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United States Patent [19]

Kobayashi

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[54] **PERSONAL PROCESSOR MODULE AND DOCKING STATION FOR USE THEREWITH**

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[51] **Int. Cl.**[6] **H05K 7/10**; G06F 13/00

[52] **U.S. Cl.** **395/281**; 361/688; 361/679

[58] **Field of Search** 395/325, 275; 364/508; 361/393, 688, 679

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,530,066	7/1985	Ohwaki et al.	364/708
4,715,385	12/1987	Cudahy et al.	128/710
4,788,658	11/1988	Hanebuth	364/900
4,890,832	1/1990	Komaki	273/1
4,941,841	7/1990	Darden et al.	439/377
5,030,128	7/1991	Herron et al.	439/372
5,041,924	8/1991	Blackborow et al.	360/69
5,097,388	3/1992	Buist et al.	361/393
5,133,076	7/1992	Hawkins et al.	395/800
5,155,662	10/1992	I-Shou .	
5,161,169	11/1992	Galano et al.	375/8
5,187,645	2/1993	Spalding et al.	361/393
5,265,238	11/1993	Canova, Jr. et al.	395/325
5,291,419	3/1994	Satoh et al.	364/508
5,307,465	4/1994	Iki	395/325
5,313,596	5/1994	Swindler et al.	395/325
5,323,291	6/1994	Boyle et al.	361/683
5,371,858	12/1994	Miller et al.	395/275

OTHER PUBLICATIONS

S. Miastkowski, "A Whale of a System," *BYTE,* Aug. 1991, pp. 39–40.

S. Miastkowski, "The Granite–Sided Brick from Ergo Computing: Transportable Technology," *BYTE,* Jun. 1990, pp. 117–118.

"Customer–Installable Attachment Module," *IBM Technical Disclosure Bulletin,* vol. 33, No. 4, Sep. 1990, pp. 38–39.

W. F. Dibble et al., "Base Pluggable Design," *IBM Technical Disclosure Bulletin,* vol. 24, No. 1A, Jun. 1981, p. 28.

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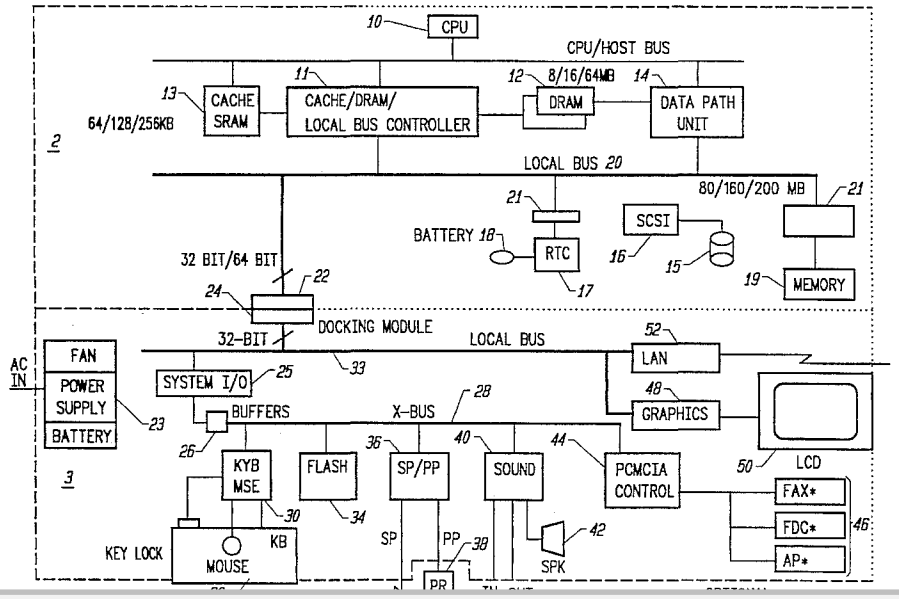
[57] **ABSTRACT**

A highly portable personal processor module (PPM) for use in a variety of docking stations, each of which can be connected to the personal processor via a standard connector, the personal processor and docking station when so connected defining a complete computer system, the personal processor containing a microprocessor, magnetic storage and memory, and the docking station providing at least a power supply, a cooling system for the PPM, a keyboard and a display. The personal processor is loaded with a user's personalized operating system and software so that the user can carry their preferred computing environment with them. The personal processor module also includes control software that reads and recognizes a type code provided by each docking station and configures the PPM accordingly. For the situation when the PPM cannot identify the docking station to which it is connected, the PPM provides a default configuration routine. The PPM also tracks the number of connections made to docking stations so as to determine the remaining life of the PPM's connector. The docking station includes a power coupling controller that locks the PPM into the docking station and will not allow power to be withdrawn from the PPM other than in response to a positive user command, thus preventing inadvertent data loss from the PPM's memory.

19 Claims, 24 Drawing Sheets



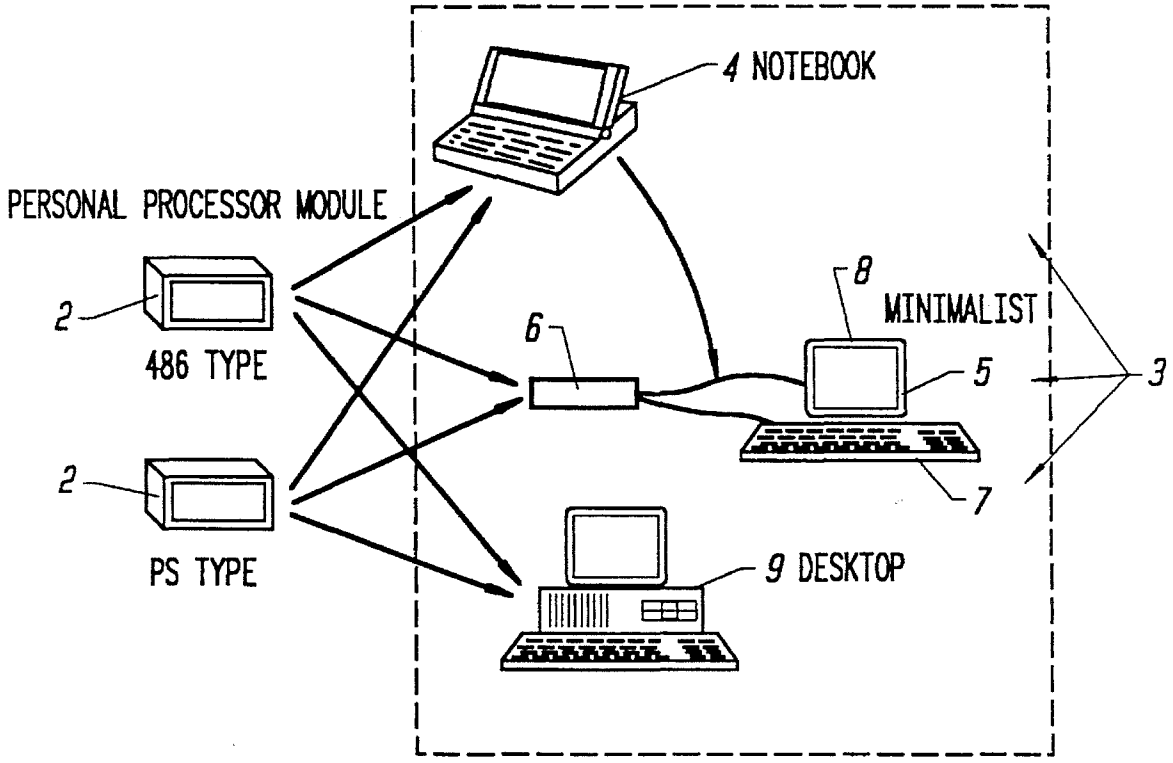
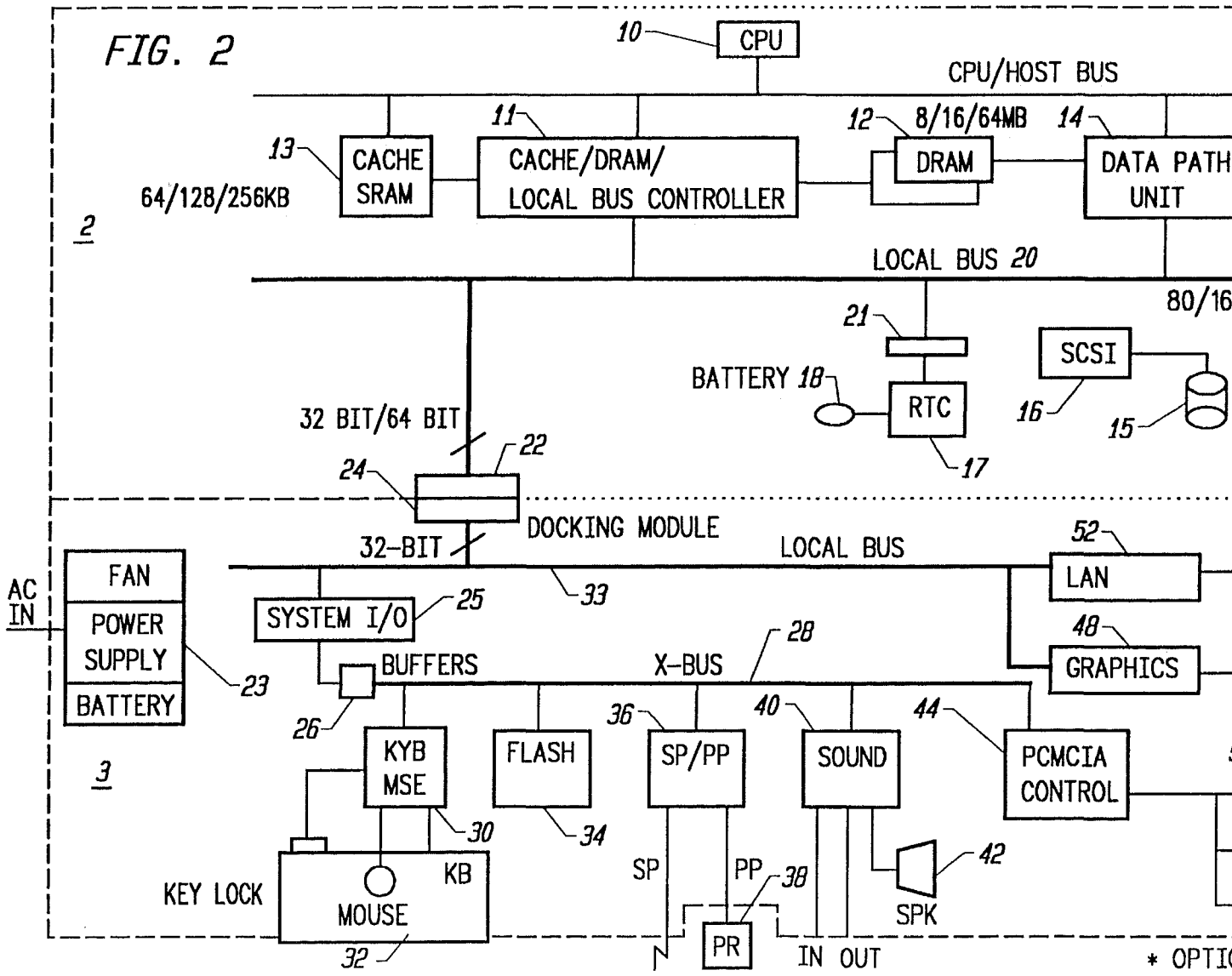


FIG. 1



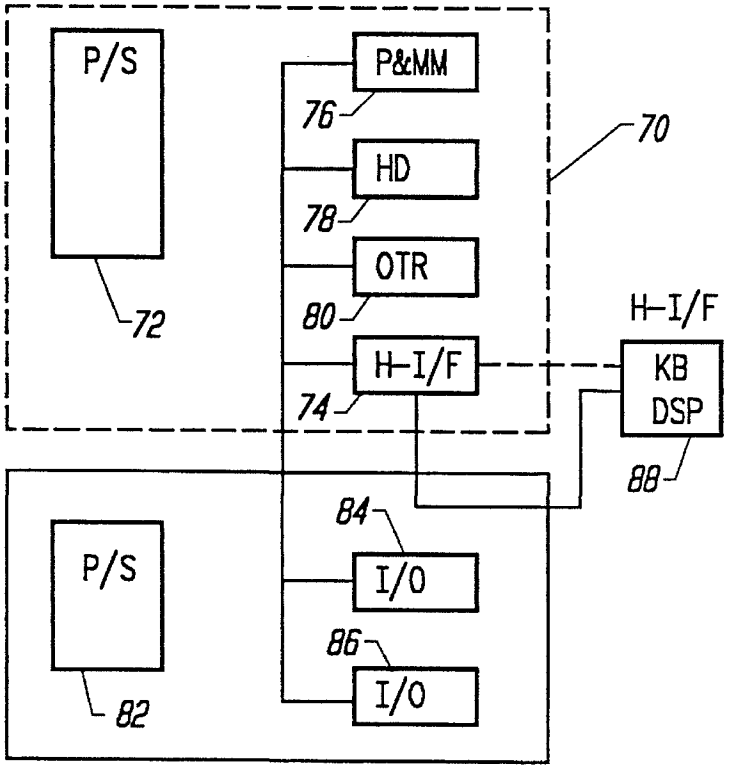


FIG. 3

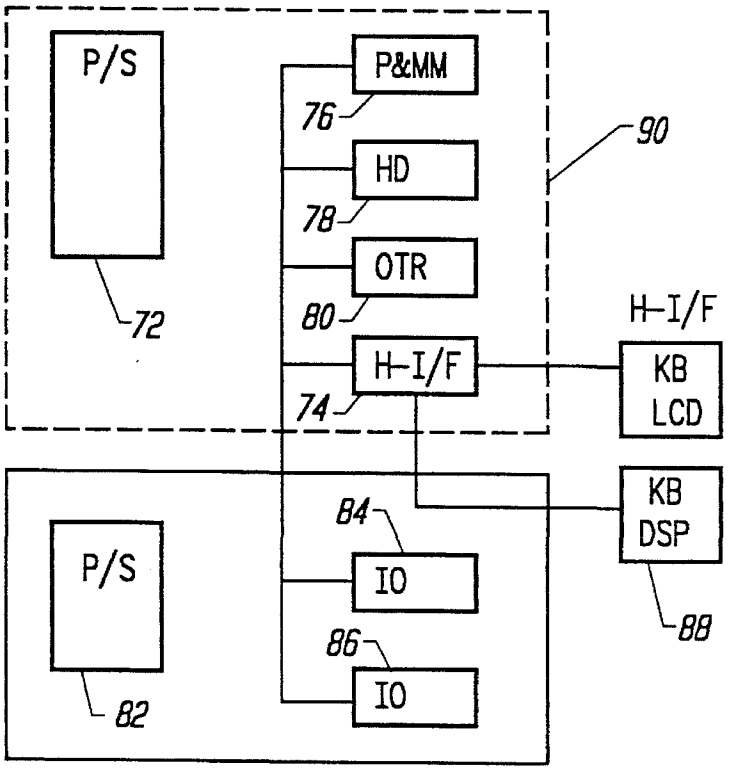


FIG. 4

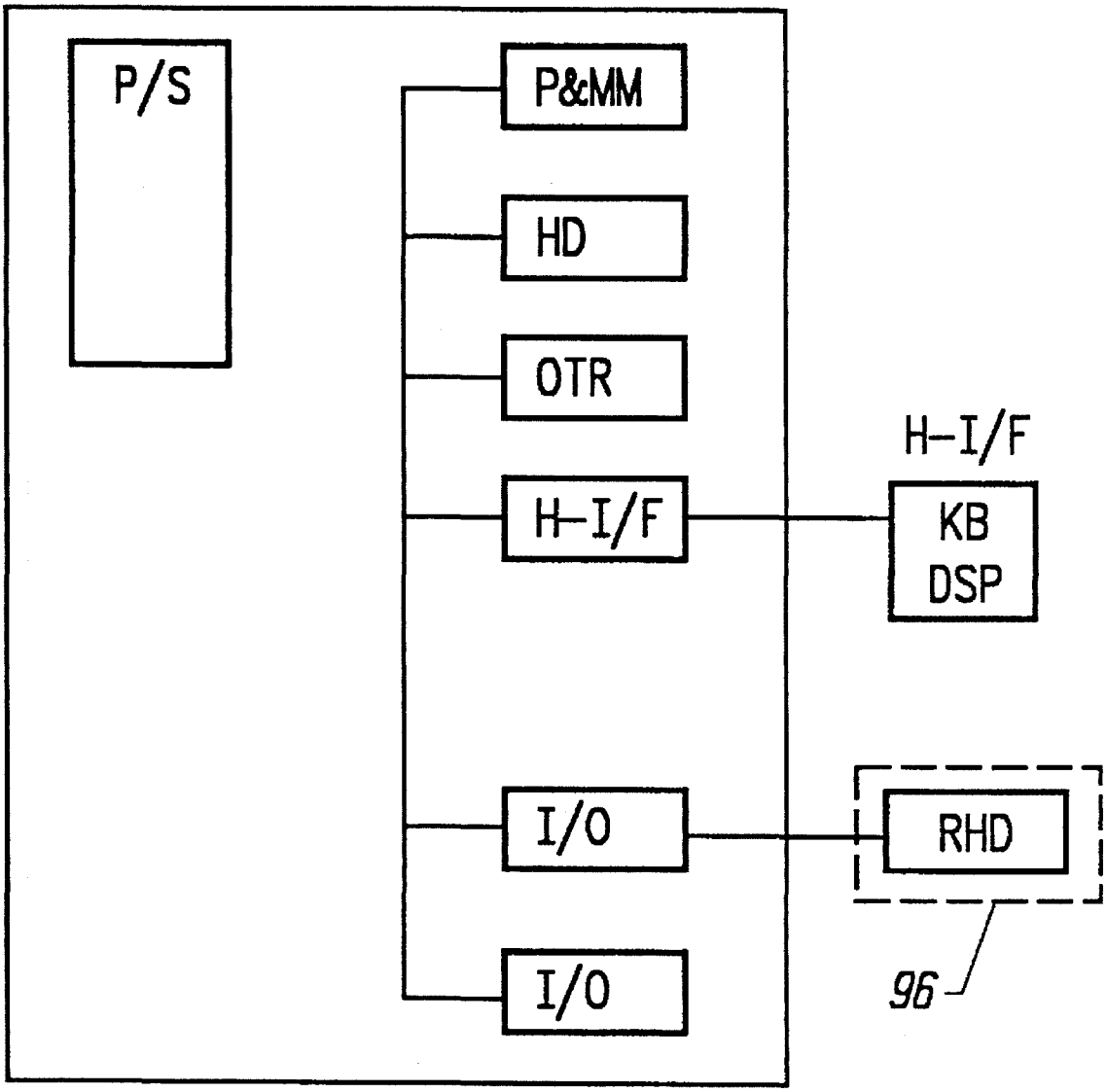


FIG. 5

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