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United States Patent [19]

Lambrecht

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| [54] | SYSTEM AND METHOD FOR TRANSFERRING DATA STREAMS |
|------|---|
| | SIMULTANEOUSLY ON MULTIPLE BUSES IN A COMPUTER SYSTEM |

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[73] Assignee: Advanced Micro Devices, Inc.,

Sunnyvale, Calif.

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[51] Int. Cl. G06F 13/00 G06F 13/00 [52] U.S. Cl. 395/308: 395/308

52] U.S. Cl. 395/308; 395/306; 395/841; 395/281; 395/281

840, 162, 163, 200.09, 154, 200.04, 200.12; 370/85.13, 85.9, 85.11; 364/514; 463/43

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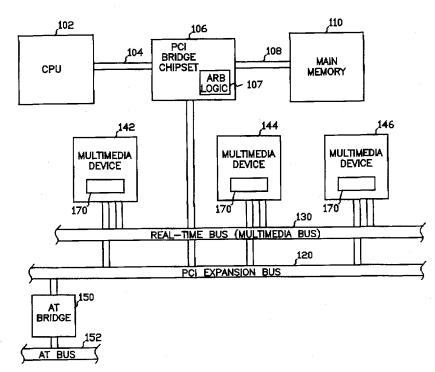
Primary Examiner—Jack B. Harvey Assistant Examiner—Ario Etienne

Attorney, Agent, or Firm—Conley, Rose & Tayon; Jeffrey C. Hood

[57] ABSTRACT

A computer system optimized for real-time applications which provides increased performance over current computer architectures. The system includes a standard local system bus, such as the PCI bus, and also includes a dedicated real-time bus or multimedia bus. Thus multimedia devices such as video cards, audio cards, etc., as well as communications devices, transfer real-time data through a separate bus without requiring arbitration for the PCI bus. The computer system of the present invention thus provides much greater performance for real-time applications than prior systems. In various embodiments, multimedia devices transmit addressing and control information for a multimedia bus transfer either over the PCI bus or using a separate serial control channel. The multimedia bus may also comprise separate multimedia channels for different data types. Methods are also disclosed for transferring periodic multimedia data over the multimedia bus.

8 Claims, 25 Drawing Sheets





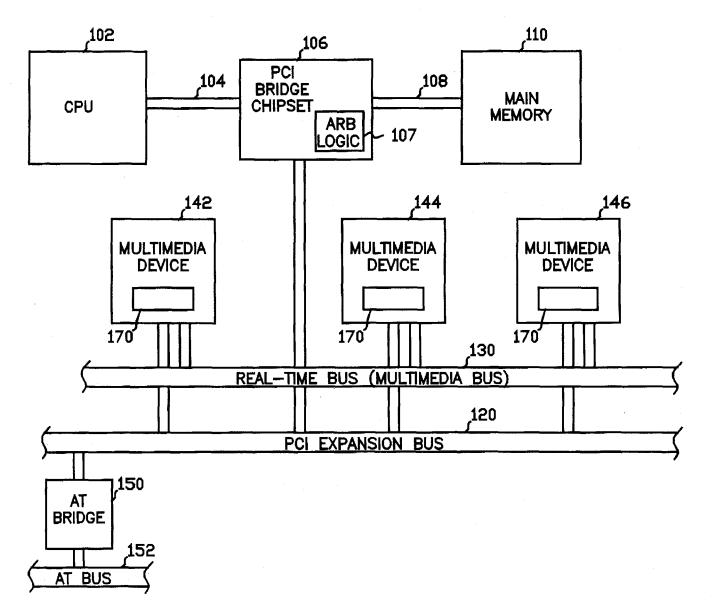


FIG. 1

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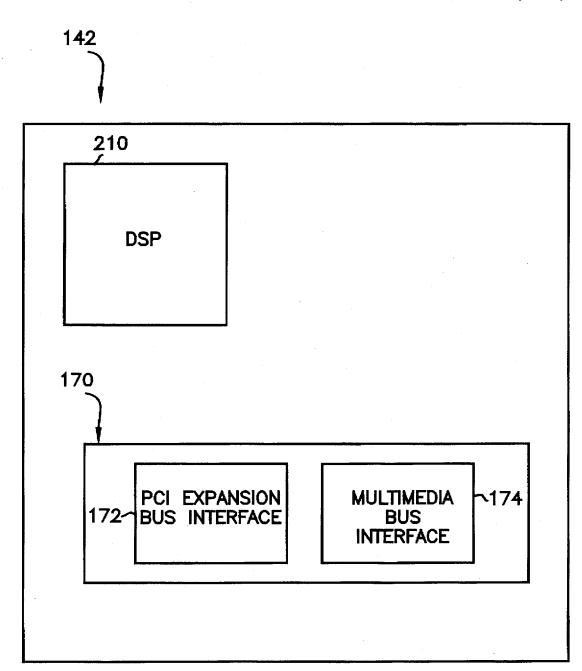


FIG. 2

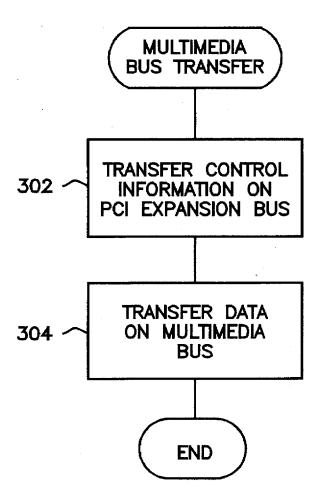


FIG. 3A

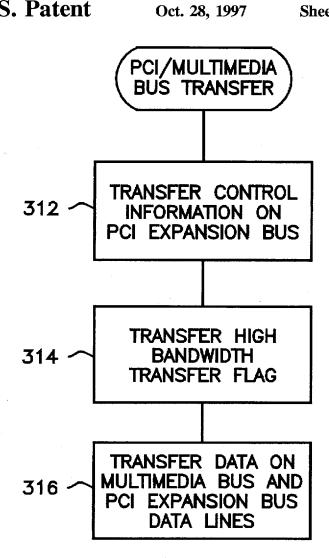


FIG. 3B

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