

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS KERN and DIETHER SOMMER

Appeal No. 2002-1173
Application No. 09/510,640¹

HEARD: MARCH 19, 2003

Before HAIRSTON, BARRETT and SAADAT, Administrative Patent Judges.
SAADAT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-9, which are all of the claims pending in this application.

We reverse.

¹ Application for patent filed April 30, 1998, which is a continuation of the International Application No. PCT/DE98/02115, filed July 27, 1998, which claims the foreign filing priority benefit under 35 U.S.C. § 119 of German Application No. 197 36 195.1, filed August 20, 1997.

BACKGROUND

Appellants' invention is directed to a method for monitoring the proper functioning of an integrated circuit by signaling dips in the supply voltage. The integrated circuit operations which are influenced by the dip in the supply voltage and may have proceeded with errors, are repeated after the dip ends (specification, pages 4 & 5). The circuit used to carry out the monitoring of the supply voltage is designed such that an abrupt rise in its output indicates a dip in the supply voltage prompting improper operation of the IC (specification, page 11). Upon detection of the dip, the repetition of the specific operation that was affected during the disturbance is initiated after the dip ends and the supply voltage goes back to its normal level (specification, page 12).

Independent claim 1 is reproduced as follows:

1. A method for monitoring a proper functioning of an integrated circuit, the method which comprises:

monitoring a supply voltage of an integrated circuit;

ascertaining a dip in the supply voltage;

effecting a signaling of the dip in the supply voltage only if the supply voltage falls below a given voltage for a given minimum duration; and

repeating operations of the integrated circuit which are supplied by the supply voltage and have been influenced by the

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dip in the supply voltage, after an end of the dip in the supply voltage.

The following reference is relied on by the Examiner:

Hsieh 4,902,910 Feb. 20, 1990

Claims 1-9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hsieh.

Rather than reiterate the viewpoints of the Examiner and Appellants regarding the above-noted rejection, we make reference to the answer (Paper No. 14, mailed March 21, 2002) for the Examiner's complete reasoning in support of the rejection, and the brief (Paper No. 13, filed January 22, 2002) for Appellants' arguments thereagainst.

OPINION

Appellants argue that Hsieh cannot anticipate the claimed subject matter as the reference is merely directed to a power supply voltage level sensing circuit that generates a reset signal (brief, page 12). Appellants further state that the reset signal "holds the components of the integrated circuit in a defined state when the power supply voltage level drops below a predetermined voltage" (id.). Additionally, Appellants assert that the operations performed prior to the reset signal are not repeated since the information related to those operations is

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cleared as the components of the integrated circuit are reset to a predefined state (brief, page 14 and oral hearing).

In response to Appellants' arguments, the Examiner asserts that the claimed features discussed by Appellants are not recited in the claims (answer, page 5). In particular, the Examiner asserts that the broadest reasonable interpretation of "repeating operations of the integrated circuit" would merely be "continuing to provide the operation that was provided for prior [to] the 'dip in the power supply'" (id.). Additionally, the Examiner rejects Appellants' argument that the information related to operations performed prior to reset is erased and cannot be reconstructed and contends that Hsieh provides for repeating the operation that was provided before reset (answer, pages 5 & 6).

Before addressing the Examiner's rejection based on prior art, it is essential that we understand the claimed subject matter and determine its scope. Accordingly, as required by our reviewing court, we will initially direct our attention to Appellants' independent claims 1 and 9 in order to determine their scope. "[T]he name of the game is the claim." In re Hiniker Co., 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998). While, the limitation of "repeating operations of the integrated circuit which ... have been (possibly) influenced by

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the dip in the supply voltage" should be given its ordinary meaning, In re Etter, 756 F.2d 852, 858, 225 USPQ 1, 5 (Fed. Cir. 1985), it should also be interpreted as broadly as possible. Our reviewing court further reasons that the terms used in the claims bear a "heavy presumption" that they mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art. Texas Digital Systems Inc. v. Telegenix Inc., 308 F.3d 1193, 1202, 64 USPQ2d 1812, 1817 (Fed. Cir. 2002), quoting CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366, 62 USPQ2d 1658, 1662 (Fed. Cir. 2002). Additionally, a court will give a claim term the full range of its ordinary meaning as understood by persons skilled in the relevant art, unless compelled otherwise. Texas Digital Systems, Inc., 308 F.3d at 1202, 64 USPQ2d at 1818. See also Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342, 60 USPQ2d 1851, 1854 (Fed. Cir. 2001).

Appellants' claims 1 and 9 require "repeating operations ... which are supplied by the supply voltage and have been (possibly) influenced by the dip in the supply voltage ..." (Emphasis added). We note that the step of repeating operations supplied by the supply voltage and affected by the dip clearly requires performing the affected operations once again, starting from the

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point where the dip occurred. There is no predetermined state, such as those defined in a reset, that the integrated circuit is to be set at before any other instructions begin. Absent any statement in the specification to the contrary, the claims simply require that the operation during which the dip in the supply voltage happened, be performed again after the supply voltage returns to the normal level.

However, based on a review of the record before us, we find that the Examiner incorrectly corresponds the claimed "repeating operations of the integrated circuit" to "continuing to provide the operation that was provided for" since "repeating" is not the same as "continuing." Additionally, we disagree with the Examiner's position that the claimed "repeating the operation" does not require reconstruction of the operation and therefore, reads on generating the reset signal of Hsieh (answer, page 6). In fact, the Examiner appears to have overlooked the ordinary meaning of the term "repeating" which requires that the affected operation be simply performed again.

A rejection for anticipation under section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference. See Atlas Powder Co. v. Ireco Inc., 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999);

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In re Paulsen, 30 F.3d 1475, 1478-79, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994). 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. 1984).

Upon a review of Hsieh, we agree with Appellants that the reference fails to teach replicating the operations performed prior to the reset signal. The power supply voltage sensing circuit of Hsieh generates a reset signal not only when the power supply voltage is first applied to the circuit, but also when the power supply voltage level falls below a selected value (col. 1, lines 11-14). The reset signal holds the integrated circuit in a known state until the power supply voltage returns to its selected value where the integrated circuit may function reliably (col. 4, lines 3-9). This arrangement differs from the claimed "repeating operations of the integrated circuit which ... have (possibly) been influenced by the dip in the supply voltage" since the reset signal of Hsieh, similar to its power-on reset, clears all the data to the initial state and waits for the next

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instruction. As indicated by Appellants (oral hearing), since the power-on reset of Hsieh used "to initialize the various components when power is first applied to the circuit" (col. 1, lines 23-25) is also applied in the event of a power supply dip, Hsieh does not repeat any of the operations influenced by the dip. The subject matter of claims 1 and 9 would not, therefore, have been prima facie anticipated by Hsieh. Accordingly, we do not sustain the rejection of claims 1-9.

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CONCLUSION

In view of the foregoing, the decision of the Examiner
rejecting claims 1-9 under 35 U.S.C. § 102 is reversed.

REVERSED

KENNETH W. HAIRSTON)	
Administrative Patent Judge)	
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LEE E. BARRETT)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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MAHSHID D. SAADAT)	
Administrative Patent Judge)	

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Lerner and Greenberg, P.A.
P.O. Box 2480
Hollywood, FL 33022-2480