

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
17 July 2003 (17.07.2003)

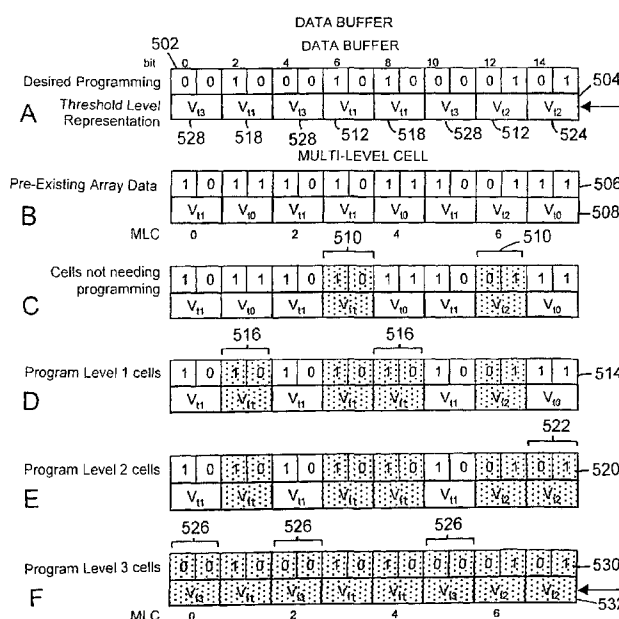
PCT

(10) International Publication Number
WO 03/058637 A1

- (51) International Patent Classification⁷: **G11C 11/56**, 16/02, 16/34
- (21) International Application Number: PCT/US02/41704
- (22) International Filing Date:
31 December 2002 (31.12.2002)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
10/038,119 3 January 2002 (03.01.2002) US
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- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report

[Continued on next page]

(54) Title: PROGRAMMING NON-VOLATILE MEMORY DEVICES



(57) **Abstract:** Programming non-volatile memory devices includes identifying addresses in a data buffer for storing a particular one of a plurality of threshold voltage levels, each of which is represented by a unique pattern of signals and then pulsing the array memory cells associated with the identified addresses to program the array memory cells to the particular threshold voltage level. The identifying and pulsing is repeated for each of the threshold voltage levels. Subsequently, each array memory cell is verified as to whether the cell is programmed with a threshold voltage level that correctly represents the corresponding pattern of signals for that cell.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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