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(54) **NON-VOLATILE MEMORY DATA STORAGE SYSTEM WITH RELIABILITY MANAGEMENT**

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(73) Assignee: **Nanostar Corporation, U.S.A**

(57) **ABSTRACT**

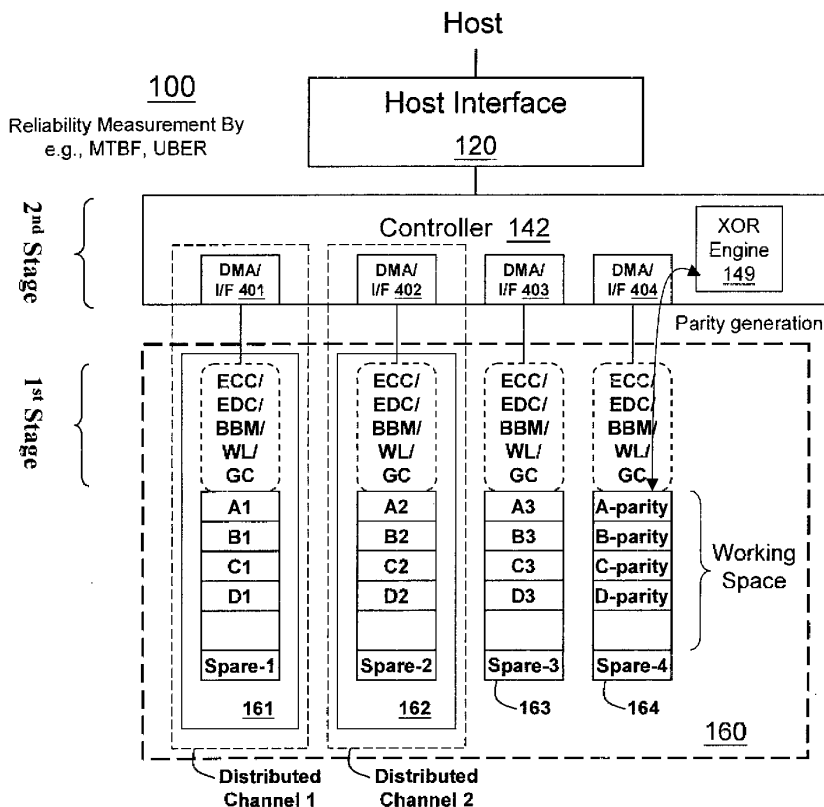
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A non-volatile memory data storage system, comprising: a host interface for communicating with an external host; a main storage including a first plurality of flash memory devices, wherein each memory device includes a second plurality of memory blocks, and a third plurality of first stage controllers coupled to the first plurality of flash memory devices; and a second stage controller coupled to the host interface and the third plurality of first stage controller through an internal interface, the second stage controller being configured to perform RAID operation for data recovery according to at least one parity.

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 12/218,949, filed on Jul. 19, 2008, Continuation-in-part of application No. 12/271,885, filed on Nov. 15, 2008, Continuation-in-part of application No. 12/372,028, filed on Feb. 17, 2009.



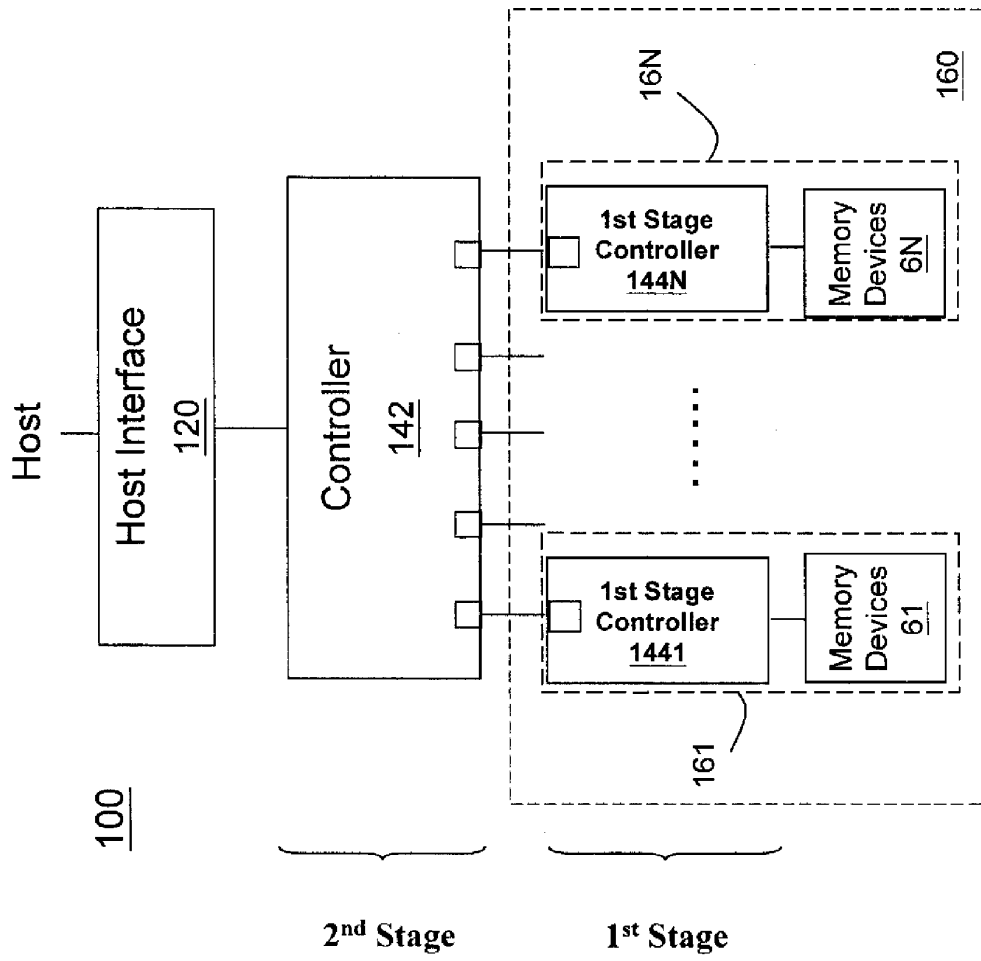
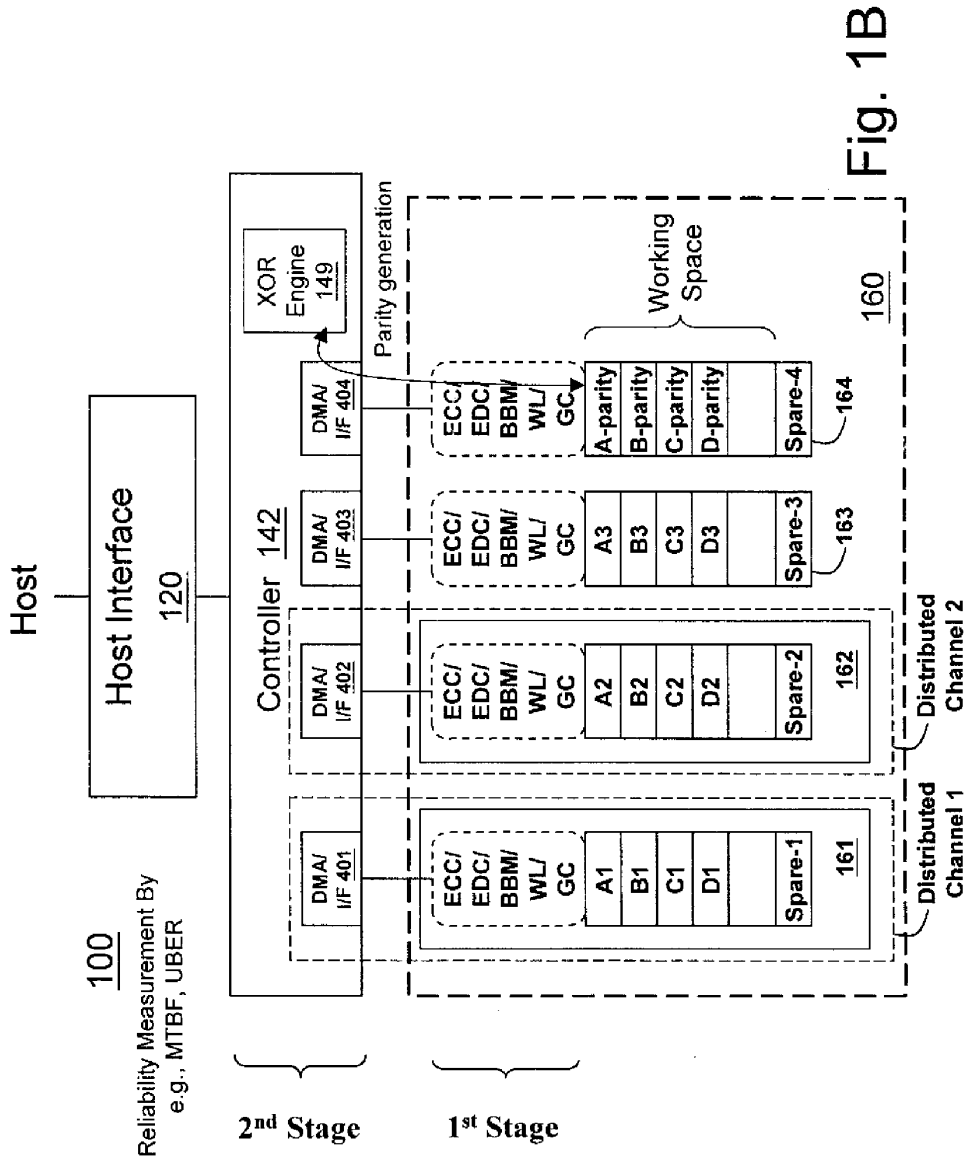


Fig. 1A



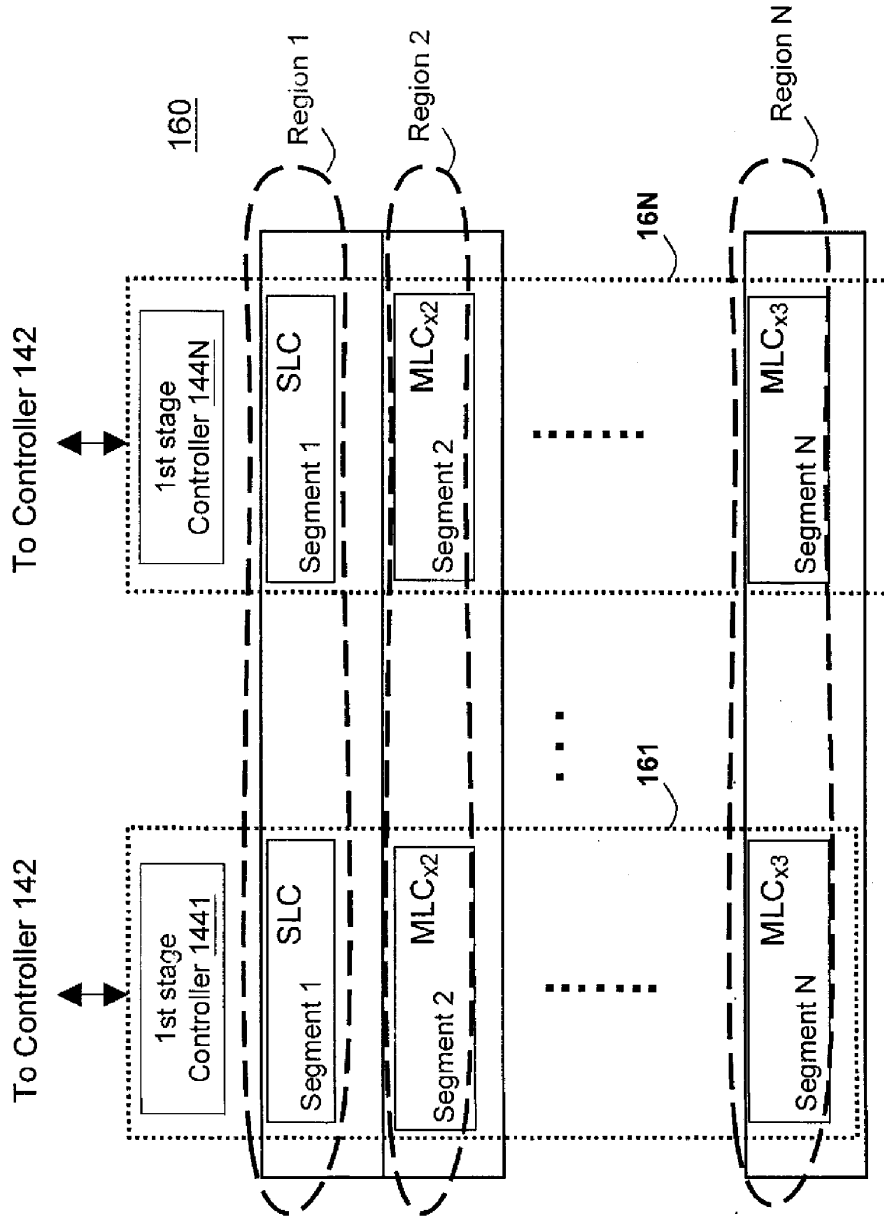
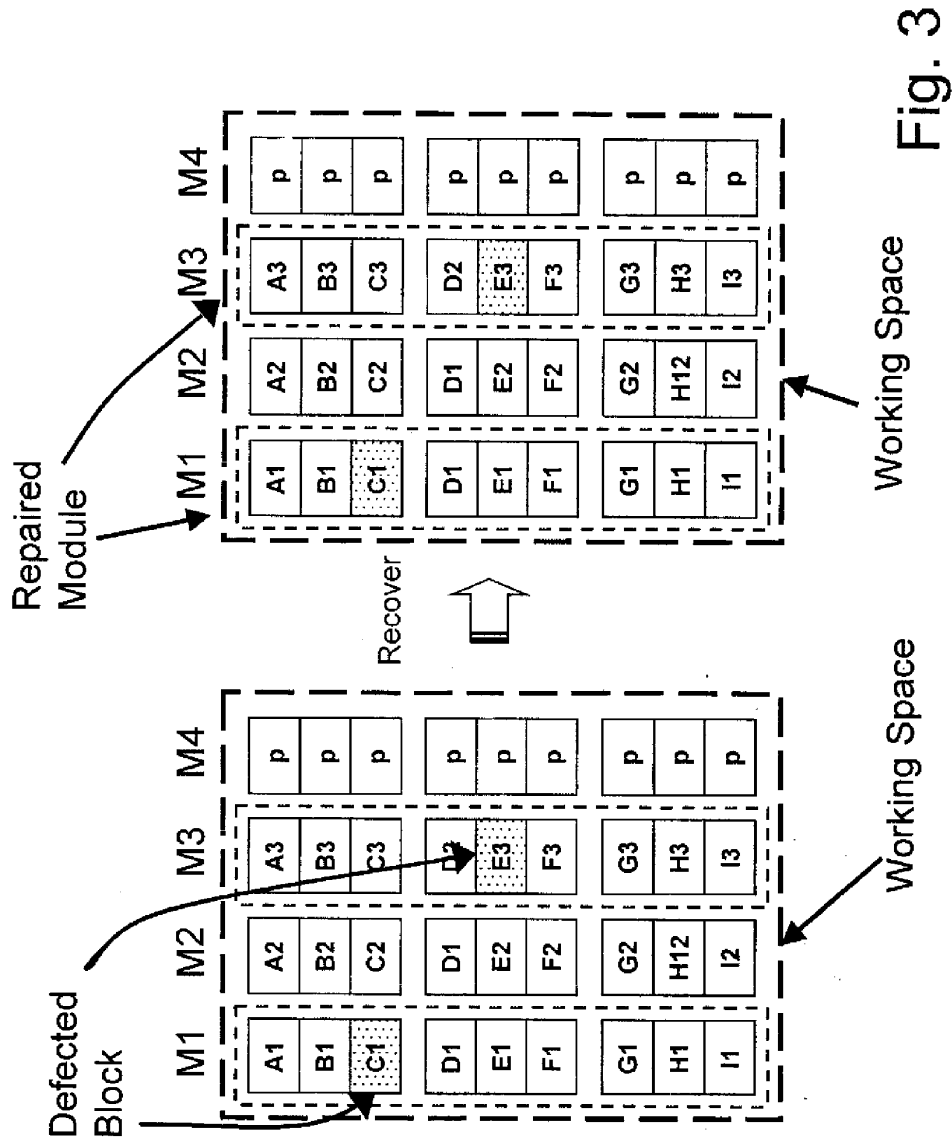


Fig. 2



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