

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
13 September 2007 (13.09.2007)

PCT

(10) International Publication Number
WO 2007/102784 A1

(51) International Patent Classification:

G06K 7/08 (2006.01) **G05F 7/00** (2006.01)
G06K 19/067 (2006.01) **G01R 33/12** (2006.01)

(21) International Application Number:

PCT/SG2006/000048

(22) International Filing Date: 9 March 2006 (09.03.2006)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **KENETICS INNOVATIONS PTE LTD** [SG/SG]; 2 Tannery Road, Cencon Building #05-01, Singapore 347720 (SG).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **WONG, Kai En** [SG/SG]; Block 98 Whampoa Drive, #09-126, Singapore 320098 (SG).

(74) Agent: **LAWRENCE Y D HO & ASSOCIATES PTE LTD**; 30 Bideford Road, #07-01 Thongsia Building, Singapore 229922 (SG).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

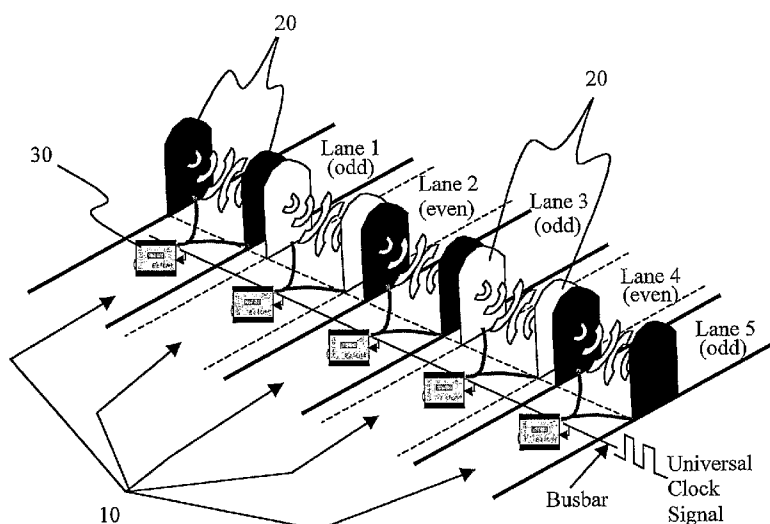
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

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.

(54) Title: SIMULTANEOUS OPERATION OF MULTIPLE RFID READERS IN CLOSE PROXIMITY AT THE SAME FREQUENCY



(57) Abstract: The present invention provides a RFID system comprising a plurality of RFID readers (20) working in close proximity to each other for detecting RFID tags (30). The readers are coupled to antenna systems disposed in RFID gates, where the antenna systems are configured to operate in different active modes, resulting in active magnetic field blocking between adjacent readers (20). This active magnetic field blocking results in the operation of the readers at its maximum capability, i.e. simultaneous operation, without having to consider what its neighbour reader is doing. Furthermore, the present invention also provides a tag-orientation-mode blocking method wherein the RFID tag that is successfully read by a particular reader is not read by the neighbouring readers. Finally, the said system does not require the use of any form of magnetic field barriers to be placed as separators between adjacent readers.

WO 2007/102784 A1