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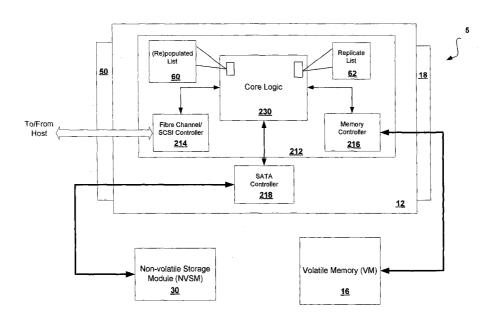
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(54) Title: INTELLIGENT SOLID STATE DISK WITH HOT-SWAPPABLE COMPONENTS



(57) Abstract: A solid state disk (SSD) device, which is coupled to a host computer system, includes a non-volatile storage module (NVSM) and a volatile memory (VM). The SSD is intelligently controlled to process I/O requests received from the host, including writing data specified in a WRITE request to one or more address locations of the VM specified by the request, recording the data written to each address location of the VM as changed with respect to data stored in the NVSM for each address location, and replicating the changed data to the NVSM when not processing I/O requests from the host.



## INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER			
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US CL: 711/105 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 practicable, search terms used)			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.
Y	US 2002/0101712 A1 (SENO et al) 01 August 2002	(01.08.2002), whole document.	5
X,E	US 2005/0097288 A1 (HOLZMANN) 05 May 2005 (05.06.2005), whole document.		1-4,6,27-29
Y, E			5,7,8-12,24-33,37-39
X	US 2003/0131206 A1 (ATKINSON et al) 10 July 2003 (10.07.2003), whole document.		15-18,21-23,34-36
Y			8-12,19-20.24-33,37- 39
Y, P	Y, P US 6,839,802 B2 (DIMITRI et al) 04 January 2005 (04.01.2005), whole de		7,19-20
Further documents are listed in the continuation of Box C. See patent family annex.			
		"T" later document published after the inte	
"A" document defining the general state of the art which is not considered to be of particular relevance		date and not in conflict with the applic the principle or theory underlying the	invention
"E" earlier ap date	plication or patent published on or after the international filing	"X" document of particular relevance; the considered novel or cannot be conside step when the document is taken alone	ered to involve an inventive
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