

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

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL ALEX and HIDEKI ZAITSU

Appeal 2007-0154
Application 10/956,898
Technology Center 2600

Decided: March 12, 2007

Before JAMES D. THOMAS, JOSEPH L. DIXON and HOWARD B. BLANKENSHIP, *Administrative Patent Judges*.

THOMAS, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. §134, Appellants have appealed to the Board from the Examiner's Final Rejection of claims 1 through 10 and 17 through 21.

Representative independent claim 1 is reproduced below:

1. A controller for a hard disk drive (HDD) and executing logic, the logic comprising:

correlating at least one aggressor track on a disk of the HDD to at least one victim track on the disk;

scanning at least one victim track for errors; and

if the errors violate a threshold, determining that the victim track must be rewritten.

The following references are relied on by the Examiner:

Lamberts '234	6,947,234	Sep. 20, 2005 (filed July 23, 2002)
Lamberts '705	6,442,705	Aug. 27, 2002

Claims 1 through 9 and 17 through 21 stand rejected under 35 U.S.C. §102(e) as being anticipated by Lamberts '234. Claim 10 stands rejected under 35 U.S.C. § 103. As evidence of obviousness, the Examiner relies upon Lamberts '234 in view of Lamberts '705.

Rather than repeat the positions of the Appellants and the Examiner, reference is made to the Brief and Reply Brief for Appellants' positions, and to the Answer for the Examiner's positions.

OPINION

Generally for the reasons set forth by the Examiner in the Answer, as amplified here, we sustain the rejections of all claims on appeal under 35 U.S.C. § 102 and 35 U.S.C. § 103. Appellants have presented arguments as to independent claims 1, 2 and 17 within the first stated rejection under

35 U.S.C. § 102 and have presented no arguments, as to dependent claim 10 rejected under 35 U.S.C. § 103, in the Brief and Reply Brief. Therefore, we also sustain the rejection of all dependent claims not separately argued.

We treat first Appellants' arguments with respect to independent claim 1 on appeal. The urging at page 6 of the principal Brief on appeal that no evidentiary showing exists in the record that the artisan regards signal to noise ratio SNR as an "error" as explicitly claimed is misplaced.

Appellants' own Specification at page 5, lines 7 through 9, indicates that a loss of amplitude increases the noise which sets the context for an understanding of what Appellants regard as an error in the art. A similar analysis exists even from the title of Lamberts '234 which is concerned with error correction operations in the environment of use of disk drive systems which include the same disclosed adjacent track interference (ATI) problems as the Answer has indicated. The discussion at the middle of column 1 of Lamberts '234 clearly indicates a correlation of noise or other magnetic fields as relating directly to the noise or SNR. The artisan would well appreciate from the discussion in Lamberts '234 that errors are directly correlated to noise levels which may increase due to ATI problems.

The Examiner's reliance upon columns 4 and 5 of Lamberts '234 is well taken. Since the initial discussion in the background at column 1, lines 52 through 57, indicates that increased noise levels occur when ATI problems exist, the approach followed by Lamberts '234 causes a rewrite operation to occur when this SNR level exceeds a predetermine threshold. As discussed at the top of column 5, a problematic signal to noise ratio indicates a decay of the significant data recorded such that it may be also

invoke error recovery operations generally discussed there. To the extent Appellants argue with respect to claim 1 that there is no scanning function performed in Lamberts '234, we totally disagree with this view since the determination of SNR value in Lamberts '234 system implicitly requires, from an artisan's perspective, scanning functions to determine the SNR levels such as to further determine whether they exceed a predetermined threshold or otherwise require invocation of an error recovery operation. Appellants' additional remarks at page 2 of the Reply Brief are not persuasive.

As to independent claim 2 on appeal as well as independent claim 1, each of these independent claims are open ended since the preamble utilizes the connective "comprising." Appellants' extensive discussions in the Brief and Reply Brief are not persuasive of patentability since there appears to be no dispute that the reference to Lambert '234 does in fact count the number of times an aggressor track is written too, since this is plainly repeatedly discussed in the reference as well as shown in figures 3 and 4. The claims do not explicitly exclude the additional processing functions that are taught in Lamberts. As such, Appellants' claims 1 and 2 are both inclusive of what is directly taught in Lamberts '234. As pointed out by the Examiner at the bottom of page 6 of the Answer, claim 2 does not state that the rewriting function on a victim track is caused only by a number of writes exceeding a threshold.

Lastly, in turning to independent claims 17, Appellants present no arguments in the Reply Brief as to this claim, and only very brief argument at the top of page 7 of the principal Brief as to this claim. Although no arguments are presented here to us as to what Appellants intend the claimed “means” are to comprise, based upon Appellants’ disclosed invention, Appellants’ correlation of this claim in the Summary of the Invention at page 3 of the principal Brief on appeal reveals logic functions of a programming nature disclosed in figures 2 and 3 that relate to either a scanned operation of a track for errors and rewriting based upon that scanning function or counting the number of write functions to an aggressor track and then rewriting based upon that determination as shown. Correlating equivalent “logic” as briefly mentioned by the Examiner at page 8 of the Answer includes processor 18 and the equations and threshold values stored in non-volatile storage element 22 in figure 1 of Lamberts ‘234 in addition to the programming code 24 stored there as well. Additional logic functions of the programming code are shown in Figures 3 and 4 of this reference. Persuasively, as noted by the Examiner at page 8 of the Answer, since Lamberts ‘234 discloses all the limitations argued to us as to independent claims 1 and 2, the corresponding equivalent functions attributed to “the means for determining whether a rewrite conduction has been met” in claim 17 also clearly indicates anticipation of the subject matter of claim 17 as well.

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In view of the foregoing, the decision of the Examiner rejecting various claims under 35 U.S.C. § 102 and 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR §1.136(a). See 37 CFR § 1.136(a)(1)(iv).

AFFIRMED

PGC

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