEONGSU KIM and JAEHO CHOI

Appeal 2018-004677
Application 14/460,129
Technology Center 2600

Before THU A. DANG, ELENI MANTIS MERCADER, and
JASON J. CHUNG, *Administrative Patent Judges*.

MANTIS MERCADER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–18. *See* Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Samsung Display Co., Ltd. Appeal Br. 1.

CLAIMED SUBJECT MATTER

The claims are directed to a display device and operating method thereof. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A display device comprising:
 - a display panel including a plurality of first pixels disposed in a first display area and a plurality of second pixels disposed in a second display area, the first display area and the second display area being surrounded by a non-display area and being adjacent to each other without an intervening non-display area disposed therebetween, and the plurality of first pixels and the plurality of second pixels being connected to a same gate line;
 - a driving circuit configured to generate first and second image signals corresponding to the plurality of first and second pixels;
 - a first control circuit configured to convert the first image signals into first data voltages and to provide the first data voltages to the plurality of first pixels; and
 - a second control circuit connected electrically to the first control circuit and configured to convert the second image signals into second data voltages and to provide the second data voltages to the plurality of second pixels, wherein the driving circuit sequentially provides the first image signals corresponding to the plurality of first pixels to the respective first control circuit in the order of pixels close to a boundary between the first display area and the second display area, and the driving circuit sequentially provides the second image signals corresponding to the plurality of second pixels to the second control circuit in the order of pixels close to the boundary.

REFERENCES

The prior art relied upon by the Examiner is:

| Name | Reference | Date |
|------|--------------------|---------------|
| Bae | US 2009/0322661 A1 | Dec. 31, 2009 |
| Choe | US 2013/0100181 A1 | Apr. 25, 2013 |
| Seo | US 2014/0184663 A1 | Jul. 3, 2014 |

REJECTION

Claims 1–5 and 7–18 are rejected under 35 U.S.C. § 103 (a) as unpatentable over Choe (US 2013/0100181) in view of Bae (US 2009/0322661). Final Act. 2.

Claim 6 is rejected under 35 U.S.C. 103 (a) as unpatentable over Choe in view of Bae and further in view of Seo. Final Act. 25.

OPINION

We adopt the Examiner’s findings in the Answer and Final Action and we add the following primarily for emphasis. We note that if Appellants failed to present arguments on a particular rejection, we will not review those uncontested aspects of the rejection unilaterally. *See Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential); *Hyatt v. Dudas*, 551 F.3d 1307, 1313–14 (Fed. Cir. 2008) (The Board may treat arguments Appellants failed to make for a given ground of rejection as waived).

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Claims 1–5 and 7–18 stand rejected under 35 U.S.C. § 103(a) over Choe in view of Bae.

Appellant argues that Choe is silent about *the order* of providing the first image signal and the second image signal from the driving circuit 400 to the alleged first control circuit (200, 301) and the alleged second control circuit (300, 301). Appeal Br. 9.

We do not agree with Appellant’s argument. We agree with the Examiner’s finding that the driving circuit 400 (i.e., host system 400) is configured to sequentially scan the plurality of first pixels from a pixel that is disposed immediately adjacent to the boundary to a pixel that is disposed immediately adjacent to an edge opposite to the boundary. Ans. 29, Final Act. 4–5 (citing Choe paras. 28–29, 46, and Fig. 1). We agree with the Examiner that Choe teaches or suggests that the first image signals from the first control circuit 201 are sequentially supplied to the pixels in the same sequence as the scanning signals. Ans. 29–30. Thus, we agree with the Examiner that the driving circuit 400 is configured to sequentially scan the plurality of first pixels in *an order* from a pixel that is disposed immediately adjacent to the boundary to a pixel that is disposed immediately adjacent to an edge opposite to the boundary. Ans. 29 (*see* Choe’s Fig. 1 showing scanning direction order with arrows).

In other words, we agree with the Examiner, the pixel scanning order and corresponding image signal transmission in the first display area PNL1 and the second display area PNL2 are in reverse direction as shown in Choe’s Figures 1 and 6, which are tantamount to Appellant’s own disclosure.

Appellant in its Reply Brief newly argues that in Choe the sequence in which the pixels receive the image signal from close the boundary is

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controlled not by the driving circuit providing the image signals in a specific order, but by the gate lines. Reply Br. 5.

This argument is entitled to no consideration because it was not presented for the first time in the opening brief. *Optivus Technology, Inc. v. Ion Beam Applications S.A.*, 469 F.3d 978, 989 (Fed. Cir. 2006) (argument raised for the first time in the reply brief that could have been raised in the opening brief is waived); *accord Ex parte Borden*, 93 USPQ2d 1473, 1473–74 (BPAI 2010) (informative opinion) (absent a showing of good cause, the Board is not required to address an argument newly presented in the reply brief that could have been presented in the principal brief on appeal).

Nonetheless, we agree with the Examiner’s finding that the driving circuit 400 drives the gate lines to provide the image signals in a specific order. *See* Final Act. 4–5 and Choe’s Fig. 1. This is tantamount to Appellant’s Figure 1 wherein the driving circuit 400 drives the first and second control units which generate the gate control signal driving the gate lines. *See* Appellant’s own Spec. paras. 43–52 and Fig. 1.

Accordingly, we affirm the Examiner’s rejection of claim 1 and for the same reasons the Examiner’s rejection of claims 2–5 and 7–18.

Claim 6 is rejected under 35 U.S.C. 103(a) as unpatentable over Choe in view of Bae and further in view of Seo.

Appellant does not separately argue claim 6. Accordingly, we also affirm Examiner’s rejection of claim 6.

CONCLUSION

The Examiner’s rejection is Affirmed.

DECISION SUMMARY

| Claims Rejected | 35 U.S.C. § | Reference(s)/Basis | Affirmed | Reversed |
|-------------------------|--------------------|--|-----------------|-----------------|
| 1-5 and 7-18 | 103(a) | Choe in view of Bae. | 1-5 and 7-18 | |
| 6 | 103(a) | Choe, in view of Bae and further in view of Seo. | 6 | |
| Overall Outcome: | | | 1-18 | |

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED