

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
21 December 2006 (21.12.2006)

PCT

(10) International Publication Number
WO 2006/134550 A3

(51) International Patent Classification:

G06F 13/16 (2006.01)

(21) International Application Number:

PCT/IB2006/051876

(22) International Filing Date: 13 June 2006 (13.06.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

05105145.6 13 June 2005 (13.06.2005) EP

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

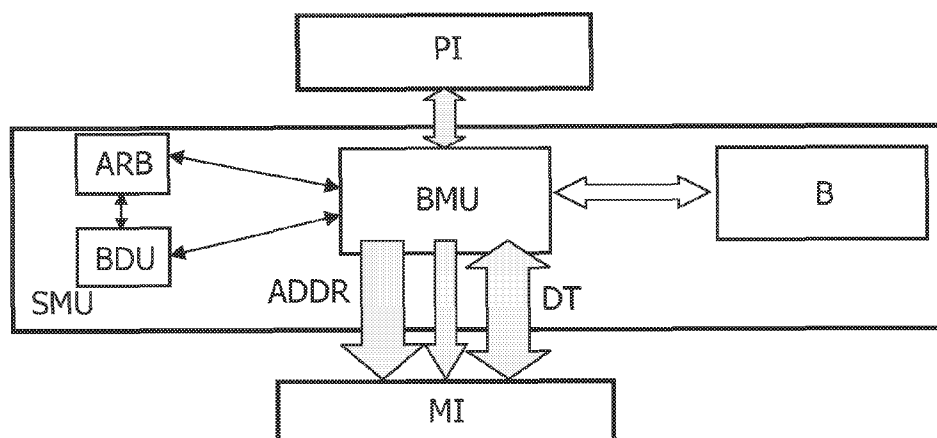
— with international search report

(88) Date of publication of the international search report:

8 March 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MEMORY CONTROLLER



(57) Abstract: A memory controller (SMC) is provided for coupling a memory (MEM) to a network (N). The memory controller (SMC) comprises a first interface (PI), a streaming memory unit (SMU) and a second interface. The first interface (PI) is used for connecting the memory controller (SMC) to the network (N) for receiving and transmitting data streams (ST1 - ST4). The streaming memory unit (SMU) is coupled to the first interface (PI) for controlling data streams (ST1 - ST4) between the network (N) and the memory (MEM). The streaming memory unit (SMU) comprises a buffer (B) for temporarily storing at least part of the data stream (ST1 - ST4) and a buffer managing unit (BMU) for managing the temporarily storing of the data streams (ST1 - ST4) in the buffer (B) and for dynamically allocating buffers (PFB, WBB) for at least one of the data streams (ST1 - ST4). The second interface is coupled to the streaming memory unit (SMU) for connecting the memory controller (SMC) to the memory (MEM) in order to exchange data with the memory (MEM) in bursts. Furthermore, a buffer dimensioning unit (BDU) is provided for dimensioning the buffer (B) for at least one of the data streams (ST1 - ST4).



WO 2006/134550 A3

INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2006/051876

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F13/16

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)
G06F

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)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 859 454 B1 (BOWES MICHAEL J [US]) 22 February 2005 (2005-02-22) figures 1,2 column 6, lines 7-27 column 18, lines 13-41 column 37, lines 38-66 column 54, lines 52-64 column 55, lines 10-16 column 59, lines 3-18	1-6
A	US 6 813 701 B1 (ANSARI AHMAD R [US]) 2 November 2004 (2004-11-02) figure 1 column 2, lines 35-65 column 3, lines 1-37 column 6, lines 23-40 column 7, lines 30-45 ----- -/--	1-6



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Date of the actual completion of the international search

1 December 2006

Date of mailing of the international search report

07/12/2006

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INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2006/051876

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 553 446 B1 (MILLER STEVEN [US]) 22 April 2003 (2003-04-22) figure 1 column 4, lines 25-60 column 5, lines 55-65 column 9, lines 34-57 column 14, lines 1-25 -----	1-6

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2006/051876

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6859454	B1	22-02-2005	NONE
US 6813701	B1	02-11-2004	US 2005055536 A1 10-03-2005
US 6553446	B1	22-04-2003	NONE