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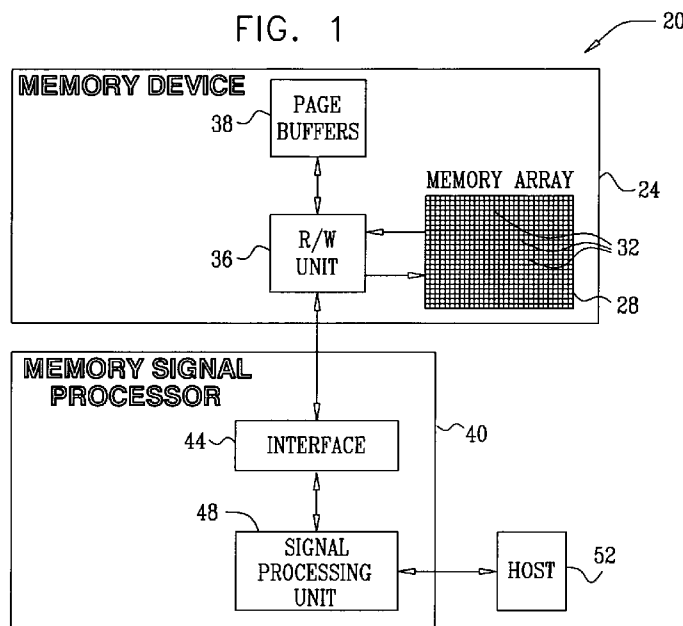
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(54) Title: PROGRAMMING ORDERS FOR REDUCING DISTORTION IN ARRAYS OF MULTI-LEVEL ANALOG MEMORY CELLS

FIG. 1



(57) Abstract: A method for data storage includes predefining an order of programming a plurality of analog memory cells (32) that are arranged in rows (68). The order specifies that for a given row having neighboring rows on first and second sides, the memory cells in the given row are programmed only while the memory cells in the neighboring rows on at least one of the sides are in an erased state, and that the memory cells in the given row are programmed to assume a highest programming level, which corresponds to a largest analog value among the programming levels of the cells, only after programming all the memory cells in the given row to assume the programming levels other than the highest level. Data is stored in the memory cells by programming the memory cells in accordance with the predefined order.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL 08/01188

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G11C 16/04 (2009.01)

USPC - 365/185.33

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

USPC: 365/185.33, 189.011, 189.15, 189.16 (view text search terms below)

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

pubWEST(PGPB,USPT,EPAB,JPAB; PLUR=YES); DialogWeb; Google Scholar; Google Patent; Text search terms: memory, device, analog, memory, data, storage, programming, array, multi-level, order, of, programming, row, neighbor, side, high, levels, memory, page, even, odd, order, cross, coupling, interference, predefined, order...

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X - Y	US 2006/0256626 A1 (WERNER et al.) 16 November 2006 (16.11.2006), entire document, especially; Abstract, Figs.29-30, 35, 41, 45, 48; para [0012], [0096], [0098], [0140]-[0142], [0146]-[0148], [0155], [0157], [0159]-[0160], [0165], [0181], [0190], [0200]	1, 2, 4-18, 20-32 ----- 3, 19
Y	US 7,079,555 B2 (BAYDAR et al.) 18 July 2006 (18.07.2006), entire document, especially; Abstract; col 2, ln 63-67; col 66, ln 58 to col 67, ln 4	3, 19
A	US 2004/0105311 A1 (CERNEA et al.) 03 June 2004 (03.06.2004), entire document	1 - 32

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