

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

This opinion (1) was not written for publication and (2) is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL D. BECK
and LAURENCE R. SIMAR

Appeal No. 95-1763
Application 08/109,201

ON BRIEF

Before HARKCOM, Vice Chief Administrative Patent Judge, and KRASS and TORCZON, Administrative Patent Judges.

TORCZON, Administrative Patent Judge.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

FINDINGS OF FACT

We have reviewed the record in its entirety in light of the arguments of Appellants and the examiner. Our decision presumes familiarity with the entire record. A preponderance of the evidence of record supports each of the following fact findings.

A. The nature of the case

1. Appellants appeal under 35 U.S.C. § 134 from the final rejection of claims 2, 3, and 17-29. (Paper 18.)

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2. The application on appeal was filed 19 August 1993. Appellants claim the benefit of application number 07/590,106, filed 28 September 1990, now abandoned, pursuant to 35 U.S.C. § 120. (Paper 10 at 1.)

3. The invention is a data processing device with a direct memory access (DMA) circuit for storing data from an input register into a first memory location and for sending data from second memory location to an output register. (Paper 1 at 4.) The DMA has DMA channels **21**, each using DMA bus **38** and peripheral bus **28** to effect transfers among internal memories and between internal and external memories. (Paper 1 at 14-15.) Specialized external communications ports **50-55** provide communications with external devices. (Paper 1 at 14.) Each port has a bi-directional interface **580** with two eight-word first-in, first-out (FIFO) buffers **540** & **550**. The number of bits in a word corresponds to the number of conductors in the busses. (Paper 1 at 11-12 & 14.) In split-mode, the buffers operate separately as an input FIFO buffer **540** and output FIFO buffer **550**, respectively. The reading and writing operations are independent. (Paper 1 at 62.)

4. The contested limitations are common to all three independent claims on appeal. In claim 25, the relevant portion states the limitations as follows:

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said direct memory access device having a mode of operation wherein said data channel is divided into an input data channel and an output data channel which operate independently of each other to respectively input data to said destination address from a source other than said source address, and output data from said source address to a destination other than said destination address.

B. The rejection

5. The examiner finally rejected all of the claims on appeal under 35 U.S.C. § 103 in view of:

Magar et al. (US) 5,099,417 24 March 1992
(eff. filing date 13 March 1987)

6. The Magar patent teaches essentially the same data processing device except for the specialized communications ports and supporting circuitry. In particular, Magar does not teach the split mode of operation and attendant circuitry.

CONCLUSIONS OF LAW

1. Only two limitations are contested. (Paper 19 at 3-5.) The first limitation regards transfers between internal and external sources and destinations. Appellants use the terms "source" and "destination" broadly enough to encompass communication through Magar's interface ports **24** & **26** as the examiner suggests.

2. The second contested limitation, however, is not taught in Magar. The examiner suggests that having a split-channel mode

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would be more efficient and, thus, would have been obvious.

(Paper 20 at 9.) Nothing in Magar, however, suggests this modification. Although Appellants' disclosure demonstrates that the art could be so improved, it is not apparent that it would have been so improved absent Appellants' disclosure. In re

Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

The examiner has not established by a preponderance of evidence that a split-channel mode was known or would have been obvious in this art. Therefore, we cannot affirm the rejection of these claims under section 103.

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DECISION

The rejection of claims 2, 3, and 17-29 under section 103 in
view of Magar is

REVERSED

GARY V. HARKCOM, Vice Chief)	
Administrative Patent Judge)	
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)	
)	BOARD OF PATENT
ERROL A. KRASS)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
RICHARD TORCZON)	
Administrative Patent Judge)	

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