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United States Patent [19]

Michelson

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[54] **REPROGRAMMABLE PCMCIA CARD AND METHOD AND APPARATUS EMPLOYING SAME**

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[73] Assignee: **Data Translation, Inc.**, Mass.

[21] Appl. No.: **397,390**

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[51] **Int. Cl.**[6] **G06F 13/10**; G06F 15/177

[52] **U.S. Cl.** **395/828**; 395/282; 395/283; 395/284; 395/822

[58] **Field of Search** 395/889, 892, 395/282, 283, 284, 828, 830

[56] **References Cited**

U.S. PATENT DOCUMENTS

5,014,193	5/1991	Garner et al.	364/200
5,023,832	6/1991	Fulcher, Jr. et al.	364/900
5,034,813	7/1991	Dolazza et al.	358/138
5,257,387	10/1993	Richek et al.	395/800
5,263,148	11/1993	Jones, Jr. et al.	395/500
5,301,344	4/1994	Kolchinsky	395/800
5,302,947	4/1994	Fuller et al.	340/825
5,319,751	6/1994	Garney	395/200
5,334,046	8/1994	Brouilette et al.	439/540
5,357,573	10/1994	Walters	380/25
5,428,748	6/1995	Davidson et al.	395/829
5,432,941	7/1995	Crick et al.	395/700
5,517,646	5/1996	Piccirillo et al.	395/700
5,535,331	7/1996	Swoboda et al.	395/183.21
5,548,759	8/1996	Lipe	395/600

OTHER PUBLICATIONS

Personal Computer Memory Card International Association, "PCMCIA PC Card Standard," P. i–ixx, 1–1—1–4, 2–1—2–4, 3–1—3–28, 4–1—4–38, Jul. 1993.

Bindra, *Electronic Engineering Times*, "FPGAs moving to boost DSP applications," Issue 837, Feb. 27, 1995.

Fuller, *Electronic Engineering Times*, "AT&T rolls 40,000-gate Orca FPGA." Issue 837, Feb. 27, 1995.

Romanchi, *Test & Measurement World*, "Portables Are Proliferating," pp. 41–44, Feb. 15, 1995.

Beachler et al., *Electronic Engineering Times*, "Reconfiguration Showing Promise," pp. T–41—T–44, Apr. 11, 1994.

Hutchings et al., *Electronic Engineering Times*, "Digital Signal Processing, Reconfiguring Speeds Up Computing," pp. 50–51, Oct. 17, 1994.

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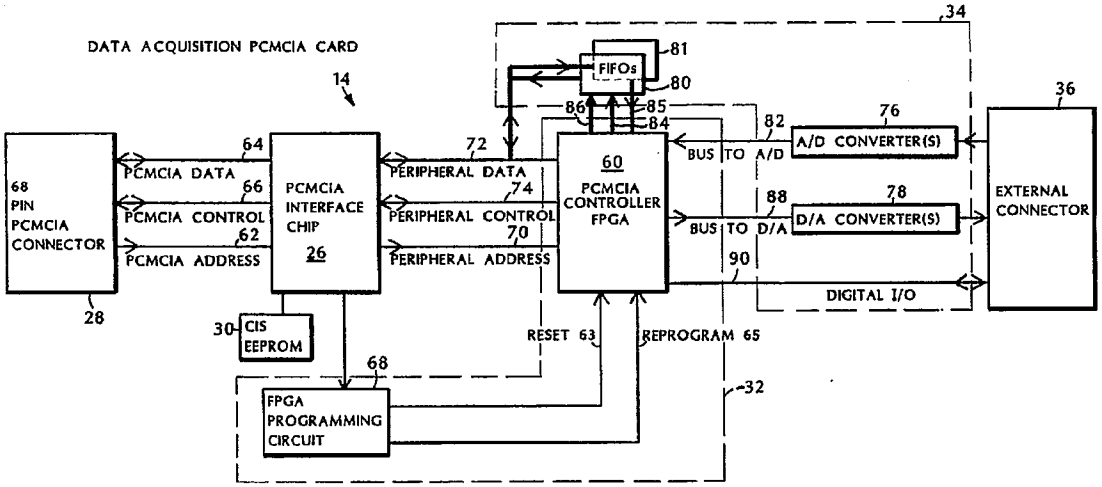
Assistant Examiner—Jigar Pancholi
Attorney, Agent, or Firm—Fish & Richardson P.C.

[57] **ABSTRACT**

A PCMCIA card having an FPGA based card controller that is programmed with FPGA programming data stored on a host computer through a standard PCMCIA bus.

26 Claims, 4 Drawing Sheets



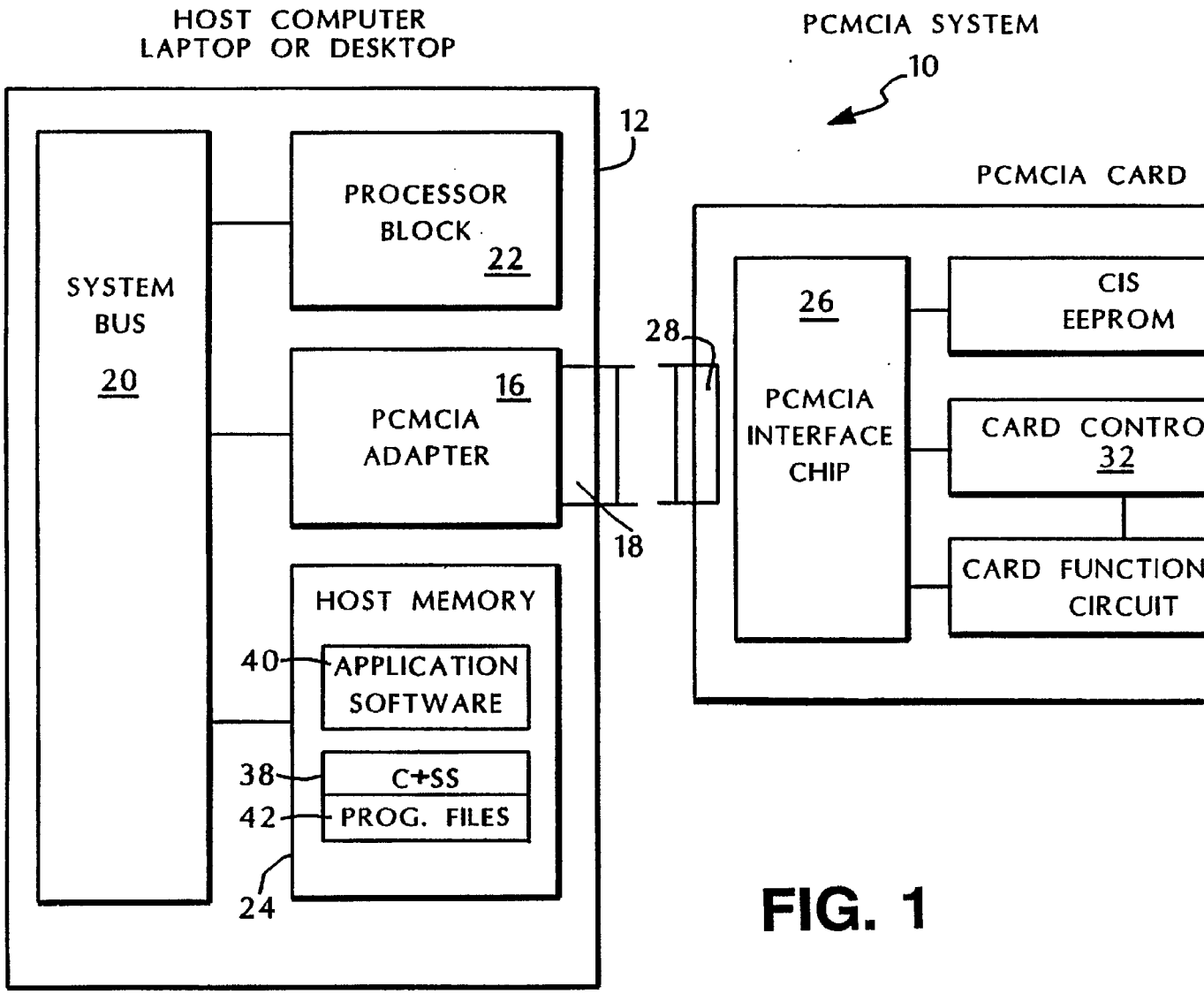


FIG. 1

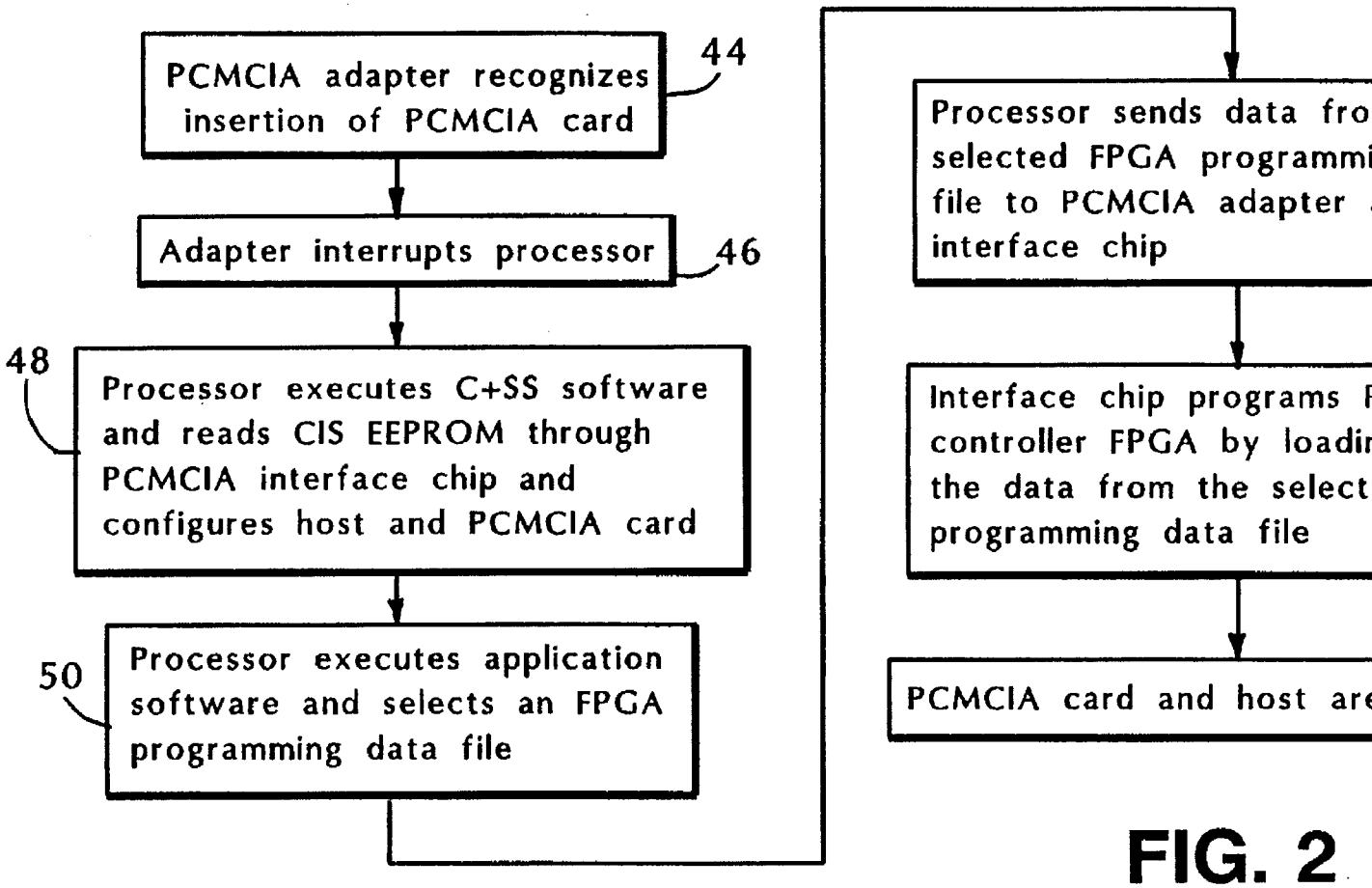


FIG. 2

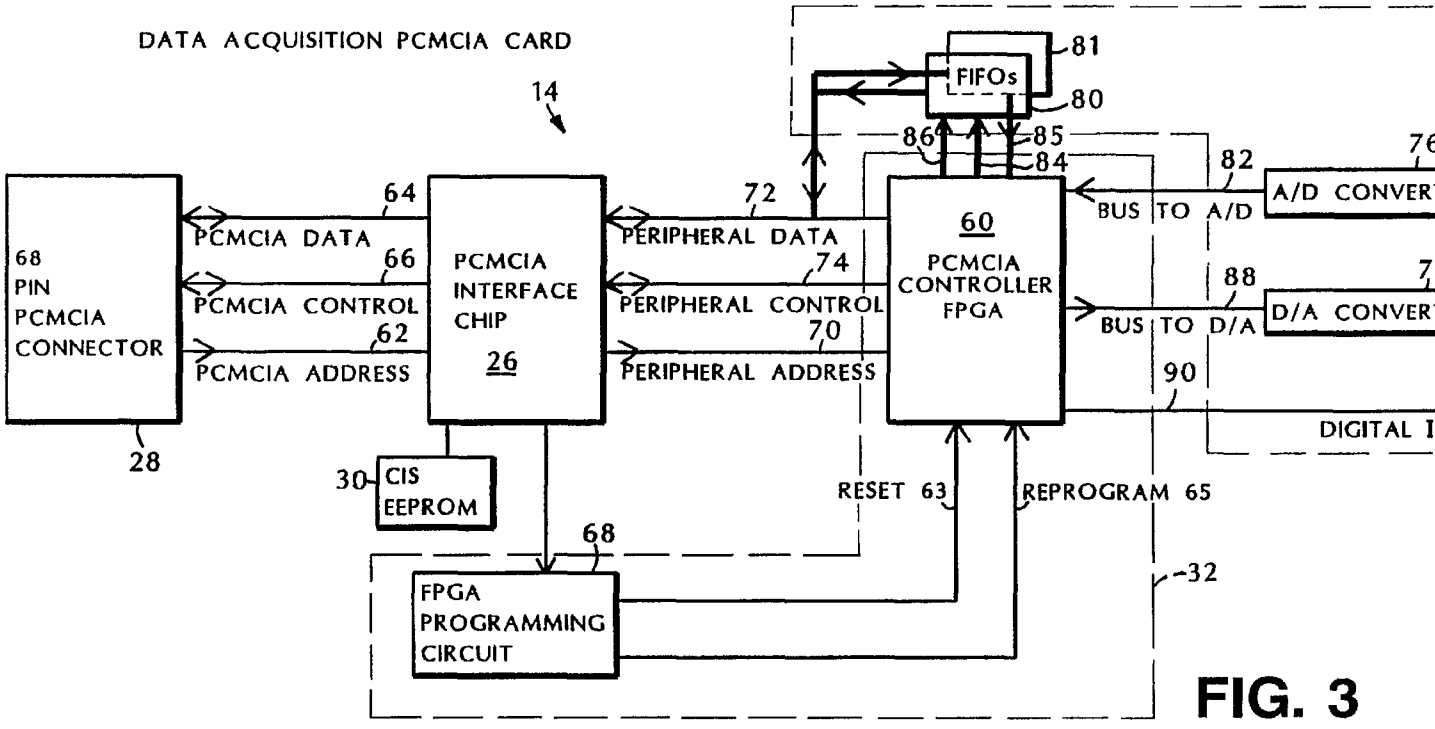
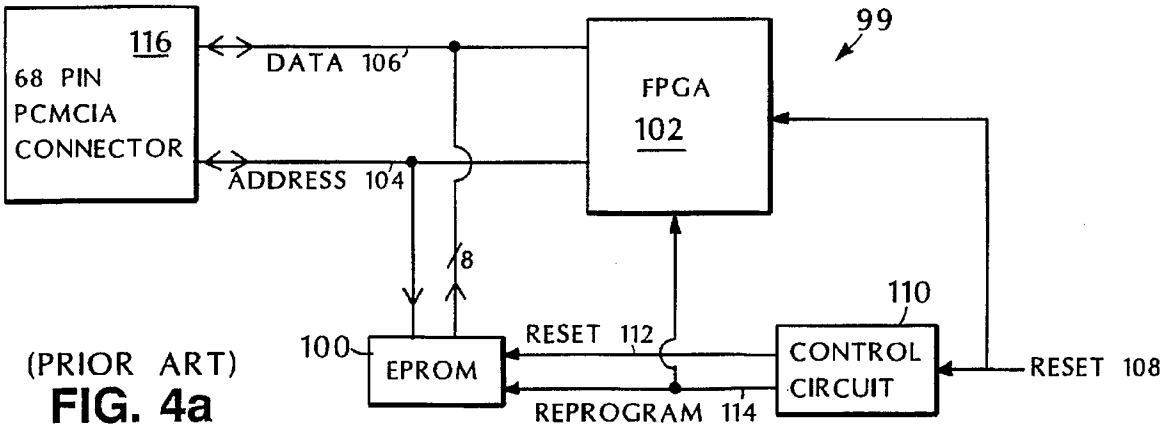
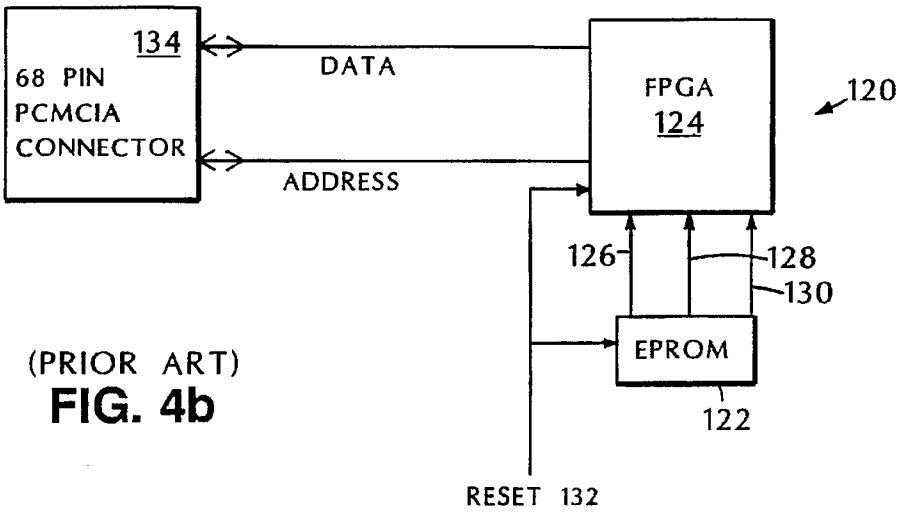


FIG. 3



(PRIOR ART)
FIG. 4a



(PRIOR ART)
FIG. 4b

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