UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Chongqing HKC Optoelectronics Technology Co., Ltd.,

Petitioner

v.

138 East LCD Advancements Limited

Patent No. 7,335,913
Case No. IPR2023-00476

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# REQUEST FOR REHEARING

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Respectfully, rehearing of the Decision Denying Institution of *Inter Partes* Review ("ID," Paper 9) is requested under 37 C.F.R. § 42.71(d) because the Board's construction (and Patent Owner's arguments) does not comport with the plain meaning of the claims in light of the specification, and under the given construction the claims of the '913 patent would be invalid 35 U.S.C. §112.

## I. The ID

While neither party argued for a specific construction, the ID *sua sponte* construed the language of the independent claims of the '913 patent to require the claimed "wiring lines" and "lead wiring lines" to be separate elements. The ID construes the claimed "wiring lines for driving the circuit unit and the display electrodes" as having to be distinct from the claimed "plurality of lead wiring lines." In particular, the ID holds: "Separately listing "wiring lines" and "a plurality of lead wiring lines" clearly implies that wiring lines and lead wiring lines are separate elements." ID, at 12-13 (case citations omitted). The decision points to the specification's description of wiring lines 105 and lead wiring lines 103a as the claimed "wiring lines" and "lead wiring lines," respectively. ID, at 12-13 (citing Fig. 1, col. 7:42–46, 8:26–29).

Based on this construction, the ID rejected the Petition on the basis that the "wiring lines" and "lead wiring lines" cannot be the same line. In so doing, the ID appeared to be led by or accepted PO's arguments that these lines cannot be the

same. Notably, while PO argued that the lines could not be the same line, PO did not cite to any disclosure in the specification showing the two lines or an arrangement of the lines as PO argued the claims required. That task was left to the Board, which identified wiring lines 105 and lead wiring lines 103. ID, at 12-13. In so doing, the ID identified an alleged embodiment where the two lines were differently named, but did not identify any embodiment where the wiring lines 105 and lead wiring lines 103 were arranged as required by the claims under Board's limited claim construction.

## II. Rehearing Should Be Granted Because Board's Claim Construction Is Not Supported by the Specification Under 35 U.S.C. § 112

Claim 1 states:

> 1. An electro-optical device comprising:
>
> [1a] a pair of substrates that are disposed to face each other with a predetermined gap therebetween, one substrate of the pair of substrates including an extending portion that extends from the other substrate on one side in plan view;
>
> [1b] display electrodes that are provided on the one substrate;
>
> [1c] a circuit unit that is provided on the one substrate so as to drive the display electrodes;
>
> [1d] wiring lines for driving the circuit unit and the display electrodes;
>
> [1e] a plurality of lead wiring lines provided on the extending portion and that are led from one of the sides of the wiring lines to the extending portion; and

> [1f] a plurality of external connecting terminals provided on the extending portion, each of the external connecting terminals overlapping with the plurality of lead wiring lines in plan view.

Similarly, claim 5, the other independent claim of the '913 patent, recites the following:

> 5. An electro-optical device comprising:
>
> [5a] a pair of substrates that are disposed to face each other with a predetermined gap therebetween, one substrate of the pair of substrates including an extending portion that extends from the other substrate on one side in plan view;
>
> [5b] display electrodes that are provided on the one substrate;
>
> [5c] a circuit unit that is provided on the one substrate so as to drive the display electrodes;
>
> [5d] wiring lines for driving the circuit unit and the display electrodes;
>
> [5e] a plurality of lead wiring lines provided on the extending portion and that are led from one of the sides of the wiring lines to the extending portion; and
>
> [5f] a plurality of external connecting terminals provided on the extending portion, each of the external connecting terminals overlapping with the circuit unit in plan view.

Claims 1 and 5 describe a conventional LCD panel with two substrates facing each other and one of the substrates having an extending portion extending beyond the other substrate. Claims 1[a], 5[a]. The claims then require display electrodes and a circuit unit provided on the one substrate. Claims 1[b]-[c], 5[b]-

5[c]. In particular, the circuit unit is arranged such that it drives the display electrodes. Claims 1[c], 5[c].

The claims then require "wiring lines *for driving the circuit unit* and the display electrodes." Claims 1[d], 5[d] (emphasis added). The claims further require "a plurality of lead wiring lines provided on the extending portion and *that are led from one of the sides of* ***the*** *wiring lines* to the extending portion." Claims 1[e], 5[e] (emphasis added). Thus, the "wiring lines" that drive the circuit unit must also be the "wiring lines" from which the "plurality of lead wiring lines" are led to the extending portion.

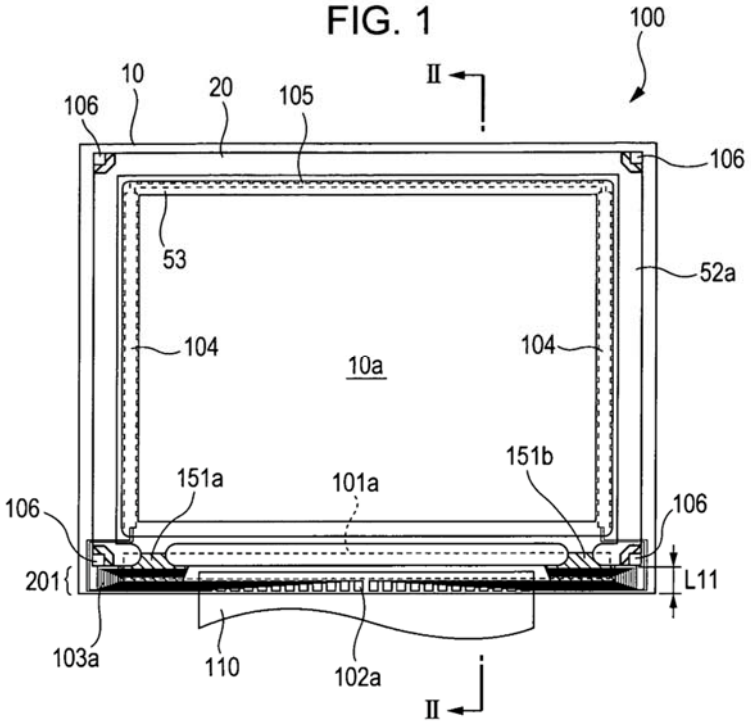
The determinative reason for not instituting an *inter partes* review on the '913 patent is the Board's claim construction of the claimed "wiring lines" and "lead wiring lines". ID, at 8. Particularly, the ID required that the "wiring lines" and "lead wiring lines" are separate and distinct elements, without interpreting the meaning of the "wiring lines" and "lead wiring lines".

This is incorrect. Claim elements are not necessarily "separate and distinct" because they are named differently. *BOT M8 LLC v. Sony Interactive Entm't LLC*, Nos. 2022-1569, 2022-1570, -- WL -- (Fed. Cir. Aug. 30, 2023) (rejecting claim that "fault inspection program" must be distinct from "boot program") (affirming construction of no requirement of distinctness in IPR2020-00726, IPR2020-01288). To the contrary, claim elements can be the same entity or different parts of

the same entity even if being given different names, as long as they are construed as the same entity or different parts of the same entity. *Id.*

The ID cites the specification's description of wiring lines 105 and lead wiring lines 103a as the claimed "wiring lines" and "lead wiring lines," respectively. ID, at 12-13 (citing Fig. 1, col. 7:42–46, 8:26–29). As shown in Figure 1 (below), lead wiring lines 103a are located on extending portion 201, whereas wiring lines 105 are located around the sides of the image display portion of the substrate.

FIG. 1




This is confirmed by the disclosures cited by the ID:

> "In FIG. 1, two scanning line driving circuits 104 are provided on left and right sides the frame light-shielding film 53. The wiring lines 105 are relayed on the upper side of the frame light-shielding film 53 so as

> to connect the two scanning line driving circuits 104." Ex. 1001, col. 7:42–46.
>
> "Here, the data line driving circuit 101 a is connected to the plurality of external connecting terminals 102 a through the lead wiring lines 103 a at both ends of the extending portion 201." Ex. 1001, col. 8:26-29.

However, the ID stopped short of further reading the specification of the '913 patent to determine what the meaning of "wiring lines" and "lead wiring lines" are. The "wiring lines" and "lead wiring lines" cannot be "separate and distinct" without determining what means "wiring lines" and "lead wiring lines".

Should the Board have further read the specification of the '913 patent, it is quite clear that the claimed "wiring lines" mean the wiring lines that connect to the driving circuits, such as scanning line driving circuit and the data line driving circuit. (Ex, 1001, col. 7:41-44). For the driving circuits that are apart from each other, the "wiring lines" are relayed (or extended) to connect those driving circuits. (Ex. 1001, col 7:44-46).

On the other hand, the "lead wiring lines" mean the wiring lines that connect to the external terminals. (Ex. 1001, Col. 8:3-6). That is, in the above claims, the "wiring lines" and "lead wiring lines" refer to the lines connecting to the driving circuits and lines connecting to the external terminals, respectively. There is no additional requirement on the "wiring lines" connecting to the driving circuits and "lead wiring lines" connecting to the external terminals to be separate and distinct.

Indeed, because the driving circuits are connected to the external terminals for supplying image signals, (Ex. 1001, col. 1:30-36), the "wiring lines" connecting the driving circuits and the "lead wiring lines" connecting the external terminal must be correlated in some form to form connections between the external terminals and the driving circuits.

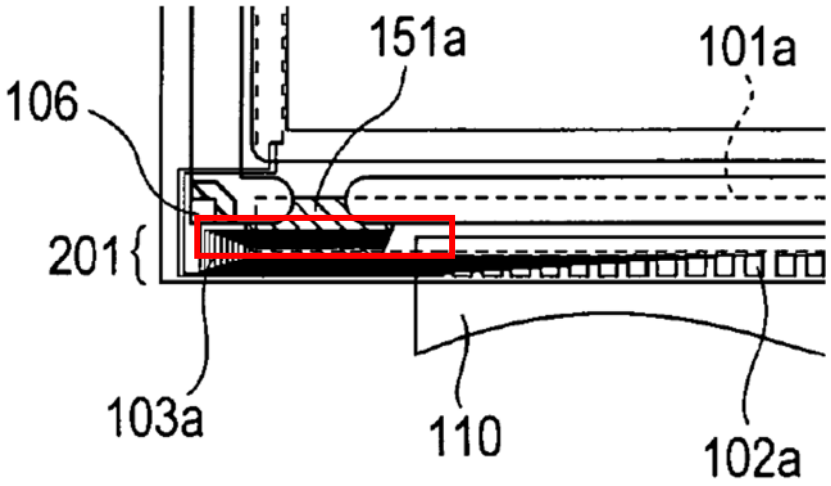
The Specification, however, does not explicitly describe what form the "wiring lines" and "lead wiring lines" are arranged together to form the connections between the external terminals and the driving circuits. In this regard, if the "wiring lines" and "lead wiring lines" are separate and distinct lines, none of the Specification describes "a plurality of lead wiring lines . . . led from one of the sides of the wiring lines to the extending portion" recited in the above claims.

However, the Specification does provide a few implicit examples against the "separate and distinct" requirement. First, contrary to the PO's allegation that a "wiring line" and a "lead wiring line" cannot be a single line (*i.e.*, segments of a single line), in the Second Embodiment, the '913 Patent describes that:

> The lead wiring lines 103c are connected to the external connecting terminals 102c via contact holes 20c provided in regions where the lead wiring lines 103c and the external connecting terminals 102c intersect each other, in the same manner as that in the modification of the first embodiment. On the other hand, each of the lead wiring lines 103c is connected to the data line driving circuit 101c via the contact hole 21c provided in a region where each of the lead wiring lines 103c extends.

(Ex. 1001, col. 15:7-15)

That is, the lead wiring lines 103c are connecting the external terminals 102c at one side, and connecting the driving circuit 101c at the other side (hence, the "wiring lines"). In other words, the leading wiring lines 103c are also the "wiring lines", and the "wiring lines" and "lead wiring lines" are coincident as a single line.




Second, in the First Embodiment, as shown in the above enlarged portion of Figure 1, it appears that the "wiring lines" connecting to the data line driving circuit 101a (outlined in the red rectangle) are simply zig-zag routed to become the "lead wiring lines" 103a, forming a single zig-zag'ed line. Thus, in this embodiment, the "wiring lines" and the "lead wiring lines" are parts or segments of the single lines.

Therefore, there is no portion of the Specification that supports the notion that the "wiring lines" and "lead wiring lines" have to be separate and distinct. Neither is there any support for "a plurality of [separate and distinct] lead wiring

lines provided on the extending portion and that are led from one of the sides of the wiring lines to the extending portion." Although the ID identified wiring lines 105 and lead wiring lines 103a as the claimed "wiring lines" and "lead wiring lines," respectively, the ID did not indicate any support on how its identified "wiring lines" 105 and "lead wiring lines" 103a are related as separate and distinct, especially how "lead wiring lines" 103a are led from one of the sides of "wiring lines" 105. Thus, under PO's argument and the ID's construction, the '913 patent neither describes nor enables the claimed arrangement of "wiring lines" and "lead wiring lines."

Neither of the cases cited in the ID compel a different result. In *Becton Dickinson & Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010), the court held that the claimed "hinged arm" was structurally distinct from the claimed "spring means" where "the specification comports with the plain language of the claims, fully supporting the conclusion that the spring means is a separate structural component of the patented invention." 616 F.3d at 1255. *Becton*'s holding was also premised on the notion that an alternative construction would have rendered the claims nonsensical, and would have rendered them obvious over the prior art. 616 F.3d at 1255. Notably, the Federal Circuit distinguished *Becton* in its recent decision in *BOT M8 LLC v. Sony Interactive Entm't LLC*, Nos. 2022-1569, 2022-1570, -- WL -- (Fed. Cir. Aug. 30, 2023)

(finding no requirement of distinctness for two differently named claim limitations).

Similarly, in *Engel Indus., Inc. v. Lockformer Co*., 96 F.3d 1398, 1404–05 (Fed. Cir. 1996), the court determined that the second portion could not include the return portion, where such an interpretation was incompatible with the description of the invention as, for example, the two different portions were described as being bent in opposite directions. 96 F.3d at 1405. Here, a construction requiring distinct "wiring lines" is not compatible with the specification and figures, and thus lacks written description, and/or renders the claim indefinite. Neither *Becton* nor *Engel* stand for the proposition that a single element in a prior art reference can only disclose a single limitation in a patent.

Therefore, Petitioner's rehearing request should be granted and the Petition for IPR should be granted.

Alternatively, if the Board maintains the above claim construction in the ID, the above claims should be declared as indefinite and/or invalid under 35 U.S.C. §112, because the construed claims are not supported by the Specification of the '913 Patent.

## III. Patent Owner Waived Its Argument

Petitioner points out that, during the examination of the patent application issued as the '913 patent, the above claim elements were rejected based on prior

art, and the PO did not argue that those claim elements are distinct from the prior art. (Ex. 1004, pp. 14-26). Thus, knowing that those claim elements are indeed prior art, the PO should not be allowed to now argue that those claim elements carry significant weight of patentability. In other words, the PO waived its argument that those claim elements carry significant weight of patentability.

## IV. CONCLUSION

Petitioner requests rehearing be granted and its Petition be instituted.

Dated: September 27, 2023

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing Request for Rehearing is being served electronically on September 27, 2023, by filing this document through the P-TACTS system and by emailing the following counsel of record for Patent Owner:

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