

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(2) is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DANIEL G. STREVEY

Appeal No. 96-1738
Application 08/040,428¹

ON BRIEF

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

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellant has appealed to the Board from the examiner's final rejection of claims 1-7, 9, 10, 13, 16-20, 22-25, 36 and 37. Independent claim 1 is reproduced below:

¹ Application for patent filed March 31, 1993.

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1. An apparatus for translating SCSI control signals, comprising:

first means for receiving a first plurality of control signals from a single-ended SCSI bus;

second means for receiving a second plurality of control signals from a differential SCSI bus, wherein one of said first plurality and second plurality of control signals being outputted by a target device and the other thereof being outputted by an initiator device, said first plurality of control signals having a first subgroup and said second plurality of control signals having a second subgroup, wherein each of said control signals in said first subgroup has a counterpart signal in said second subgroup having the same function, and in which each of said control signals in said first subgroup and its counterpart in said second subgroup is defined as a counterpart pair and said control signals of said counterpart pair represent bidirectional SCSI signals, with one of said counterpart pairs representing bidirectional reset signals including a single-ended reset signal and a differential reset signal; and

third means responsive to said first and second means for controlling transmission of said counterpart pairs through said apparatus, said third means including programmable array logic and control logic circuitry communicating with said programmable array logic, said programmable array logic including input lines for inputting said counterpart pairs and output lines for outputting two enable signals for each of said counterpart pairs, said control logic circuitry having input lines for inputting said counterpart pairs and being responsive to said enable signals and transmitting or blocking said signals in said counterpart pair in response to said enable signals.

The following reference is relied on by the examiner:

Korpi

4,864,291

Sept. 5, 1989

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Claims 1-7, 9, 10, 13, 16-20, 22-25, 36 and 37 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon Korpi alone.²

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

At the outset, we sustain the rejection of independent claim 37 on appeal since appellant has indicated at page 10 of the brief that no arguments will be presented concerning the patentability of this claim. On the other hand, we reverse the rejection of all the remaining claims on appeal, generally for the reasons expressed by the appellant in the brief and reply brief.

The examiner admits that Korpi does not teach implementing his control circuitry by using a programmable array logic unit. Although we agree that there is a certain reasonableness in the art to the examiner's position that it

² At pages 2-4 of the Answer, the examiner has withdrawn a separate rejection of certain claims under the second paragraph of 35 U.S.C. § 112.

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would have been obvious to artisans to have implemented the discrete logic circuits of Korpi in the form of a programmable array logic, we remain unconvinced as to why the artisan would have chosen to have done so in light of Korpi alone even with the examiner's reasoning. In our view, Korpi presents a rather complex set of logic relationships among the circuit figures of his patent which requires something more than the basic brute force reason approach proffered by the examiner to convince us.

Even if we were to agree with the examiner's position as to the programmable array logic, we remain unconvinced of the obviousness of the subject matter of independent claims 1 and 19 on appeal. The examiner has not persuaded us, nor can we determine on our own, that the features at the end of these respective claims would have been obvious or are otherwise taught or suggested by Korpi alone. Specifically, we refer to the feature at the end of independent claim 1 of inputting counterpart pairs into a programmable array logic which in turn would yield two enable signals for each of the defined counterpart pairs of signals, wherein the further feature is recited in this claim that the recited logic circuitry

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receives the inputting of the counterpart pairs and being in turn responsive to the enablement signals to therefore transmit or block the signals in the counterpart pair in response to the enable signals. As appellant argues, we understand the thrust of Korpi as controlling in some complex manner bidirectional busy signals through a converter, whereas no mention essentially has been made as to controlling the bidirectional reset signals specifically set forth in independent claim 1 on appeal. The claimed invention requires that the enable signals be generated for all counterpart pairs. Because we reverse the rejection of claim 1, we must also reverse the rejection of all of its dependent claims.

Turning next to the features recited in independent claim 19, we also reverse the rejection of this claim. The examiner's position weakly relies upon reasoning to reject the other claims as a basis to reject independent claim 19. This claim does not recite the specifics of a programmable array logic unit. On the other hand, this claim specifically recites three counterpart pair signal groups of reset, select, and busy configurations. From the examiner's reasoning then, we can not determine that the feature recited at the end of

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independent claim 19 of the step of determining being conducted in such a manner that the determination to transmit each of the counterpart pairs of signals is done independently of the other counterpart pairs of signals would have been obvious to the artisan in view of Korpi alone. We, therefore, agree with appellant's position at the top of page 29 of the principal brief on appeal that there appears in Korpi to be no teaching of controlling a transmission of counterpart reset signals independently of other bidirectional signals and that, to the extent there is a controlling operation of the busy signals, they appear to be dependent upon another bidirectional signal, the select signal.

Generally speaking, we do not agree with the examiner's view at page 4 of the answer that it is irrelevant as to what specific control signals are used in Korpi to control the converter. Indeed, the exact opposite would be discerned in our view by the artisan from Korpi's teachings. Overall, we agree with appellant's comment at the bottom of page 2 of the reply brief that even though both Korpi and the present claimed invention achieve a measure of translation between single-ended and differential signals in a SCSI environment,

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the claimed manners in which the present invention achieves such a result are patentably distinct over Korpi alone as urged by the appellant.

In view of the foregoing, we have reversed the examiner's rejection of claims 1-7, 9, 10, 13, 16-20, 22-25, and 36 but have sustained the rejection of claim 37. Accordingly, the decision of the examiner is affirmed-in-part.

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

AFFIRMED-IN-PART

James D. Thomas)
Administrative Patent Judge)
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Kenneth W. Hairston) BOARD OF
PATENT Administrative Patent Judge) APPEALS AND

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