UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WOO HYUK CHOI

Appeal 2007-3814
Application 09/843,781
Technology Center 2800

Decided: March 25, 2008

Before: ANITA PELLMAN GROSS, CARLA M. KRIVAK, and KEVIN F. TURNER, *Administrative Patent Judges*.

TURNER, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134 from a final rejection of claims 1, 3-9, 12, 15-19, 21-24, and 26. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF CASE

Appellant discloses repair structures and methods for liquid crystal displays (LCDs) that can be used to repair a defect due to a short circuit between lines of the LCD. (Spec. ¶ [0002]). The application details that the repair pattern is selectively formed at the portion where a short circuit

between the lines occurs so that the resistance of the repair pattern need not increase with increasing panel size. (Spec. ¶ [0072]).

Claims 1, 3-9, 12, 15-19, 21-24, and 26 are pending in the application, where claims 2, 10, 11, 13, 14, 20, 25, and 27 have been cancelled and claims 1, 3-8, 17-19, 21-24, and 26 have been allowed in the Answer. (Ans. 2). Claims 9, 12, 15, and 16 remain rejected over prior art.

Independent claim 9, which is deemed to be representative, reads as follows:

> 9. A repair structure for a liquid crystal display having a substrate, comprising:
>
> a data line on the substrate;
>
> a scan line crossing the data line and having first, second, and third segments, wherein the second segment is electrically isolated from the first and third segments by an insulating material and is located at a portion where the scan line and the data line overlap; and
>
> a repair pattern electrically isolated from the second segment and electrically connecting the first segment with the third segment of the scan line, wherein the repair pattern bypasses to pixel electrodes adjacent to the scan line.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Salisbury	US 5,303,074	Apr. 12, 1994
Baum	US 5,407,710	Apr. 18, 1995
Henley	US 5,459,410	Oct. 17, 1995

The Examiner rejected claims 9, 12, 15, and 16 under 35 U.S.C. § 103(a) as unpatentable over Salisbury and Henley. We note that claims 1, 3-8, 17-19, 21-24 and 26 were rejected in the final Office Action under 35 U.S.C. 103(a) over prior art, but those rejections were withdrawn by the Examiner (Ans. 2) and are thus not reviewed in this decision.

Rather than repeat the arguments of Appellant or the Examiner, we make reference to the Brief, the Reply Brief, and the Answer for their respective details. Only those arguments actually made by Appellant have been considered in this decision. Arguments that Appellant did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

ISSUE

Has Appellant shown that the Examiner erred in finding claims 9, 12, 15, and 16 obvious in view of Salisbury and Henley?

FINDINGS OF FACT

1. The application details a repair structure for a liquid crystal display having a substrate which includes a data line on the substrate and a scan line crossing the data line and having first, second, and third segments. The second segment is electrically isolated from the first and third segments by an insulating material and is located at a portion where the scan line and the data line overlap. A repair pattern is electrically isolated from the second segment and electrically connects the first segment with the third segment of the scan line, where the repair pattern bypasses to pixel electrodes adjacent

to the scan line. (Spec. ¶¶ [0067]-[0070]; Figs. 8 and 9, elements 20, 21, 23, 51 and 51a).

2. The Specification provides that "[t]he repair pattern 25 is bypassed toward pixel electrodes 27 and 27a adjacent to the data line 23 to overlap the pixel electrodes 27 and 27a." (Spec. ¶ [0036]) (Emphasis added).

3. Independent claim 1 recites, in part, that "the repair pattern bypasses to pixel electrodes adjacent to the data line and has a portion overlapping the pixel electrodes," and independent claim 9 recites, in part, that "the repair pattern bypasses to pixel electrodes adjacent to the scan line."

4. Salisbury discloses a thin film electronic display device with embedded repair lines positioned to be electrically coupled to the transmission lines. The repair lines are physically near the transmission lines and the crossover points thereof to allow those lines to be severed adjacent to the crossover point. Active components, such as a field effect transistor or a photodiode, are also located proximate to the transmission lines. (Abstract; col. 7, l. 42 – col. 8, l. 3; col. 8, l. 65 – col. 9, l. 3; Figs. 2A and 2B, elements 102, 103, 104, 118, 122, 123, and 150).

5. Henley discloses methods for inspecting and repairing an active matrix LCD panel. A scan line is cut at locations to sever the short circuit, and laser passivation is used to remove portions of the scan lines to form a conductive bridge. A gate line and a drive line are respectively coupled to the gate and source of a thin film transistor to define a pixel region. (Abstract; col. 11, l. 65 – col. 12, l. 6; Figs. 12c and 14, elements 13, 15, 80, 82, 84, 86, and 88).

PRINCIPLES OF LAW

The Examiner bears the initial burden of presenting a prima facie case of obviousness. *In re Oetiker,* 977 F.2d 1443, 1445 (Fed. Cir. 1992). If that burden is met, then the burden shifts to the Appellant to overcome the prima facie case with argument and/or evidence. *In re Mayne*, 104 F.3d 1339, 1342 (Fed. Cir. 1997). "Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.,* 127 S.Ct. 1727, 1734 (2007).

The claims on appeal should not be confined to specific embodiments described in the Specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (*en banc*). "Because claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims." *Id.* at 1314 (citations omitted). During ex parte prosecution, claims must be interpreted as broadly as their terms reasonably allow since applicants have the power during the administrative process to amend the claims to avoid the prior art. *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

ANALYSIS

We begin by noting that language found in claim 9, which remains rejected over prior art, is similar to language found in claim 1, which has been allowed by the Examiner. While both claims recite that the "repair

pattern bypasses to pixel electrodes adjacent to" the transmission line, claim 1 further recites that the repair pattern "has a portion overlapping the pixel electrodes." (Finding of Fact 3). Through claim differentiation, it is clear that both recitations cannot mean "overlap." Since the recitation in claim 9 bypasses to but does not overlap a pixel electrode, that recitation cannot require the overlap of the repair pattern and the pixel electrode. Therefore, the nature of overlap of the repair pattern and the pixel electrode, if any, is not a feature of independent claim 9. Thus, Appellant's arguments raised in the Reply Brief, that neither Salisbury nor Henley teaches or suggests a repair structure which "overlaps or bypasses" to the pixel electrodes, are immaterial. (Reply Br. 2-5).

The recitation in claim 9 that the "repair pattern bypasses to pixel electrodes" needs to be interpreted in terms of how that limitation is used in the Specification. The clearest usage is that the repair pattern is bypassed toward pixel electrodes, (Finding of Fact 2), and we interpret that limitation as such. Given the description of the electrodes used to control pixels in both Salisbury and Henley, (Findings of Fact 4 and 5), the repair patterns in both references do bypass toward the pixel electrodes. Since we find that this is all that is required by claim 9, i.e., that the repair pattern bypasses toward the pixel electrodes, and Appellant has not argued other elements of claim 9, we find that the combination of Salisbury and Henley teaches or suggests all of the elements of claim 9. Thus, we find no error in the rejection of claim 9 by the Examiner.

Additionally, Appellant has raised no arguments with respect to claims 12, 15, and 16 other than their dependence on independent claim 9. Thus, we affirm the rejections of those claims as well.

CONCLUSION OF LAW

We conclude that Appellant has not shown that the Examiner erred in rejecting claims 9, 12, 15, and 16, and we affirm the Examiner's rejection of those claims under 35 U.S.C. § 103(a).

DECISION

The decision of the Examiner is affirmed.

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

AFFIRMED

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