12/06/03
20030433304

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

(19) World Intellectual Property Organization
International Bureau

162162

(43) International Publication Date
4 July 2002 (04.07.2002)

PCT

(10) International Publication Number
WO 02/052288 A3

(51) International Patent Classification[7]: G01R 31/3185, 31/3183, 31/3181, G06F 11/27

(21) International Application Number: PCT/US01/50807

(22) International Filing Date:
18 December 2001 (18.12.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/750,200 27 December 2000 (27.12.2000) 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)*: **LIN, Chih-Jen, M.** [—/US]; 10612 Indigo Broom Loop, Austin, TX 78733 (US). **WU, David, M.** [US/US]; 16925 NW Park Court, Beaverton, OR 97006 (US).

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

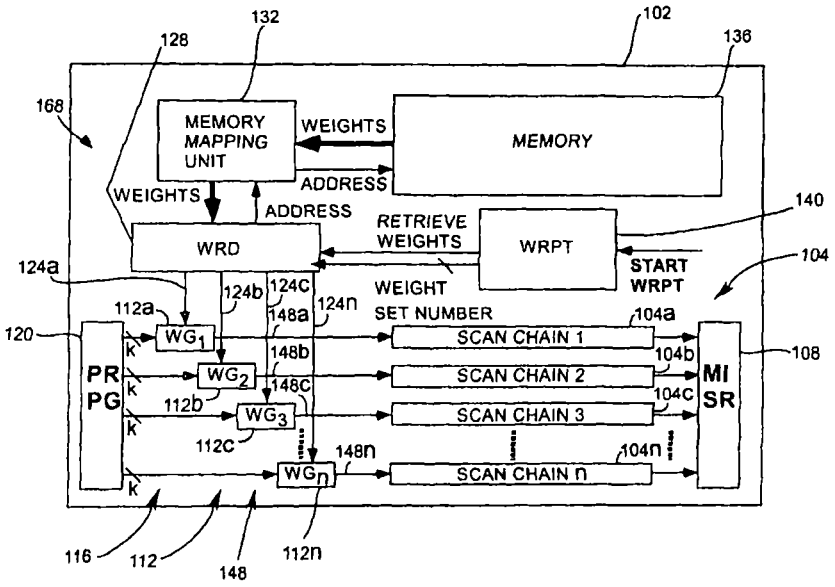
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, 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, ZM, 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, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

[Continued on next page]

(54) Title: WEIGHTED RANDOM PATTERN TEST USING PRE-STORED WEIGHTS



(57) Abstract: An apparatus and method of testing an integrated circuit by downloading a sequence of randomly weighted bits into a scan chain in which each bit has a distinctly determined weight generated in real-time by a weight generator. The weight generator has a switch controlled by a stored bit particular for each bit of the randomly weighted bits that determined the weight of the bit. The control signal is stored in a memory that is downloaded into the switch in synchronization with the generation of the bit. Preferably, the memory is on-die, and furthermore is a part of the integrated circuit.

WO 02/052288 A3

ACTION

(88) Date of publication of the international search report:
1 May 2003

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.