

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board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. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KIYOSHI KANNO

Appeal No. 1999-1634
Application 08/729,399

ON BRIEF

Before THOMAS, JERRY SMITH, and GROSS, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellant has appealed to the Board from the examiner's final rejection of claims 1-10. Because the examiner has withdrawn the rejection of claim 5 as indicated at the second page of the answer, only claim 1-4 and 6-10 remain for our consideration on appeal.

Appeal No. 1999-1634
Application 08/729,399

Representative claim 1 is reproduced below:

1. A reference current generating circuit comprising:

a reference voltage generator for generating a predetermined reference voltage;

a resistor ladder circuit connected to said reference voltage generator and having a predetermined number of taps for outputting a corresponding number of different divided voltages obtained from a voltage generated by said reference voltage generator;

a control circuit, connected to the predetermined number of taps of said resistor ladder circuit, for outputting a selected divided voltage of said different divided voltages; and

a MOS transistor having a gate connected to receive said selected divided voltage and a source connected to a reference power supply terminal;

wherein a current flowing through a drain of the MOS transistor is extracted as a predetermined output reference current.

The following references are relied on by the examiner:

Nakamura et al. (Nakamura)	5,459,684	Oct. 17, 1995
McClure et al. (McClure)	5,654,663	Aug. 5, 1997
	(effective filing date Dec. 16, 1994)	

Claims 1, 7 and 9 stand rejected under 35 U.S.C. § 102(e) as being anticipated by McClure. Claims 2-4, 6, 8 and 10 stand rejected under 35 U.S.C. §103. As evidence of obviousness, the examiner relies upon McClure in view of Nakamura.

Appeal No. 1999-1634
Application 08/729,399

Rather than repeat the positions of the appellant and the examiner, reference is made to the briefs and the answer for the respective details thereof.

OPINION

After conducting a detailed study of the disclosed and claimed invention, as well as the teachings and suggestions of the applied prior art, taken with the positions of the appellant and the examiner in the respective briefs and answer, we conclude that the rejection of claims 1, 7, and 9 under 35 U.S.C. § 102 cannot be sustained and, in turn, the rejection of the respective dependent claims under 35 U.S.C. § 103 cannot be sustained.

The claimed resistor ladder circuit in each of independent claims 1, 7 and 9 on appeal recites that it has "a predetermined number of taps for outputting a corresponding number of different divided voltages obtained from a voltage generated by said reference voltage generator." In applying Figure 2 of McClure, the examiner takes the view that the language "a predetermined number of taps" clearly is met by the Figure 2 of McClure by its showing of a single predetermined tap at the node between resistors 21 and 23, the tap feeding the base of transistor 28. The examiner takes the further view that nothing

Appeal No. 1999-1634
Application 08/729,399

prevents the nodes at the other ends of resistors 21 and 23 from being considered taps as well.

Although we agree with the examiner's view that the language "a predetermined number of taps" may by itself be construed to include only a single tap, the above quoted language of the resistor ladder circuit itself requires at least a plurality or at least two taps to be present for anticipation in a reference when the entirety of the quoted language is considered as a whole. In this broader context then, the fact that the word taps has been used in its plural form as well as the word voltages has been used in its plural form taken with the use of the phrase "a corresponding number of different divided voltages" indicates that there are in fact a plural number of taps required to yield the corresponding number of "different" divided voltages. The use of the word "different" clearly conveys an implied comparison among at least two or a plurality of voltages. We are therefore generally in agreement with appellant's position in the reply brief set forth in the paragraph bridging pages 5 and 6 thereof. "If McClure et al. is considered to have one tap, then it would output one different divided voltage (i.e., the number of different divided voltages corresponding to the predetermined number of taps). However, appellant submits that

Appeal No. 1999-1634
Application 08/729,399

"one different divided voltage" is a contradiction in terms, since a voltage cannot be different from itself."

Appellant's implicit view in the brief and reply brief that the claim requires in effect a plurality of taps is consistent with the showings of the circuits in Figures 2-4 of the disclosed invention. The examiner's additional view that nothing prevents the nodes at the outer ends of resistors 21 and 23 in Figure 2 of McClure from being considered taps is misplaced. The node between resistors 21 and 25 as well as the node between resistors 23 and 27 in this Figure clearly are not "tapped" such as to feed an output directly to the base of transistor 28 in Figure 2.

Appeal No. 1999-1634
Application 08/729,399

In view of the foregoing, we reverse the rejection of independent claims 1, 7 and 9 on appeal under 35 U.S.C. § 102. Because Nakamura does not appear to cure the deficiencies of McClure, the rejection of the respective dependent claims under 35 U.S.C. § 103 is also reversed. Therefore, the decision of the examiner is reversed.

REVERSED

James D. Thomas)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
Jerry Smith)	
Administrative Patent Judge)	APPEALS AND
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)	INTERFERENCES
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Anita Pellman Gross)	
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Appeal No. 1999-1634
Application 08/729,399

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