

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DARRIN BENZER

Appeal No. 2006-1881
Application No. 10/145,408

ON BRIEF

Before THOMAS, RUGGIERO, and HOMERE, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellant has appealed to the Board from the examiner's final rejection of claims 1 through 7, 9, 10, 14 through 25 and 28 through 50, appellant having canceled claims 8, 11 through 13, 26 and 27.

Representative independent claim 1 is reproduced below:

1. A clamping circuit comprising a comparator device for detecting when at least one voltage passes at least one voltage level and an output driver circuit comprising at least one low voltage output driver device, at least said output driver device coupled to at least a bi-directional Pad providing both input and output.

The following references are relied on by the examiner:

Ker et al. (Ker)	6,249,410	Jun. 19, 2001
Raman et al. (Ramana)	6,424,170	Jul. 23, 2002 (Filed May 18, 2001)
Botker	6,653,894	Nov. 25, 2003 (Filed Apr. 18, 2002)

Claims 1 through 7, 9, 10, 16, 17, 19 through 24, 28 through 30, 33 through 37, 39, 41, 43, 45 and 49 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Ker. All remaining claims on appeal stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon Ker alone as to claims 31, 32, 38, 40, 42, 44, 46 and 50. As to claims 14 and 15, the examiner relies upon Ker in view of Botker, and as to claims 18, 25, 47 and 48, the examiner relies upon Ker in view of Raman.

Rather than repeat the positions of the appellant and the examiner, reference is made to the brief and reply brief for the appellant's positions, and to the answer for the examiner's positions.

OPINION

For the reasons set forth by the examiner in the answer, as expanded upon here, we sustain the respective rejections of the noted claims under 35 U.S.C. § 102 and 35 U.S.C. § 103.

At the outset, we note that no arguments are presented in the brief with respect to independent claim 45. According to page 4 of the final rejection and page 5 of the answer, claim 45 is included within the rejection of claims under 35 U.S.C. § 102. Because no arguments are presented regarding the patentability of independent 45 in the brief or reply brief, we summarily sustain the rejection of this claim. We note further that pages 31 through 39 of the brief apparently reargue the subject matter presented earlier in the brief at pages 21 through 29 with respect to independent claims 16, 17, 28, 39, 41, 43 and 49. The examiner's responsive arguments at pages 11 through 13 of the answer recognize this and no additional arguments are presented in the reply brief. Correspondingly, no substantive arguments are presented in the brief as to the second stated rejection as to claims 38, 40, 42, 44, 46 and 50.

The examiner's responsive arguments at pages 11 through 13 of the answer generalize appellant's arguments bearing on each claim on appeal and presented first with respect to the transversal of the rejection of independent claim 1 beginning at page 19 of the brief. Appellant presents in each case the common argument that terminal 500 in figure 27 of Ker does not constitute a bi-directional pad providing both input and output as recited in each independent claim 1, 7, 16, 17, 25, 28, 47 and only impliedly recited in the respectively remaining independent claims 39, 41, 43 and 49. The reply brief does not contest these observations of the examiner. With respect to the examiner's responsive arguments at pages 11 and 12 of the answer, appellant again asserts at the top of page 7 of the reply brief that the terminal pad 500 in figure 27 only outputs information and thus recites only a unidirectional pad.

From our perspective, we note that the examiner relies upon the third embodiment of Ker shown in figures 27 through 30. This is discussed at column 17, line 64 through column 20, line 55. Pages 11 and 12 of the responsive arguments portion of the answer specifically relies upon the teachings in the paragraph at column 18, line 61 through column 19, line 2 to establish that the terminal Pad 500 in figure 27 is bi-directional for input and output purposes. We agree with this notwithstanding appellant's observations to the contrary. Moreover, the summary of the invention at column 9, line 44, through column 10, line 14 makes clear that the pad for the third embodiment is to be connected to a transmission medium and functions as an input/output pad as claimed. Note especially the discussion at column 9, lines 44 through 54.

We turn next to the second stated rejection of various claims under 35 U.S.C. § 103 over Ker alone. Dependent claim 32 is representative and its major feature argued is the maximum operating voltage being 3.0 volts or less. We agree with the examiner's basic rationale expressed at pages 7 and 8 of the answer that it would have been obvious to have chosen such a voltage range for optimization purposes in accordance with a case law cited there and any specific application of use. In any event, the specified voltage levels for well known circuit construction techniques already have been recognized in the art by appellant's Background of the Invention at specification page 2, paragraph [7].

We turn next to the separate rejection of dependent claims 14 and 15 under 35 U.S.C. § 103 over Ker in view of Botker. These claims set forth a pre-drive transistor communicating with the respective first and second voltage comparators recited in independent claim 7 on appeal. The third embodiment beginning in figure 27 of Ker shows element 515 as comprising pre-drive circuits. Thus, because the description of this element is with respect to plural circuits, there must be separate transistors therein to be separately compatible with PMOS transistor Mp1 and NMOS transistor Mn1 comprising the driver circuit 510 in figures 28 through 30 of Ker.

On the other hand, the examiner's apparent reliance upon Botker at column 2, lines 4 and 5 to indicate that a transistor may be configured as a diode when it has a gate-to-drain connection is already taught in Ker at column 8, lines 56 through 61 and shown comparatively in figures 12 through 15, 21, 22, 25 and 26 as well. With respect to the actual embodiment relied upon by the examiner, attention is directed to figure 30 and the discussion at the middle of column 20.

We also agree with the examiner's additional reliance upon Raman in combination with Ker in the fourth stated rejection of claims 18, 25, 47 and 48. The examiner's basic rationale is expressed at pages 9 through 11 of the answer. As in dependent claim 18, which depends from independent 17, it is stated to further comprise a driver logic circuit. As to this representative claim, we note that the pre-driver circuits 515 in figure 27 of Ker may comprise a broadly recited driver logic circuit. To the extent this recitation is intended to be an additional circuit element as shown in disclosed figure 4 as element 418 in addition to the pre-drivers of 416, the examiner's additional reliance of Raman was appropriate within 35 U.S.C. § 103. Logic circuit 26 in figure 1 feeds the pre-driver circuits 24 and 28 in the same manner as appellant's disclosed invention does in figure 4. The pre-driver circuits 515 in figure 27 of Ker do not stand alone but are fed input/output information from/to the remaining parts of the disclosed integrated circuits structure of which figure 27 is only a part. The entire integrated circuit structure of Ker appears to correspond to the circuit device 12 in figure 1 of Raman as a whole. In accordance with Raman's background discussion with respect to input/output devices in the context of transmission and reception circuits, this compares with the earlier noted discussion at the bottom of column 9 of Ker with respect to the third embodiment in that reference. Obviously, within 35 U.S.C. § 103 as stated in the paragraph beginning at Raman's column 3, line 19, various logic elements provide signals to his logic circuit 26, such as the data and clock signal shown in figure 1.

Beginning at page 7 of the reply brief, appellant again relies upon the remarks in the principal brief on appeal as to the patentability of all claims on appeal. Lastly, appellant quotes, at the middle of page 7 of the reply brief, certain remarks made by the examiner at the middle of page 12 of the answer that appellant interprets as a possible rejection under 35 U.S.C. § 112. In urging that these would constitute a new ground of rejection, appellant requests that the examiner reopen prosecution to address these remarks. Since appellant has not argued before us these remarks of the examiner, they are considered to have been waived. We do understand, however, the examiner's remarks at page 12 of the answer because the recited device or low voltage device in independent claim 39, for example, is only passively recited. This leads to the major question, perhaps under the second paragraph under 35 U.S.C. § 112, whether this device is to be considered a part of the claimed invention or not. As we have noted earlier, the discussion at the bottom of column 9 in the Summary of the Invention in Ker contemplates additional devices connected to a transmission medium. It goes without saying that a pad of an integrated circuit is per se bi-directional in that it may permit the bi-directional communication of signals to and from an integrated circuit.

In view of the forgoing, the decision of the examiner rejecting various claims under 35 U.S.C. § 102 and 35 U.S.C. § 103 is affirmed.

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

AFFIRMED

JAMES D. THOMAS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOSEPH F. RUGGIERO)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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