

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

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Paper No. 33

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte NOBUO HAMAMOTO,  
MINORU NAGATA, MASATOSHI OHTAKE, KATSUTAKA KIMURA,  
TOSHIO SASAKI, HIROSHI KISHIDA, ISAMU ORITA,  
KATSURO SASAKI, NAOKI OZAWA, KAZUHIRO KONDO,  
TOSHIAKI MASUHARA, TADASHI ONISHI, HIDEHITO OBAYASHI,  
KIYOSHI AIKI, and HISHASHI HORIKOSHI

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Appeal No. 1998-0147  
Application 08/446,278<sup>1</sup>

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HEARD: October 25, 2000

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<sup>1</sup> Application for patent filed May 22, 1995, entitled "Digital Information System, Digital Audio Signal Processor And Signal Converter," which is a continuation of Application 07/727,420, filed July 9, 1991, now abandoned, which claims the foreign filing priority benefit under 35 U.S.C. § 119 of Japanese applications 02-181402, filed July 11, 1990, 02-208072, filed August 8, 1990, 03-057972, filed February 27, 1991, and 03-057930, filed February 28, 1991.

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Before BARRETT, DIXON, and GROSS, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 1-32 and 46-52.

We affirm-in-part.

BACKGROUND

The disclosed invention, as illustrated in figure 67, relates to a digital information system having a digital signal source 100 in the form of an information vending machine for vending information in the form of digital data as a commodity for sale, and a memory card (player) 101 having a memory for storing the data and playback circuitry for replaying the data to a headphone. The memory in the memory card may be built-in or it may be separable as shown in figure 67; the claims have been amended to limit them to the built-in memory.

Claim 1 is reproduced below.

1. A digital information system comprising a digital signal source; and a memory card, having a playback function, removably connected with the digital signal source to store digital data received from said digital signal source and to reproduce the digital data

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stored therein independently of said digital signal source;

wherein said memory card includes a built-in memory circuit formed of a semiconductor memory for storing digital data received with addresses of said digital data from said digital signal source, and a built-in playback circuit, including at least a digital-to-analog converter, a filter circuit and an audio amplifier, for reproducing digital data stored in said memory circuit as an analog audio signal output from said memory card.

The Examiner relies on the following prior art:

Kramer et al. (Kramer)	4,667,088	May 19, 1987
Kondo	4,791,741	December 20, 1988

Claims 1-32 and 46-52 stand rejected under 35 U.S.C.

§ 103(a) as being unpatentable over Kramer.

Claims 1-32 and 46-52 stand rejected under 35 U.S.C.

§ 103(a) as being unpatentable over Kondo.

We refer to the Office Action (Paper No. 18), the Final Rejection (Paper No. 22), and the Examiner's Answer (Paper No. 27) (pages referred to as "EA\_\_") for a statement of the Examiner's position, and to the Brief (Paper No. 26) (pages referred to as "Br\_\_") and the Reply Brief (Paper No. 28) (pages referred to as "RBr\_\_") for a statement of Appellants' arguments thereagainst.

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OPINION

Claims 1-16 and 23-32

Independent claims 1, 10, and 15 all recite storing digital data in the memory card according to an address received from the digital signal source; see figure 7 showing both data and address lines leading from the terminal device 100 to the player 101. Claim 1 recites "storing digital data received with addresses of said digital data from said digital signal source"; claim 10 recites "storing said digital signal according to an address signal received from said digital signal source"; and claim 15 recites "storing a specified digital signal according to an address signal received from said digital signal source." This limitation is not treated in the Examiner's Answer. Appellants argue that the limitation is not found in either Kramer or Kondo (Br18-19); thus, this is not a case where the Examiner can rely on a lack of argument by Appellants. Every limitation must be considered in addressing obviousness. See In re Wilder, 429 F.2d 447, 450, 166 USPQ 545, 548 (CCPA 1970) ("every limitation

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positively recited in a claim must be given effect in order to determine what subject matter that claim defines").

Kramer

Kramer discloses that the memory preferably consists of a bubble memory (col. 2, lines 25-28). An advantage of bubble memory is that it is non-volatile (col. 3, lines 50-53). Kramer states (col. 4, lines 1-5): "The memory 22 is preferably organised so as to appear to be a circular shift register of the required size and is clocked at the same speed, controlled by the memory control clock 36, during recording and replay. One 'bit' is presented to the memory at a time." Kramer does not disclose storing data according to addresses and, since data is presented in a serial manner to a serial storage arrangement (a circular shift register), Kramer does not use addresses. The Examiner provides no reasons to modify the arrangement in Kramer. Accordingly, the Examiner has failed to establish a prima facie case of obviousness with respect to independent claims 1, 10 and 15. The rejection of claims 1-16 and 23-32 over Kramer is reversed.

Kondo

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Kondo discloses a self-contained recording and playback device which may be used to create customized greeting cards. Kondo does not disclose connecting the card to a digital signal source. The Examiner concludes that it would have been obvious to modify Kondo to enable it to have data transferred from a digital signal source. Even assuming, arguendo, that this is correct, the Examiner fails to address the limitation about storing digital data according to an address received from the digital signal source. Accordingly, the Examiner fails to establish a prima facie case of obviousness with respect to independent claims 1, 10 and 15. The rejection of claims 1-16 and 23-32 over Kondo is reversed.

#### Claims 17-22

Claim 17 does not recite storing the digital data in the memory card according to an address received from the digital signal source. However, claim 17 recites "security means for performing a selected one of the operations of inverting at least a one-bit digital signal of the input and/or output section of the memory in accordance with a

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selected one of a password and a password coincidence detection signal and replacing the digital signal with another bit so as to prevent a user from reproducing a correct digital signal."

Kramer

The Examiner does not specifically address claim 17. The closest statement we find to addressing this limitation is the following (Paper No. 18, p. 4; EA5): "As to claims 13, 14, 18-20, Kramer's system also has control over the security conditions/counts of copying of the digital data." Appellants argue that the Examiner has given no indication where claim 17's security means can be found in Kramer (Br14).

Kramer discloses that the controller can be programmed to keep a count of the number of times that digital data is reproduced and to prevent further reproductions above a specified maximum number of times to prevent unlicensed copying (col. 5, lines 15-22). While this might be considered a "security feature," it does not come close to meeting the functions recited in claim 17. Accordingly, the Examiner has failed to establish a prima facie case of

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obviousness with respect to independent claim 17. The rejection of claims 17-22 over Kramer is reversed.

Kondo

The Examiner does not point out where Kondo discloses or suggests the security means limitation of claim 17. We find no such teaching or suggestion in Kondo. Accordingly, the Examiner has failed to establish a prima facie case of obviousness with respect to independent claim 17. The rejection of claims 17-22 over Kondo is reversed.

Claims 46-52

Claims 46-52 do not recite storing the digital data in the memory card according to an address received from the digital signal source as in claims 1, 19, and 15, and do not recite the security means of claim 17.

Kramer

The principal difference between Kramer and the subject matter of each of independent claims 46-48 and 50 is that Kramer discloses the memory 22 on a card 10 (figure 1) separate from the replay unit (figure 2) having the digital-to-analog converter 62, the filter circuits 70 and

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72, and the amplifier (not shown), whereas the independent claims recite that the memory card has a built-in semiconductor memory and a built-in playback circuit including a digital-to-analog converter, a filter circuit and an audio amplifier. These "built-in" limitations were added by the amendment (Paper No. 21) filed March 27, 1996. The Examiner erred in not addressing these new limitations in the Final Rejection (Paper No. 22), although perhaps this was because of Appellant's incorrect statement in the remarks that "claims 1-32 and 46-49 . . . are sufficiently broad to encompass both the [integral memory] embodiment of Fig. 8 and the [separable memory] embodiment of Fig. 10" (Paper No. 21, p. 9). Appellants argue at length that Kramer discloses a memory separate from the replay unit (Br5-10). In the Examiner's Answer, the Examiner concludes for the first time that "it would have been obvious to a person of ordinary skill in the art to build the memory card and the playback system of Kramer in one unit in order to save space and make it cheaper" (EA4). Appellants respond that a reference itself must suggest modifications to properly support a § 103 rejection and that Kramer is

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directed to a storage medium rather than to a replay unit with built-in memory (RBr2-3).

We agree with the Examiner that it would have been obvious to one having ordinary skill in the art to make the memory card integral with the replay unit in Kramer. It is not necessary that the references expressly suggest the modification. Obviousness is determined through the eyes of one of ordinary skill in the art to which the subject matter pertains. 35 U.S.C. § 103(a). One of ordinary skill in the art must be presumed to know something about the art apart from what the references expressly disclose. See In re Jacoby, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA 1962); In re Oetiker, 977 F.2d 1443, 1447-48, 24 USPQ2d 1443, 1446-47 (Fed. Cir. 1992) (Nies, C.J., concurring). The motivation, suggestion or teaching to modify may be found in explicit or implicit teaching within the references themselves, from the ordinary knowledge of those skilled in the art, or, in some cases the nature of the problem to be solved. See In re Rouffet, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998).

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In this case, we find that one of ordinary skill in the art would have known of many examples in everyday life where memory could be either integral or removable. Perhaps the best example is laptop computers which have a built-in memory and can have an optional separable memory. The separable memory, called a PC card or "PCMCIA card," is a credit-card sized, removable module for portable computers standardized by PCMCIA (Personal Computer Memory Card International Association). PC Cards are devices that are used to attach modems, network adapters, sound cards, radio transceivers, solid state disks (i.e., semiconductor memory) and hard disks to a portable computer. Thus, there was nothing new about devices having built-in and separable memory. One of ordinary skill in the art at the time of the invention would have had sufficient knowledge to appreciate the advantages and disadvantages of built-in versus separable memory. Separable memory, while requiring its own housing and connector, has the advantages that information can be stored in the memory without the need for the circuitry for playing the information, the memory (with or without prerecorded information) can be sold without having

to sell the entire replay device (just as with compact discs and DVDs), which means they can be sold more cheaply, and the memory can be moved from machine to machine. On the other hand, one of ordinary skill would have appreciated that memory could be built-in (integral) if these characteristics were not needed, as in the case of laptop computer. Thus, although Kramer does not suggest a built-in memory, it would have been obvious to one of ordinary skill in the art to build the memory of Kramer into the replay device to save space (because a separate housing and connectors are not needed if the memory is built in) and reduce the overall cost of the assembly (because a separate housing and connectors are not required, a unitary device would be cheaper to construct).

Kramer discloses that if the replay unit is used with headphones and batteries, the entire system can be portable (col. 6, lines 6-10). Thus, Kramer expressly discloses the use of a battery operating as a power supply, as recited in claim 46-48 and 50. Since an amplifier is used with headphones in Kramer (col. 5, lines 64-65), we find that a portable replay unit in Kramer would have an amplifier, as

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recited in claims 46-48 and 50, and a headphone jack, as recited in claims 46 and 49, although these elements are not expressly shown in figure 2.

The only difference between Kramer and the subject matter of claims 48 and 49 is that claim 48 recites a memory card with a built-in memory. As discussed, supra, we conclude that this difference would have been obvious at the time the invention was made. The Examiner has established a prima facie case of obviousness with respect to claims 48 and 49. The rejection of claims 48 and 49 over Kramer is sustained.

Claim 46 additionally recites "a terminal removably connected with said server for use in charging said battery with power from said power supply terminal." Claim 47 recites "a rechargeable battery built therein, and means for charging said rechargeable battery from a power supply in said digital signal source when said memory card is connected with the digital signal source." Claim 50 recites "a rechargeable battery which is charged by a power supply in said digital signal source when said memory card is connected with the digital signal source." The Examiner has

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never addressed these rechargeable battery limitations and, thus, the Examiner fails to establish a prima facie case of obviousness. Although battery recharging, in general, is well known, it is the Examiner's duty, not ours, to provide a reference and the motivation to modify Kaplan to charge the battery in the memory card from the digital source. The rejection of claims 46, 47, and 50-52 is reversed.

Although we have reversed the rejection of claim 50, we comment that Kramer reasonably suggests the limitation of "said digital signal source including means for writing the digital signal to said semiconductor memory at a clock rate substantially higher than a read clock rate to said semiconductor memory." A similar limitation is found in claim 2. Kramer discloses (col. 4, lines 1-5) (emphasis added): "The memory 22 is preferably organized so as to appear to be a circular shift register of the required size and is clocked at the same speed, controlled by the memory control clock 36, during recording and replay. One 'bit' is presented to the memory at a time." During replay, "output will be at a speed much faster (at least 100 times) than that required for actual sound reproduction" (col. 4,

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lines 24-26) because "[t]he decoder can read the data at the required slower reproduction rate by taking, e.g. only one out of every 100 bits of information presented to it at a time . . . ." This indicates that data is serially clocked into the memory 100 times faster than it is reproduced. It is unlikely that Kramer would say "[w]hen recording is completed, which can take a very short time" (col. 4, lines 6-7) and "the recording of sound data can be rapidly performed in a shop" (col. 6, lines 36-37), if it took the same amount of time to record a sound as to play it. Of course, the Examiner could have also found a reference showing high speed duplication of sound and video tapes as further evidence that it was known to record at a higher speed than the sound reproduction speed.

Kondo

Kondo does not disclose connecting the card to a digital signal source. The Examiner baldly concludes that it would have been obvious to modify Kondo to enable it to have data transferred from a digital signal source, but provides no evidence by way of reasoning or reference (EA5).

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Appellants argue that the Examiner has failed to show any suggestion or motivation for such a modification (Br17-18).

We agree with Appellants that the Examiner has failed to provide evidence of the necessary motivation for the proposed modification. This is different than the rejection over Kramer where the elements were present and it was only a matter of providing reasons why a memory might be built-in instead of separable. The Examiner could have combined Kramer, which shows connection to an external digital data source but not a replay unit with a built-in memory, with Kondo which shows a built-in memory but not a connection to an external digital data source, but did not. Also, the Examiner fails to address the rechargeable battery limitations in claims 46, 47, and 50, and the identification code and writing at a clock rate higher than the read rate as recited in claim 50. We conclude that the Examiner has failed to establish a prima facie case of obviousness with respect to independent claims 46-48 and 50. The rejection of claims 46-52 over Kondo is reversed.

NEW GROUNDS OF REJECTION UNDER 37 CFR 1.196(b)

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Claims 6 and 7 are rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which the Applicants regards as their invention. There is no antecedent basis for "the magnetic disk memory and the buffer memory" (emphasis added). With regard to the limitation of "the storage area for said memory circuit in the memory card" (emphasis added), we assume that the memory circuit inherently has a storage area so that no express antecedent basis is required for "storage area."

#### CONCLUSION

The rejection of claims 48 and 49 under 35 U.S.C. § 103 over Kramer is sustained. The rejection of claims 1-32 and 46, 47, and 50-52 under § 103 over Kramer is reversed.

The rejection of claims 1-32 and 46-52 over Kondo is reversed.

A new ground of rejection has been made as to claims 6 and 7 pursuant to 37 CFR § 1.196(b).

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b)(amended effective Dec. 1,

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1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides that, "A new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (§ 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

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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

	LEE E. BARRETT	)	
	Administrative	Patent Judge	)
		)	
		)	
		)	
		)	BOARD OF
PATENT		)	
	JOSEPH L. DIXON	)	APPEALS
	Administrative	Patent Judge	)
		)	AND
		)	INTERFERENCES
		)	
		)	
		)	
	ANITA PELLMAN GROSS	)	
	Administrative	Patent Judge	)

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