(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
5 July 2001 (05.07.2001)

PCT

(10) International Publication Number
WO 01/48584 A1

(51) International Patent Classification[7]: G06F 1/32, 1/20

(21) International Application Number: PCT/US00/31930

(22) International Filing Date:
21 November 2000 (21.11.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/471,795 23 December 1999 (23.12.1999) 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)*: **GROCHOWSKI, Edward, T.** [US/US]; 5565 Yale Drive, San Jose, CA 95118 (US). **SHARMA, Vinod** [IN/US]; 954 Hibiscus Lane, San Jose, CA 95117 (US). **MATTHEWS, Gregory, S.** [US/US]; 3655 Pruneridge Avenue, #97, Santa Clara, CA 95051 (US). **JOSHI, Vivek** [IN/US]; 1063 Morse Avenue, #14-102, Sunnyvale, CA 94089 (US). **KLING, Ralph, M.** [DE/US]; 1422 Bedford Avenue, Sunnyvale, CA 94087 (US).

(74) Agents: **MALLIE, Michael, J.** et al.; Blakely, Sokoloff, Taylor & Zafman LLP, 7th floor, 12400 Wilshire Boulevard, Los Angeles, CA 90025 (US).

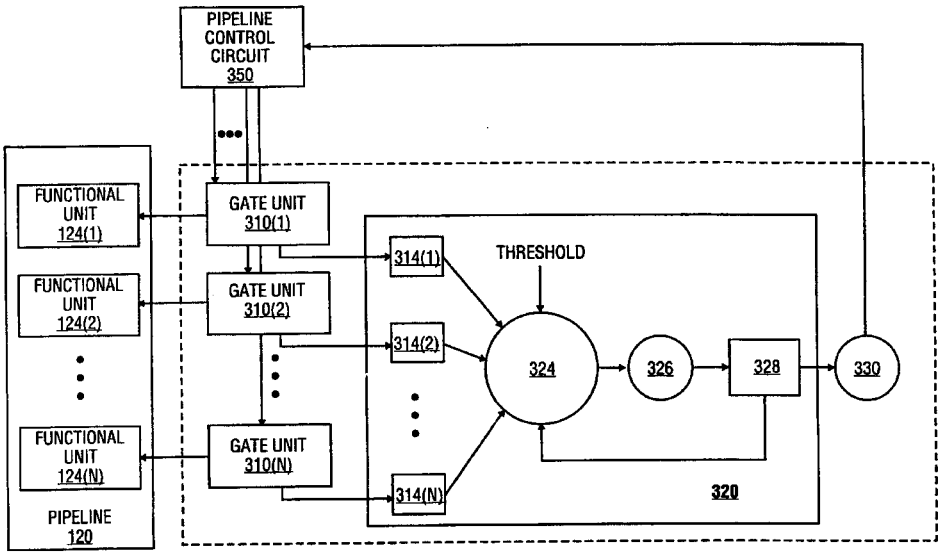
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, 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, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *With international search report.*

[Continued on next page]

(54) Title: MICROPROCESSOR WITH DIGITAL POWER THROTTLE



(57) Abstract: The present invention provides a digital-based mechanism for adjusting the power consumption in a processor. The processor includes one or more functional units and a digital throttle that monitors activity states of the processor's functional units to estimate the processor's power consumption. One embodiment of the digital throttle includes one or more gate units, a monitor circuit (320), and a throttle circuit (330). Each gate unit controls the delivery of power delivery to a functional unit of the processor and provides a signal that indicates the activity state of its associated functional unit. The monitor circuit determines an estimated power consumption level from the signals and compares the estimated power consumption with a threshold power level. The throttle circuit adjusts the instruction flow in the processor if the estimated power consumption exceeds the threshold power level.

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