

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
12 April 2007 (12.04.2007)

PCT

(10) International Publication Number
WO 2007/041185 A3

(51) International Patent Classification:

G11C 29/00 (2006.01)

(21) International Application Number:

PCT/US2006/037758

(22) International Filing Date:

26 September 2006 (26.09.2006)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

11/240,304 29 September 2005 (29.09.2005) US

(71) Applicant (for all designated States except US): **INTEL CORPORATION** [US/US]; 2200 Mission College Boulevard, Santa Clara, California 95052 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HSU, Pochang** [US/US]; 1681 Walden Court, Fremont, California 94539 (US). **DODGE, Richard** [US/US]; 3211 Benton Street, Santa Clara, California 95051 (US).

(74) Agents: **VINCENT, Lester, J.** et al.; **BLAKELY SOKOLOFF TAYLOR & ZAFMAN**, 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025 (US).

(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, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, 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, 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).

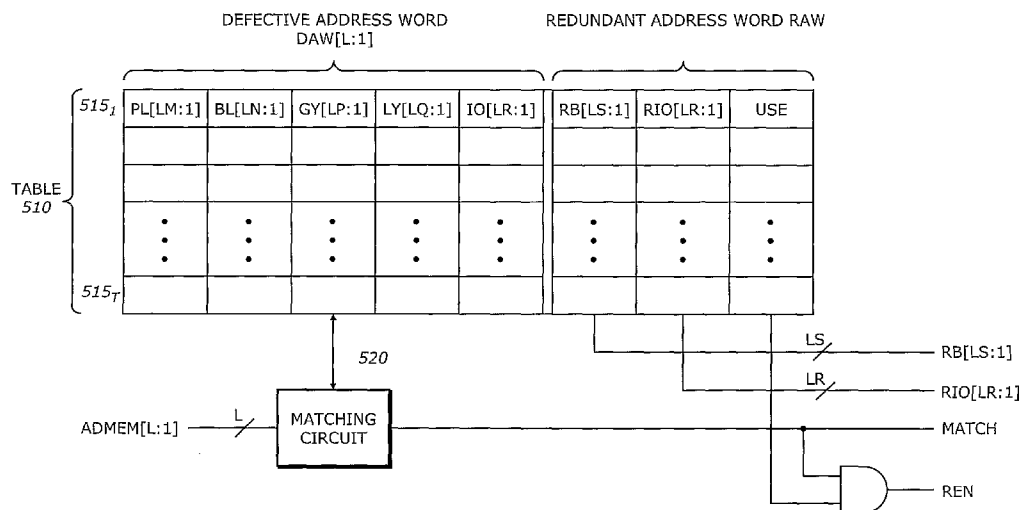
Published:

— with international search report
— 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:
26 July 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: RECONFIGURABLE MEMORY BLOCK REDUNDANCY TO REPAIR DEFECTIVE INPUT/OUTPUT LINES



(57) Abstract: An embodiment of the present invention is a technique to provide a reconfigurable repair circuit in a memory device. A table structure contains a plurality of entries, each entry having a defective address word and a redundant address word. The redundant address word corresponds to a redundant block and is generated in response to a memory access to a defective input/output (I/O) line in a memory block of the memory device. A decoding circuit decodes the redundant address word to select a redundant I/O line in the redundant block to replace the defective I/O line.