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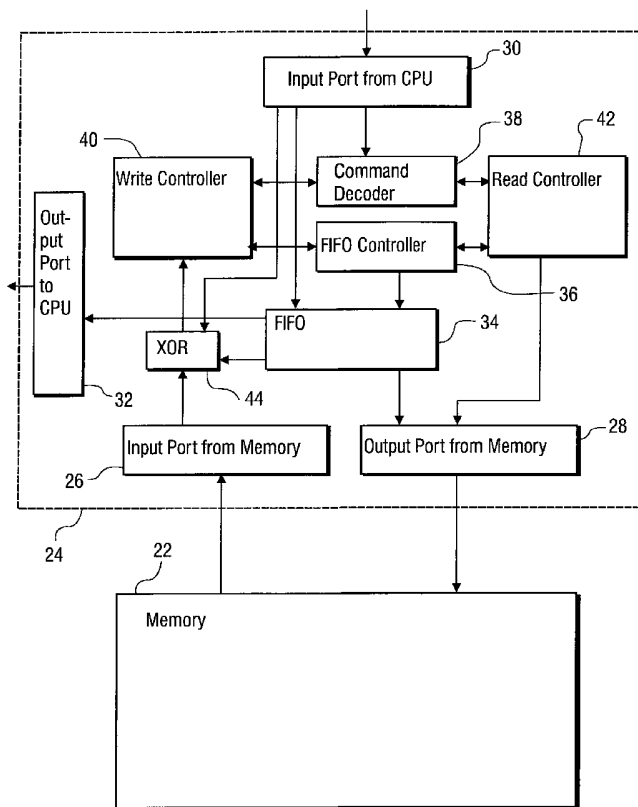
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[Continued on next page]

(54) Title: MEMORY CONTROLLER AND METHOD FOR WRITING TO A MEMORY



(57) Abstract: The invention provides a controller for a memory having at least one memory cell, that involves a higher cost for writing than for reading. The memory cell is allocated to a first address information and adapted to store memory data. The memory controller of the invention comprises a register. A write controller connected with said register and said memory is adapted to receive a write request comprising said first address information and first write data allocated thereto, ascertain whether said first address information is stored in said register. If yes, the write controller compares said first write data with second write data of an earlier write request in said register allocated to said first address information. If no, it compares said first write data with said memory data allocated to the first address information. The write controller further forwards said first address information and said first write data to said register, respectively, and initiates a write operation of said first or second write data, respectively, from said register to said memory, if the first or second write data, respectively, is different from said memory data. With the memory controller of the invention write power can be saved while providing continuous access to the memory.

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SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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B. FIELDS SEARCHED				
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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, PAJ				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
Y	US 5 982 675 A (FUJIMOTO) 9 November 1999 (1999-11-09) column 3, line 20 - column 5, line 27 column 9, line 44 - column 10, line 16 figures 4,5 -----	1-3, 9-11, 14-19, 24,26		
Y	US 6 151 658 A (MAGRO) 21 November 2000 (2000-11-21) column 2, line 20 - column 3, line 2 column 4, line 3 - column 5, line 44; figures 1,2 ----- -/--	1-3, 9-11, 14-19, 24,26		
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.				
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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 filing date *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) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed	*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 invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *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 <p style="text-align: center;">24 June 2004</p>	Date of mailing of the international search report <p style="text-align: center;">30/06/2004</p>			
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer <p style="text-align: center;">McDonagh, F</p>			

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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