

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 July 2003 (10.07.2003)

PCT

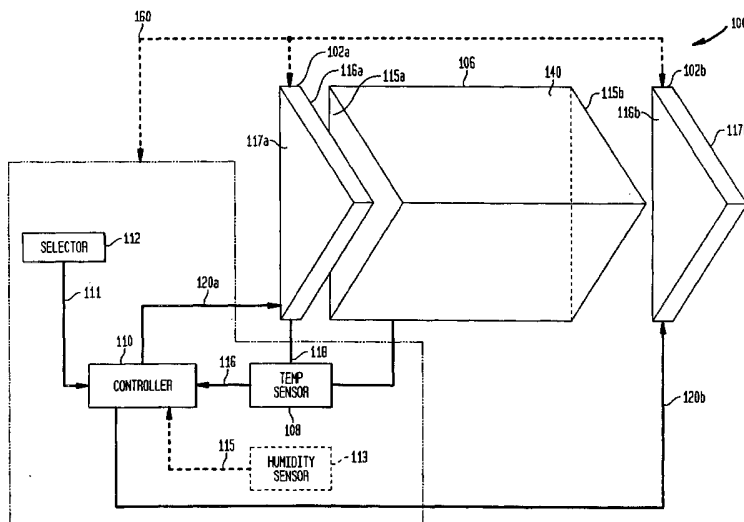
(10) International Publication Number
WO 03/056514 A3

- (51) International Patent Classification⁷: G06K 9/00, H05B 3/24
 - (21) International Application Number: PCT/US02/36281
 - (22) International Filing Date: 13 November 2002 (13.11.2002)
 - (25) Filing Language: English
 - (26) Publication Language: English
 - (30) Priority Data:

60/331,247	13 November 2001 (13.11.2001)	US
10/047,983	17 January 2002 (17.01.2002)	US
10/235,665	6 September 2002 (06.09.2002)	US
 - (71) Applicant: CROSS MATCH TECHNOLOGIES, INC. [US/US]; 3960 RCA Boulevard, Suite 6001, Palm Beach Gardens, FL 33410 (US).
 - (72) Inventors: MCCLURG, George, W.; 2166 N.E. Ocapi Court, Jensen Beach, FL 34957 (US). CARVER, John, F.; 8002 S.E. Mammoth Drive, Hobe Sound, FL 33455 (US). ARNOLD, Joseph, F.; 116 Beaumont Lane, Palm Beach Gardens, FL 33410 (US).
 - (74) Agents: KESSLER, Edward, J. et al.; Sterne, Kessler, Goldstein & Fox P.L.L.C., Suite 600, 1100 New York Avenue, N.W., Washington, DC 20005-3934 (US).
 - (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, 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, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.
 - (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report
- (88) Date of publication of the international search report:**
4 December 2003

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR BIOMETRIC IMAGE CAPTURING



(57) Abstract: A system and method for enhancing biometric object image capturing prevents undesirable interruptions of total internal reflection of a prism (106) resulting in improper biometric images. A plurality of thermal elements (102a, 102b) are placed adjacent the image capturing device. The thermal elements (102a, 102b) either heat or cool the image capturing device or a platen associated with the device. When cooling is required, the thermal elements (102a, 102b) can be controlled to decrease the temperature of an area where a biometric object is placed. If heating is required, the thermal elements (102a, 102b) can be controlled to heat the area where a biometric object is placed.



WO 03/056514 A3



(15) Information about Correction:

Previous Correction:

see PCT Gazette No. 45/2003 of 6 November 2003, Section II

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.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/36281

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06K 9/00; H05B 3/24
 US CL : 219/543, 201, 522; 359/831, 512

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. : 219/543, 201, 200, 522; 359/831, 512, 833, 834, 837; 382/127, 124; 165/61

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)
 Derwent WPI, JPO

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	EP 0 785,750 B1 (WRIGHT) 30 June 1999 (30.06.1999), Fig. 1, col. 3, lines 12-52.	28, 29, 31-33, 35, 38, 39, 42 ----- 30, 34, 36, 37, 40, 41, 43, 44
Y	JP 1-205392 A (UCHIDA) 17 August 1989 (17.08.1999), Abstract and Fig. 1.	30, 34, 36, 37, 40, 41, 43-53
X --- Y	US 5,825,474 A (MAASE) 20 October 1998 (20.10.1998), entire document.	1-3, 5, 7, 19, 20, 24-26 ----- 9, 11, 12, 43, 44
Y	US 5,946,135 A (AUERSWALD et al) 31 August 1999 (31.08.1999), Fig. 3.	45-53
X	SU 1,769,854 A1 (ISMAILOV et al) 23 October 1992 (23.10.1992) entire document	1-8, 10, 13-27
T, A, E	US 2003/0012417 A1 (HAMID) 16 January 2003 (16.01.2003), entire document.	1-53

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	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

05 June 2003 (05.06.2003)

Date of mailing of the international search report

16 JUL 2003

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

John A. Jeffery *Diane Smith*
 Telephone No. (703) 308-0861