

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
14 April 2005 (14.04.2005)

PCT

(10) International Publication Number  
**WO 2005/032338 A3**

(51) International Patent Classification<sup>7</sup>: **G08B 26/00**,  
23/00, 17/00, H04Q 5/22, G08C 19/12, G06F 17/60

(74) Agent: **MARSH FISCHMANN & BREYFOGLE LLP**;  
MARSH, Thomas R., 3151 South Vaughn Way, Suite 411,  
Aurora, co 80014 (US).

(21) International Application Number:  
PCT/US2004/031325

(22) International Filing Date:  
25 September 2004 (25.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10/675,111 30 September 2003 (30.09.2003) US

(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, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(71) Applicant (for all designated States except US): **DA-  
TEX-OHMEDA, INC.** [US/US]; 1315 West Century  
Drive, Louisville, Colorado 80027 (US).

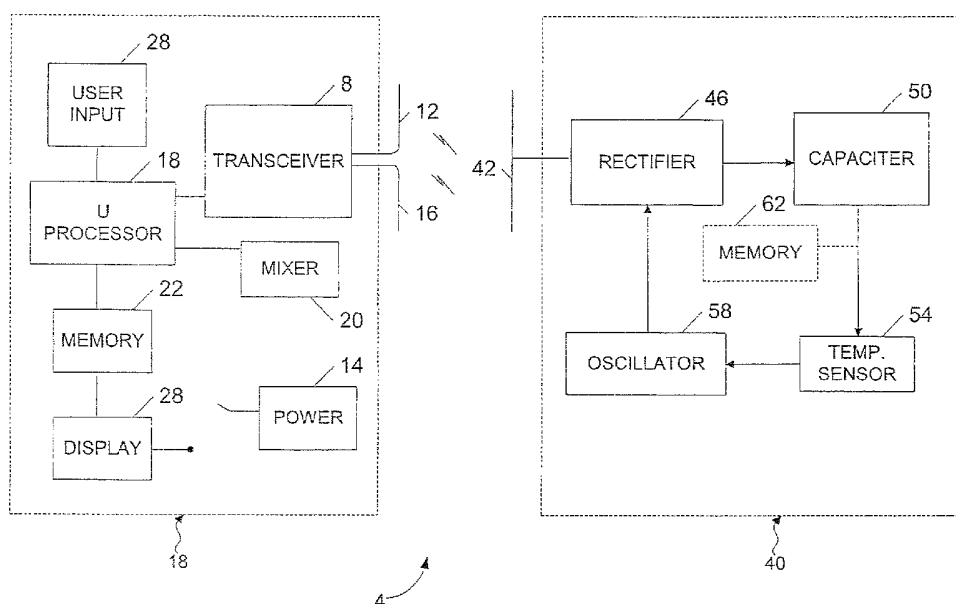
(72) Inventor; and

(75) Inventor/Applicant (for US only): **CROWLEY, Christo-  
pher, T.** [US/US]; 410 Garden Glen Court, Golden, Col-  
orado 80403 (US).

(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, IT, LU, 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).

[Continued on next page]

(54) Title: NON-CONTACT PATIENT TEMPERATURE MEASUREMENT



(57) Abstract: A method and system are provided for allowing non-contact temperature measurement of an animate body. More particularly, a transponder sensor device attached to an animate body is utilized to non-intrusively measure a temperature of the animate body in response to an interrogation signal transmitted over an air interface from a portable probe. In one embodiment, the sensor device is a passive device that is operative to collect energy from an interrogation signal emitted from the probe. In this regard, the sensor device does not require an internal power source. The collected energy is utilized to measure the temperature of the animate body and transmit a response signal containing temperature information back to the probe over the air interface.



**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*

*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.*

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

20 October 2005

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/31325

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G08B 26/00, 23/00, 17/00; H04Q 5/22; G08C 19/12; G06F 17/60

US CL : 340/505, 10.1, 10.41, 10.51, 584, 870.17, 573.4; 705/2, 3

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. : 340/505, 10.1, 10.41, 10.51, 584, 870.17, 573.4; 705/2, 3

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)

Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y, E	US 6,806,808 B1 (WATERS et al) 19 October 2004 (19.10.2004), col 7, lines 7-40	3-4, 7-10, 22-23, and 25
Y	US 2001/0033230 A1 (BARBER et al) 25 October 2001 (25.10.2001)	27-31
A	US 6,054,935 A (URBAS et al) 25 April 2000 (25.04.2000)	1-43
A	US 5,833,603 A (KOVACS et al) 10 November 1998 (10.11.1998)	1-43
A	US 5,638,832 A (SINGER et al) 17 June 1997 (17.06.1997)	1-43
A	US 5,019,813 A (KIP et al) 28 May 1991 (28.05.1991)	1-43
Y, P	US 2004/0153344 A1 (BUI et al) 05 August 2004 (05.08.2004)	15-19, 40-43

☒ 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	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"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	"&" document member of the same patent family

Date of the actual completion of the international search

22 July 2005 (22.07.2005)

Date of mailing of the international search report

13 SEP 2005

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. (703) 305-3230

Authorized officer

Ken Wieder

Telephone No. 571-272-2600

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US04/31325

Continuation of B. FIELDS SEARCHED Item 3:

US-PGPUB; USPAT; EPO; JPO, USOCR: reader, interrogator, transponder, responder, tag, marker, temperature, sensor, detector, body, human, pad, layer, sheet

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US04/31325

## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P --- Y	US 2004/0036626 A1 (CHAN et al) 26 February 2004 (26.02.2004)	1-2, 5, 6, 11-14, 20- 21, 24, 26, 32-34, 36- 39 ----- 3-4, 7-10, 15-19, 22- 23, 27-31, 40-43