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United States Patent [19]

Harari et al.

5,887,145 [11] **Patent Number:**

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[54]	REMOVABLE	MOTHER/DAUGHTER
	PERIPHERAL	CARD

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[73] Assignee: SanDisk Corporation, Sunnyvale,

Appl. No.: 781,539 [21]

[22] Filed: Jan. 9, 1997

Related U.S. Application Data

Continuation of Ser. No. 462,642, Jun. 5, 1995, abandoned, which is a continuation of Ser. No. 398,856, Mar. 6, 1995, abandoned, which is a continuation of Ser. No. 151,292, Nov. 12, 1993, abandoned, which is a continuation-in-part of Ser. No. 115,428, Sep. 1, 1993, abandoned.

[51]	Int. Cl.6	 COSE	12/00
1.211	IIII. CI.	 CTUOL	12/00

U.S. Cl. **395/282**; 395/833; 395/882; 711/103; 711/115

395/283, 309, 800.01, 800.37, 500, 833,

821, 882; 711/2, 103, 115; 365/52, 99

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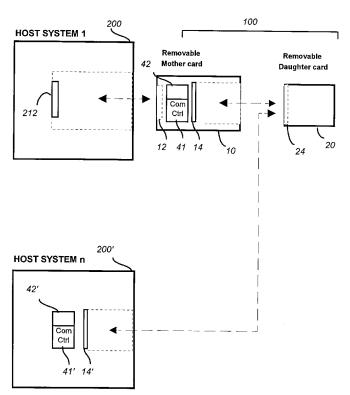
Primary Examiner-Meng-Ai T. An Assistant Examiner—Walter D. Davis, Jr. Attorney, Agent, or Firm-Majestic, Parsons, Siebert &

Hsue

[57] **ABSTRACT**

A peripheral card having a Personal Computer ("PC") card form factor and removably coupled externally to a host system is further partitioned into a mother card portion and a daughter card portion. The daughter card is removably coupled to the mother card. In the preferred embodiment, a low cost flash "floppy" is accomplished with the daughter card containing only flash EEPROM chips and being controlled by a memory controller residing on the mother card. Other aspects of the invention includes a comprehensive controller on the mother card able to control a predefined set of peripherals on daughter cards connectable to the mother card; relocation of some host resident hardware to the mother card to allow for a minimal host system; a mother card that can accommodate multiple daughter cards; daughter cards that also operates directly with hosts having embedded controllers; daughter cards carrying encoded data and information for decoding it; and daughter cards with security features.

22 Claims, 9 Drawing Sheets





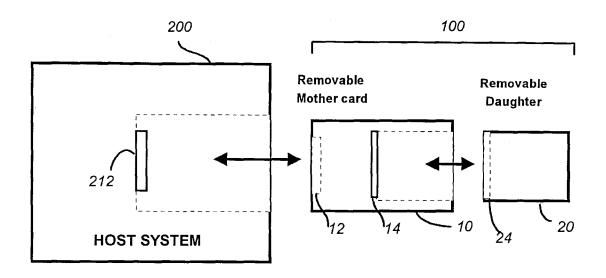


FIG. 1

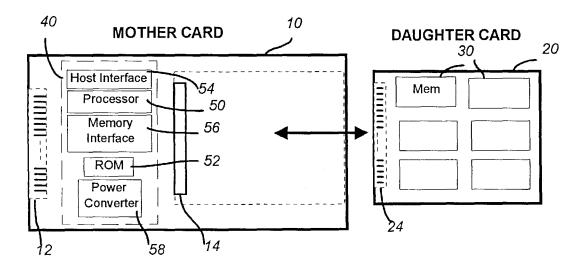


FIG. 3

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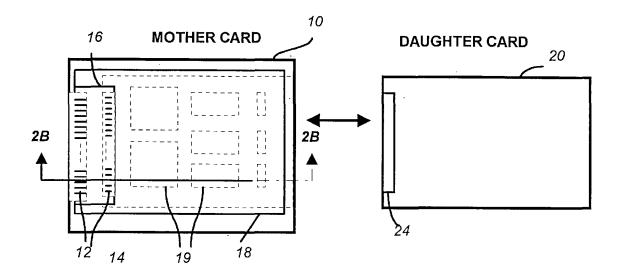


FIG. 2A

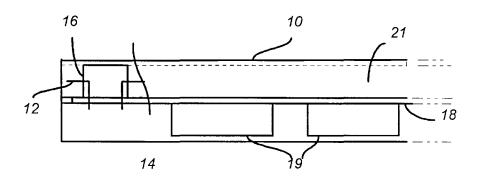


FIG. 2B

U.S. Patent

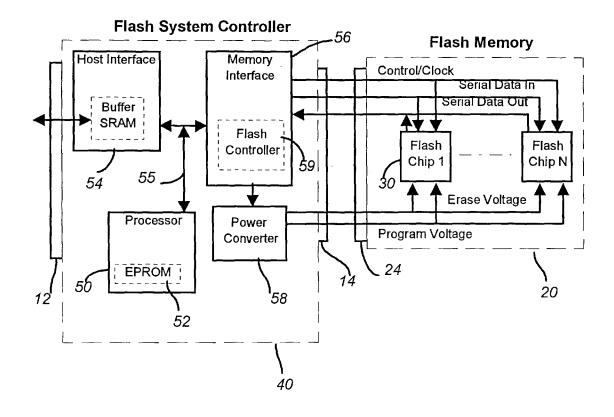


FIG. 4

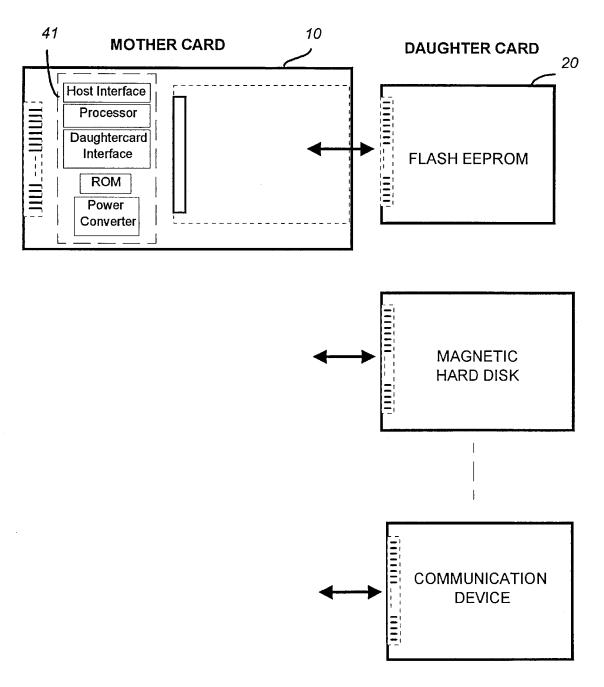


FIG. 5A

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