EXHIBIT P

Derwent World Patents Legal

READING SYSTEM FOR DIGITISED FINGERPRINTS FOR ACCESS AUTHENTICATION - HAS NARROW SENSOR WITH MATRIX RESPONDING TO PRESSURE AND/OR TEMPERATURE WHICH DELIVERS 'SCANNED' IMAGE OF FINGERPRINT AS FINGER SLIDES OVER SENSOR

Patent Assignee(s): THOMSON CSF (CSFC); THOMSON CSF SA (CSFC); ATMEL GRENOBLE SA (ATMEN); THALES (THALN)

Inventor(s): MAINGUET J; MAINGUET J F

Priority Application(s)(No Type Date): 1996 FR-007419 A 19960614; 1997 EP-000401345 A 19970613

No. of Countries: 28

No. of Patents: 21

Latest Derwent Update: 200726

First Derwent Appearance: 199804

PATENT FAMILY

Patent Number: EP 813164 A1 19971217

Patent Assignee(s): THOMSON-CSF, 173, Boulevard Haussmann, 75008 Paris, FR(CSFC)

Attorney or Agent: Guerin, Michel et al, THOMSON-CSF-S.C.P.I., 13, Avenue du President Salvador Allende, 94117 Arcueil Cedex, FR

Application Number(s): 1997 EP-401345 A2 19970613 (Local filing, Local application); 1997 EP-000401345 A2 19970613 (Local filing, Local application)

Original Title: Anlage zum Lesen von Fingerabdruecken (German); System for reading fingerprints (English); Systeme de lecture d'empreintes digitales (French)

Language: French

Page(s): 13

Designated States: (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A,

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R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): G06K-9/00

Derwent Appearance: 199804 Basic Patent

Patent Number: FR 2749955 A1 19971219

Patent Assignee(s): THOMSON CSF SA(CSFC)

Application Number(s): 1996 FR-007419 A2 19960614 (Local filing, Local application)

Language: French

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): G06K-9/78; A61B-5/117; G06K-9/64

Derwent Appearance: 199807

Patent Number: ZA 9705193 A 19980325

Patent Assignee(s): THOMSON CSF(CSFC)

Application Number(s): 1997 ZA-005193 A2 19970612 (Local filing, Local application)

Language: English

Page(s): 27

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): A61B; G06K

Derwent Appearance: 199819

Patent Number: JP 10091769 A 19980410

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Patent Assignee(s): THOMSON CSF(CSFC)

Application Number(s): 1997 JP-171174 A2 19970613 (Local filing, Local application)

Original Title: FINGERPRINT READING SYSTEM (English)

Language: Japanese

Page(s): 9

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): G06T-1/00; G06T-7/00

Derwent Appearance: 199825

Patent Number: KR 98004163 A 19980330

Patent Assignee(s): THOMSON CSF(CSFC)

Application Number(s): 1997 KR-024150 A2 19970611 (Local filing, Local application)

Language: Korean

IPC (Current): G06K-9/00

IPC (Original): G06K-9/00

Derwent Appearance: 199903

Patent Number: CA 2206825 A 19971214

Patent Assignee(s): THOMSON CSF(CSFC)

Application Number(s): 1997 CA-2206825 A2 19970603 (Local filing, Local application); 1997 CA-2206825 A2 19970603 (Local filing, Local application)

Language: English

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A,

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R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): G06K-9/20

Derwent Appearance: 199916

Patent Number: MX 9704379 A1 19971201

Patent Assignee(s): THOMSON CSF(CSFC)

Application Number(s): 1997 MX-004379 A2 19970613 (Local filing, Local application)

Language: Spanish; Castilian

IPC (Current): A61B-5/117

IPC (Original): A61B-5/117

Derwent Appearance: 199936

Patent Number: US 6289114 B1 20010911

Patent Assignee(s): Thomson-CSF, Paris, FR(CSFC)

Attorney or Agent: Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

Application Number(s): 1997 US-870002 A2 19970605 (Local filing, Local application)

Original Title: Fingerprint-reading system. (English)

Language: English

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): G06K-9/00

IPC (U.S.A Original): 382/124; 382/284

Derwent Appearance: 200154

Patent Number: US 20010026636 A1 20011004

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Patent Assignee(s): Thomson-CSF, Paris, FR(CSFC)

Attorney or Agent: OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT PC, FOURTH FLOOR, 1755 JEFFERSON DAVIS HIGHWAY, ARLINGTON, VA, US

Application Number(s): 1997 US-870002 A631 19970605 (Continuation of US application); 2001 US-878966 A2 20010613 (Local filing, Local application)

Original Title: Fingerprint-reading system (English)

Language: English

IPC (Current): 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08

IPC (Original): G06K-9/00

IPC (U.S.A Original): 382/124

Derwent Appearance: 200161

Patent Number: IL 121045 A 20020210

Patent Assignee(s): THOMSON CSF(CSFC)

Application Number(s): 1997 IL-121045 A2 19970609 (Local filing, Local application)

Language: English

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): G06K-9/00

Derwent Appearance: 200230

Patent Number: US 6459804 B2 20021001

Patent Assignee(s): Thomson-CSF, Paris, FR(CSFC)

Attorney or Agent: Oblon, Spivak, McClelland, Maier & Neustadt, P.C., US

Application Number(s): 1997 US-870002 A631 19970605 (Continuation of US

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application); 2001 US-878966 A2 20010613 (Local filing, Local application)

Related: Cont of US 6289114 B

Original Title: Fingerprint-reading system (English)

Language: English

IPC (Current): 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08

IPC (Original): G06K-9/00

IPC (U.S.A Original): 382/124; 382/284

Derwent Appearance: 200268

Patent Number: EP 813164 B1 20030326

Patent Assignee(s): Thales, 173, boulevard Haussmann, 75008 Paris, FR(THALN)

Attorney or Agent: Guérin, Michel, THALES Intellectual Property, 13, Avenue du Président Salvador Allende, 94117 Arcueil Cédex, FR

Application Number(s): 1997 EP-401345 A2 19970613 (Local filing, Local application); 1997 EP-000401345 A2 19970613 (Local filing, Local application)

Original Title: Anlage und Verfahren zum Lesen von Fingerabdrücken (German); System and method for reading fingerprints (English); Système et Procédé de lecture d'empreintes digitales (French)

Language: French

Designated States: (Regional): AT BE CH DE ES FR GB IT LI NL SE

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): G06K-9/00

Derwent Appearance: 200323

Patent Number: CN 1172308 A 19980204

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Patent Assignee(s): THOMSON CSF; FR(CSFC)

Application Number(s): 1997 CN-112390 A2 19970616 (Local filing, Local application)

Language: Chinese

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): G06K-9/00

Derwent Appearance: 200331

Patent Number: DE 69720109 E 20030430

Patent Assignee(s): THALES; FR(THALN)

Application Number(s): 1997 DE-620109 A2 19970613 (Local filing, Local application); 1997 EP-401345 A861 19970613 (EP Application)

Related: Based on EP 813164 A

Language: German

IPC (Current): G06K-9/00; G06K-9/00

IPC (Original): G06K-9/00; G06K-9/00

Derwent Appearance: 200336

Patent Number: ES 2191816 T3 20030916

Patent Assignee(s): THALES(THALN)

Application Number(s): 1997 EP-401345 A861 19970613 (EP Application)

Related: Based on EP 813164 A

Language: Spanish; Castilian

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20;

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2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): G06K-9/00

Derwent Appearance: 200368

Patent Number: BR 9703596 A 20040928

Patent Assignee(s): THOMSON CSF(CSFC)

Application Number(s): 1997 BR-003596 A2 19970616 (Local filing, Local application)

Language: Portuguese

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): G06K-9/00

Derwent Appearance: 200472

Patent Number: MX 220769 B 20040604

Application Number(s): 1997 MX-004379 A2 19970613 (Local filing, Local application)

Language: Spanish; Castilian

IPC (Current): A61B-5/117

IPC (Original): A61B-5/117

Derwent Appearance: 200532

Patent Number: CN 1119766 C 20030827

Patent Assignee(s): THOMSON CSF; FR(CSFC)

Application Number(s): 1997 CN-112390 A2 19970616 (Local filing, Local application)

Language: Chinese

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-

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10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): G06K-9/00

Derwent Appearance: 200549

Patent Number: CA 2206825 C 20050920

Patent Assignee(s): ATMEL GRENOBLE SA(ATMEN)

Application Number(s): 1997 CA-2206825 A2 19970603 (Local filing, Local application); 1997 CA-2206825 A2 19970603 (Local filing, Local application)

Language: French

IPC (Current): 2006-01-01 G01B-7/28 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G01B-7/28 (C, R, L, I, M) JP 2005-12-20; 2006-01-01 G06K-9/00 (A, R, L, I, M) EP 2005-10-08; 2006-01-01 G06K-9/00 (C, R, L, I, M) EP 2005-10-08; 2006-01-01 G06T-1/00 (A, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-1/00 (C, R, F, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (A, R, L, I, M) JP 2005-12-20; 2006-01-01 G06T-7/00 (C, R, L, I, M) JP 2005-12-20

IPC (Original): G06K-9/20

Derwent Appearance: 200566

Patent Number: IN 9701555 I1 20060127

Patent Assignee(s): THOMSON CSF; FR(CSFC)

Application Number(s): 1997 IN-DE01555 A2 19970611 (Local filing, Local application)

Language: English

IPC (Current): G06K-9/00

IPC (Original): G06K-9/00

Derwent Appearance: 200614

Patent Number: IN 200501591 I1 20070119

Patent Assignee(s): THOMSON CSF; FR(CSFC)

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Application Number(s): 1997 IN-DE01555 A62 19970611 (Division of application); 2005 IN-DE01591 A2 20050617 (Local filing, Local application)

Language: English

IPC (Current): G06K-9/00

IPC (Original): G06K-9/00

Derwent Appearance: 200726

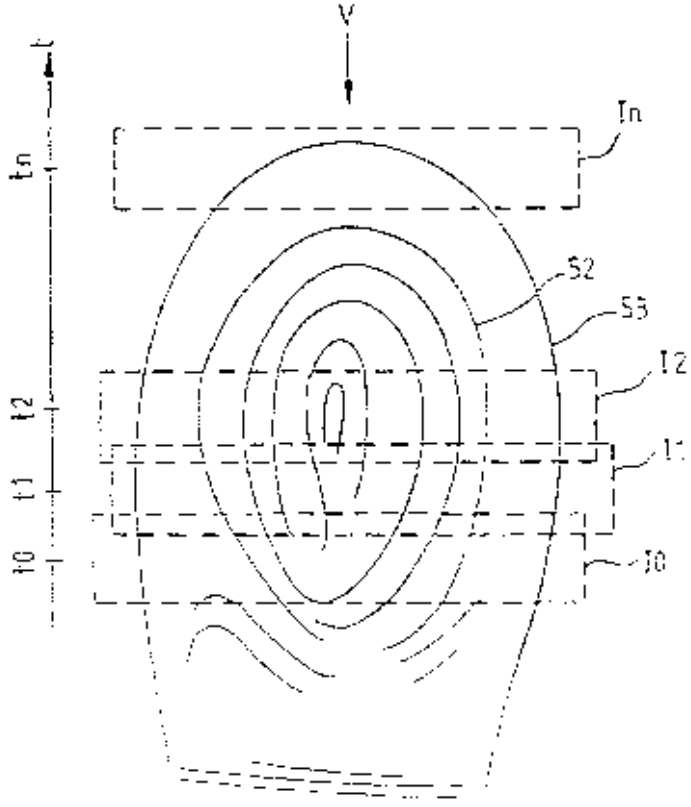
ABSTRACT: EP 813164 A1

The fingerprint image is collected by relative sliding motion between a finger (11) and the sensor (10). The sensor is in the form of a bar that is longer than a finger is wide, but is relatively narrow compared to the length. The sensor thus 'scans' the fingerprint.

USE - Reading of fingerprints for comparison with stored image held on smart card to authenticate holder of card.

ADVANTAGE - Prevents use of photographs or moulded images to deceive optical system, avoids difficulty of manufacture and unreliable and transient reading of semiconductor sensors. Provides images of fingerprint that have constant contrast from smaller sensor area.

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CLAIMS: EP 813164 A1

1. Systeme de lecture d'une empreinte digitale caracterise en ce qu'il comporte des moyens de lecture de l'empreinte digitale lorsque le doigt (11,53) et un capteur (10,50) appartenant aux moyens de lecture sont en contact et dans un mouvement relatif de glissement du capteur (10,50) et du doigt (11,53) l'un par rapport a l'autre et des moyens pour reconstituer une image de l'empreinte (52) a partir d'images partielles (I0,I1,I2,....In) obtenues pendant ce mouvement.

CLAIMS: US 6289114 B1

A fingerprint reading system comprising:means for reading a fingerprint including a sensor having a sensing surface coupled to a matrix of contact sensitive elements for generating a series of partial images of a finger, placed in direct contact with said sensing surface, from relative sliding contact between said sensing surface and said finger, said sensing surface having a surface area smaller than a surface area of said fingerprint to be read; and means for reconstituting a total image of the fingerprint from said partial images.

CLAIMS: US 20010026636 A1

What is claimed is: **1**. A fingerprint-reading system comprising means for reading a fingerprint when the finger and a sensor belonging to the reading means are in contact and in a relative motion of sliding of the sensor and the finger with respect to each other and means to reconstitute an image of the fingerprint from

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partial images obtained during this motion.

CLAIMS: US 6459804 B2

What is claimed is: 1. A process for reading a fingerprint, comprising:obtaining a series of partial images of the fingerprint during a sliding relative motion between a finger and a sensor, said sensor having a sensing surface area smaller than a surface of area of an image on said sensor of said fingerprint to be read, and having several lines of sensing elements, each partial image partially overlapping a previous partial image, and reconstructing a global image of said fingerprint to be read by correlation of overlapping partial images.

CLAIMS: EP 813164 B1

System zum Lesen eines Fingerabdrucks, **dadurch gekennzeichnet, das** es Mittel zum Lesen des Fingerabdrucks, wenn der Finger (11, 53) und eine zu den Lesemitteln gehörende Sonde (10, 50) sich berühren und sich die Sonde (10, 50) und der Finger (11, 53) in einer relativen Gleitbewegung zueinander befinden, und Mittel aufweist, um ein Bild des Fingerabdrucks (52) durch Überlappung von aufeinanderfolgend während dieser Bewegung erhaltenen Teilbildern (I0, I1, I2,..., In) zu rekonstruieren, wobei die Fläche der Sonde kleiner als die Oberfläche des Fingerabdrucks ist, sodas die Sonde nur Teilbilder des vollständigen Fingerabdrucks liefert.

Title Terms: READ; SYSTEM; DIGITAL; FINGERPRINT; ACCESS; AUTHENTICITY; NARROW; SENSE; MATRIX; RESPOND; PRESSURE; TEMPERATURE; DELIVER; IMAGE; FINGER; SLIDE; SMART; CARD

Derwent Accession Number: 1998-035164

Derwent Class: (Engineering):P31; (Electrical):S05; T04

IPC (Current): A61B-5/117; G06K-9/00; 2006-01-01 G01B-7/28 (A, R, L, I); 2006- 01-01 G01B-7/28 (C, R, L, I); 2006-01-01 G06K-9/00 (A, R, L, I); 2006-01-01 G06K-9/00 (C, R, L, I); 2006-01-01 G06T-1/00 (A, R, F, I); 2006-01-01 G06T-1/00 (C, R, F, I); 2006-01-01 G06T-7/00 (A, R, L, I); 2006-01-01 G06T-7/00 (C, R, L, I)

END OF DOCUMENT

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