

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
22 May 2008 (22.05.2008)

PCT

(10) International Publication Number  
**WO 2008/060708 A3**

(51) **International Patent Classification:**  
G06K 19/077 (2006.01)

(21) **International Application Number:**

PCT/US2007/070637

(22) **International Filing Date:** 7 June 2007 (07.06.2007)

(25) **Filing Language:** English

(26) **Publication Language:** English

(30) **Priority Data:**

60/811,829 9 June 2006 (09.06.2006) US

(71) **Applicant (for all designated States except US):** AR-JOBEX AMERICA [US/US]; 10901 Westlake Dr., Charlotte, NC 28273 (US).

(71) **Applicants and**

(72) **Inventors:** YADAV, Vijay [US/US]; 16206 Bridgehampton Club Drive, Charlotte, NC 28277 (US). KALKUNTE, Ravi [US/US]; 12033 Olden Ct., Charlotte, NC 28262 (US). NEIL, Stuart [GB/GB]; 50 Peto Avenue, Colchester Essex C04 5WJ (GB).

(74) **Agents:** SECKEL, Nicolas, E. et al; Westerman, Hattori, Daniels & Adrian, LLP, 1250 Connecticut Avenue, N.W., Suite 700, Washington, District Of Columbia 20036 (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).

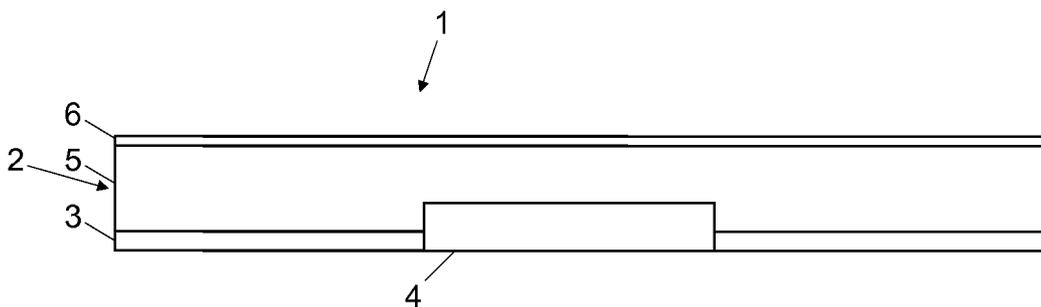
**Published:**

- 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
- with information concerning one or more priority claims considered void

(88) **Date of publication of the international search report:**

17 July 2008

(54) **Title:** LAMINATE DEVICE HAVING VOIDED STRUCTURE FOR CARRYING ELECTRONIC ELEMENT, SUCH AS LABEL FOR RFID TAG



(57) **Abstract:** The invention concerns a laminate device with a substrate of the type having a front face adapted to receive printed information, an electronic device such as RFID tag, and an adhesive layer disposed on a back face of the substrate. The laminate device can be made with a voided or microcellular structure. The laminate device also can be made with a compressible and resilient structure such that, after application to an object, the electronic device is at least partially embedded in the substrate. A coated layer, for example, an unvoided coating, can be provided on a surface of the substrate. Advantageously, under electrodischarge testing according to MIL-STD-331B, at least 85% of a group of labels remains operational.



WO 2008/060708 A3

# INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2007/070637

**A. CLASSIFICATION OF SUBJECT MATTER**  
INV. G06K19/077

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)  
G06K

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 practical, search terms used)  
EPO-Internal , WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 297 727 B1 (NELSON JR GEORGE N [US]) 2 October 2001 (2001-10-02)	1, 22
A	column 4, line 28 - column 5, line 25; figure 2	16
A	EP 1 211 634 A (YUPO CORP [JP]) 5 June 2002 (2002-06-05) abstract; claims 1-18	1, 16, 22

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

\* Special categories of cited documents :

<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L<sup>1</sup>" 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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"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</p> <p>"Y<sup>1</sup>" 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.</p> <p>"S" document member of the same patent family</p>
--	--

Date of the actual completion of the international search  <p style="text-align: center;">9 May 2008</p>	Date of mailing of the international search report  <p style="text-align: center;">21/05/2008</p>
--	---

Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  <p style="text-align: center;">Chi a r i z i a, S a l v a t o r e</p>
---	---

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/070637

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6297727	B1	02-10-2001	NONE	
EP 1211634	A	05-06-2002	CN 1357861 A	10-07-2002
			US 2002100547 A1	01-08-2002