

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAN M. NEAL and PAUL CLOUSER

Appeal No. 2000-2266
Application No. 09/069,700

ON BRIEF

Before FLEMING, RUGGIERO, and BLANKENSHIP, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 1-29, which are all of the claims pending in the present application. An amendment filed December 27, 1999 after final rejection was denied entry by the Examiner.

The claimed invention relates to a connector to be employed in an enhanced bus architecture utilizing differential signaling. More particularly, a modified pin structure in the form of a split pin configuration is used to connect a differential signal pair on one printed circuit board, cable, or other transmission

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Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Brief (Paper No. 11) and Answer (Paper No. 12) for the respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the Examiner, and the evidence of anticipation and obviousness relied upon by the Examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellants' arguments set forth in the Brief along with the Examiner's rationale in support of the rejections and arguments in rebuttal set forth in the Examiner's Answer.

It is our view, after consideration of the record before us, that the Lynch reference does not fully meet the invention as set forth in claims 1-3, 8-10, 15-17, and 22-25. With respect to the Examiner's obviousness rejection, we are also of the view that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the invention as recited in claims 4-7, 11-14, 18-21, and 26-29. Accordingly, we reverse.

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We consider first the rejection of claims 1-3, 8-10, 15-17, and 22-25 under 35 U.S.C. § 102(b) as being anticipated by Lynch. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.), cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore & Assocs. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

With respect to independent claims 1, 8, 15, 22, and 23, the Examiner attempts to read the various limitations on the disclosure of Lynch. In particular, the Examiner directs attention (Answer, page 3) to the illustrations in Figures 3-6 and 8 of Lynch along with the accompanying description beginning at column 2, line 16.

Appellants' arguments in response assert a failure of Lynch to disclose every limitation in claims 1, 8, 15, 22, and 23 as is required to support a rejection based on anticipation. At pages 7-9 of the Brief, Appellants' arguments focus on the contention

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that the system of Lynch has no teaching or suggestion of using differential signalling as required in the appealed claims.

After reviewing the Lynch reference in light of the arguments of record, we are in general agreement with Appellants' position as expressed in the Brief. While we agree with the Examiner that Lynch provides a teaching of split pin printed circuit board connectors, our review of the appealed independent claims reveals an additional requirement, i.e., the connection to the printed circuit board of a "differential signal pair."

Although the Examiner asserts (Answer, page 3) that Lynch provides for a pair of conductors 14a and 14b which terminate at the split pin arrangement 54, we find no support for the Examiner's apparent conclusion that, simply because two conductor lines terminate at a pin structure, such conductor lines necessarily correspond to a differential signal pair. The Examiner must not only make requisite findings, based on the evidence of record, but must also explain the reasoning by which the findings are deemed to support the asserted conclusion. See In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002). In reaching this determination, we construe the claimed feature of a "differential signal pair" to be very narrowly defined, as argued by Appellants (Brief, pages 7-9) and

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disclosed in the specification, as requiring " . . . two lines per signal and information is transferred by detecting either a polarity or a magnitude of a voltage difference between the two signal lines." (Specification, page 9, lines 27-29).

In view of the above discussion, since all of the claim limitations are not present in the disclosure of Lynch, we do not sustain the Examiner's 35 U.S.C. § 102(b) rejection of independent claims 1, 8, 15, 22, and 23, nor of claims 2, 3, 9, 10, 16, 17, 24, and 25 dependent thereon.

Turning to a consideration of the Examiner's obviousness rejection of dependent claims 4-7, 11-14, 18-21, and 26-29 based on Lynch alone, we do not sustain this rejection as well. In addressing the various claim limitations which specify various sizes and shapes of the split pin arrangement, the Examiner suggests (Answer, page 3) that the various claimed configurations " . . . are considered obvious design choices." For all of the reasons discussed supra, however, the Examiner has failed to establish a prima facie case of obviousness since Lynch lacks any teaching or suggestion of a split pin connector structure in combination with a differential signal pair conductor arrangement, a feature present in each of independent claims 1, 8, 15, 22, and 23.

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In summary, we have not sustained either of the Examiner's rejections of the claims on appeal. Therefore, the decision of the Examiner rejecting claims 1-29 is reversed.

REVERSED

MICHAEL R. FLEMING)	
Administrative Patent Judge)	
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JOSEPH F. RUGGIERO)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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HOWARD B. BLANKENSHIP)	
Administrative Patent Judge)	

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