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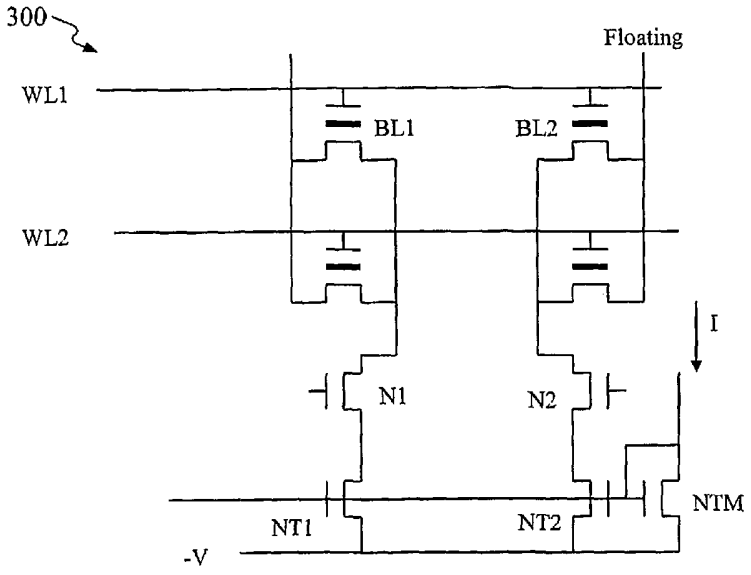
[Continued on next page]

(54) Title: CURRENT SOURCE CONTROL IN RFID MEMORY



(57) Abstract: The present disclosure includes systems and techniques relating to RFID tags including current source control in RFID memory. According to an aspect, a radio frequency identification tag includes an antenna, a radio frequency interface coupled with the antenna, and a non-volatile memory including multiple memory cells, at least one of the memory cells including a floating gate, a control gate, and a dielectric there between. The non-volatile memory includes a controlled current source operable to modify the at least one memory cell. Additionally, the non-volatile memory can include a voltage supply line regulator that limits voltage supply based on a sensed operational current that results from the controlled current source in the non-volatile memory.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US05/06036

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **G11C 16/04**(2006.01)

USPC: 365/185.02
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)
U.S. : 365/185.02; 340/10.1

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

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,288,629 B1 (COFINO et al) 11 September 2001 (11.09.2001), Figure 2; column 3, lines 27-31; column 4, lines 30-34, 56-64.	1, 2, 9-14, 17-22
X --- Y	US 6,201,731 B1 (KAMP et al) 13 March 2001 (13.03.2001), Figures 2, 10; column 10, lines 24-30; column 14, lines 44-51; column 16, lines 17-18.	1, 9, 11, 12, 20-22 --- 13, 14, 17-19
Y	US 2003/0112128 A1 (LITTLECHILD et al) 19 June 2003 (19.06.2003), column 1, lines 13-16, 26-29.	13
Y --- A	US 6,677,852 B1 (LANDT) 13 January 2004 (13.01.2004), Figures 2, 7; column 3, lines 4-5, 9-11; column 5, lines 31-33.	14, 17-19 --- 3-8, 15, 16, 23

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

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INTERNATIONAL SEARCH REPORT

International application No.
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Continuation of B. FIELDS SEARCHED Item 2:
TechWeb definition of EEPROM. http://www.techweb.com/encyclopedia/printArticlePage.jhtml?term=EEPROM Retrived 10 November 2005 (10.11.2005)

Continuation of B. FIELDS SEARCHED Item 3:
EAST: US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
search terms: (365/185.02).CCLS.; "5258766"; "5258766".pn.; ((radio adj frequency adj identifi$4) or RFID) (non-volatile adj memory) antenna (current adj mirror); ((radio adj frequency adj identifi$4) or RFID) adj conveyor; ((radio adj frequency adj identifi$4) or RFID) adj programmer; (340/10.1).CCLS.; (340/10.1).CCLS. RFID; (340/10.1).CCLS. RFID (current adj mirror); (340/10.1).CCLS. RFID (current adj mirror) (non-volatile); (radio adj frequency) (non-volatile adj memory); (radio adj frequency) (non-volatile adj memory) ((floating and control) adj gate); ((radio adj frequency adj identifi$4) or RFID) (non-volatile adj memory) antenna (current adj source); ((radio adj frequency adj identifi$4) or RFID) EEPROM (current adj source); (365/185.02).CCLS.; (365/185.02).CCLS. RFID; (365/185.02).CCLS. antenna; (ROESNER-B ROESNER-BRUCE ROESNER-BRUCE-B ROESNER-BRUCE-BOYD ROESNER-B-B NANAWA-PETER-A NANAWA-P-A).in.; (ROESNER-B ROESNER-BRUCE ROESNER-BRUCE-B ROESNER-BRUCE-BOYD ROESNER-B-B NANAWA-PETER-A NANAWA-P-A).in. and (RFID); (ROESNER-B ROESNER-BRUCE ROESNER-BRUCE-B ROESNER-BRUCE-BOYD ROESNER-B-B NANAWA-PETER-A NANAWA-P-A.in. and (RFID) and (memory); (floating control adj gate and (current adj mirror) force$3 with saturation); (radio adj frequency) (non-volatile adj memory); (radio adj frequency) (non-volatile adj memory) ((floating and control) adj gate); ((radio adj frequency adj identifi$4) or RFID) (non-volatile adj memory) antenna (current adj source); ((radio adj frequency adj identifi$4) or RFID) EEPROM (current adj source); (current adj mirror) with ((bit or digit or column) adj line)