THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WALTER E. GIBSON,
JEFFREY A. SPROUSE, EDUARDO M. LIPIANSKY,
JAVAD KHAKBAZ, MICHAEL A. PLUM,
PHILIP R. MANELA and KO YAMAMOTO

Appeal No. 1996-3237
Application 08/266,431[1]

ON BRIEF

Before JERRY SMITH, BARRETT and RUGGERIO, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134

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[1] Application filed June 27, 1994.

from the examiner's rejection of claims 6-9, which constitute all the

claims remaining in the application. An amendment after final rejection was filed on March 18, 1996 and has been entered by the examiner.

The disclosed invention pertains to a method and apparatus for observing the condition of an integrated circuit chip in real-time. A plurality of scannable registers are provided to indicate the states of various points in the chip. The scannable registers are monitored at two different points in time, and the states of these registers at the two points in time are compared to each other. An error is indicated when a mis-compare is not detected. Such a condition indicates that the circuit chip is operating in a stuck condition.

Representative claim 6 is reproduced as follows:

6. An observable logic circuit formed on an integrated circuit chip, comprising:

internal logic circuitry operating to produce a plurality of data signals;

a number of scannable registers coupled to receive

predetermined ones of the plurality of data signals, the number of scannable registers being responsive to a first test signal to sample first and second states of the predetermined ones of the plurality of data signals at first and second periods of time, respectively, and to a second test signal to form at least one serial shift register to shift out the sampled first and second states; and

means for comparing the first and second states to one another to issue an indication of error when a mis-compare is not detected.

The examiner relies on the following reference:

Carbine	5,253,255	Oct. 12, 1993

Claims 6-9 stand rejected under 35 U.S.C. § 103. As evidence of obviousness the examiner offers Carbine taken alone.

Rather than repeat the arguments of appellants or the examiner, we make reference to the brief and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the examiner 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, the appellants'

arguments set forth in the brief along with the examiner's 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 not have suggested to one of ordinary skill
in the art the obviousness of the invention as set forth in claims 6-9. Accordingly, we reverse.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art

as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

The examiner attempts to read the claims on the Carbine disclosure [answer, pages 3-4]. After this analysis is complete, the examiner states that the “difference between the instant claimed invention and that of **Carbine** lies in the specific ‘indication of an error when a mis-compare is detected’” [id. page 4]. The examiner concludes that the VLSI tester of Carbine acts as an error indicator in real-time and that the

claimed invention would have been obvious in view of these teachings of Carbine.

Although appellants make some arguments which the examiner has properly dismissed as not being commensurate in scope with the claimed invention, appellants make one very good argument which the examiner has completely ignored both in the statement of the rejection and in the response to arguments section of the answer. This one very good argument is that each of the appealed claims recites that the comparison is between the state of the circuit at one point in time with the state of the circuit at a second point in time. In other words, test outputs of the claims are compared to each other and not to some expected response.

The examiner notes that Carbine performs a comparison between states of the circuit and expected responses and seems to consider this comparison to be the same as the claimed comparison. While there is no question that the VLSI tester

16 of Carbine performs a comparison between circuit states and expected circuit states, it does not perform the claimed comparison of circuit states to each other at two different points in time. Thus, Carbine does not teach or suggest the claimed comparison, and the examiner has not addressed the question of why it would have been obvious to compare two states of Carbine's circuit with each other.

It should be noted that the plurality of circuit states output in Carbine are intended to be compared to a corresponding plurality of expected circuit states so that the exact point at which an error first occurred can be pinpointed. Although the circuit of Carbine will detect an error caused by a circuit being locked in a stuck state, it does not detect this type of error in the manner recited in the claimed invention.

Since each of claims 6-9 recites that the comparison is between two different states of the circuit under test, and since the examiner has not addressed this difference between the claimed invention and the teachings of Carbine, the

examiner has failed to establish a prima facie case of the obviousness of claims 6-9. Therefore, the decision of the examiner rejecting claims 6-9 is reversed.

REVERSED

Jerry Smith Administrative Patent Judge	)
Lee E. Barrett Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
Joseph F. Ruggiero Administrative Patent Judge	)

JS/dm

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