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(54) **Title:** FLASH DISK ARRAY AND CONTROLLER

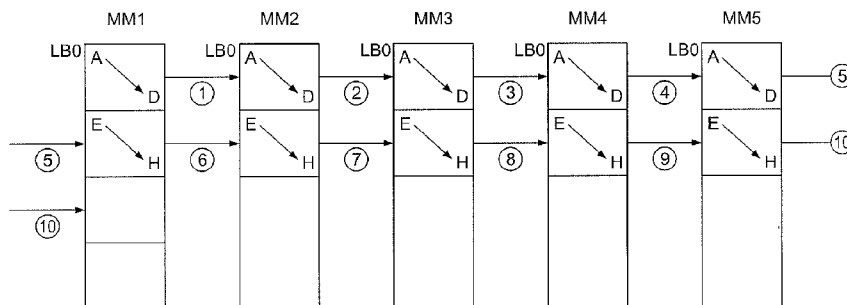


FIG. 9

(57) **Abstract:** A data storage array is described, having a plurality of solid state disks configured as a RAID group. User data is mapped and managed on a page size scale by the controller, and the data is mapped on a block size scale by the solid state disk. The writing of data to the solid state disks of the RAID group is such that reading of data sufficient to reconstruct a RAID stripe is not inhibited by the erase operation of a disk to which data is being written.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/046448**A. CLASSIFICATION OF SUBJECT MATTER****G06F 12/02(2006.01)i, G11C 16/06(2006.01)i**

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)

G06F 12/02; G06F 12/16; G06F 12/00; G06F 12/08

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: flash, memory, block, RAID, mapping, selecting, logical, physical

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2011-0145488 A1 (TANAKA, KATSUYA et al.) 16 June 2011 See paragraphs [0038], [0066], [0105], [0152]; claims 1, 15 and figures 2, 3.	1-16
A	US 7797481 B2 (LEE, YANG-SUP et al.) 14 September 2010 See column 3, line 17 - column 4, line 27; claims 1, 4, 5, 6 and figures 8, 9.	1-16
A	US 7774575 B2 (SETO, PAK-LUNG et al.) 10 August 2010 See column 6, lines 30-32; claim 9 and figure 5.	1-16
A	US 2009-0292862 A1 (KITAHARA, JUN) 26 November 2009 See paragraphs [0039]-[0045]; claim 1 and figure 2.	1-16

 Further documents are listed in the continuation of Box C. See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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