

REVISED VERSION

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 September 2007 (07.09.2007)

PCT

(10) International Publication Number
WO 2007/099339 A1

- (51) International Patent Classification:
G06K 7/00 (2006.01) **G06K 19/07** (2006.01)
- (21) International Application Number:
PCT/GB2007/000734
- (22) International Filing Date: 2 March 2007 (02.03.2007)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0604341.8 3 March 2006 (03.03.2006) GB
- (71) Applicant (for all designated States except US): **WAVE-TREND TECHNOLOGIES LIMITED** [GB/GB]; 69 Athol Street, Douglas, Isle of Man IM1 1JE (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **GOOSEN, Stefan, Eben** [ZA/ZA]; P.O. Box 5584, 0158 The Reeds (ZA). **VAN NIEKERK, Chicot** [ZA/ZA]; P.O. Box 204, Pyramid 0120 (ZA). **THAVENDRAN, Reddy** [ZA/ZA]; P.O.

Box 787222, Sandton 2146 (ZA). **LINTON-WALLS, Allan** [ZA/ZA]; P.O. Box 3305, Kenmare, Krugersdorp 1739 (ZA). **DU PREEZ, Hendrik, Johannes** [ZA/ZA]; P.O. Box 8666, Minnebron 1549 (ZA).

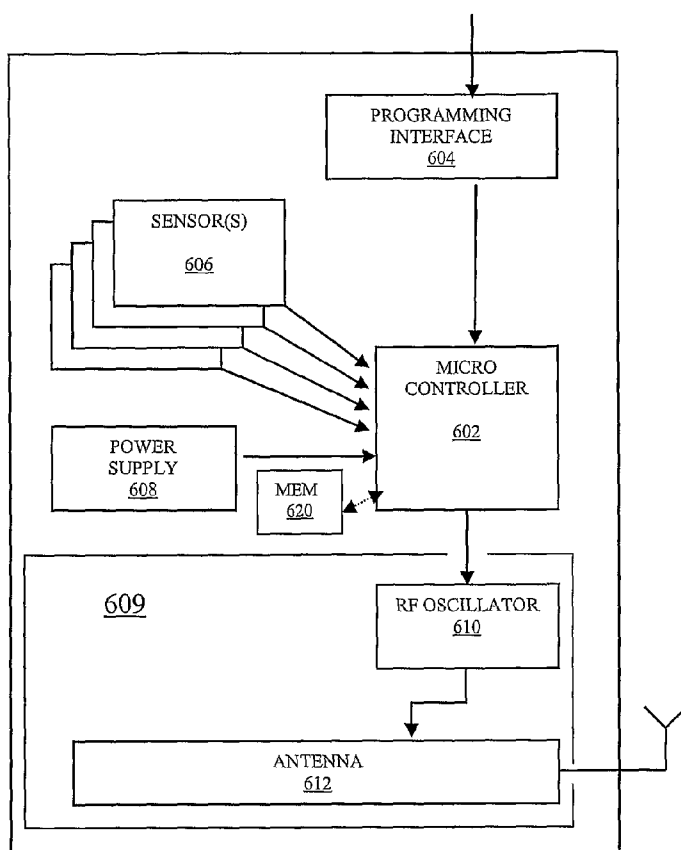
(74) Agents: **HILL, Justin, John** et al.; McDermott Will & Emery UK LLP, 7 Bishopsgate, London EC2N 3AR (GB).

(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, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: APPARATUS AND METHODS FOR ELECTROMAGNETIC IDENTIFICATION



(57) Abstract: The invention relates to devices for use in RFID and similar systems and methods for operating such systems and devices. In particular, embodiments of the invention relate to active transponder tags, networked reader devices, and messaging protocols suitable for communications over the wireless interface between such tags and readers. These devices and protocols support message packets corresponding to a transponder class to which the transponder belongs, said class of transponders being one of a plurality of classes each characterised by aspects of the configuration of peripheral devices of transponders in that class, and wherein the message packet contains an indication it is a message from a transponder and an indication of the class of transponder from which the message originates, and one or more peripheral data fields according to the message packet structure of the transponder class.



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, MT, 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*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the revised international search report: 25 October 2007

(15) Information about Correction:

see PCT Gazette No. 43/2007 of 25 October 2007

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.