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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
13 December 2007 (13.12.2007)

PCT

(10) International Publication Number
WO 2007/143740 A3

(51) International Patent Classification:
G06F 17/00 (2006.01) *G06K 19/00* (2006.01)
H04L 9/00 (2006.01) *G06K 19/06* (2006.01)

(21) International Application Number:
PCT/US2007/070679

(22) International Filing Date: 8 June 2007 (08.06.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/811,982 8 June 2006 (08.06.2006) US

(71) Applicant *(for all designated States except US)*: **MASTERCARD INTERNATIONAL INCORPORATED** [US/US]; 2000 Purchase Street, Purchase, NY 10577 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **FORAN-OWENS, Elizabeth, M.** [US/US]; 44 Davenport Drve, Stamford, CT 06902 (US). **WANKMUELLER, John** [US/US]; 35 Tanners Road, Great Neck, NY 10020 (US). **RADU, Cristian** [BE/BE]; Rue De Tourinnes 2, B-1320 Beauvechain (BE).

(74) Agents: **SCHEINFELD, Robert, C.** et al.; Baker Botts L.l.p., 30 Rockefeller Plaza, New York, NY 10112-4498 (US).

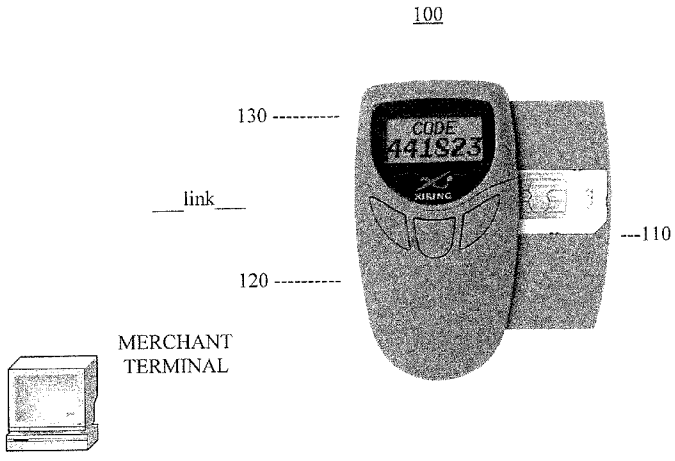
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, 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, 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*

[Continued on next page]

(54) **Title:** ALL-IN-ONE PROXIMITY PAYMENT DEVICE WITH LOCAL AUTHENTICATION



All-In-One Xiring device (with on/off feature and CAP feature) having PayPass functionality. The device has a PIN CVR "indicator" to merchant POS components. The device provides a new PIN management feature and re-uses current message infrastructure where the merchant terminal receives a transaction that has already been approved (signed) by the consumer.

(57) **Abstract:** A personal powered proximity payment device that can be owned by or issued to an individual user is provided The device is a non- ISO card (100) device that includes an internal dual-mode (contact and contactless) chip card (110) coupled to a display (130) and a robust PIN entry (120) or biometric reading means The device provides proximity payment functions, and optional proximity payment on/off and local pre-purchase account holder verification functions to the individual user

WO 2007/143740 A3

(88) Date of publication of the international search report:
31 July 2008

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US07/70679

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **G06F 17/60,1/00**(2006.01);**H04L 9/00**(2006.01);**G06K 19/00**(2006.01),**19/06**(2006.01)

USPC: 235/492,493,380;705/40,22;713/170,181
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 235/492,493,380; 705/40,22; 713/170,181

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US (WHEELER et al.) 7 February 2002, see paragraphs 133, 141, 155, 200, 321-323, 333-352, 371-379	8-12
X --- Y	US 2005/0137977 A (WANKMUELLER) 23 June 2005; see paragraphs 15-28	1-7
A	US 2004/0124248 A (SELKER) 1 July 2004; see paragraphs 40-52	1-12
A	US 2005/0234778 A (SPERDUTI et al.) 20 October 2005, see paragraphs 31-33, 42, 95-100	1-5

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
19 May 2008 (19.05.2008)	04 JUN 2008
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US *Commissioner for Patents* P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer EDWYN LABAZE Telephone No. (571) 272-2395

Form PCT/ISA/210 (second sheet) (April 2007)