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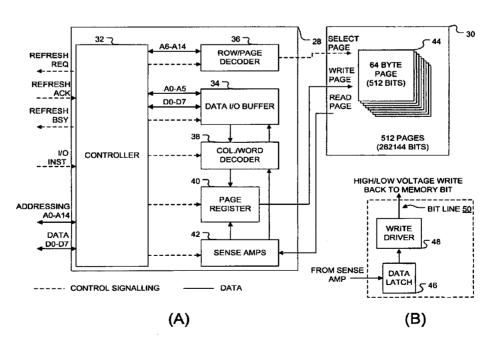
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(54) Title: METHOD FOR REFRESHING A NON-VOLATILE MEMORY



(57) Abstract: A non-volatile memory and a method of refreshing a memory are described. The method includes allowing an external system to control refreshing operations within the memory. The memory may generate a refresh request signal and transmit the refresh request signal to the external system. When the external system finds an available time to process the refresh request, the external system acknowledges the refresh request and transmits a refresh acknowledge signal to the memory. The memory may also comprise a page register for reading and rewriting a data state back to the memory. The page register may comprise latches in lieu of supplemental non-volatile storage elements, thereby conserving real estate within the memory.





### INTERNATIONAL SEARCH REPORT

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PCT/US2007/003198 A. CLASSIFICATION OF SUBJECT MATTER INV. G11C16/34 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) G11C Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. Υ EP 1 253 599 A (SAIFUN SEMICONDUCTORS LTD 1 - 20[IL]) 30 October 2002 (2002-10-30) figures 1,4 γ WO 02/069344 A (MONOLITHIC SYSTEM TECH INC 1 - 20[US]) 6 September 2002 (2002-09-06) paragraphs [0100] - [0104]; figure 10 US 2004/213035 A1 (CAVALERI PAOLA [FR] ET γ 1 - 20AL) 28 October 2004 (2004-10-28) figure 4 Υ US 5 969 993 A (TAKESHIMA TOSHIO [JP]) 1 - 2019 October 1999 (1999-10-19) figure 3 Υ US 5 768 193 A (LEE PETER W [US] ET AL) 1 - 2016 June 1998 (1998-06-16) figures 1,8 See patent family annex. Further documents are listed in the continuation of Box C. Special categories of cited documents: \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "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 docu-"O" document referring to an oral disclosure, use, exhibition or other means ments, such combination being obvious to a person skilled document published prior to the international filing date but later than the priority date claimed \*&\* document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 14 February 2008 21/02/2008 Name and mailing address of the ISA/ Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Ramcke, Ties Fax: (+31-70) 340-3016

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