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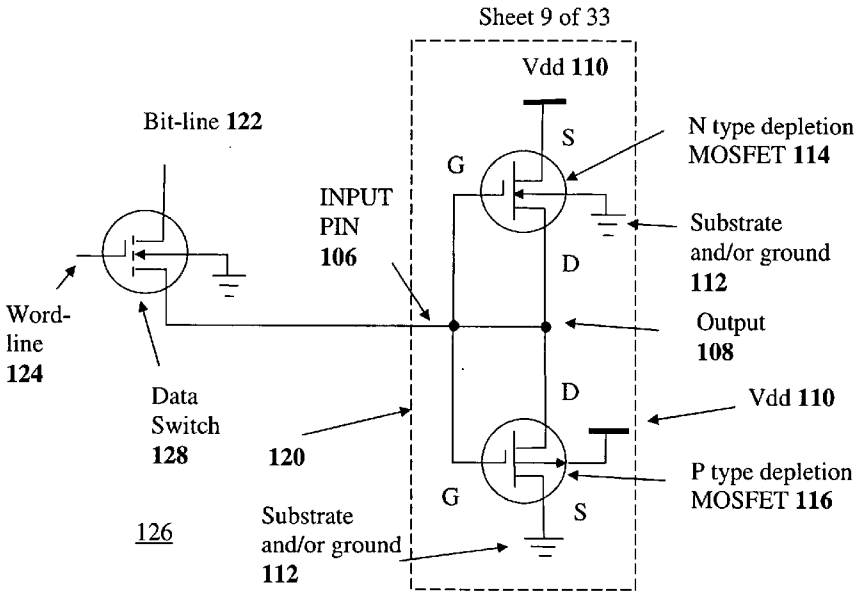
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16 October 2008

(54) Title: DEPLETION-MODE MOSFET CIRCUITS AND APPLICATIONS



(57) Abstract: Positive logic circuits, systems and methods using MOSFETs operated in a depletion-mode, including electrostatic discharge protection circuits (ESD), non-inverting latches and buffers, and one-to-three transistor static random access memory cells. These novel circuits supplement enhancement-mode MOSFET technology and are also intended to improve the reliability of the complementary metal-oxide-semiconductor (CMOS) integrated circuit (IC) products.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 08/51913

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H01L 27/088 (2008.04)
USPC - 257/348
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)
USPC: 257/348

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 257/392, 504 (see also text search below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PubWEST(PGPB,USPT,USOC,EPAB,JPAB), USPTO, Google, Answers.com, Google Patents
Search Terms Used: buffer, address, line, depletion, MOSFET, logic, circuit, substrate, coupling, four, transistor, two-transistor, positive, voltage, supplies, enhancement, source, drain, terminal, EDP, resistor, RAM, SRAM, input, output

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 6,043,540 A (MATSUI et al.) 28 March 2000 (28.03.2000) col 1, ln 35-40, 43-67, col 18, ln 65 to col 19, ln 14; See Fig. 5	1-2 --- 3-11, 13-16
X --- Y	US 2004/0130349 A1 (MORGENSHTEIN et al.) 08 July 2004 (08.07.2004) para [0012], [0016]-[0017], [0021], [0183], [0186]-[0188], [0300]-[0301], [0309] and [0315])	12 --- 13-16
Y	US 6,730,960 B2 (FORBES) 04 May 2004 (04.05.2004) col 2, ln 42-54, col 3, ln 60 to col 4, ln 9, 42-54, col 7, ln 10-50, col 10, ln 21-50; See Fig. 2C, 6	3-11, 13-16
Y	US 6,906,962 B2 (LAYMAN et al.) 14 June 2005 (14.06.2005) col 2, ln 66 to col 3, ln 11; See Fig. 1	3-5, 8-9
Y	US 6,307,236 B1 (MATSUZAKI et al.) 23 October 2001 (23.11.2001) col 21, ln 1-17, col 27, ln 15-28	3-5, 7, 11 and 15
Y	US 2003/0155952 A1 (BLAIR et al.) 21 August 2003 (21.08.2003) para [0014]-[0015]	16

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
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