

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
20 September 2007 (20.09.2007)

PCT

(10) International Publication Number
WO 2007/106710 A3

- (51) International Patent Classification:
GIIC 7/10 (2006.01)
- (21) International Application Number:
PCT/US2007/063567
- (22) International Filing Date: 8 March 2007 (08.03.2007)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
11/373,394 10 March 2006 (10.03.2006) US
- (71) Applicant (for all designated States except US): RAMBUS INC. [US/US]; 4440 El Camino Real, Los Altos, California 94022 (US).

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, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, MT, 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).

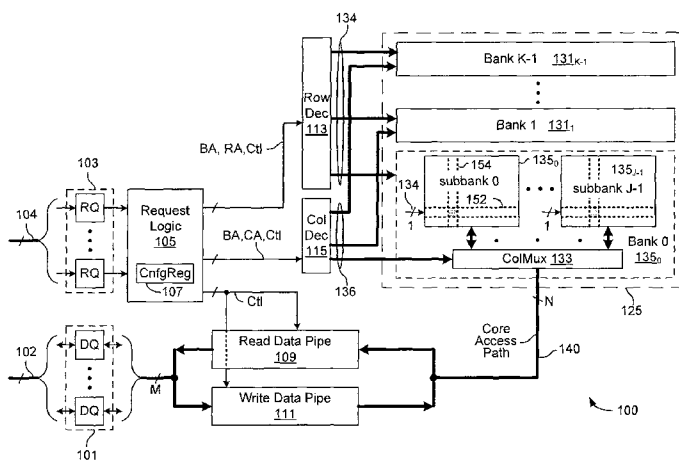
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BELLOWS, Chad, A. [US/US]; 509 Burlingame Ave., Burlingame, California 94010 (US). HAMPEL, Craig, E. [US/US]; 340 Bellevue Court, Los Altos Hills, California 94024 (US).
- (74) Agent: SHEMWELL, Charles, E.; 4880 Stevens Creek, Suite 201, San Jose, California 95129 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
31 January 2008

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 DEVICE WITH MODE-SELECTABLE PREFETCH AND CLOCK-TO-CORE TIMING



(57) Abstract: In a memory device, either a first portion or a second, smaller portion of data retrieved from a storage array is loaded into a data buffer in accordance with a prefetch mode selection and then output from the memory device via a signaling interface. A value that indicates a minimum number of cycles of a clock signal that are to transpire between successive accesses to any one of the storage resources may be received and stored within a configuration circuit of the memory device. If the value indicates a number of clock cycles, N, that is less than a threshold number, the memory device may transfer data associated with a first address between the signaling interface and the data buffer during each of N cycles of the clock signal. If N is greater than or equal to the threshold number, the memory device may transfer the data associated with the first address between the signaling interface and the storage buffer during each of X cycles of the clock signal, and then transfer data associated with the second address between the signaling interface and the storage buffer during each of X cycles of the clock signal, where X is an integer value less than N.

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/063567

A. CLASSIFICATION OF SUBJECT MATTER

INV. G11C7/10

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 329 489 A (DIEFENDORFF KEITH E [US]) 12 July 1994 (1994-07-12) column 4, lines 51-53 column 5, lines 47-57; figure 4	1-11
A	WO 01/16954 A (KOREA INST SCIENCE TECHNOLOGY [KR]; YOO HOI JUN [KR]; YOON CHI WEON [K]) 8 March 2001 (2001-03-08) page 16, lines 6-14; figure 2	1-11
A	US 5 778 436 A (KEDEM GERSHON [US] ET AL) 7 July 1998 (1998-07-07) column 6, lines 34-44 column 8, lines 1-7; figure 3	1-11
A	US 2006/039227 A1 (LAI LAWRENCE [US] ET AL) 23 February 2006 (2006-02-23) paragraphs [0022] - [0029]; figures 3,4	12-23
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Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

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.

G document member of the same patent family

Date of the actual completion of the international search

28 November 2007

Date of mailing of the international search report

11/12/2007

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

Gärtner, Wolfgang

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/063567

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 5 521 878 A (OHTANI JUN [JP] ET AL) 28 May 1996 (1996-05-28) column 15, lines 55-67 - column 33, lines 5-18; figures 1,2 -----	1-23

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/063567

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11

memory operated in a first and a second prefetch mode

2. claims: 12-23

memory operated by successively accessing memory resources thereof

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2007/063567

Patent document cited in search report	A	Publication date	Patent family member(s)	Publication date
US 5329489	A	12-07-1994	NONE	
WO 0116954	A	08-03-2001	JP 3822104 B2 JP 2003508869 T KR 20010026067 A US 6545936 B1	13-09-2006 04-03-2003 06-04-2001 08-04-2003
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