



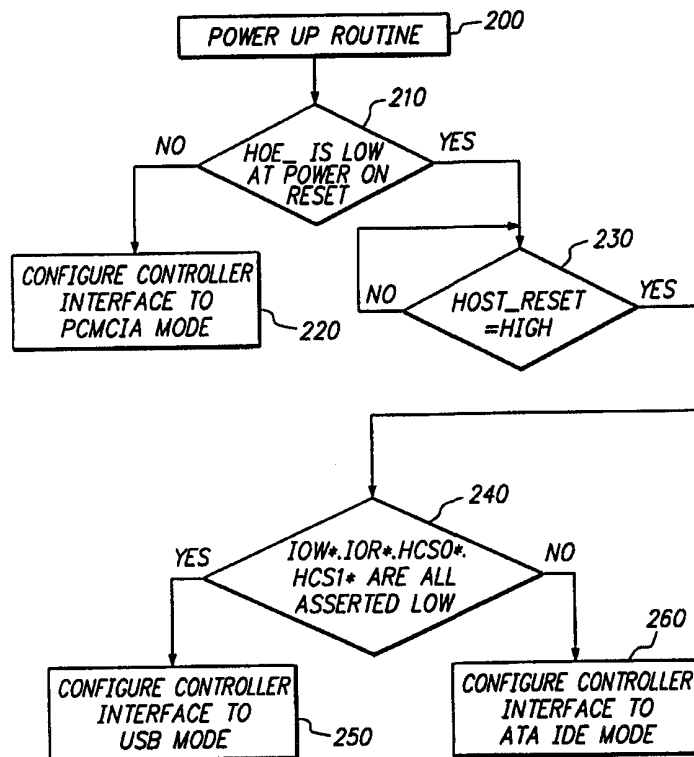
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(54) Title: IMPROVED COMPACT FLASH MEMORY CARD AND INTERFACE

(57) Abstract

An improved compact flash memory card system includes an improved compact flash memory card desktop adapter and an improved compact flash memory card. The improved compact flash memory card desktop adapter utilizes a fifty pin socket to interface with the compact flash memory card. The desktop adapter also utilizes a plug adapter to interface with a computer. For more efficient communication between the improved compact flash memory card and the computer, the improved desktop adapter adopts the universal serial bus architecture. The improved compact flash memory card utilizes a fifty pin connection to interface with a computer through an interface device. The fifty pin connection of the flash memory card can be used with different interface devices in a variety of configurations such as a universal serial bus mode, PCMCIA mode, and ATA IDE mode. Each of these modes of operation require different protocols. Upon initialization with an interface device, this improved compact flash memory card automatically detects which operation mode is used by this interface device and configures the memory card to be compatible with the present operation mode. Because all fifty pins of the flash memory card are occupied to either transfer data or provide control signals to and from the flash memory card, this improved flash memory card merely senses selected pins to determine the present mode of operation.



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A. CLASSIFICATION OF SUBJECT MATTER IPC 6 G06F13/40		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category ^o	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 5 625 238 A (ADY ROGER W ET AL) 29 April 1997 (1997-04-29) column 1, line 11 - line 46 column 2, line 23 - line 51 column 2, line 61 - column 3, line 39 column 4, line 6 - line 13 column 6, line 37 - column 7, line 4 abstract; claims 1-3; figures 1,4A-4B ---	1-3,8,9, 12 4-7,10, 11
A	US 5 589 719 A (FISET PETER D) 31 December 1996 (1996-12-31) column 1, line 11 - column 2, line 62 column 4, line 2 - column 5, line 13 column 6, line 23 - column 7, line 15 column 9, line 17 - column 10, line 12 abstract; figures 1,12 -----	1-12
<input type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Nguyen Xuan Hiep, C	

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5625238	A	29-04-1997	NONE	
US 5589719	A	31-12-1996	NONE	