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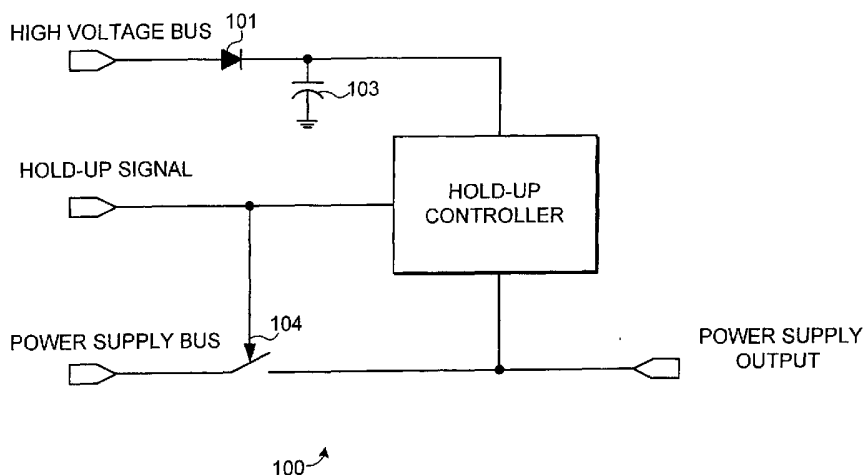
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ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **BACKUP POWER SUPPLY FOR FLASH MEMORY**



(57) Abstract: A back-up power supply for flash memory systems is provided. The back-up power supply provides the flash memory with the power needed to temporarily operate when a power loss exists. This allows the flash memory system to complete any erasures and writes, and thus allows it to shut down gracefully. The back-up power supply detects when a power loss on a power supply bus is occurring and supplies the power needed for the flash memory system to temporarily operate. The back-up power supply stores power in at least one capacitor. During normal operation, power from a high voltage supply bus is used to charge the storage capacitors. When a power supply loss is detected, the power supply bus is disconnected from the flash memory system. A back-up controller controls the power flow from the storage capacitors to the flash memory system. The hold-up controller uses feedback to assure that the proper voltage is provided from the storage capacitors to the flash memory system. This power supplied by the storage capacitors allows the flash memory system to complete any erasures and writes, and thus allows the flash memory system to shut down gracefully.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/055234 A1 (MORI SHINICHI) 27 December 2001 (2001-12-27)	1,2,7,8
Y	paragraphs '0029!, '0030!, '0032!, '0037!, '0044!, '0045!; figures 1,2	3-6,11, 12,14, 15,17, 18,20
A		9,10,13, 16,19
Y	US 5 438 549 A (LEVY MARKUS A) 1 August 1995 (1995-08-01) column 3, line 9 - column 7, line 23; figures 2,3 ----- -/--	3-6,11, 12,14, 15,17, 18,20

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5 768 208 A (SALT THOMAS C ET AL) 16 June 1998 (1998-06-16) column 3, line 61 - column 5, line 67; figure 1</p> <p>-----</p>	1

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