Paper No. 18

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

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Ex parte ROBERT ANDREW KERTIS
and PETER JOHN WINDLER

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Appeal No. 2004-0650
Application No. 09/894,265

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ON BRIEF

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Before JERRY SMITH, FLEMING, and RUGGIERO, Administrative Patent Judges.
RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 1-7 and 10-13, which are all of the claims pending in the present application. Claims 8 and 9 have been canceled.

The claimed invention relates to the detection of the amplitude of an electronic signal in which current comparisons are

utilized to detect when an electrical voltage signal has exceeded a specified voltage.

Claim 1 is illustrative of the invention and reads as follows:

1. A circuit to monitor amplitude of an input signal, comprising:

(a) an active device to provide a current representative of the amplitude of a repeating voltage input signal connected to a source/emitter to the active device;

(b) a reference voltage connected to a gate/base of the active device, the reference voltage independent of and different from the input signal;

(c) a current source connected to a drain collector of the active device;

(d) a comparator connected to a node between the drain/collector of the active device and the current source;

(e) a capacitor coupled to the node, suitable for filtering the current representative of the amplitude of the repeating voltage input signal;

wherein when the repeating voltage input signal is less than the reference voltage minus a threshold voltage of the active device, the active device conducts current representative of the high frequency input signal, and

wherein when the conducting current is greater than the current output from the current source, the voltage at a node between the current source and the active device transitions, and

wherein when the voltage at the node transitions past a second reference voltage input to the comparator, an output of the comparator will transition.

The Examiner relies on the following prior art:

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| Yaklin | 6,157,222 | Dec. 05, 2000 |
| Peon et al. (Peon) | 6,195,030 | Feb. 27, 2001 |
| Ryu | 6,430,244 | Aug. 06, 2002 (filed Apr. 05, 1999) |
| Danki et al. (Danki)[1] | JP401109917 | Apr. 26, 1989 |

Claims 1-7 and 10-13, all of the appealed claims, stand finally rejected under 35 U.S.C. § 103(a). As evidence of obviousness, the Examiner offers Danki in view of Yaklin and Ryu with respect to claims 1-5 and 10-13, and adds Peon to the basic combination with respect to claims 6 and 7.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Brief (Paper No. 15, dated April 21, 2003) and Answer (Paper No. 16, dated June 19, 2003) for the respective details.

## OPINION

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

[1] A copy of a translation provided by the U.S. Patent and Trademark Office is included with this decision.

rationale in support of the rejection and arguments in rebuttal set forth in the Examiner's Answer. It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1-7 and 10-13. Accordingly, we affirm.

Appellants indicate (Brief, page 3) that the claims on appeal stand or fall together as a group. Consistent with this indication, Appellants' arguments are directed solely to features which are set forth in independent claim 1. Accordingly, we will select independent claim 1 as the representative claim for all the claims on appeal, and claims 2-7 and 10-13 will stand or fall with claim 1. Note In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); In re Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983). Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed waived [see 37 CFR § 41.37(c)(1)(vii)].

As a general proposition in an appeal involving a rejection under 35 U.S.C. § 103, an Examiner is under a burden to make out a prima facie case of obviousness. If that burden is met, the burden

of going forward then shifts to Appellants to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

With respect to representative independent claim 1, Appellants' arguments in response to the 35 U.S.C. § 103(a) rejection assert a failure by the Examiner to establish a prima facie case of obviousness since proper motivation for the Examiner's proposed combination of references has not been established. In particular, Appellants contend (Brief, pages 4-6) that, although the Examiner asserts (Answer, page 4) the obviousness, in view of Ryu, of including a capacitor in the circuit of Danki as modified by Yaklin for filtering purposes, the Danki reference in fact teaches away from the use of a capacitor.

After reviewing the Danki reference in light of the arguments of record, however, we are in general agreement with the Examiner's position as articulated in the Answer. Although Appellants assert (Brief, page 4) that Danki's requirement for high transmission

speed would lead away from the use of a filtering capacitor which would slow the circuit operation, we find nothing in the disclosure of Danki, and Appellants have pointed to none, which would support such a conclusion. Indeed, our review of Danki, which is directed to a signal level identification circuit, finds no disclosure even remotely suggesting that transmission speed is a concern.

We further agree with the Examiner (Answer, pages 5 and 6) that, even if Appellants are correct in their assertion that the use of a filtering capacitor in Danki would slow circuit operation, the use of a capacitor would not render Danki's circuit inoperable. In our view, which coincides with that expressed by the Examiner, the skilled artisan would have recognized and appreciated that speed of operation and noise-free operation are competing considerations in circuit design, the tolerance of one with respect to the other being dependent on a particular circuit application.

For the above reasons, since it is our opinion that the Examiner's prima facie case of obviousness has not been overcome by any convincing arguments from Appellant, the Examiner's 35 U.S.C. § 103(a) rejection of representative claim 1, as well as claims 2-7 and 10-13 which fall with claim 1, is sustained.

In summary, we have sustained the Examiner's 35 U.S.C. § 103(a) rejection of all of the claims on appeal. Therefore, the decision of the Examiner rejecting claims 1-7 and 10-13 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)(effective September 13, 2004; 69 Fed. Reg. 49960 (August 12, 2004); 1286 Off. Gaz. Pat. and TM Office 21 (September 7, 2004)).

AFFIRMED

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| JERRY SMITH<br>Administrative Patent Judge | ) |
| MICHAEL R. FLEMING<br>Administrative Patent Judge | ) BOARD OF PATENT APPEALS AND INTERFERENCES |
| JOSEPH F. RUGGIERO<br>Administrative Patent Judge | ) |

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