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(21) International Application Number: PCT/US99/09377 (22) International Filing Date: 29 April 1999 (29.04.99) (30) Priority Data: 09/075,430 8 May 1998 (08.05.98) US (71) Applicant (for all designated States except US): INTEL CORPORATION [US/US]; 2200 Mission College Boulevard, Santa Clara, CA 95052 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): HAZEN, Peter, K. [US/US]; 2450 Hidden Oaks Lane, Auburn, CA 95603 (US). GULIANI, Sandeep, K. [IN/US]; 109 Pembury Way, Folsom, CA 95630 (US). LARSEN, Robert, E. [US/US]; 5267 Deerwood Drive, Shingle Springs, CA 95682 (US). (74) Agents: TAYLOR, Edwin, H. et al.; Blakely, Sokoloff, Taylor & Zafman LLP, 7th floor, 12400 Wilshire Boulevard, Los Angeles, CA 90025 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, 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, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW. ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: METHOD AND APPARATUS FOR FAST PRODUCTION PROGRAMMING AND LOW-VOLTAGE IN-SYSTEM WRITES FOR PROGRAMMABLE LOGIC DEVICE		
(57) Abstract A programmable logic device (405) that includes a voltage input (410) and a detection circuit (440) coupled to the voltage input is described. The detection circuit detects whether a voltage (VPP) applied to the voltage input exceeds a predetermined value. The programmable logic device also includes a configuration circuit (430) coupled to the detection circuit. The configuration circuit configures the programmable logic device to receive a current sufficient for program and erase operations through the voltage input in response to the detection circuit detecting that the voltage exceeds the predetermined value.		