

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KATSUHIKO KISHIDA, HIROFUMI MIYAMOTO
YOSHIAKI MARUYAMA and YUJI KAMIMOTO

Appeal No. 2003-0502
Application No. 09/280,955

HEARD: June 10, 2003

Before HAIRSTON, KRASS and JERRY SMITH, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-4, all of the pending claims.

The invention pertains to a matrix type liquid crystal display apparatus. In particular, the invention is directed to a narrow-frame structure for the placement of driving integrated circuit chips on a substrate in such apparatus, as set forth in independent claim 1, reproduced as follows:

1. A matrix type display apparatus comprising; a first substrate;

a second substrate disposed opposite to said first substrate and having an area for mounting a plurality of driving ICs, generally in a row in a first direction parallel to one side of said second substrate so that longer sides of said driving ICs are aligned in said first direction; and

connection terminals for connection with a third substrate, said connection terminals being arranged in a row in said first direction in said area for mounting said driving ICs at positions by shorter sides of respective driving ICs.

The examiner relies on the following reference:

Yomogihara et al. (Yomogihara) 5,737,053 Apr. 07, 1998

Additionally, the examiner relies on admitted prior art (APA) represented by Figure 19 of the instant disclosure.

Claims 1-4 stand rejected under 35 U.S.C. § 103 as unpatentable over APA in view of Yomogihara.

Reference is made to the briefs and answer for the respective positions of appellants and the examiner.

OPINION

At the outset, we note that, in accordance with appellants' grouping of the claims at page 4 of the brief, all claims will stand or fall together. Accordingly, we will focus on independent claim 1.

The examiner applies APA as follows:

The “first substrate” is element 2. The “second substrate” is element 3. The “driving ICS” are elements 6-10, and the “third substrate” is element 12.

The examiner recognizes that APA does not disclose that the driving ICS are mounted generally in a row in a first direction parallel to one side of the second substrate so that longer sides of the driving ICS are aligned in a direction parallel to one side of the second substrate. The examiner turns to Yomogihara for a disclosure, in Figures 2-4, of placing driving ICS at the position claimed, and refers to column 6, lines 17-55, of Yomogihara. The examiner concludes that it would have been obvious to have the driving ICS mounted as claimed “since such a modification would have involved a mere change in the re-arranging of the system” [sic, answer-page 3] and a “change in re-arranging is generally recognized as being within the level of ordinary skill in the art, absent unexpected results” [sic, answer-page 3].

For their part, appellants contend that the examiner has not made out a prima facie case of obviousness. In particular, appellants argue that the examiner has not considered the claimed subject matter as a whole in that claim 1 requires, inter alia, “connection terminals being arranged in the area for mounting the driving ICS at positions by shorter sides . . .” That is, while the claim addresses the arrangement of connection terminals in the area for mounting the driving ICS, rather than the location of the driving ICs themselves, the examiner only addresses the modifying claim language,

“mounting the driving ICs at positions . . .,” and ignored the immediately preceding claim language, “connection terminals being arranged in the area for” [principal brief-pages 6-7]. Appellants assert that the “novelty in the present invention lies in the structural arrangement of the connection terminals” [principal brief-page 8]. Moreover, Appellants point out that Yomogihara also does not suggest the claimed arrangement because, as Figure 4 of that patent discloses, a row of connection terminals 27 is perpendicular to the long side of IC 22, rather than parallel to the long side of the IC, as claimed.

We agree with appellants.

First, the examiner’s reason for making the proposed combination, viz., “mere change in the re-arranging of the system,” is faulty. A rearrangement of parts may, in fact, offer a patentable invention if that rearrangement results in a structure producing an unobvious advantage. In the instant invention, such an advantage is obtained and this has not been disputed by the examiner. Rather than having the width of the connection terminals become a limiting factor to how much the mounting area width may be reduced, the structural arrangement of the instant invention solves this problem “by arranging the connection terminals in a row parallel to the long side of the driving ICs, thereby allowing the mounting area to be reduced to a width that only needs to be capable of accomodating the width of short side of the IC itself and/or the cumulative width of the lead wires” [principal brief-page 12]. Thus, the examiner cannot reach a

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conclusion of obviousness merely because the claimed subject matter represents a rearrangement of parts vis à vis the prior art if that rearrangement results in an unobvious structural advantage over the prior art.

Further, Yomogihara does not remedy the deficiency of APA because, as explained by appellants, and clearly shown in Figure 4 of Yomogihara, the row of connection terminals 27 in Yomogihara is perpendicular to, rather than parallel to, the long side of the IC 22. Accordingly, the combination of Yomogihara and APA does not result in the instant claimed subject matter. Moreover, the examiner admits as much, at page 4 of the answer, but states that this is not persuasive “because the terminals arranged by the shorter side or longer sides of driving ICS, in a row perpendicular or column parallel to the longer or short sides of the driving ICS are not change the function [sic] of display apparatus device, but they are [sic] only change the arrangement of the system.”

The examiner’s position is clearly erroneous. If the examiner’s position was to be adopted, the patent laws, as we know them, would be turned on their head because it would deny patentability to all new and unobvious structural arrangements of elements if the final structure resulted in a function already produced by a prior art structure. Clearly, novel and unobvious structural arrangements may result in patentable inventions, especially when that new arrangement results in a significant

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advantage over the prior art structures even if the overall function of the devices are the same.

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The examiner has failed to establish a prima facie case of obviousness and has not even made any credible responses to counter the many arguments of appellants. Accordingly, we will not sustain the rejection of claims 1-4 under 35 U.S.C. § 103.

The examiner's decision is reversed.

REVERSED

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| KENNETH W. HAIRSTON |) | |
| Administrative Patent Judge |) | |
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| ERROL A. KRASS |) | BOARD OF PATENT |
| Administrative Patent Judge |) | APPEALS AND |
| |) | INTERFERENCES |
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| Administrative Patent Judge |) | |

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