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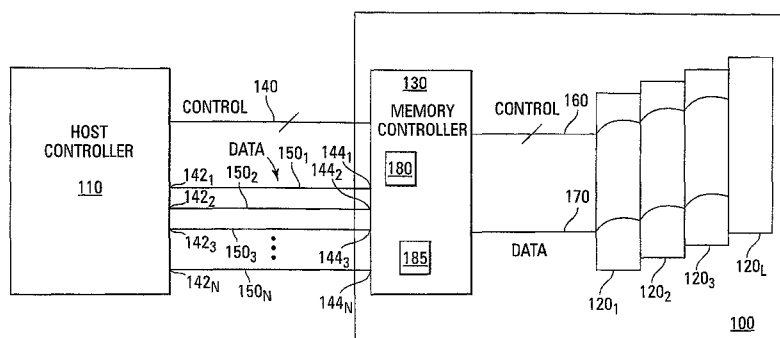


FIG. 1

(57) Abstract: A memory module (100, 220, 320, 620) has one or more memory devices (120), a controller (130, 222, 330, 622) in communication with the one or more memory devices (120), and a plurality of input/output ports (144, 240, 242, 350, 640, 645). The controller (130, 222, 330, 622) is configured to configure each input/output port (144, 240, 242, 350, 640, 645) as an input, an output, or a bidirectional input/output.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2009/042813**A. CLASSIFICATION OF SUBJECT MATTER***G11C 7/10(2006.01)i, G11C 7/22(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)

IPC 8 G11C; G06F

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 since 1975.

Japanese utility models and applications for utility models since 1975.

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

eKOMPASS(KIPO internal) & Keywords: "port, control, port, data, link"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002-0087751 A1 (FAY CHONG) 04 July 2002 See the abstract, and figure 3A.	1-35
A	US 2004-0128431 A1 (CHIEN-HSING LIU et al.) 01 July 2004 See the abstract, and figure 3.	1-35
A	US 2002-0029320 A1 (KAZUHISA FUJIMOTO et al.) 07 March 2002 See the abstract, and figure 1.	1-35

☐ 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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