

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte DAVID T. MAGILL and HOREN CHEN

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Appeal No. 97-2892  
Application No. 08/274,556<sup>1</sup>

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ON BRIEF

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Before HAIRSTON, JERRY SMITH and LALL, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 3. In an Amendment After Final (paper number 13), claim 4 was amended to overcome the examiner's objection to an otherwise allowable claim.<sup>2</sup>

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<sup>1</sup> Application for patent filed July 14, 1994.

<sup>2</sup> The record is silent as to whether or not the Supplemental Amendment After Final (paper number 16) was



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Claims 1 through 3 stand rejected under 35 U.S.C. § 103 as being unpatentable over Gilhousen in view of Dixon.

Reference is made to the briefs and the answer for the respective positions of the appellants and the examiner.

OPINION

The obviousness rejection of claims 1 through 3 is reversed.

Gilhousen specifically states that he uses exactly four PN chips for every Walsh chip (column 27, lines 56 through 58; column 35, lines 1 through 3).

Appellants and the examiner agree that Gilhousen does not disclose 8 to 64 PN chips, and setting the PN chipping rate at a level high enough so that the correlators in the demodulators provide processing gain discrimination against multipath signal components delayed more than a small fraction of a RW chip duration (Brief, pages 6 and 7; Answer, page 5).

In formulating the obviousness rejection, the examiner quotes the following excerpt from Dixon:

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appellants, we will assume that this publication was published somewhere before the application filing date of July 14, 1994.

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The higher the code chip rate for a particular system the smaller is multipath problem. With 5-Mcps codes, for instance, the reflected signal path must be 200 ft or less, different from the direct path to have any effect, and as code rate is increased the path length for which the reflected signal interferes is further reduced.

Based upon this excerpt from Dixon, the examiner concludes (Answer, page 6) that:

Dixon clearly suggest[s] the chip rate of 5Mcps (16 PN chips per RW chip), and the rate can be increased as necessary to further reduce the path length and interference. With Dixon's suggestion, it would have been obvious to one skilled in the art to use the chip rate of 5Mcps with the Gilhousen et al. system and increase the chip rate as needed to solve the multipath problem since the processing gain discrimination provided by the correlator 526 increases proportionally to the PN chip rate.

Appellants argue (Brief, page 7; Reply Brief, page 2)

that even if Dixon's teachings are adopted in Gilhousen to set the code chip rate to make the "multipath problem" smaller, the modified teachings of Gilhousen would still not have means for setting the PN chipping rate high enough so that the "correlators provide processing gain discrimination against multipath signal components delayed more than a small fraction of a RW chip duration." We agree. Although the quoted excerpt from Dixon clearly teaches adjusting the code chip rate to make the multipath problem smaller, this limited

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excerpt from Dixon neither teaches nor would have suggested to one of ordinary skill in the art making the multipath problem smaller via the specifically claimed method and apparatus.

With respect to the claimed number of PN chips per each RW chip, the examiner has not provided evidence or a convincing line of reasoning as to how "5-Mcps codes" in Dixon translate into "16 PN chips per RW chip" (Answer, pages 6 and 7). In the absence of such evidence or reasoning, we disagree with the examiner's conclusion.

In summary, the examiner has not established a prima facie case of obviousness.

DECISION

The decision of the examiner rejecting claims 1 through 3 under 35 U.S.C. § 103 is reversed.

REVERSED

KENNETH W. HAIRSTON )  
Administrative Patent Judge )  
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)  
) BOARD OF PATENT  
JERRY SMITH ) APPEALS

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Administrative Patent Judge )           AND  
  )   INTERFERENCES  
  )  
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  )  
PARSHOTAM S. LALL                    )  
Administrative Patent Judge         )

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Application No. 08/274,556

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Appeal No. 97-2892  
Application No. 08/274,556

**JENINE GILLIS**

Appeal No. 97-2892  
Serial No. 08/274,556

Judge HAIRSTON

Judge JERRY SMITH

Judge LALL

Received: 03/04/99

Typed: 03/04/99

DECISION: REVERSED

Send Reference(s): Yes No  
or Translation(s)

Panel Change: Yes No

3-Person Conf. Yes No

Remanded: Yes No

Brief or Heard

Group Art Unit: 2732

Index Sheet-2901 Rejection(s):

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Acts 2: \_\_\_\_\_

Palm: \_\_\_\_\_

Mailed:

Updated Monthly Disk (FOIA): \_\_\_\_\_

Updated Monthly Report: \_\_\_\_\_

