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☐ Description : paged to paged

☒ Claim(s) : paged 10 to paged 13

☐ Drawing(s) : paged to paged

☐ Abstract : paged to paged

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(21) International Application Number: PCT/US96/09889 (22) International Filing Date: 14 June 1996 (14.06.96) (30) Priority Data: 08/506,828 25 July 1995 (25.07.95) US (71) Applicant (for all designated States except US): BTR, INC. [US/US]; c/o Corporation Trust Co. of Nevada, 1 East 1st Street, Reno, NV 89501 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): PANI, Peter M. [US/US]; 1110 Ana Privada, Mountain View, CA 94040 (US); TING, Benjamin S. [US/US]; 21120 Sullivan Way, Saratoga, CA 95070 (US); MA, Benny [US/US]; 20329 Knollwood Drive, Saratoga, CA 95070 (US). (74) Agents: SOBRINO, Maria, E. et al.; Blakely, Sokoloff, Taylor & Zafman, 7th floor, 12400 Wilshire Boulevard, Los Angeles, CA 90025-1026 (US).		(81) Designated States: AL, AM, AT, AT (Utility model), AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published With international search report.	
(54) Title: PROGRAMMABLE NON-VOLATILE BIDIRECTIONAL SWITCH FOR PROGRAMMABLE LOGIC ✓			
(57) Abstract			
A bidirectional passgate switch for connecting two conductors utilizes technology such as electrically erasable programmable read only memory (EEPROM). The switch includes two EEPROM components wherein the floating gates of the components are shared. In one embodiment a first n-channel passgate transistor is used for programming and storage of the state of the switch. The oxide of the first transistor is a thin oxide to enable ease of programming. A second n-channel passgate transistor functions as the bidirectional switch wherein the source and drain terminals are coupled to the routing lines to be selectively connected. The second transistor oxide is a thick oxide to minimize the leakage due to tunneling. Thus, the programming lines and routing lines are separated, making the programming process simpler while minimizing leakage.			